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From Promise to Practice:

How the UN Can Ensure LDCs Benefit from AI Advances

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Listening to technologists and politicians alike, one is left with the impression that AI might solve all our global challenges, from climate change to cancer. During UNGA78 UK Deputy Prime Minister Dowden asserted that "every single challenge discussed at this year's General Assembly – and more – could be improved or even solved by AI." U.S. Secretary of State Blinken urged efforts to "incentivize more affirmative uses" of AI, citing estimates that AI could help achieve 79 % of the Sustainable Development Goals (SDGs).

Technology is regularly hailed as a panacea to daunting global development challenges. However, as the co-chairs' summary for the 2022 Science, Technology and Innovation Forum observes, "science, technology and innovation has not reached its full potential as a tool for Goal implementation due to lack of political will at the national and global levels, funding, conflicts of interests and unclear mandates." All the same challenges, and more, apply on delivering on the promise of AI technologies for development.

AI related concerns about bias, data privacy, and misinformation that apply in developed countries apply also to Less Developed Countries (LDCs) and Middle-Income Countries (MICs) – although the latter may have a limited foundation of regulations to build upon. LDCs and MICs also have unique elements that make their populations vulnerable to abuse by AI. First, many AI companies have made a practice of using cheap labor in these countries as data labelers, work which lacks security and is prone to exploitation. Second, lesser education and literacy levels leave populations at even greater risk of privacy violations, including surveillance. Third, despite the digital divide, the dangers of AI-enabled deepfakes (and misinformation more broadly) remain relevant, and are potentially exacerbated by fragile institutions, limited digital literacy and curtailed/tiered access to the full internet. Further consideration is needed regarding the ways in which LDCs and MICs may be uniquely vulnerable to AI harms, as opposed to simply extrapolating the thinking that has been done in high income/highly digitized societies to LDCs/MICs.

The UN, as the sole multilateral body with universal membership, must be clear eyed as it approaches AI technologies. Without concerted effort, gains from AI will primarily benefit developed nations. Meanwhile, harms will disproportionately affect LDCs and MICs. The UN can—and should—play a role in realigning this eventuality.

In this brief we will address two central roles for multilateral bodies in regard to AI engagement. This is not intended to be comprehensive, and notably does not address the concept of an 'IAEA for AI' that has been repeatedly raised.[1] We focus on two roles for the UN, potentially in collaboration with other multilateral bodies such as the OECD, requiring immediate action:

[1] While there is merit that such a regulatory body, it seems highly unlikely that the UN would have the necessary member state buy in until key actors (namely the U.S., Russian, China and the EU) reach domestic consensus on their internal approach to AI regulation. It bears recalling that the IAEA was not formed until 1957, more than a decade after the development of nuclear weapons. Global governance for AI may follow an accelerated timeline comparatively, however, established national approaches are a likely precondition.

1) Provide technical assistance/act as a matchmaker between LDCs/MICs[2] and experts in the AI ethics space in developing and implementing domestic AI regulation and other key aspects of governance and deployment.
2) Serve as an advocate for funding development and deployment of AI that aligns with LDC needs and advances the Sustainable Development Goals (SDGs).

Technical Assistance to LDCs and MICs

The parallel conversation to the unbridled promise of AI is the associated dangers – to truth, trust, equity, and democracy. To an extent, all countries are feeling their way through the same untested waters concerning AI governance and regulation. However, countries with significant domestic technology sectors have a distinct leg up in the form of deep domestic subject matter expertise and resources.

LDCs lag behind in developing national AI strategies, as documented by The Oxford Insights Government AI Readiness Index. In its 2022 report, the Index notes that "the lack of low-income countries represented in the AI policy world remains a concern. Low-income countries are likely to face a separate set of problems for which AI applications may be part of the solution … For AI applications to be developed that target these problems, the ambitions of low-income countries must be considered and included in ongoing global AI policy work."

Technical assistance should encompass support for governments in making informed decisions about their own use of AI, as well as drafting domestic AI regulations that encompass such policies as disclosure requirements, privacy protections, liability and risk mitigation. Operationally, an AI governance technical assistance program could:

1) Create a repository of adaptable materials for LDCs and MICs looking to developing domestic AI regulation that aligns with broadly recognized principles, using the OECD AI Principles as a guide. Given that AI regulation remains a developing field, this should be an iterative process, with more frequent assessments and updates in the initial years.
2) Pair AI governance experts/technologists with interested LDC/MIC governments in soliciting domestic inputs and crafting regulation.

Examples of coordinated technical assistance already in existence include the UN Technology Bank and Tax Inspectors Without Borders (TIWB). By pointing to these two existing programs, we do not mean to imply that these two programs are exemplar in every way. Rather, an UN-led AI governance support project could be modeled on the overarching design of these programs, and incorporate lessons learned, as well as best practices for technical assistance more broadly. We do not presume here to undertake a full assessment of the TIWB and Tech Bank operations but will briefly point out the value of each as it relates to AI governance support.

UN Tech Bank: The Tech Bank helps LDCs "build the science, technology and innovation capacity that they need to promote the structural transformation of their economies, eradicate poverty and foster sustainable development." The Bank employs a country-led approach, exemplified in its technology

[2] We have included MICs in this grouping, recognizing the diversity entailed in this grouping. However, the opt in nature of this engagement serves to reach those countries needing external support and avoids omitting countries based solely on income level.

needs assessment process. This model should be replicated in supporting LDC engagement with AI, both in guiding the government to identify AI uses that align with its needs/priorities and crafting AI regulations that reflect cultural priorities. A 2022 assessment of the Tech Bank called on the Bank to "strengthen its role as a platform … addressing the information needs of policymakers and international organizations … Support the sharing of good and best practices in terms of STI governance among the least developed countries." We envision an UN-led AI focused entity serving a like role.

TIWB: TIWB, a joint initiative of the UN and OECD, sends "expert tax auditors to assistance-requesting host administrations in order to build audit capacity" and contributes to increased domestic resource mobilization. The host government identifies target areas of support and hosts external experts within the Ministry of Taxation, Customs or Revenue. The technical support program has a limited timeframe and is relatively low cost, with expenses largely limited to the external expert(s) salary and expenses. It draws from an expert pool of current and retired tax officials and has an established track record: 59 programs have been completed with the program was established in 2015, with an additional 54 ongoing and 14 upcoming. The most immediate question in replicating this program for AI governance is who the external experts might be. Even in the countries leading on AI governance, policymakers are learning as they go. As such, it may be preferable to deploy teams comprised of an AI ethics expert (drawn from universities, research centers, etc.) and a bureaucrat versed in digital privacy regulation or licensing or other iterations as relevant to country needs.

Promoting Deployment of Development Focused AI

Stalled progress on the SDGs does not reflect a failing of human intelligence – it reflects a lack of political will, funding and prioritization of national interests over global development. If countries approach AI in relation to development as a magic wand, they are bound to be disappointed. Relevant multilateral bodies, to include ECOSOC and the UN Tech Envoy, can operationalize ambitions about deploying AI for development by mapping specific AI applications to individual SDGs, providing the global community with specific programs that would be possible with existing AI capacities. The Gates Foundation AI Grand Challenge has been an early mover in this space. Including technologists in this exercise, who have a realistic grasp of what is technologically possible, will be essential.

Examples of specific ways in which AI could be utilized to accelerate progress on the SDGs include:

- **SDG 2** (zero hunger): AI has promising applications in agriculture, such as generating more accurate weather forecasts to inform planting/harvest/fertilizer use, that can be used to increase crop yields. Greater crop yields do not guarantee reduced hunger (the challenges of getting food to those in need remain) but are a key advance nonetheless.
- **SDG 3** (health and well-being): Across developed and developing countries alike, AI holds significant promise in the healthcare space. AI can effectively speed up the development timetable for medical treatments and pharmaceuticals. Where doctors are scarce/unavailable in remote areas, AI powered healthcare can be used for diagnosis and treatment. That said, AI does not eliminate the logistical and financial hurdles, to include delivering vaccines and pharmaceuticals to LDC populations.
- **SDG 4** (quality education): AI can provide customized curriculums. Others have raised the potential for using AI to reach students in remote areas; however, this is more technology enabled as opposed to AI specifically. The digital divide remains a significant impediment here: just as technology enabled remote learning was inaccessible to many students in LDCs during

the pandemic, use of AI for education likely presumes internet access. This remains a significant impediment: per the ITU, only 36% of the population of LDCs and LLDCs use the internet.

- **SDGs 7** (clean and affordable energy) **& 13** (climate action): AI could hasten scientific progress on battery technology, energy efficiency, etc. Many of these advances would have relevance in high- and low-income countries alike. Deploying new energy technologies, developed through AI insights, will require funding and operational support.

This list above is not necessarily comprehensive – and is not intended to reject the premise that AI has exciting applications in advancing the SDGs, but rather, to level set expectations about actual mechanisms by which AI might do so. This realism is necessary to move from broad proclamations to action, and it is key that multilateral bodies stay grounded in the practical, holding countries to specific and measurable goals.

Conclusion

AI represents a "high risk, high reward" situation. To avoid previous traps wherein scientific and technological advances failed to deliver the hoped-for development advances, the UN should position itself to support LDCs and MICs via technical assistance to prevent their exploitation and urge all countries to devote the supporting financial and operational resources to mobilize AI for development. A targeted approach, with existing UN bodies promoting specific applications of AI towards such goals as health and clean energy, will help to mitigate the AI hype while ensuring tangible development outcomes.