

***Pluriversal Artificial Intelligence (AI) for Social Justice: Prioritizing Local AI Models by Leveraging Indigenous Cultural Knowledge and Languages***

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# **Pluriversal Artificial Intelligence (AI) for Social Justice: Prioritizing Local AI Models by Leveraging Indigenous Cultural Knowledge and Languages**

## **Pluriversal Artificial Intelligence (AI) for Social Justice?: Prioritizing Local AI Models by Leveraging Indigenous Cultural Knowledge and Languages**

**Kariuki Muigua\***

### **Abstract**

*This paper critically discusses how AI can be effectively developed and deployed towards promoting social justice. The paper argues that in light of the rapid growth and use of AI, integrating social justice into its architecture is necessary towards ensuring that this transformative technology benefits all towards development. In particular, the paper observes that designing pluriversal AI provides an effective approach towards achieving social justice and Sustainable Development. It discusses how pluriversal AI systems can be developed and used towards social justice by prioritizing local AI models build on indigenous cultural knowledge and languages.*

### **1.0 Introduction**

The rapid growth and development of Artificial Intelligence (AI) provides opportunities to foster social justice. The ideal of social justice involves promoting just, inclusive and equitable societies by tackling socio-economic injustices and valuing diversity<sup>1</sup>. The United Nations observes that social justice envisages a world in which all societies are based on the principles of equality and solidarity, understand and value human rights, and recognize the dignity of every human being<sup>2</sup>. Social Justice is at the heart of the 2030 Agenda for Sustainable Development which envisions a world of equality, human dignity, non-discrimination, justice, equal opportunity, and respect for race, ethnic, and cultural diversity<sup>3</sup>.

AI and technology provide opportunities to promote social justice. For instance, it has been observed that the rapid development of AI has created many opportunities globally that are driving progress towards social justice<sup>4</sup>. The positive impacts of AI are being witnessed across many sectors including education, transportation, finance, data storage, communications, healthcare, environmental governance and law

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<sup>1</sup> What is Social Justice? Origins and Definitions, Plus Social Injustice Examples., Available at <https://insights.taylorandfrancis.com/social-justice/what-is-social-justice/> (Accessed on 23/06/2026)

<sup>2</sup> United Nations., 'What is social justice and how is the UN helping make it a reality?' Available at <https://social.desa.un.org/sdn/what-is-social-justice-and-how-is-the-un-helping-make-it-a-reality> (Accessed on 23/06/2026)

<sup>3</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 23/06/2026)

<sup>4</sup> United Nations Educational, Scientific and Cultural Organization., 'Recommendation on the Ethics of Artificial Intelligence' Available at <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics> (Accessed on 23/06/2026)

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enforcement providing numerous opportunities to unlock Sustainable Development and promote social justice<sup>5</sup>.

Despite its promises, it has been correctly noted that there is need to consider and address the social justice implications of AI growth and deployment in order to ensure that the benefits of AI are felt equitably across regions, nations, communities and individuals<sup>6</sup>. In particular, it has been observed that AI systems often replicate and even amplify biases related to race, gender, language and other social factors undermining social justice<sup>7</sup>. The manner through which AI systems are developed, designed, deployed, and used, may lead to reproducing and amplifying biases and violating human rights<sup>8</sup>. Consequently, navigating the impact of AI on society's inclusion, equity and human rights is key towards fostering social justice.

This paper critically discusses how AI can be effectively developed and deployed towards promoting social justice. The paper argues that in light of the rapid growth and use of AI, integrating social justice into its architecture is necessary towards ensuring that this transformative technology benefits all towards development. In particular, the paper observes that designing pluriversal AI provides an effective approach towards achieving social justice and Sustainable Development. It discusses how pluriversal AI systems can be developed and used towards social justice by prioritizing local AI models build on indigenous cultural knowledge and languages.

### **2.0 Role of Pluriversal Artificial Intelligence in Fostering Social Justice**

The term pluriversal describes a state of diversity where different ways of knowing, cultures, traditions and languages co-exist<sup>9</sup>. Pluriversality has been identified as concept from decolonial theory that seeks to harmonize different ways of knowing and being in order to connect people to one another<sup>10</sup>. According to pluriversality, different worldviews are not completely separate, but are fully interconnected<sup>11</sup>. It has been observed that pluriversality provides a better understanding of different cultures, traditions and ethical standpoints and different ways of thinking; and enables us to analyse social dynamics through the lens of non-Western epistemologies<sup>12</sup>. Pluriversality therefore provides a platform towards understanding and appreciating ways of knowing, living, cultures and languages from the Global South<sup>13</sup>.

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<sup>5</sup> Organisation for Economic Co-operation and Development., 'Governing with Artificial Intelligence' Available at [https://www.oecd.org/en/publications/2025/06/governing-with-artificial-intelligence\\_398fa287.html](https://www.oecd.org/en/publications/2025/06/governing-with-artificial-intelligence_398fa287.html) (Accessed on 23/06/2026)

<sup>6</sup> AI and Social Justice: Navigating the Impact of Artificial Intelligence on Society's Equity and Inclusion., Available at <https://ourfutureisscience.org/blog/ai-and-social-justice-navigating-the-impact-of-artificial-intelligence-on-societys-equity-and-inclusion> (Accessed on 23/06/2026)

<sup>7</sup> Ibid

<sup>8</sup> Organisation for Economic Co-operation and Development., 'Governing with Artificial Intelligence' Op Cit

<sup>9</sup> Fitzgerald. G., 'Pluriversal Peacebuilding - Postcolonial Hierarchies Encyclopedia Entry' Available at [https://www.researchgate.net/publication/378797661\\_Pluriversal\\_Peacebuilding\\_-\\_Postcolonial\\_Hierarchies\\_Encyclopedia\\_Entry](https://www.researchgate.net/publication/378797661_Pluriversal_Peacebuilding_-_Postcolonial_Hierarchies_Encyclopedia_Entry) (Accessed on 23/06/2026)

<sup>10</sup> Ibid

<sup>11</sup> Pradier. V., 'Coloniality or pluriversality: what do we learn from the ecological transition of NGOs?' Available at <https://www.urd.org/en/review-hem/coloniality-or-pluriversality-what-do-we-learn-from-the-ecological-transition-of-ngos/> (Accessed on 23/06/2026)

<sup>12</sup> Ibid

<sup>13</sup> Ibid

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Pluriversality is a fundamental concept in AI. This idea seeks to ensure that AI embraces different worldviews, cultures, knowledge systems and languages<sup>14</sup>. It has been observed that pluriversal AI challenges the dominance of Western-centric AI models and systems and seeks to embrace indigenous languages, cultures and knowledge systems from the Global South for justice, fairness and equity<sup>15</sup>. In particular, the concept of pluriversality examines how AI tools and systems including large language models (LLMs) reshape global governance while reinforcing structural inequities<sup>16</sup>. It has been correctly noted that contemporary AI systems and models often reproduce colonial language hierarchies, undermine indigenous data sovereignty in the Global South, and marginalize indigenous languages and knowledge systems contrary to the concept of pluriversality<sup>17</sup>.

Pluriversal AI is therefore a transformative approach that seeks to ensure equity, inclusivity, justice and fairness in the development, deployment and use of AI. It has been observed that pluriversal AI challenges universalist assumptions and approaches that give prominence to a singular worldview by advocating for the co-existence of multiple worldviews, ways of knowing, cultures and languages, especially those from marginalized populations<sup>18</sup>. In order to achieve this goal, pluriversal AI envisages the involvement of multiple stakeholders including indigenous and local communities in the development and deployment of AI tools and systems towards ensuring that such tools and systems reflect diverse cultures, values, languages and knowledge systems<sup>19</sup>. In addition, pluriversal AI seeks to achieve inclusive stewardship and ownership of AI resources in order to ensure that benefits and responsibilities are shared equitably among all stakeholders<sup>20</sup>.

It has been observed that pluriversal AI provides a paradigm shift in the development and use of technology by leveraging on diverse worldviews in order to create ethical, inclusive, appropriate and sustainable AI tools and systems that promote social justice<sup>21</sup>. In particular, there is need to design and use pluriversal AI systems since contemporary forms of AI such as LLMs are largely shaped by Western epistemologies<sup>22</sup>. This undermines diverse ways of knowing by sidelining indigenous cultural knowledge, languages and ethics in the Global South<sup>23</sup>. For instance, it has been observed that most AI tools and systems such as LLMs in Africa and the Global South are mostly trained in English undermining indigenous languages and ways of

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<sup>14</sup> Pluriversal AI: Language Justice, Infrastructures, and Global Inequalities., Available at <https://www.tuni.fi/en/tau/research/pluriversal-ai-language-justice-infrastructures-and-global-inequalities> (Accessed on 23/06/2026)

<sup>15</sup> Ibid

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> Kilungu. N., 'Pluriversal AI: Bridging African Epistemologies and Peace Innovation' Available at <https://www.linkedin.com/pulse/pluriversal-ai-bridging-african-epistemologies-peace-mwelu-kilungu-g-acllf/> (Accessed on 23/06/2026)

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> Ramos. F.F., & Siqueira. F.W., 'Pluriversal Strategies for Human-AI Design: Onto-Technological Reframings inspired by Brazilian Indigenous Knowings and Practices' Available at <https://salt.uniriotec.br/2025/09/08/pluriversal-strategies-for-human-ai-design-onto-technological-reframings-inspired-by-brazilian-indigenous-knowings-and-practices/> (Accessed on 23/06/2026)

<sup>23</sup> Ibid

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knowing<sup>24</sup>. Most AI models are trained on the English language, leading to bias, discrimination and, in some cases, errors with serious consequences due to exclusion of most of the world's over 7,000 languages<sup>25</sup>. Failure to harness pluriversal AI tools leads to discriminatory outcomes in key sectors including education, healthcare and agriculture since these models neglect unique data sets that reflect cultural, ethical and linguistic needs in the Global South<sup>26</sup>. In light of these concerns, there is need for development and deployment of AI systems and models that are more ethical, inclusive, and responsive to the diverse ways of knowing and languages globally in order to fully capture the ideal of a pluriversal world<sup>27</sup>.

### **3.0 Harnessing Pluriversal Artificial Intelligence through Indigenous Cultural Knowledge and Languages**

There is need to promote pluriversal AI in order to achieve social justice. Pluriversal AI ensures that the development, deployment and use of AI respects different cultures, worldviews, knowledge systems and languages<sup>28</sup>. It has been observed that pluriversal AI is integral in fostering epistemic justice by appreciating diversity and different ways of knowing<sup>29</sup>. It challenges Western-centric AI models which raise biases, discrimination and digital colonialism with negative impacts on indigenous cultural knowledge, indigenous data sets and languages from the Global South<sup>30</sup>. Pluriversal AI acknowledges that the exclusion of indigenous cultural knowledge and languages in the Global South affects the effective use of AI in key sectors such as education, healthcare and agriculture due to failure to harness unique indigenous data sets that reflect cultural, ethical and linguistic needs in the Global South<sup>31</sup>.

Prioritizing local AI models by leveraging indigenous cultural knowledge and languages is therefore key towards adopting pluriversal AI for social justice. In particular, it has been observed that harnessing indigenous philosophies, cultural knowledge and languages in the Global South can lead to the development of AI models that ensure inclusivity, diversity and social cohesion in the pursuit of social justice<sup>32</sup>. For instance, the African philosophy of *Ubuntu/Utu* emphasises social harmony/togetherness over individual interests<sup>33</sup>. Consequently, it has been observed that unlike individualistic approaches of Western AI models ethics, *Ubuntu* focuses on interconnectedness, offering a framework for AI systems that foster

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<sup>24</sup> African-language Large Language Models (LLMs) present major opportunities for the continent., Available at <https://medium.com/code-for-africa/african-language-large-language-models-llms-present-major-opportunities-for-the-continent-8a92a69518b3> (Accessed on 23/06/2026)

<sup>25</sup> World Economic Forum., 'Generative AI is trained on just a few of the world's 7,000 languages. Here's why that's a problem – and what's being done about it' Available at <https://www.weforum.org/stories/2025/10/generative-ai-languages-llm/> (Accessed on 23/06/2026)

<sup>26</sup> African-language Large Language Models (LLMs) present major opportunities for the continent., Op Cit

<sup>27</sup> Ramos. F.F., & Siqueira. F.W., 'Pluriversal Strategies for Human-AI Design: Onto-Technological Reframings inspired by Brazilian Indigenous Knowings and Practices' Op Cit

<sup>28</sup> Ibid

<sup>29</sup> Kilungu. N., 'Pluriversalism and Artificial Intelligence in Africa: Toward a Decolonial Epistemic Reconstitution' Available at <https://www.linkedin.com/pulse/pluriversalism-artificial-intelligence-africa-toward-mwelu-kilungu-g-qjlf/> (Accessed on 23/06/2026)

<sup>30</sup> Ibid

<sup>31</sup> African-language Large Language Models (LLMs) present major opportunities for the continent., Op Cit

<sup>32</sup> Kilungu. N., 'Pluriversal AI: Bridging African Epistemologies and Peace Innovation' Op Cit

<sup>33</sup> Mugumbate. J., & Nyanguru. A., 'Exploring African Philosophy: The Value of Ubuntu in Social Work.' Available at <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=4272&context=sspapers&httpsredir=1&referer#:-:text=Ubuntu%20can%20best%20be%20described,ngumuntu%20in%20Zulu%20language> (Accessed on 23/06/2026)

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community cohesion and justice<sup>34</sup>. Prioritizing local AI models in Africa and the Global South can thus lead to the use of indigenous epistemologies and philosophies such as *Ubuntu/Utu* towards social cohesion, harmony and justice<sup>35</sup>.

In order to effectively develop pluriversal AI for social justice, it is imperative to embrace inclusive and participatory AI governance that embrace the role of stakeholders including indigenous peoples, local communities and developers in Africa and the Global South<sup>36</sup>. Through this, it is possible to effectively harness indigenous cultural knowledge, languages and data sets towards promoting pluriversal AI for social justice. In addition, it has been observed that by strengthening indigenous data sovereignty in the Global South, it is possible to prevent digital colonialism towards giving nations and communities in the Global South power to shape their AI future<sup>37</sup>. Further, by integrating indigenous philosophies and ethics such as Ubuntu into AI's architecture, it is possible to build pluriversal AI models that nurture peace, harmony and social justice<sup>38</sup>. Building AI capacity and embracing regional collaboration in the Global South is also necessary towards strengthening innovation and the ability to develop local AI models trained on indigenous philosophies, cultural knowledge, languages and ethics<sup>39</sup>.

Through the foregoing, it is possible to develop and deploy pluriversal AI for social justice.

### **4.0 Conclusion**

With the rapid growth and deployment of AI, there is need to embrace pluriversality in order to ensure that AI and technology reflects diverse worldviews, philosophies, cultures, ways of knowing and languages. Through this, it is possible to achieve social justice by ensuring that no one is left behind in the current era of AI and digital transformation. In particular, it is imperative to prioritise local AI models by leveraging indigenous cultural knowledge and languages towards developing, deploying and using pluriversal AI for social justice<sup>40</sup>.

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<sup>34</sup> Kilungu. N., 'Pluriversalism and Artificial Intelligence in Africa: Toward a Decolonial Epistemic Reconstitution' Op Cit

<sup>35</sup> Ibid

<sup>36</sup> African-language Large Language Models (LLMs) present major opportunities for the continent., Op Cit

<sup>37</sup> How to Break Digital Colonialism in African Software Development., Available at <https://www.ictworks.org/digital-colonialism-african-software-development/#:~:text=Defining%20Digital%20Colonialism%20in%20Software.serve%20its%20communities'%20best%20interests> (Accessed on 23/06/2026)

<sup>38</sup> Kilungu. N., 'Pluriversalism and Artificial Intelligence in Africa: Toward a Decolonial Epistemic Reconstitution' Op Cit

<sup>39</sup> African-language Large Language Models (LLMs) present major opportunities for the continent., Op Cit

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