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Artificial Intelligence (AI) in Ensuring Human Rights: Challenges and Opportunities

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Using technology in human rights was once thought to empower individuals and communities through democratization fact-finding is now being weaponized by different entities, including both state and non-state actors. From using and abusing them in case of surveillance tracking of citizens to spreading disinformation, human rights are largely affected as vulnerable groups are often sidelined. The issue lies in the complex algorithm and interpreted data of the AI, which leads to bias and discrimination, increased cyber security vulnerabilities and adverse effects on workers.

AI is now used in both the public and private sectors. Despite the existing human rights law, AI exacerbates pre-existing power imbalances. At the same time, the duty bearers are not held accountable once they shift the authority to private actors not bound by human rights. It is alarming for vulnerable groups when such AI is used in governance and regulation.[2]

Human Rights & AI

As per the United Nations definition, human rights cover a wide range of globally accepted rights, including civil, cultural, economic, political and social rights. Promoting and protecting these rights and assisting states to act responsibly towards their citizens, is also a human rights mechanism.[3]

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[2] Land, Molly K., and Jay D. Aronson. "Human rights and technology: new challenges for justice and accountability." *Annual Review of Law and Social Science* 16 (2020): 223-240.
[3] Urgent action needed over artificial intelligence risks to human rights | UN news (no date) United Nations. Available at: https://news.un.org/en/story/2021/09/1099972.

While the Universal Declaration of Human Rights (UDHR) emphasizes both individual and collective rights, the International Covenant on Civil and Political Rights (ICCPR) and International Covenant on Economic, Social and Cultural Rights (ICESCR) further elaborated the term imposing obligations on states which ratified them.

These international treaties provide a set of guiding principles to clarify the existing human rights standards for operating businesses related to AI development and deployment in a more responsible manner. Although these guiding principles are not bound by international law, their implications are crucial for ensuring the positive impact of AI on human rights. [4]

International policy documents from organizations such as the United Nations, OECD, Council of Europe, European Parliament, European Commission, and others highlight legal and human rights issues related to AI. Academic, media and civil society coverage also addresses various risks and challenges of AI in human rights, including domain-specific analyses in healthcare, defence, transport, and more. Specific issues covered include legal personality, intellectual property, algorithmic bias, discrimination, unfairness, labour protection, privacy, cyber security, access to justice, algorithmic transparency, liability for harm, accountability, and surveillance.[5]

Although AI technologies have a huge impact on the spectrum of political, civil, economic, social, and cultural rights comprehended by international human rights law, the impact on human rights is not always evenly distributed. Due to algorithmic complexities and bias, specific individuals or groups will likely to receive advantages over others from the same AI applications. The right to equality may also be hindered due to AI systems' potential to sustain and escalate the de-facto social biases and decision-making patterns. Conscious efforts are required to address this challenge.

Privacy concerns are another issue in human rights, as most AI technologies are data-inclusive. Relying on collecting and analyzing data exposes personal information for potential invasive

[4] Raso, Filippo A., Hannah Hilligoss, Vivek Krishnamurthy, Christopher Bavitz, and Levin Kim. "Artificial intelligence & human rights: Opportunities & risks." Berkman Klein Center Research Publication 2018-6 (2018).
[5] Rodrigues, Rowena. "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities." Journal of Responsible Technology 4 (2020): 100005.

insights. Therefore, an evaluation of current laws and regulations must be addressed to mitigate errors or unfair outcomes generated from AI decision-making.[6]

Challenges of AI in ensuring human rights

1. **Power imbalances and bias**

While algorithm-based decision-making systems are expected to be more objective and neutral in ensuring human rights, the reality is very different. Biases are reinforced as AI systems replicate the encoded training data into their algorithms, reinforcing the flawed power imbalances and privileges the already well-off individuals/groups.

In many cases, AI systems such as face recognition show inaccuracies, creating discrimination, especially against women, individuals with darker complexions and minority groups.[7] For example, during the use of risk-assessment tools such as COMPAS in the United States criminal justice system, black defendants were being wrongly labeled at a higher rate compared to white defendants. Furthermore, the lack of transparency in the calculations also complicates the issue.[8]

On the other hand, negative impacts may arise from misclassifying individuals as "high-risk," leading to arbitrary detention. Concerns about data collection, storage, and privacy breaches can affect the right to privacy. [9] It is also less likely to extend the AI systems beyond identification, for instance, predicting emotional traits, sexuality or criminality, which rises privacy implications and potential misuse.[10]

Although laws and initiatives are regulated, including IEEE P7003 Standard and AI Fairness 360 Open Source Toolkit for minimizing discrimination and promoting algorithmic transparency, potential human errors and the transparent algorithm have their limitations as well, leaving private data to the exposure and vulnerabilities.[11]

2. State surveillance and cyber security issues

[6] Raso, Hilligoss, Krishnamurthy, Bavitz, and Kim. "Artificial intelligence & human rights: Opportunities & risks".
[7] Land and Aronson. "Human rights and technology: new challenges for justice and accountability."
[8] Bergenfalk, Joel. "AI and Human Rights: an explorative analysis of upcoming challenges." (2019).
[9] Raso, Hilligoss, Krishnamurthy, Bavitz, and Kim. "Artificial intelligence & human rights: Opportunities & risks."
[10] Land and Aronson. "Human rights and technology: new challenges for justice and accountability."
[11] Rodrigues, "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities."

AI poses significant challenges regarding state surveillance and cyber security issues. This includes concerns about informed consent, privacy, and violation of data subjects' rights. There is no control or supervision over personal data used for making conclusions.

State surveillance co-opted by governments using various means of powerful AI give rise to a number of human rights violation. As the state takes control of the information space of the citizens through biometrics, face recognition and mass data collection, tracking, targeting and manipulating individuals become easier.[12]

Another issue lies with the unpredictability and evolving nature of AI, which are not addressed comprehensively. Some scholars argue that the existing General Data Protection Regulation (GDPR) is not enough to protect sensitive data and privacy. A new proposal of rights regarding data protection, also known as 'right to reasonable inferences' has been recommended in case other measures turn out ineffective.[13]

Source: Eyerys.com

[12] Land, and Aronson. "Human rights and technology: new challenges for justice and accountability."
[13] Rodrigues, "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities."

3. Issue of Algorithmic Transparency

It is significant to ensure algorithmic transparency in AI as accountability is directly related with making decisions that affect people's lives. For example- determining eligibility for an educational institution, job or loan etc. It is crucial for individuals to understand how those decisions are made. Without transparency, affected individuals are left in the dark about the reasons behind the outcomes. It also limits the potential for researchers and experts to identify and address algorithmic flaws or biases.[14] On the other hand, many scholars argue that since AI is too complex and ensuring transparency leaves a lot of risks of error, it would discourage the innovation possibilities of the designers and users of AI affecting the current developments in AI.[15]

4. Hostile impact on workers

Various studies have shown that there are more chances of decline in employment across variety of sectors, including white-collar professions like law, medicine, and banking. With automation, potentially millions of workers around the world are going to be replaced by machines in the coming years.

Source: Manward Financial

[14] Rodrigues, "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities."
[15] Andersen, "Human rights in the age of artificial intelligence." Access Now (2018): 1-40.

Although new jobs are expected to be created in replacement of the lost job to automation, the declining rate of labor force participation and increased investment in machines without improving wages for workers is alarming.[16]

Furthermore, rhetoric encompassing AI and automation creates fear among the workers that they may be replaced by the machines is used as a tactic to limit labor rights. This creation of false fear does not only violate human rights but also discourage workers from demanding fair treatment and rights. Moreover, 'algorithmic colonization' has become a common phenomenon as AI technologies are contributing to global inequalities by benefiting powerful global companies at the expense of data-extracted individuals.[17]

5. Intellectual Property issues

One significant concern regarding intellectual property issue is of ownership of AI-generated inventions and services. Although human creators are attributed owners in most legal systems, there are various ongoing debates about whether AI should be provided with ownership as creator or co-creator. In terms of creativity and innovation in AI affecting someone's intellectual property rights, the liability regarding the ownership for any adverse consequences are yet to be settled.

Secondly, issue lies with the status of AI-generated inventions considering as prior art. Therefore, when AI-generated work are viewed to be prior art, it potentially limits down the ability of human creators to obtain patents for related creations. Considering their vast access to existing information, defining and assessing the inventive step and novelty of AI-generated inventions raises careful concerns.[18]

6. Lack of accountability to damage caused

As AI systems involve multiple stakeholders including manufacturers, users, and developers, establishing accountability to damaged cause becomes complex and even more challenging to identify the problem when the decisions are not directly controlled by individuals or organizations. It is yet to be implemented when accountability or liability can establish a framework for defining

[16] Bergenfalk, Joel. "AI and Human Rights: an explorative analysis of upcoming challenges." (2019).
[17] Land, Molly K., and Jay D. Aronson. "Human rights and technology: new challenges for justice and accountability." Annual Review of Law and Social Science 16 (2020): 223-240.
[18] Rodrigues, "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities."

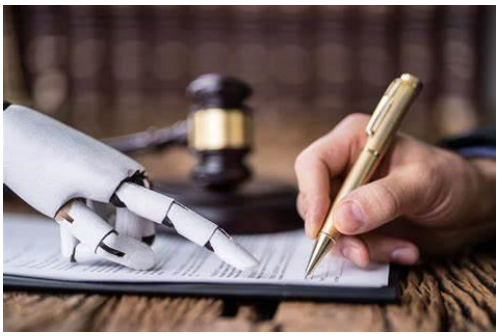
responsibilities and allocating accountability through risk management, transparency and right to explanation for the involved stakeholders or parties.[19]

On the other hand, with increased autonomy in AI, human rights violation is more likely to be normalized once a technological error is viewed as 'inevitable'. As duty-bearers are also not directly linked in many cases which weakens the mechanism for holding individuals accountable. [20]

7. Gap in legal systems and governance

The challenge with legal systems lie in keeping up with the rapid pace of technological advancements for effective performance of AI. Moreover, legal institutions, such as legislatures, courts and other legal agencies are often slow in adjusting to these new technologies leaving regulatory processes unnecessarily lengthy and more burdensome. Although some initiatives have been made to address these issues, for example- the European Union's "Better Regulation" initiative, significant progress is yet to be realized in order to bridge the gap for effective legal oversight of rapidly developing technologies.[21]

Another issue regarding legal systems is that it has prioritized civil and political rights over economic, social, and cultural rights, which makes it difficult for AI to address the latter one as precedence. This progressive approach and underdeveloped guidance pose challenges for businesses and further complicates the employment sector. [22]



Source: DailyCBD

[19] ibid
[20] Land and Aronson. "Human rights and technology: new challenges for justice and accountability."
[21] Marchant, Gary E. The growing gap between emerging technologies and the law. Springer Netherlands, 2011.
[22] Raso, Hilligoss, Krishnamurthy, Bavitz, and Kim. "Artificial intelligence & human rights: Opportunities & risks."

Policy-approaches towards constructing a more reliable AI in 21st century

Recommendations for government use of AI

Governments hold a primary responsibility when it comes to promoting, protecting, and fulfilling human rights under international law. When designing or implementing AI systems, following aims must be followed in order to guide government decision-making processes for upholding human rights.

- Transparency should be maintained of system purpose, goals, parameters, and other information should be allowed for public comment and engagement with affected groups.
- Special attention is required to address bias, and involvement of third parties in the assessment process is also significant to avoid human rights violations.
- It is to be ensured that proper training to operators, incorporating responsibility in system outputs of AI. Moreover, contesting the use of an AI system throughout its entirety must be facilitated to address potential human rights violations.[23]

Recommendations for Private-Sector and Non-State Use of AI

Similarly, private-sector actors must respect human rights and take relevant measures to prevent abuses. According to the UN Guiding Principles on Business and Human Rights, Private-sector actors should follow a few core initiatives.

- Consultation with relevant stakeholders, especially affected groups and experts is required to identify potential human rights risks associated with AI systems and take effective action accordingly. For ensuring diversity and inclusion, third-party audits can be conducted, and deployment must be halted when risks are not mitigated.
- Private-sector actors must prioritize transparency by ensuring open source and due data standards. Room for meaningful and accessible explanations for taking decisions by AI can work to inform individuals regarding their potential impacts.

[23] Andersen, Lindsey. "Human rights in the age of artificial intelligence." Access Now (2018): 1-40.

- For remedies, internal accountability mechanisms of AI systems should be established including proper training, transparency in complaint processes, and improvements made through utilizing the findings.[24]

Further Research for use of AI

In order to address the inadequacy of human rights protections in case of AI, newer models and approaches are required to explore beyond the orthodox understanding of the unique challenges posed by AI applications in 21st century.[25]

In the process of AI development, researchers should focus on three key points. First, they need to explore whether the system has the ability to produce consistent predictions across similar but irrelevant variations, implying its robustness. Secondly, they should address the need for possessing self-awareness in order to avoid unreliable predictions. Lastly, researchers should aim to develop AI simultaneously perform tasks accurately and positively impact human rights, and assess regularly. By focusing on these key points, it can assist researchers to build a more robust, self-aware and beneficial AI systems.[26]

Conclusion

Government decisions including AI is often directly linked with the political process which in turn impact people's liberties. Therefore, AI in government systems require higher standards for use in both public and private sectors. This includes integrating human rights impact assessments, ensuring transparency, establishing accountability mechanisms, and providing access to remedy. Implementation of appropriate policies and guidelines has the potential to mitigate negative impacts of AI and ensure that AI systems are developed and deployed in a manner that prioritizes human rights. Collaboration among technology companies, governments, and stakeholders is essential to develop new methods of AI technology that upholds human rights in the 21st century.

[24] ibid
[25] 5. Liu, Hin-Yan. "AI challenges and the inadequacy of human rights protections." Criminal Justice Ethics 40, no. 1 (2021): 2-22.
[26] Mishra, Saurabh, Jack Clark, and C. Raymond Perrault. "Measurement in ai policy: Opportunities and challenges." arXiv preprint arXiv:2009.09071 (2020).