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AI Tools, NGOs, and Inequality: Bridging the Digital Divide in the Social Impact Sector

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COMMENTARY

AI Tools, NGOs, and Inequality: Bridging the Digital Divide in the Social Impact Sector

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Abstract

Since its inception, Artificial Intelligence (AI) has been intricately tied to the shifts across sectors such as efficiency and innovation, to name a few. However, the lag in AI adoption by NGOs is occasionally attributable to factors such as how NGOs are resource-constrained, lack technical expertise, or are unable to find tools that fit their workflow. This digital lag contributes to and perpetuates inequalities within the NGO sector as well as between an NGO and the private sector. Based on desk research, this paper highlights current examples of AI adoption in NGOs, identifies significant barriers, explores the implication of these barriers on inequality, and proposes some recommendations for equitable adoption of AI. The analysis also points out that while AI tools address some AI-related bottlenecks, these divides endure due to disparities in funding, digital literacy, and infrastructure.

Keywords: Artificial intelligence; Non-Governmental Organizations (NGOs); Resource Constraints; Digital Literacy; Infrastructure Gaps; Ethical AI; Funding Gaps; Organizational Inequality; Technological Adoption

1. Introduction

In the past decade, real-time development in the field of AI and machine learning has revolutionized organisational processes to become more automated, analytical, and decision-making, with personalised engagement strategies. Across the markets, firms-big and small-have deployed generative artificial intelligence tools and technologies to create advanced data visualisations, thereby becoming more productive and innovative in their own right (Brynjolfsson & McAfee, 2022).

The adoption of AI seems to be on a slower track in the nonprofit sector, particularly among small-to-medium-sized NGOs, that is mainly because of persistent resource limitations, and techno-infrastructure gaps, and partly due to a lack of awareness of existing AI solutions (Efthymiou et al, 2023a). This disparate reality is more than technological lag; it is a broader manifestation of the digital divide. While private enterprises are employing AI to streamline processes, optimise fundraising and increase their capabilities, many NGOs are still caught up in manual reporting, paper-based record-

keeping and labour-intensive administrative chores. Such inefficiencies divert their human capital from essential work toward their mission, thus limiting their ability to create social impact (Givebutter, 2022). It stands to reason that as AI technologies proliferate, NGOs will fall further behind, aggravating existing social and operational inequities.

2. Literature Review and Context

2.1 The Rise of AI and Its Potential for Social Impact

In the past decade an “asteroid” has appeared called AI that has evidently allowed organisations to process big data sets, generate human-centric texts, identify patterns and improve decision-making. The generative AI types consisting of OpenAI-GPT-3 and GPT-4 have largely stretched the workflow automation spectrum along creation, analysis, and engagement of content (OpenAI, 2023). On the one hand, AI adoption has soared in private industry: a 2023 McKinsey survey revealed that 43% of the organisations surveyed have already integrated some amount of AI technology into at least one functional business area, and now that figure is expected to climb above 60% by 2025 (McKinsey Global Institute, 2023).

Conversely, NGOs are usually so restricted by their budget and human resources that they cannot afford to invest in the latest technological innovations (Charity Digital, 2023). Still, evidence exists to show that the potential for AI to transform non-profit work is quite high. On one hand, AI can automate repetitive tasks (e.g., donor acknowledgements, report generation), aid fundraising through predictive donor modeling, facilitation real-time data analytics for impact measurement, and enhance service delivery with AI-based chatbots and digital assistants (Efthymiou et al., 2023b; TechSoup & Tapp Network, 2025).

2.2 Digital Divide and Organizational Inequality

Initially, the term “digital divide” was all about gaps in access to computers and the internet (van Dijk, 2020). The divide goes beyond access when it comes to AI, encompassing inequalities in areas of AI skills, infrastructures and the ability to responsibly carry out AI-solutions (Mohammed, Kutar, & Albakri, 2024). Firms with an annual operating budget of more than \$1 million are almost twice as likely to employ in-house data scientists or AI specialists compared to firms with an annual operating budget of less than \$250,000 (TechSoup & Tapp Network, 2025).

Structural inequality appears at a geographical level as well. Regions with sound digital infrastructure—North America, Western Europe, and parts of East Asia—would have generally higher AI adoption rates than those categorized as developing regions (ILO, 2024). The regional disparity mentioned above

speaks to the unequal distribution in high-speed internet, cloud computing resources and tech support ecosystems. Consider this: a 2023 NGO Survey in sub-Saharan Africa indicated that merely 18 percent of NGOs had access to reliable high-speed broadband connections, as such obstructing their capacity to adopt AI-driven data solutions (KPMG & Africa Data Innovation Group, 2024).

2.3 Ethical Considerations in AI for NGOs

The introduction of AI is not without ethical risks: Algorithmic biases, privacy concerns and “black box” decisions can undermine trust and accountability (Hossain & Ahmed, 2021). For non-governmental organisations, which often serve vulnerable populations, ethical missteps can undermine credibility and cause harm. A 2024 report by the Joint Research Foundation (JRF) highlighted that 73% of grassroots organisations using generative AI did not have formal governance policies in place to ensure transparency and mitigate bias. In humanitarian contexts, misclassification of beneficiaries due to biased training data can have life-threatening consequences (Mohammed et al, 2024). Ethical AI frameworks provide guiding principles, but implementation in organisational practise remains a challenge. NGOs need tools that are not only accessible but also include safeguards for data confidentiality, algorithm fairness and stakeholder accountability (UNESCO, 2024).

3. Barriers to AI Adoption in NGOs

3.1 Resource Constraints and Funding Gaps

Financial constraints are a continuing hurdle. In a 2024 Nonprofit Quarterly survey, only 22% of nonprofit organizations reported having special budgets for technology innovation, and only 14% had line items for AI tools or training employees (Nonprofit Quarterly, 2024). Smaller non-governmental organizations with annual budgets below \$250,000 have razor-thin margins that don't leave much to spend on technology (Charity Digital, 2023). Therefore, even though AI alternatives are cheap or even complimentary, they may not be implemented due to the hidden costs, compatibility with existing systems and ongoing subscription fees (TechSoup & Tapp Network, 2025).

Secondly, grants from donors also prioritize programmatic spending, direct interventions and campaigns over investing in technology or building capacity. Without delineated sources of funding for digital transformation, NGOs resort to dealing with the adoption of AI on their own piecemeal or voluntary basis, which is not maintainable. Therefore, a vicious cycle is formed by resource scarcity: the absence of investment in digital resources results in operational inefficiency, and that leads to fundraising capacity and overall reach being curtailed, thereby cutting resources for tech (Givebutter, 2022).

3.2 Digital Literacy and Technical Expertise

Digital literacy does not just entail the ability to use central software, but also competency to understand, critically examine and implement AI-driven solutions (UNESCO, 2024). A 2022 Brookings Institution report found that 49% of the NGO staff surveyed gave their AI skills a "basic" or "nonexistent" rating and blamed it on poor formal training programs (Brookings, 2022). The lack of skills is also driven by high staff and volunteer turnover and conflicting priorities that leave little room for extended professional development.

Most of the non-governmental organizations do not have in-house IT staff but rather utilize generalist administrators or volunteers to manage digital tools. Without training, if AI tools are rolled out, employees end up exploiting them or abandoning them since they are no longer effective, which demotivates them and makes them skeptical about the utility of AI (Charity Digital, 2023). Also, the rapidly evolving AI ecosystem, in which new tools emerge each week, intimidates nonprofit executives who don't know which tools are actually useful and ethical to their environments (Stanford HAI, 2022).

3.3 Infrastructure and Access

Even where there is ability and resources, infrastructure barriers may hinder the application of AI. AI cloud applications require reliable high-speed internet, which remains limited in most of the world. According to a 2023 Infoxchange survey, in rural South Africa, only 15% of non-profit offices have a stable broadband connection, rendering cloud-dependent AI applications essentially unusable (Infoxchange, 2023). There are also infrastructural chasms in Southeast Asia's some parts, Latin America, and Eastern Europe (KPMG & Africa Data Innovation Group, 2024).

Additionally, the majority of proprietary AI tools are geared toward Western contexts and do not include language support or cultural adaptation for different communities. For example, AI translation tools are not capable of processing local dialects or community-established terminologies, which makes them functionally useless to grassroots NGOs (Ahrweiler, 2025). These localized problems contribute to inequities worldwide in the preparedness of AI.

4. Implications for Inequality

4.1 Organizational Inequality and Service Gaps

Excessive AI adoption accelerates existing organisational inequalities. Wealthy NGOs, especially large international associations, can invest in AI consultants, data analysts and comprehensive training

programs to enable them to use AI in strategic planning, predictive analytics and tailored donor management (TechSoup & Tapp Network, 2025). Small NGOs, on the other hand, use low-performance solutions, simple spreadsheets, manual recipient tracking and irregular social media posts, limiting their flexibility and outreach (Charity Digital, 2023).

Organisational stratification also extends to service gaps. As an example, a global health NGO may use AI to predict disease outbreaks and proactively deploy resources, while a local community clinic might not be able to track health metrics in real-time and simply responds (Business Insider, 2025). These inequities then extend inequity to the provision of services, wherein vulnerable populations are served by under-resourced NGOs and receive late or below-par interventions.

4.2 Geographic and Regional Disparities

It also displays itself geographically. Countries with a good digital foundation like North America, Western Europe, some parts of East Asia have higher NGO embracement of AI compared to Africa, Latin America and some parts of South Asia (ILO, 2024). The said geographical digital divide is also accompanied by greater socio-economic differences: NGOs that operate in poverty-stricken environments have additional challenges, inconsistent availability of power, limited internet and costly broadband (KPMG & Africa Data Innovation Group, 2024).

To illustrate, a 2024 Southeast Asian NGO study found that only 22% have stable access to the cloud, limiting them from implementing AI-based monitoring software (UNESCO, 2024). In Latin America, only 18% of NGOs identified appropriate digital infrastructure for AI integration (InterAmerican Development Bank, 2023). As such, regional differences in AI readiness reflect and deepen existing inequalities in development.

4.3 Socioeconomic Implications for Beneficiaries

The NGO AI gap makes socio-economic inequalities for the target group. While rich NGOs use AI for tailored communications in multiple languages, disadvantaged groups within poorly funded NGOs may receive either generic or late messages (Ahrweiler, 2025). Similarly, AI-driven fundraising can assist well-known NGOs with access to grants more efficiently, but small organisations with scarce finance would lack predictive donor analytics (Nonprofit Quarterly, 2024). Recent findings reinforce the critical role of AI in reducing compounded vulnerabilities during systemic crises. During the COVID-19 pandemic, many marginalized groups worldwide—including those facing racial, economic, or geographic exclusion—saw their access to education and professional development severely disrupted due to unequal digital infrastructure, affordability gaps, and institutional neglect.

These dynamics highlight the importance of AI not only as a tool for innovation, but as a compensatory mechanism that can help close educational and service gaps under conditions of structural inequality (Alevizos et al., 2025; Ko et al. 2023).

Besides, ethical implications of AI are of greatest concern when aiding vulnerable populations. When a non-governmental organisation uses facial recognition to register the beneficiaries in rural areas without privacy and informed consent, it will end up exacerbating the surveillance problem of already suspicious communities (Hossain & Ahmed 2021). The above mechanism thus shows how inequalities caused by AI at the organisational level impact social justice and human rights.

4.4 The Impact of COVID-19: Gender inequality in NGOs

The COVID-19 pandemic has deepened pre-existing gender inequalities in employment, education, healthcare and abuse, creating a particularly challenging environment for women's work in NGOs. In the labour market, more than 113 million women (almost nine times as many as men) lost their jobs in 2020 due to a focus on client-driven sectors and atypical contracts without paid leave or social protection. The aforementioned multi-layered pressures emphasise the need for AI-powered tools that automate administrative tasks, enable remote psychosocial support and integrate ethical safeguards to prevent algorithmic bias in targeting resources to the most vulnerable women (Alevizos et al. 2023). More specifically, AI-powered adaptive tutoring platforms, predictive analytics for vulnerable learners and low-bandwidth educational chatbots can help bridge the gaps by personalising content delivery, displaying support needs in real time and offering offline-enabled learning modules tailored to needs of people facing inequalities in their working environment like women working in NGOs (Alevizos et al, 2023).

Discussion

The findings presented highlight a key paradox: while AI has the potential to transform the impact of non-governmental organisations, there is a risk that the digital divide will be widened by inequalities in access, capacity and governance. The aggressive adoption of AI by the private sector has created an innovation gap that threatens to marginalise non-profit organisations, especially those serving the most vulnerable (UNESCO, 2024).

To bridge this gap, it is necessary to move from viewing AI as a “nice-to-have” to embedding it as a strategic imperative. Donors, policy makers and sector leaders need to redesign the funding framework to prioritise digital transformation alongside programmatic objectives. For example, multi-year grants

could allocate specific sub-budgets for AI capacity building to ensure that non-profit organisations have sustainable resources to responsibly integrate AI (ILO, 2024).

Furthermore, AI governance should be considered an integral part of NGO accountability. As NGOs often act as watchdogs for social justice, their ethical approach to AI can set an example for wider society. Transparent reporting, community engagement and iterative feedback loops are essential to maintain trust and ensure that AI serves the public good (Hossain & Ahmed, 2021). A comprehensive strategy should also include environmental and sustainability dimensions. For instance, Corporate Social Responsibility (CSR) frameworks, when successfully applied in supporting sustainable coastal communities, can provide valuable analogies for integrating emerging technologies like AI into civil society responsibly and ethically (Alevizos, et al., 2024).

However, implementing these recommendations requires complex trade-offs. It may be impractical for small non-governmental organisations to devote their limited human capital to AI training when immediate crisis response or service delivery is at stake. Therefore, approaches need to be flexible depending on the context, e.g. modular training programmes, scalable AI pilots, and phased rollouts can reduce disruption while building internal momentum (Charity Digital, 2023).

Finally, it is important to recognise that technology alone cannot overcome structural inequalities. The integration of AI must be accompanied by broader systemic changes: equitable funding of grassroots organisations, decentralised decision-making that empowers local leadership, and social policies that reduce poverty and digital exclusion (Gurumurthy & Chami, 2020). Only through such a holistic approach can AI become a catalyst that reduces inequality rather than deepening it.

Conclusion

AI has the potential to revolutionise the work of NGOs - from automating repetitive tasks and improving fundraising to enhancing data-driven decision-making and personalised service delivery. However, the uneven use of AI tools reveals a digital divide caused by unequal resources, limited digital literacy and institutional inertia. If left unaddressed, this divide threatens to exacerbate existing socio-economic inequalities and prevents NGOs from effectively fulfilling their missions. Realising an equitable AI future for NGOs requires a concerted effort from funders, policy makers, technology providers and civil society itself. By embedding AI in a social justice and inclusion framework, NGOs can use these powerful tools to amplify their impact, advocate for systemic change, and ensure that the benefits of AI are broadly distributed across all communities.

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