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A SYSTEMIC INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI) ETHICS

Abstract

The purpose of this article is to understand, contextualise, and put into perspective the genesis, and fundamental connotations of AI ethics in the contemporary economic system that has politico-socio-legal connotations. It discusses the relevance and significance of AI ethics as soft law in the context of AI regulation, and the role played by actors, state and non-state, in formulation thereof, in two primary domains-digital economy and governance. It portrays the current state of AI ethics highlighting some of the major issues in the field. In conclusion, the article suggests that AI ethics should go beyond the reiteration and exploration of basic moral principles and values in the field of technology towards the realisation of the same through introduction of systemic structural changes.

***Keywords**: Artificial Intelligence, AI ethics, European Union, AI Regulation, Technology*

Introduction

Philosophical context

Rene Descartes wrote "it is not enough to have a good mind, the main thing is to use it well".[1] What exists ought[2] to be used conforming to the values and principles human beings hold dear.[3] Reinhold Niebuhr's 1932 'Moral Man and Immoral Society: A Study in Ethics and Politics' deals with the most important aspect of morality in the context of human existence.[4] Human beings have long tried to bridge the gap between "what is" and "what should be".[5] Some have even suggested a flexible approach in dealing with morals,[6] for they could get dogmatic and problematic.[7] However, who decides? What should be? There are many more questions answers to which highlight the need for laying down path onto which humanity will embark upon a journey to the AI future. The preceding assertion may sound too philosophical, but the same is relevant to law making.[8] Can there be values that are equally recognized and enforced, in principle, across the broad spectrum that society is, comprising different men?[9] Thomas Hobbes

[1] Descartes, René. Discourse on Method. New York: Liberal Arts Press, 1956. Print.

[2] Bahm, Archie J.: Ethics: The Science of Oughtness (Value Inquiry Book Series 8). Amsterdam / Atlanta, GA (Rodopi) 1994.

[3] See Mustafa Pultar, Value Systems: The Conceptual Basis of Building Ethics, http://pultar.bilkent.edu.tr/Papers/Ethics/Ethics.html#Schwartz

[4] Niebuhr, Reinhold. Moral Man and Immoral Society: A Study in Ethics and Politics. , New York : Scribner, [1960]

[5] See Black, Max. "The Gap Between 'Is' and 'Should.'" The Philosophical Review, vol. 73, no. 2, 1964, pp. 165–181. JSTOR, www.jstor.org/stable/2183334. Accessed 10 Aug. 2020.

[6] Accenture, Responsible AI and Robotics, https://www.accenture.com/gb-en/company-responsible-ai-robotics

[7] Tim Dean, We're not suffering from a lack of morality. We have too much, World Economic Forum, 2018, https://www.weforum.org/agenda/2018/03/the-greatest-moral-challenge-of-our-time-its-how-we-think-about-morality-itself/

[8] Randy E. Barnett, Why We Need Legal Philosophy, Foreword to the "Symposium on Law and Philosophy," 8 Harv. J. L. & Pub. Pol'y 1 (1985).

[9] Oliver Scott Curry, Daniel Austin Mullins, and Harvey Whitehouse, "Is It Good to Cooperate?: Testing the Theory of Morality-as-Cooperation in 60 Societies," Current Anthropology 60, no. 1 (February 2019): 47-69.

said "[M]oral philosophy is nothing else but the science of what is good, and evil, in the conversation, and society of mankind. Good, and evil, are names that signify our appetites, and aversions; which in different tempers, customs, and doctrines of men, are different".[10] Philosophy helps understand the underlying nature of reality.[11] It may not be conclusive[12], but it affords great insights into fundamentals of reality.[13] And, the subject of AI ethics is not an exception to it.[14]

AI and Ethics

The European Commission defines AI as follows:

"Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions- with some degree of autonomy- to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications).[15] Moving beyond this technical definition of AI, it is extremely important to highlight that AI entails transfer of decision making from human minds to artificially intelligence substrates. It is beyond automation and ventures into autonomous AI with stipulated human intervention or supervision.[16] The human supervision aspect can be argued to be counterintuitive, for it is either non-effective or merely a legal fiction. AI does challenge the human agency.[17] However, the High-Level Expert Group on Artificial Intelligence organised by the EU Commission has propounded a definition of AI for the purpose of the group's deliverables.[18]

Not only the very genesis of AI[19] is marred by ethical dilemmas, its development and deployment is subjected to even more harsh ethical and moral scrutiny.[20] The future of AI is even more crucial and depends on various factors.[21] The European Union is focused on human-centred AI.[22] At the same time, the EU's awareness of potential

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[10] Hobbes, Thomas, and J C. A. Gaskin. Leviathan. Oxford: Oxford University Press, 1998. (Chapter 15)

[11] See, for detailed understanding, Dodig, Crnkovic G, and Marcin J. Schroeder. Contemporary Natural Philosophy and Philosophies: Part 1. , Basel, Switzerland : MDPI, [2019]

[12] See Dretske, F. (2000). Conclusive Reasons. In Perception, Knowledge and Belief: Selected Essays (Cambridge Studies in Philosophy, pp. 3-29). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511625312.002

[13] Brown University, Philosophy, https://www.brown.edu/academics/philosophy/undergraduate/philosophy-what-and-why; See Glattfelder J.B. (2019) Philosophy and Science: What Can I Know?. In: Information—Consciousness—Reality. The Frontiers Collection. Springer, Cham. https://doi.org/10.1007/978-3-030-03633-1_9

[14] Müller, Vincent C., "Ethics of Artificial Intelligence and Robotics", The Stanford Encyclopedia of Philosophy (Fall 2020 Edition), Edward N. Zalta (ed.), forthcoming URL = <https://plato.stanford.edu/archives/fall2020/entries/ethics-ai/>.

[15] Commission from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on Artificial Intelligence for Europe, Brussels, 25.4.2018 COM (2018) 237 final.

[16] Paramjeet Singh Berwal, European Union's Legal Landscape and Artificial Intelligence, Georgian Journal for European Studies, No. 4-5, 2018-2019, Ivane Javakishvili Tbilisi State University Press, 2019

[17] Stanford University, McCoy Family Center for Ethics in Society, Yuval Noah Harari in Conversation with Fei-Fei Li, Moderated by Nicholas Thompson, April 22, 2019, https://ethicsinsociety.stanford.edu/events/yuval-noah-harari-conversation-fei-fei-li-moderated-nicholas-thompson

[18] High-Level Expert Group on Artificial Intelligence, European Commission, A Definition of AI: Main Capabilities and Disciplines, April 2019.

[19] Russell, Stuart J., and Peter Norvig. 2010. Artificial Intelligence: A Modern Approach. 3rd ed. Upper Saddle River, NJ: Prentice-Hall.

[20] See, R Hibbard, Bill. 2012. "Avoiding Unintended AI Behaviors." In Artificial General Intelligence: 5th International Conference, AGI 2012, Oxford, UK, December 8–11, 2012. Proceedings, edited by Joscha Bach, Ben Goertzel, and Matthew Ikle, 107–116. Lecture Notes in Artificial Intelligence 7716. New York: Springer. doi:10.1007/978-3-642-35506-6_12 ; Stuart Russell, Daniel Dewey, Max Tegmark, Research Priorities for Robust and Beneficial Artificial Intelligence, Association for the Advancement of Artificial Intelligence, WINTER 2015, AI Magazine, https://futureoflife.org/data/documents/research_priorities.pdf

[21] Floridi, L. What the Near Future of Artificial Intelligence Could Be. Philos. Technol. 32, 1–15 (2019). https://doi.org/10.1007/s13347-019-00345-y

[22] Gonçalo Carriço, The EU and artificial intelligence: A human-centred perspective, European View, Sage Journals, Volume 17, Issue 1, April 2018, Pages 29-36, https://journals.sagepub.com/doi/epub/10.1177/1781685818764821

risks associated with AI has caused it to push for trustworthy AI.[23] This very characterisation of how and to what end the EU intends to mediate with developments in the field of AI indicates that ethics become important in shaping the AI future.[24] Despite the fact that some criticize too much focus on AI ethics,[25] EU is dedicated to ensuring that AI future conforms to the values and principles it has enshrined in its legal and policy instruments.[26]

In the past, some claim, that technology propagated unchecked leading to not-so-positive consequences.[27] There is one more reason why AI ethics are at the core of AI policy and regulation discourse, these days. With positive promises that AI holds for humanity come the concerns regarding challenges that are regularly manifested in AI deployment.[28] The same is being seen currently in the context of COVID19 pandemic.[29] The use of AI technology during COVID-19 pandemic made some scholars voice out the urgency of AI ethics.[30] In fact, scholars like Yuval Harari have warned the world against the numerous threats posed by technology.[31] Hence, if the policy makers want to ensure that AI is developed and deployed per the contours that favour humanity at all costs, AI ethics are of paramount importance despite being perceived as overambitious by some.[32]

Regulation

Law is a tool to sustain a system.[33] Its genesis and direction are different question.[34] Like any other field, the domain of artificial intelligence (AI) needs to be regulated.[35] According to Jeroen van der Heijden, regulation "*seeks to influence the behaviour of individuals and collectives in order to make social interaction and transactions predictable, and to reduce uncertainties by setting expectations (e.g. rules) and consequences for (not) meeting these (i.e. rewards and penalties). Regulation is thus vital to many areas of society—including the economy, the legal system and the political system*."[36]

Primarily, government, through legislature, is entrusted with the responsibility to regulate.[37] However, in addi-

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[23] European Commission, White Paper on Artificial Intelligence – A European approach to excellence and trust, 2020 COM(2020) 65 final; https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf

[24] See Ulrike Franke and Paola Sartori, Machine Politics: Europe and the AI Revolution, July 2019, The European Council on Foreign Relations, https://www.ecfr.eu/page/-/machine_politics_europe_and_the_ai_revolution.pdf

[25] See Daniel Castro, Europe will be left behind if it focuses on ethics and not keeping pace in AI development, 2019, Euronews, https://www.euronews.com/2019/08/07/europe-will-be-left-behind-if-it-focuses-on-ethics-and-not-keeping-pace-in-ai-development

[26] See European Commission, Independent High Level Expert Group on Artificial Intelligence, Ethics Guidelines For Trusthworthy AI, 2019, https://www.aepd.es/sites/default/files/2019-12/ai-ethics-guidelines.pdf

[27] See William A. Galston, September 2018, Why the government must help shape the future of AI, https://www.brookings.edu/research/why-the-government-must-help-shape-the-future-of-ai/

[28] Future of Life Institute, AI Policy Challenges and Recommendations, https://futureoflife.org/ai-policy-challenges-and-recommendations/ ; Hagendorff, T., Wezel, K. 15 challenges for AI: or what AI (currently) can't do. AI & Soc 35, 355–365 (2020). https://doi.org/10.1007/s00146-019-00886-y.

[29] Hu, Y., Jacob, J., Parker, G.J.M. et al. The challenges of deploying artificial intelligence models in a rapidly evolving pandemic. Nat Mach Intell 2, 298–300 (2020). https://doi.org/10.1038/s42256-020-0185-2

[30] Tzachor, A., Whittlestone, J., Sundaram, L. et al. Artificial intelligence in a crisis needs ethics with urgency. Nat Mach Intell 2, 365–366 (2020). https://doi.org/10.1038/s42256-020-0195-0

[31] Yuval Harari, Read Yuval Harari's blistering warning to Davos in full, World Economic Forum, January 2020, https://www.weforum.org/agenda/2020/01/yuval-hararis-warning-davos-speech-future-predications/ ; DW, Artificial intelligence, or the end of the world as we know it, https://www.dw.com/en/artificial-intelligence-or-the-end-of-the-world-as-we-know-it/a-45932260-0

[32] Wim Naude, AI's current hype and hysteria could set the technology back by decades, July 24, 2019, The Conversation, https://theconversation.com/ais-current-hype-and-hysteria-could-set-the-technology-back-by-decades-120514

[33] Berwal, Paramjeet. "SECTION 3(5)(i) OF THE COMPETITION ACT – AN ANALYSIS." National Law School of India Review, vol. 27, no. 2, 2015, pp. 168–184. JSTOR, www.jstor.org/stable/44283656. Accessed 11 Aug. 2020.

[34] E.P. Thompson. 1975. Whigs and Hunters: the Origin of the Black Act: New York. Pantheon Books. Page 259.

[35] See Mark McCarthy, AI needs more regulations, not less, March 9, 2020, Brookings Institute, https://www.brookings.edu/research/ai-needs-more-regulation-not-less/ `

[36] van der Heijden, Jeroen, Regulatory Philosophy, Theory and Practice: Ka Mua, Ka Muri (October 21, 2019). van der Heijden, Jeroen (2019). Regulatory philosophy, theory and practice: Ka mua, ka muri. State of the Art in Regulatory Governance Research Paper – 2019.03. Wellington: Victoria University of Wellington/Government Regulatory Practice Initiative, Available at SSRN: https://ssrn.com/abstract=3473360

[37] UK Parliament, Making Laws, House of Commons, https://www.parliament.uk/documents/commons-information-office/Brief-

tion to public institutions, there are non-state actors contributing substantially and very heavily to the very mechanism of regulation.[38] For instance, an industry could come up with certain standards in order to regulate a particular aspect of product inter-operability across various technology platforms.[39] In other words, both public and private institutions play crucial role in the process of regulation. In fact, it can also be suggested that under certain situations private sector effectively regulates the public domain even more than a state actor does.[40] The role of corporations has gone beyond maximising profits and now ventures into global governance.[41] The participation of what could be projected as non-economic private actors[42] also needs to be considered when it comes to AI governance.[43] There are certain institutes that are heavily funded by big tech. Businessmen are funding the research in AI ethics.[44] Bigtech is, in fact, argued to be funding debate on AI ethics.[45]

In view of the aforementioned, the following questions could be explored. Are private actors taking over the job of governance that was previously vested in sovereign states?[46] Is Bigtech confronting sovereign states when it comes to governance and control over certain aspects of national life?[47] Will technological advancement entail and end to nation states and transfer of sovereignty to BigTech?[48] Is private sector intruding into public domain by effectively controlling the development of AI?[49] This article does not specifically engages in discussion on the question.

Self-regulation is an increasingly prevailing phenomenon in fields that are considered for several reasons troublesome in the domain of state authorities. Technology, in a prominent manner, has become one such area.[50] Policy makers, often, are argued to be unqualified to regulate technology.[51] Some have argued that self-regulation in

Guides/Making-Laws.pdf

38 See Hutter, Bridget M. (2006) The role of non-state actors in regulation. CARR Discussion Papers (DP 37). Centre for Analysis of Risk and Regulation, London School of Economics and Political Science, London, UK.

39 European Commission, Industry publishes Guidelines to shape Electronic Commerce in the Future, February 1998, https://ec.europa.eu/commission/presscorner/detail/en/IP_98_196 ; Jedidiah Bracy, Will Industry Self-Regulation be Privacy's way forward? IAPP.ORG, June 2014, https://iapp.org/news/a/will-industry-self-regulation-be-privacys-way-forward/

40 See Scott, Colin. "Private Regulation of the Public Sector: A Neglected Facet of Contemporary Governance." Journal of Law and Society, vol. 29, no. 1, 2002, pp. 56–76. JSTOR, www.jstor.org/stable/4489081. Accessed 9 Aug. 2020.

41 Scherer, Andreas Georg, Guido Palazzo, and Dorothée Baumann. "Global Rules and Private Actors: Toward a New Role of the Transnational Corporation in Global Governance." Business Ethics Quarterly 16, no. 4 (2006): 505-32. Accessed August 9, 2020. www.jstor.org/stable/3857794.; see also Larry Cata Backer, Private Actors and Public Governance Beyond the State: The Multinational Corporation, the Financial Stability Board and the Global Governance Order, 18 Ind. J. Int'l L. 751 (2011).

42 See, Klaus Dieter Wolf, Draft paper, Private Actors and the Legitimacy of Governance Beyond the State, 2001, ECPR Joint Sessions of Workshops, Grenoble, 6-11 April 2001, (page 1) https://ecpr.eu/Filestore/PaperProposal/0fa1430c-fda3-465d-8cdc-8a9d8abf66e2.pdf

43 Read about organisation working in the field of AI regulation, Ayanna Howard, The Regulation of AI — Should Organizations Be Worried?, MIT Sloan Management Review, July 29, 2019, https://sloanreview.mit.edu/article/the-regulation-of-ai-should-organizations-be-worried/

44 Jessica Carpani, Oxford University given £150m by US billionaire to investigate AI in biggest ever donation, June 2019, The Telegraph, https://www.telegraph.co.uk/news/2019/06/19/oxford-university-given-150m-us-billionaire-found-ai-institute/

45 Oscar Williams, How Big Tech funds the debate on AI ethics, June 2019, New Statesman, https://www.newstatesman.com/science-tech/technology/2019/06/how-big-tech-funds-debate-ai-ethics

46 Schaller, Susanne: The Democratic Legitimacy of Private Governance. An Analysis of the Ethical Trading Initiative. Duisburg: Institute for Development and Peace, University of Duis- burg-Essen (INEF Report, 91/2007), https://core.ac.uk/download/pdf/71735042.pdf

47 Tom Fairless, U.S. Tech Giants Battle Europe's Sovereign States, 2014, The Wall Street Journal, https://www.wsj.com/articles/europe-vs-u-s-tech-giants-1418085890

48 See Gilles Babinet, Part 1: Technology-Induced Sovereignty Transfers, Novmeber 2018, Institute Montaigne, https://www.institutmontaigne.org/en/blog/end-nation-states-part-1-technology-induced-sovereignty-transfers

49 See, for related understanding, Tanya Filer, What role should the private sector play in developing artificial intelligence for government?, World Economic Forum, June 2018, https://www.weforum.org/agenda/2018/06/developing-ai-for-government-what-role-and-limits-for-the-private-sector

50 Google, Perspectives on Issues in AI Governance, (page 6) https://ai.google/static/documents/perspectives-on-issues-in-ai-governance.pdf

51 See, for context, Shira Ovide, Congress Doesn't Get Big Tech. By Design., The New York Times, July 29, 2020, https://www.nytimes.com/2020/07/29/technology/congress-big-tech.html

case of BigTech has failed.[52] Governments are realising this.[53] Others still maintain that no regulation at all is the best way to ward off monopoly concerns when it comes to Big Tech.[54] The question whether and to what extent AI should be regulated is indeed big and relevant.[55]

There are several instruments available at the discretion of regulators to chisel the landscape of influence in a particular area where control needs to be exercised. These could be law, statutes, court rulings, licensing, standards, regulations, notices, directions, guidelines, rules, code of practice, ethics, circulars, notifications, and many more etc. Nature, scope, and efficacy of these instruments vary. The decision makers' goals guide the choice selection.[56] However, there is an inherent problem associated with norm setting in the field technology.

Problem of Norm Setting in AI

Technology influences human existence in a defining manner.[57] How the AI future unfolds can at best be speculated on scientific basis. As Stephen Hawking said "[S]uccess in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks."[58] It requires imagination when it comes to pondering over AL moral landscape.[59] In the context of AI, rapid technology advancement, rampant across sectors, has been creating bigger challenges for norm setting institutions.[60] As the technology improves, it is used not only to surveil people,[61] manipulate human behaviour[62] but also to empowers people[63] to behave in an unconventional manner. Technology substantially enables people by affording them the tools that were not available before to accomplish what they could not before.[64] This not only increases the scope of human interface among themselves and with the dynamics of system but also essentially changes the nature of such interface. The evolving human behaviour brings about changes in the systemic functioning of society. This calls for corresponding changes in the regulatory mechanism to provide for controlling of social interactions and transactions that did not exist earlier. Hence, norm setting in the field of AI is always on tenterhooks. Law has to catch up with rapid disrup-

[52] Lisa Quest and Anthony Charrie, September 19, 2019, The Right Way to Regulate the Tech Industry, MIT Sloan Management Review, https://sloanreview.mit.edu/article/the-right-way-to-regulate-the-tech-industry/

[53] Knowledge at Wharton, Regulating Big Tech: Is a day of reckoning coming?, June 2019, https://knowledge.wharton.upenn.edu/article/regulating-big-tech-is-a-day-of-reckoning-coming/

[54] John Thornhill, The case for not regulating BigTech, June 2019, Financial Times, https://www.ft.com/content/481cc624-8b58-11e9-a1c1-51bf8f989972

[55] See Strous L. (2019) Should Artificial Intelligence Be More Regulated?. In: Strous L., Cerf V. (eds) Internet of Things. Information Processing in an Increasingly Connected World. IFIPIoT 2018. IFIP Advances in Information and Communication Technology, vol 548. Springer, Cham. https://doi.org/10.1007/978-3-030-15651-0_4; Future of Life Institute, Op-ed: Should Artificial Intelligence Be Regulated?, July 2017, https://futureoflife.org/2017/07/27/should-artificial-intelligence-be-regulated/

[56] See, for more understanding on goals in the context of decision making, Krantz, D. H., & Kunreuther, H. (2007). Goals and Plans in Decision Making. Judgment and Decision Making, 2 (3), 137-168. Retrieved from http://repository.upenn.edu/oid_papers/253

[57] See Borgmann, A. (1984). Technology and the Character of Contemporary Life: A Philosophical Inquiry. Chicago, IL: University of Chicago Press.

[58] Stephen Hawking, Stuart Russell, Max Tegmark, Frank Wilczek, Stephen Hawking: 'Transcendence looks at the implications of artificial intelligence - but are we taking AI seriously enough?' Independent, May 1,, 2014, https://www.independent.co.uk/news/science/stephen-hawking-transcendence-looks-at-the-implications-of-artificial-intelligence-but-are-we-taking-9313474.html

[59] See Mark Coeckelbergh, Imagination and Principles, An Essay on the Role of Imagination in Moral Reasoning, 2007, Palgrave Macmillan.

[60] See Cath, Corinne. "Governing artificial intelligence: ethical, legal and technical opportunities and challenges." Philosophical transactions. Series A, Mathematical, physical, and engineering sciences vol. 376,2133 20180080. 15 Oct. 2018, doi:10.1098/rsta.2018.0080

[61] Zuboff, Shoshana. The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power. London: Profile Books, 2018.

[62] See Emilia Gomez, Assessing the impact of machine intelligence on human behaviour: an interdisciplinary endeavour, European Commission, JRC Conference and Workshop Reports, 2018, https://arxiv.org/pdf/1806.03192.pdf

[63] Erica Naone, , Empowering Technologies for the Developing World, MIT technology Review, 2007, https://www.technologyreview.com/2007/09/24/223740/empowering-technologies-for-the-developing-world/ ; Accenture, OVERVIEW OF ARTIFICIAL INTELLIGENCE, New Zealand, https://www.accenture.com/nz-en/topic-accenture-government-artificial-intelligence

[64] Zheng Yan, Rui Gaspar, Tingshao Zhu, Emerging technologies, human behavior, and human behavior and emerging technologies, Human Behavior and Emerging Technologies, Volume 1, Issue 1

tions in technology so that the resultant change in human beings and their interaction with the external world can be brought within the ambit of law or other norm setting institutions of society. Technology enables human potential.[65] Will AI ever become like humans?[66] We do not have artificial general intelligence (AGI)[67] or conscious[68] AI, at the moment. Some contemplate that the possibility to create machines that could think will usher in plethora of AI ethics issues.[69] AI ethics have come to acquire the regulatory central stage.

AI Ethics[70]

Asimov's Thee Laws of Robotics are often discussed as popular foundation of AI ethics.[71] According to David Leslie, "AI ethics is a set of values, principles, and techniques that employ widely accepted standards of right and wrong to guide moral conduct in the development and use of AI technologies."[72] According to a study conducted by European Parliament, "[E]thics are moral principles that govern a person's behaviour or the conduct of an activity".[73] Per the European Parliament, "AI ethics is concerned with the important question of how human developers, manufacturers and operators should behave in order to minimise the ethical harms that can arise from AI in society, either arising from poor (unethical) design, inappropriate application or misuse. The scope of AI ethics spans immediate, here-and-now concerns about, for instance, data privacy and bias in current AI systems; near- and medium-term concerns about, for instance, the impact of AI and robotics on jobs and the workplace; and longer-term concerns about the possibility of AI systems reaching or exceeding human-equivalent capabilities (so-called superintelligence)."[74] If AI ethics are so crucial, it is important to understand who is influencing their establishment and for what reasons.

Formulating laws is within the mandate of legislatures, ethics are usually advanced by specific industry in the concerned field. When it comes to AI, law making as far as hard law is concerned meets several hurdles. The most obvious and important one is that rate of disruption in the field of technology is very high, as has been mentioned before. Technology changes substantially and progresses ahead very quickly. Hence, it is difficult for the law-making machinery to keep up and match the pace. There is always a lag between technology advancement and the corresponding law-making endeavours of government. It can argued that regulations do not need to be very specific until detailed laws can be drafted after the technology landscape has stabilised in particular way. Though the foreseeability needed in translating the vision leadership harbours in the context of technology to formulate regulatory framework is not plausible in the domain of AI, basic guidelines could be established in order to give requisite direction to the development and deployment of AI. AI advancement is not a purely mechanical progression in technology. Every advancement in AI and the deployment thereof is influencing every aspect of human existence in a very substantive and fundamental way. The change is neither consistent nor on the same lines. Every facet of interface between AI and society is unfolding different dimensions that humanity has never faced before; and, hence, the

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65 Dell Technologies, Michael Dell, Chairman and CEO, https://corporate.delltechnologies.com/en-ie/about-us/leadership/michael-dell.htm

66 Carolyn Blais, When will AI be smart enough to outsmart people?, MIT School of Engineering, https://engineering.mit.edu/engage/ask-an-engineer/when-will-ai-be-smart-enough-to-outsmart-people/

67 Goertzel, B. and Pennachin, C. (eds.) (2007). Artificial General Intelligence. Berlin: Springer.

68 Chalmers, David J. (1996). The Conscious Mind: In Search of a Fundamental Theory. New York: Oxford University Press

69 Bostrom, N., & Yudkowsky, E. (2014). The ethics of artificial intelligence. In K. Frankish & W. Ramsey (Eds.), The Cambridge Handbook of Artificial Intelligence (pp. 316-334). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139046855.020

70 Bostrom, Nick and Eliezer Yudkowsky, 2014, "The Ethics of Artificial Intelligence", in The Cambridge Handbook of Artificial Intelligence, edited by Keith Frankish and William M Ramsey, Cambridge: Cambridge University Press, 316–334. doi:10.1017/CBO9781139046855.020

71 Asimov, I. (1942). Runaround. Astounding Science Fiction, March, 94–103.

72 Leslie, David (2019). Understanding artificial intelligence ethics and safety: A guide for the responsible design and implementation of AI systems in the public sector. The Alan Turing Institute. https://doi.org/10.5281/zenodo.3240529

73 European Parliament, The ethics of artificial intelligence: Issues and initiative. March 2020, Study by Panel for the Future of Science and Technology, European parliamentary Research , available at https://www.europarl.europa.eu/RegData/etudes/STUD/2020/634452/EPRS_STU(2020)634452_EN.pdf

74 European Parliament, The ethics of artificial intelligence: Issues and initiative. March 2020, Study by Panel for the Future of Science and Technology, European parliamentary Research , available at https://www.europarl.europa.eu/RegData/etudes/STUD/2020/634452/EPRS_STU(2020)634452_EN.pdf

understanding of the same will result in absolutely different approach to be adopted each time a new dimensions is brought forth and under consideration. Therefore, it is not an overstatement that law making has been held in abeyance,[75] and the focus has shifted to AI ethics. Regardless, several laws dealing with various subject matters that fall within the scope of AI are coming, it is said, at times.[76] Governments are being suggested novel ideas in order to actively regulate AI.[77] At this juncture, it becomes important to understand what drives this sort of 'movement' for AI ethics.

Driving force behind AI Ethics

AI ethics are usually advanced by non-state actors like corporations and private sector.[78] These entities come forward with guidelines that they want to be imposed onto the overall industry for various reasons. Some of the reasons could be as follows: lack of regulation and governance concerns arising there from the pressing new issues and challenges that need to be resolved, inclination towards avoiding or delayed government regulation by resorting to self-regulation,[79] immediate requirements of different stakeholders, urgency in aligning the direction of AI with proclaimed principles and values of democracy and morality, securing the future from anthropocentric perspective, and others. Big corporations, the BigTech, have time and again committed to more regulations.[80] Recent hearing in July 2020, before the US Congress is a testament to that.[81] However, some argue that the BigTech calling for more regulation may amount to an attempt at more power grabbing.[82] Regulations have costs in the form of compliance etc.,[83] and the BigTech is big enough to bear the cost. The other insignificant players in the market cannot bear the increase in costs caused by more regulations. The principles of free market economy suffer when more regulations bring about lopsided burden onto the entities operating in the market. Some overserves have even doubted the collaboration between governments and BigTech.[84]

As every regulation is directed towards a particular goal, it is pertinent to understand what guides AI regulation and how. In any society, economy forms the foundation of how everything is systemically governed. Hence, economy[85] and governance[86] are the two most important foundational structures of any society. In other words, influencing the constituents of society, functioning of its institutions, and how it operates, evolves, and is steered is covered by governance. The underlying force that moves the machinery of society is of economic nature. In the context of human existence, actions are attributed to actors that adopt policies and take decisions guided by their goals.

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[75] See, for a different perspective, Fenwick, Mark D.; Kaal, Wulf A. Ph.D.; and Vermeulen, Erik P.M. "Regulation Tomorrow: What Happens When Technology Is Faster than the Law?," American University Business Law Review, Vol. 6, No. 3 (). Available at: http://digitalcommons.wcl.american.edu/aublr/vol6/iss3/1

[76] Kathleen Walch, AI Laws are coming, Forbes, February 2020, https://www.forbes.com/sites/cognitiveworld/2020/02/20/ai-laws-are-coming/#994a52ca2b48

[77] Sabine Gerdon, Valesca Molinari, How governments can use public procurement to shape the future of AI regulation – and boost innovation and growth, World Economic Forum, June 2020, https://www.weforum.org/agenda/2020/06/artificial-intelligence-ai-government-procurement-standards-regulation-economic-growth-covid-19-response/

[78] Paramjeet Singh Berwal, What drives AI & AI Policy? Profits Or Individual/Social Welfare?, Inform The Future Bog, June 19, 2020, https://informthefuture.wordpress.com/2020/06/19/what-drives-ai-ai-policy-profits-or-individual-social-welfare/

[79] Rodrigo Ochigame, The Invention of "Ethical AI", The Intercept, December 20, 2019, https://theintercept.com/2019/12/20/mit-ethical-ai-artificial-intelligence/

[80] Naomi O'Leary, Facebook's Zuckerberg calls for more regulation of big tech, The Irish Times, May 18, 2020, https://www.irishtimes.com/business/technology/facebook-s-zuckerberg-calls-for-more-regulation-of-big-tech-1.4256579

[81] Huffington Post, Big Tech CEOs Face Antitrust Hearing In Congress, July 29, 2020, https://www.youtube.com/watch?v=XIC1Nkdu1_A

[82] Arjun Kharpal, Big Tech's calls for more regulation offers a chance for them to increase their power, CNBC, January 2020, https://www.cnbc.com/2020/01/28/big-techs-calls-for-ai-regulation-could-lead-to-more-power.html

[83] Competitive Enterprise Institute, The Cost of Regulation and Intervention, April 2018, https://cei.org/10KC/Chapter-3 ; Oliver Smith, The GDPR Racket: Who's Making Money From This $9 bn Business Shakedown, https://www.forbes.com/sites/oliversmith/2018/05/02/the-gdpr-racket-whos-making-money-from-this-9bn-business-shakedown/#1896fcb434a2

[84] Franklin Foer, What Big Tech Wants Out of the Pandemic, July/August 2020 Issue, https://www.theatlantic.com/magazine/archive/2020/07/big-tech-pandemic-power-grab/612238/

[85] Karl Marx, Preface to A Contribution to the Critique of Political Economy (Moscow, Progress Publishers Moscow, 1977)

[86] Bevir, M. (2012). Governance: A very short introduction. Oxford: Oxford University Press.

AI Actors

Countries across the globe are transitioning towards and into digital economy.[87] The success of digital economy is completely dependent on AI,[88] the fourth industrial revolution.[89] In fact, AI is the ultimate tool and platform that is needed for the optimal and efficient functioning of a digital economy.[90] The same has been acknowledged by the EU[91] and other countries like China[92] in their official policy papers, communications, proposed legislations and plans.[93] While the EU can be seen in the process of providing conditions conducive to the development and use of AI for the growth of its economy and benefits to its society, China is aggressively moving ahead investing in and developing commercial AI applications in order to cater to the demand posed by global digital economy. However, with the advent of rapidly advancing AI come various challenges that policy makers ought to consider while embarking upon the journey to reap the benefits of digital economy.

The use of AI in governance is already underway.[94] During Covid19, AI based technologies came to the rescue of governing authorities in tracking and identifying the pandemic's victims and other attributes.[95] It is impossible to imagine the future of governance without complete and absolute reliance on AI. The challenges, among others, in the domain of governance include inclusive economic growth, protection of democratic process, threat to democratic rights and principles, tackling unfair competition in digital environment, countering weaponization of information networks across territorial borders, addressing 'techlash' and growing 'trust-deficit' due to labour displacement, cost of re-skilling, soaring inequality, and inefficient re-distribution of wealth, protection and enforcement of human rights in digital environment, making green-technology more affordable, managing national and global security, developing inclusive digital governance models, ensuring data protection and privacy, taking care of cultural aspects of digital transition, and numerous more.

The gravity, extent, and urgency reflected in the contemporary academic and policy debate around the challenges associated with AI deployment highlight the fact that AI is at the core of systemic restructuring that the experts, policy and decision makers are envisioning.[96]

Given the aforementioned spheres of AI influence, there are two agencies involved - governments and corporations (primarily, BigTech). Though, strictly adhering to the conventional perception regarding regulation mechanism,

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87 See Davos 2020, Shaping the Future of the Digital Economy, January 21, 2020, World Economic Forum, https://www.weforum.org/events/world-economic-forum-annual-meeting-2020/sessions/shaping-the-future-of-the-digital-economy

88 Accenture, Artificial Intelligence is the future of growth, https://www.accenture.com/us-en/insight-artificial-intelligence-future-growth, use

89 Schwab, Klaus. The Fourth Industrial Revolution. , 2016. World Economic Forum

90 See, for reference, European Commission, Artificial Intelligence, Shaping Europe's Digital Future, Policy, https://ec.europa.eu/digital-single-market/en/artificial-intelligence ; United Nations, Digital Economy Report 2019, Value Creation And Capture: Implications for Developing Countries, UNCTAD, 2019, https://unctad.org/en/PublicationsLibrary/der2019_overview_en.pdf

91 European Commission, White Paper on Artificial Intelligence – A European approach to excellence and trust, 2020 COM(2020) 65 final; https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf

92 See, for China's approach to AI Ethics, Roberts, H., Cowls, J., Morley, J. et al. The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation. AI & Soc (2020). https://doi.org/10.1007/s00146-020-00992-2

93 See, for general economic relevance of AI, Goldman Sachs Research Unit, Profiles in Innovation: Artificial Intelligence: AI, Machine Learning and Data Fuels the Future of Productivity", 14 November 2016, p. 3. https://www.gspublishing.com/content/research/en/reports/2019/09/04/a0d36f41-b16a-4788-9ac5-68ddbc941fa9.pdf

94 See David Freeman Engstrom, Daniel E. Ho, Catherine M. Sharkey, Mariano-Florentino Cue□llar, Government by Algorithm: Artificial Intelligence in Federal Administrative Agencies, February 2020, https://www-cdn.law.stanford.edu/wp-content/uploads/2020/02/ACUS-AI-Report.pdf; Hessy Elliott, China and AI: what the world can learn and what it should be wary of, July 1, 2020, The Conversation, https://theconversation.com/china-and-ai-what-the-world-can-learn-and-what-it-should-be-wary-of-140995

95 See, for reference, Karen Silverman, Tackling COVID-19 requires better governance of AI and other frontier technologies- here's why, May 5, 2020, World Economic Forum, https://www.weforum.org/agenda/2020/05/success-in-emerging-covid-19-crisis-requires-better-governance-of-ai-and-other-frontier-technologies-here-s-why/

96 See, Janna Anderson and Lee Rainie, Many Tech Experts Say Digital Disruption Will Hurt Democracy
, February 2020, Pew Research Center, https://www.pewresearch.org/internet/2020/02/21/many-tech-experts-say-digital-disruption-will-hurt-democracy/; Hugh P. Williamson, Technology, a Threat to Democracy, American Journal of Economics and Sociology, Volume 16, Issue 3, April 1957, https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1536-7150.1957.tb00184.x

government is entrusted with law making, corporations also substantially influence governments while policies are adopted, decisions are taken and implemented through the process of legislation and enforcement. However, there is a basic difference in the mandate of these two entities. Government, in principle, is primarily concerned with the overall governance and economy, and the entailing social benefits; corporations are vested with the task of profit making within the suggested and recommended stakeholder value model. Whether this 'notional' demarcation is followed in absolute terms or not is a different question and should be discussed.

With time, corporations have come to effectively influence policy making and hence the governance.[97] However, they are also often burdened with the responsibility to ensure that they discharge their corporate social responsibility and engage in business that leads to sustainable and inclusive development.[98] No matter how the roles are articulated, the relevant inferences can be drawn only by observing the consequences of their decisions and actions.[99] After all, the efficacy of a measure can be only measured against the results it produces. There are certain factors like the choice of benchmarks adopted to measure efficacy that are always the bone of contention between parties representing different conflicting interests in society. For instance, climate change stakeholders may question the credibility of a benchmark that measures whether steps taken by an actor have been successful or not.

In addition to the above stated, the role played by BigTech in controlling the AI future is exponentially increasing on a regular basis.[100] This brings into question the nature of AI ethics that are likely to be set.

AI Ethics and Corporations

In principles, ethics are an important tool when endeavouring to afford a particular normative direction to AI development and deployment. Regulations are a prerogative of the government. Law is stated to give effect to the policies that are approved, adopted, formulated, and put forth by government after consultations with relevant stakeholders. While there could be many important actors among stakeholders, the most influential are the big technology corporations.[101] Technology and economy have very deep connection.[102] Hence, corporations become crucial actor.

All the industrial revolutions were nothing but use of technology to further the cause of economy.[103] In an economy, to put it forth in very simple yet essential way, there is a market.[104] In the market, goods, tangible or intangible, and services are produced and sold. There is production and consumption. These activities are referred to as economic activities.[105] The whole socio-politico-economic space where these activities take place is called economy. When advancement in science took place, application thereof led to corresponding advancement in technology. The disruption so caused in technology was utilised primarily in the field of production. This has been referred to

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[97] Martin Gilens and Benjamin I. Page, Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens, Perspectives on Politics, Volume 12, Issue 3
September 2014 , pp. 564-581

[98] See Latapí Agudelo, M.A., Jóhannsdóttir, L. & Davídsdóttir, B. A literature review of the history and evolution of corporate social responsibility. Int J Corporate Soc Responsibility 4, 1 (2019). https://doi.org/10.1186/s40991-018-0039-y;
United Nations, 2001, Social Responsibility, UNCTAD, https://unctad.org/en/Docs/psiteiitd22.en.pdf

[99] See, for a different perspective on CSR, V. Kasturi Rangan, Lisa Chase, Sohel Karim, The Truth About CSR, January-February Issue, 2015, Harvard Business Review, https://hbr.org/2015/01/the-truth-about-csr

[100] Webb, Amy. The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity. , 2019. New York, NY : PublicAffairs, [2019]

[101] Russell Brandom, The Regulatory Fights facing every major tech company, The Verge, March 3, 2020, https://www.theverge.com/2020/3/3/21152774/big-tech-regulation-antitrust-ftc-facebook-google-amazon-apple-youtube ; Anwar Aridi, Urska Petrovcic, How to Regulate big tech, February 13, 2020, The Brookings Institution, https://www.brookings.edu/blog/future-development/2020/02/13/how-to-regulate-big-tech/

[102] Nathan Rosenberg, INNOVATION AND ECONOMIC GROWTH, 2004, OECD, https://www.oecd.org/cfe/tourism/34267902.pdf
Bai, Chong-En, and Chi-Wa Yuen. Technology and the New Economy. Cambridge, Mass: MIT Press, 2002. Internet resource.

[103] See Andrew Dearing, Sustainable Innovation: Drivers and Barriers, OECD TIP workshop 19.06.2000, page 3, https://www.oecd.org/innovation/inno/2105727.pdf

[104] Herzog, Lisa, "Markets", The Stanford Encyclopedia of Philosophy (Fall 2017 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2017/entries/markets/>.

[105] United Nation, Goal 12: Ensure sustainable consumption and production patterns, Sustainable Development Goals, https://www.un.org/sustainabledevelopment/sustainable-consumption-production/

as industrial revolution. Production and output increased, some jobs became obsolete, more, new and essentially different, jobs were created as technology came to play its crucial role in the manufacturing domain. It was a natural consequence because every society is built around production and consumption. The existing demands could be catered to; prices dropped and hence demand increased in case of the products that then were supplied in more quantity. Also, the supply of new products and marketing caused new demands to crop up.

Industry, or to be more relevant in the context of contemporary economy, big corporations drive technological advancement.[106] However, it is the government and public resources and institutions that commit to the basic research in the field of science and technology. Thereafter, normally, the successful basic research is afforded to private sector to be subjected to advanced research and deployment. In fact, the government thereafter buys the product of commercialised advanced research from the private sector to be deployed in various governance spheres. For example, use by police,[107] in visa applications,[108] public health authorities in case of Covid19.[109] The EU is aggressively moving ahead to reap economic benefits of AI.[110]

In the EU, the focus on basic scientific research is reflected by heavy budget allocation.[111] However, it is important to understand the world's biggest technology companies are based in the USA and China.[112] Therefore, the EU has to consolidate the efforts of its member states in order to achieve responsibly the AI advancement and the deployment thereof in the market so as to make its digital economy afford benefits to its citizens.[113] The EU Coordinated Plan puts forth an ambitious plan to bridge the gap between AI research and its commercialisation in the market.[114]Human centric approach is what lies at the core of the EU's digital future.[115] The corporate ecosystem in the Europe is bracing itself for the AI challenges and opportunities.[116] It is pertinent to mention that despite the relevant measures being taken in the EU to promote AI, the pragmatic economic parameters indicate the EU ought to do more in this regard.[117]

As the role played by AI companies operating under the ideology of profit-making is very crucial, the interests of other stakeholders become very crucial to be protected. The EU believes in intervention and regulation when the forces of free market economy bring about inefficiencies in the market. In order to guide the regulatory framework, it is important to put forth a set of principles and values that should form the basis of AI development and deployment so that no interests are harmed.

In view of the aforementioned, it becomes clear that AI ethics is primarily a concern for corporations.[118]

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[106] See Christine Fox, TEDxMidAtlantic, The ethical dilemma we face on AI and autonomous tech, TEDx Talks, May 11, 2017, https://www.youtube.com/watch?v=3oE88_6jAwc&t=427s

[107] Kathleen Walch, The Growth of AI Adoption in Law Enforcement, July 2019, Forbes, https://www.forbes.com/sites/cognitiveworld/2019/07/26/the-growth-of-ai-adoption-in-law-enforcement/#654d5e48435d

[108] Bobby Hellard, Streaming AI for visa applications is biased, rights group claims, October 2019, https://www.itpro.co.uk/technology/artificial-intelligence-ai/34713/streaming-ai-for-visa-applications-is-biased-rights

[109] OECD, Using Artificial Intelligence to help combat COVID-19, https://www.oecd.org/coronavirus/policy-responses/using-artificial-intelligence-to-help-combat-covid-19-ae4c5c21/

[110] European Commission, Harnessing the economic benefits of Artificial Intelligence, November 2017, Digital Transformation Monitor, https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM_Harnessing%20the%20economic%20benefits%20v3.pdf

[111] Quirin Schiermeier, How Europe's €100-billion science fund will shape 7 years of research, Nature, February 2021. https://www.nature.com/articles/d41586-021-00496-z

[112] Webb, Amy. The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity. , 2019. New York, NY : PublicAffairs, [2019]

[113] European Commission, AI Excellence: Enabling conditions for AI's development and uptake. https://digital-strategy.ec.europa.eu/en/policies/enabling-ai

[114] European Commission, AI Excellence: From the lab to the market. https://digital-strategy.ec.europa.eu/en/policies/ai-lab-market

[115] European Commission, AI Excellence: Ensuring that AI works for people, https://digital-strategy.ec.europa.eu/en/policies/ai-people

[116] Erik Brattberg, Raluca Csernatoni, Venesa Rugova, Europe and AI: Leading, Lagging Behind, or Carving its own way?, Carnegie Endowment for International Peace, 2020. https://carnegieendowment.org/2020/07/09/europe-and-ai-leading-lagging-behind-or-carving-its-own-way-pub-82236

[117] See Francois Candelon, Rodolphe Charme Di Carlo, Europe is missing out on the A.I. revolution- but it isn't too late to catch up, Fortune, December 2020. https://fortune.com/2020/12/04/europe-ai-competitiveness-gap/

[118] See, also, Darrell M. West, The role of corporations in addressing AI's ethical dilemmas, September 2018, https://www.

Fundamentals of AI Ethics

It is important to understand that philosophical dimensions of AI discourse are as important as practical ethics issues.[119] According to World Economic Forum, there are nine ethics issues in the field of AI: joblessness, inequality, human behaviour, "artificial stupidity", AI Bias, AI security, inadvertent negative consequences, singularity, rights of robots.[120] The following are some of the most critical aspects that need to be looked into while evaluating the AI ethics scholarly discourse, in today's times.

1. Agency and Responsibility: Tech neutrality

The way the system is organised requires that responsibility can be traced and located in the context of AI.[121] The terms that are contemporarily often used in the domain of AI ethics are Responsible AI[122], AI bias, etc. Interestingly, all major corporations[123] like Google[124], Microsoft[125], Accenture[126], Facebook[127], Amazon[128] resort to prominent use of the term "responsible AI" or the values it conveys. It is possible that these terms could be used as 'clickbait' or merely as a pointer in the direction that human beings need to develop and deploy AI with a sense of responsibility, and devoid of any bias or discriminatory tendency. However, there is possibility that there could be something more to it. Technology, AI, to be specific, is merely a tool and, hence, *per se* has no agency; human beings do have agency. It is important to point out that neutrality of technology is often debated.[129] There are, in fact, many who assert that technology is not neutral because it harbours the set of values embedded in it by those who developed and deployed it.[130] However, the assertion can be argued to be wrong because it fails to take into account that it is the application of technology that can be adjudged against specific normative benchmarks to know more about the nature of that very specific application of technology and not about the technology itself.[131] If this is the case, why the mainstream public, academic, scholarly, research discourse is being articulated as if the technology per se needs to be responsible and bias free? The articulation that affords agency, in whatsoever manner, to technology, even for the sake of informing the public discourse, ought to be considered as misplaced, inadvertently or otherwise. Human beings who are inventing, advancing, and improving the AI technology are entrusted with the task to make it work for the betterment of the mankind. Hence, it is the human beings who have to be responsible so that AI can deliver results that conform to the principles and values of humanity and morals of society.

The use of terms like "Responsible AI", "AI Bias" wrongly assumes and projects that we already have that advanced level of artificial intelligence that is autonomously taking decisions for human beings and implementing

brookings.edu/research/how-to-address-ai-ethical-dilemmas/

119 Coeckelbergh, M., & M.I.T. Press. (2020). AI ethics. (Page 80-82)

120 Julia Bossmann, Top 9 ethical issues in artificial intelligence
, World Economic Forum, 21 October 2016, https://www.weforum.org/agenda/2016/10/top-10-ethical-issues-in-artificial-intelligence/

121 Council of Europe Study, 2019, Rapporteur: Karen Yeung, Responsibility and AI, https://rm.coe.int/responsability-and-ai-en/168097d9c5

122 Dignum, Virginia. Responsible Artificial Intelligence: How to Develop and Use Ai in a Responsible Way. , 2019, ham, Switzerland : Springer, [2019]; Virginia Dignum, Responsible Artificial Intelligence, Umea University, https://ec.europa.eu/jrc/communities/sites/jrccties/files/03_dignum_v.pdf

123 Falon Fatemi, How companies should answer the call for Responsible AI, Forbes, February 28, 2020, https://www.forbes.com/sites/falonfatemi/2020/02/28/how-companies-should-answer-the-call-for-responsible-ai/#4a0743013f55

124 Google AI, https://ai.google/responsibilities/responsible-ai-practices/

125 Microsoft, https://www.microsoft.com/en-us/ai/responsible-ai

126 Accenture, https://www.accenture.com/us-en/services/applied-intelligence/ai-ethics-governance

127 Nick Statt, Facebook will study whether its algorithms are racially biased, July 21, 20202, The Verge, https://www.theverge.com/2020/7/21/21333405/facebook-instagram-racial-bias-equity-team-formed-ai-algorithms

128 CNET, Everything Amazon CEO Jeff Bezos just said to Congress in 13 minutes, July 30, 2020, https://www.youtube.com/watch?v=F4-Ke0PDmKU

129 See So-Young Kang, Can Tech ever really be neutral?, World Economic Forum, September 2017, https://www.weforum.org/agenda/2017/09/can-tech-be-neutral-gnowbe/

130 See Verbeek PP. (2008) Morality in Design: Design Ethics and the Morality of Technological Artifacts. In: Philosophy and Design. Springer, Dordrecht. https://doi.org/10.1007/978-1-4020-6591-0_7

131 Colin Rule, Is Technology Neutral? Part II, 2006,
The Center for Internet and Society at Stanford Law School, http://cyberlaw.stanford.edu/blog/2006/09/technology-neutral-part-ii

them without any human control, supervision, intervention, or authority. The idea conveyed by the preceding assertion does not hold true, in the present, according to those AI ethics experts who are sceptical of even the remotest of possibilities of existence of artificial general intelligence or conscious AI in future.[132] Also, use of such terms has deeper underlying philosophical connotations for perceptual canvas of human minds. The anthropocentric view when projected using such articulation onto the state of affairs in the field of AI creates an abstract picture at the core of which lies an understanding that human beings are outsourcing their responsibilities to technology. The same may, at a very deep ideological level, lower the of responsibilities in legal and societal sense of those who are involved in the development and deployment of AI.

Additionally, it is significant to highlight that the meticulous details underscored in the documents referring to responsible AI definitely locate responsibility in the actions of human beings i.e. policy makers, developers etc. However, the location of responsibility is ultimately read and understood in the light of the caption given to such discourse which shift the focus from the human agency to the technology *per se*. This approach is even more dangerous to the future of AI for humanity because it indicates an endeavour to shift the characterisation of the factual matrix and, thus, the responsibility attached thereto to something that, in essence, has no agency, at all. Ai ethics should reflect the real position and not represent figment of imagination.

2. AI Bias and Algorithmic Justice

AI bias or discrimination is perhaps one of the most discussed issue nowadays. In the context of temporary moratorium imposed on sale of facial recognition technology to police department,[133] there are several issues that ought to be discussed beyond the limitations imposed by the mainstream media.[134] There is a bill pending before the Committee on the Judiciary in the USA on the issue.[135] Daniel Kahneman suggests that algorithmic decision making is better than human decision making.[136] However, at the core of algorithmic decision-making lies data, data from the real world produced by real people in real society. Bias, whether racial or gender, and discriminations ail the foundation of society. Hence, the data generated in society and being used to train machine learning models will produce algorithmic decisions that can be characterised as 'bias'.[137] However, as mentioned before, it would be a mistake to refer to them as AI bias, for the bias creeps into machine learning and AI because of the inherent presence of bias and discriminatory tendencies in human beings. Some hold the data responsible, others point finger against the developers.[138] It is possible that the situation can be improved by improving algorithmic design and data fed to machine learning models. Regardless, the bias can only be mitigated as data will represent the reality and not the principles and values aspired for, in theory, by ethics experts, policy makers, and humanity. Data cannot be representative if the reality that produces the data is not representative.[139] Also, data is neutral, the information associated by interpretation from particular data is not. Hence, here also, it is the human beings that need to be responsible while designing data-oriented AI.[140]

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[132] See Ragnar Fjelland, June 17, 2020, Why general artificial intelligence will not be realized. Humanit Soc Sci Commun 7, 10 (2020). https://doi.org/10.1057/s41599-020-0494-4

[133] Karen Weise, Natasha Singer, Amazon Pauses Police Use of Its Facial Recognition Software, June 10, 2020, https://www.nytimes.com/2020/06/10/technology/amazon-facial-recognition-backlash.html

[134] Paramjeet Singh Berwal, Facial Recognition & moratorium thereon – why now and not before?, June 15, 2020, Inform the Future Blog, https://informthefuture.wordpress.com/2020/06/15/facial-recognition-moratorium-thereon-why-now-and-not-before/

[135] S. 4084- Facial Recognition and Biometric Technology Moratorium Act of 2020, Congress, https://www.congress.gov/bill/116th-congress/senate-bill/4084?s=1&r=1

[136] Daniel Kahneman, Andrew M. Rosenfield, Linnea Gandhi, Tom Blaser, Noise: How to Overcome the High, Hidden Cost of Inconsistent Decision Making, Harvard Business Review, October 2018, https://hbr.org/2016/10/noise

[137] See karen Hao, This is how AI bias really happens—and why it's so hard to fix, MIT Technology Review, Februrary 4, 2019, https://www.technologyreview.com/2019/02/04/137602/this-is-how-ai-bias-really-happensand-why-its-so-hard-to-fix/ ; Rebecca Heilweil, Why algorithms can be racist and sexist, Vox, February 18, 2020, https://www.vox.com/recode/2020/2/18/21121286/algorithms-bias-discrimination-facial-recognition-transparency

[138] Nicol Turner Lee, Paul Resnick, Genie Barton, Algorithmic bias detection and mitigation: best practices and policies to reduce consumer harms, The Brooking s Institutions, May 22, 2019, https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms/

[139] See Sendhil Mullainathan, Biased Algorithms Are Easier to Fix Than Biased People, December 6, 2019, https://www.nytimes.com/2019/12/06/business/algorithm-bias-fix.html

[140] Paramjeet Singh Berwal, Biases & their manifestation. AI cures the former and law, the latter, June 13, 2020, Inform the Future Blog, https://informthefuture.wordpress.com/2020/06/13/biases-their-manifestation-ai-cures-the-former-and-law-the-latter/

3. The Inclusion imperative

Soft law is always proposed as a means to complement AI regulation.[141] Various new dimensions are evolving in the context of how law distinguish between AI and human beings.[142] Soft law is indeed a much requisite tool while endeavouring to give a particular normative direction to AI development and deployment. However, the substantive issue of conflict between "corporate interests" and "social benefits" requires that the opposing incentives have to be aligned by introducing structural changes in economic system and governance. The economic considerations driving content creation in the field of discourse around artificial intelligence have to be considered while arriving at conclusions regarding democratised AI policy making. If what is served as intellectual raw material for policy making is conditioned by existing economic power structures, it becomes important to scrutinize the efficacy of the same. Also, as has been previously pointed out in this article, the goals and interests of agencies entrusted with the task to shape the future have been to be looked into for traces of what can be considered as guiding force in the direction of achieving the inclusiveness. Unless and until the inclusion imperative finds place in the pragmatically structured systemic survival of the system, and not only the articulated goals of it, the prospects for change are negligible.

4. True Democratisation of AI policy space: Awareness and Ability

Is public consultation a mere symbolism?[143] People at large are not in a position to influence AI landscape or shape AI ethics.[144] They do not have the requisite awareness. Even if the awareness is imparted, there is no corresponding ability in the masses to make a difference. It comes to the forefront that too much focus in the field of AI ethics is on making the people aware of principles and values that have always occupied a sanctimonious. It is not only redundant but also unethical to harp upon the same old principles and values of humanity in the context of technology without answering the questions pertaining to responsibilities and without addressing the source of influence in the power dynamics that is ultimately defining how AI regulation, whether hard law or soft law, is shaping up. Hence, the focus should go beyond the mere reiteration of AI ethics principles and values into the domain where authorities and credible stakeholders ponder over on how to make democratic machinery and related entities effectively able so that they are in a position to positively influence not only AI ethics but also the shape of AI future.

Conclusion

Recently, the EU has come up with Proposal for a Regulation laying down harmonised rules on artificial intelligence.[145] The document is detailed as far as the political approach adopted by the European Union towards legal and ethical implications of AI in the context of humanity, society and economy are concerned. The AI regulation is perhaps one of the most important priorities for the Europe Union as it successfully transitions towards digital single market, for the tech platforms will encompass every single economic activity which will have serious consequences for governance. Moreover, it is of paramount importance that the EU catches up with the United States and China and harbours AI competitiveness. Therefore, the EU has left no stone unturned in its endeavour to be the global leader in the domain of trustworthy AI.[146]

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[141] John Villasenor, Soft law as a complement to AI regulation, July 31, 2020, The Brookings Institution, https://www.brookings.edu/research/soft-law-as-a-complement-to-ai-regulation/

[142] Abbott, Ryan. The Reasonable Robot: Artificial Intelligence and the Law. , 2020. Cambridge, United Kingdom ; New York, NY, USA : Cambridge University Press, 2020

[143] Javier Lezaun, Linda Soneryd, 2007, Consulting citizens: technologies of elicitation and the mobility of publics, London School of Economics, the centre for analysis of risk and regulation, ESRC Research Group, DISCUSSION PAPER NO: 34 DATE: May 2006, https://www.lse.ac.uk/accounting/Assets/CARR/documents/D-P/Disspaper34.pdf

[144] See Berwal, Paramjeet Singh, Making the Case for Unrestricted and Indiscriminate Data Collection: (a Prerequisite for the Success of Digital Economy) (May 10, 2020). Available at SSRN: https://ssrn.com/abstract=3606054 or http://dx.doi.org/10.2139/ssrn.3606054

[145] European Commision, Regulation of the European Parliament and of the Council Laying down harmonized rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, Brussels, 21.4.2021, COM (2021) 206 final.

[146] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Fostering a European approach to Artificial Intelligence, Brussels, 21.4.2021 COM (2021) 205 final.

The EU is well acquainted with the issue that in addition to focusing on regulation of AI and establishing AI ethics framework, it needs to have the requisite capacity to develop AI, for only making rules for the conduct of the technology based corporations from abroad operating within its jurisdiction will not suffice if the idea of digital single market and digital economy need to be materialised.

AI ethics are relevant and important, but they should not become another arrow in the quiver of tools that are available to only those that are being accused of leading to the situation wherein AI ethics have become indispensable. The approach adopted in pursuing AI ethics should not be devoid of consideration of pragmatic implications and the underlying dynamics hinting towards substantive but lopsided influences. It should not become another fight that policy makers have since long been fighting in the non-technology humanity domain. Hence, it is more than important that AI ethics should be seen to be implemented on ground, as well. Whether true democratisation in terms of public participation happens or not is immaterial as long as democratic and moral values and principles are sought to be applied and enforced in the AI future.

The work that the EU has done in the field of AI regulation and ethics is not only effective but also raises the bar for the rest of the world. Every aspect of human existence is governed by ethics and regulations; AI is no exception. The EU understands the relevance of shaping the contours of AI landscape through legal instruments and ethical and normative stand setting so that the humanity oriented goals its democratic setup aspires for can be achieved in a sustainable and inclusive manner while not compromising on economic interests and considerations.[147]

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