Topic A: The Impact of Automation and AI on Global Labor Migration

Introduction

Recent advances in artificial intelligence (AI) and automation are fundamentally restructuring global labor markets, with significant implications for international labor migration. Automation has increased productivity by enabling machines and algorithms to perform tasks historically undertaken by human workers; however, it has also displaced routine and low-skilled occupations that disproportionately employ migrant workers from developing countries.[1] Evidence from international organizations indicates that these technological shifts exacerbate existing labor market inequalities, particularly affecting low-income, informal, and marginalized workers, including migrant populations.[2]

In migrant-receiving countries—especially advanced economies experiencing demographic aging and workforce shortages—the adoption of labor-saving technologies has reduced reliance on low-skilled foreign labor in sectors such as manufacturing, agriculture, transportation, and services.[3] While automation can substitute for migrant labor in routine tasks, it cannot fully replace occupations requiring interpersonal interaction, emotional labor, and caregiving, such as healthcare and eldercare.[4] Migrant workers also contribute substantially to host-country tax revenues and social security systems, benefits that automation cannot replicate, raising important concerns regarding the sustainability of welfare systems in aging societies.[5]

Simultaneously, technological transformation has intensified global competition for high-skilled labor, particularly in AI-related and digital sectors. This dynamic has accelerated the phenomenon of brain drain, as skilled professionals from low- and middle-income countries migrate to advanced economies offering superior wages, research infrastructure, and innovation ecosystems.[6] United Nations and World Bank data demonstrate that several developing countries experience skilled outflows that significantly exceed inflows, while countries such as the United States, Canada, and Australia register net gains in global talent.[7] The growing concentration of AI expertise in a limited number of advanced economies reinforces global technological

[1] International Labour Organization (ILO). *Work for a Brighter Future: Global Commission on the Future of Work.* Geneva: ILO, 2019.

[2] United Nations Development Programme (UNDP). Human Development Report: Beyond Income, Beyond Averages, Beyond Today. New York: UNDP, 2019.

[3] United Nations Department of Economic and Social Affairs (UN DESA). International Migration Report. New York: United Nations.

[4] International Labour Organization (ILO). Care Work and Care Jobs for the Future of Decent Work. Geneva: ILO, 2018.

[5] Organisation for Economic Co-operation and Development (OECD). The Impact of Artificial Intelligence on the Labour Market. Paris: OECD, 2021.

[6] World Bank. Global Skill Partnerships and International Talent Mobility. Washington, DC: World Bank, 2023.

[7] United Nations Conference on Trade and Development (UNCTAD). Technology and Innovation Report. Geneva: UNCTAD, 2023.

asymmetries and constrains the capacity of developing states to cultivate domestic innovation ecosystems.[8]

The combined effects of declining demand for low-skilled migrant labor and increasing outmigration of high-skilled workers pose serious challenges to sustainable development. For migrant-sending countries, these trends threaten remittance flows, human capital accumulation, and long-term economic growth.[9] For migrant-receiving countries, automation risks further segmenting migrant labor into precarious, low-wage, and non-automatable occupations.[1] Addressing these dynamics is critical for achieving Sustainable Development Goal 8 (Decent Work and Economic Growth) and SDG 10 (Reduced Inequalities). Effective policy responses must emphasize inclusive technological adaptation, investment in education and digital skills, ethical governance of AI, international cooperation on labor mobility, and the extension of social protection systems to migrant workers in the digital economy.[10]

Current Situation

Technological advances, particularly in automation and artificial intelligence (AI), are reshaping global labor markets and migration patterns. Low-skilled migrant workers are especially vulnerable as robots and AI replace routine tasks in manufacturing, agriculture, and service sectors.[1] Countries, like Japan and Germany, facing aging populations are increasingly using automation to substitute for foreign labor, reducing opportunities for migrant workers.[11] High-skilled talent is also concentrating in developed economies such as the United States, Canada, and Singapore, leaving developing nations like Bangladesh, Nigeria, and Ukraine with critical skill shortages and a "brain drain" of tech professionals.[12] Organizations such as the International Labour Organization (ILO) and the World Economic Forum (WEF) are advocating reskilling programs and social protections to help workers adapt to these changes.[13]

The advancement of automation and artificial intelligence (AI) is profoundly transforming global labor migration patterns. Low-skilled migrant workers in sectors such as manufacturing, agriculture, and services are increasingly vulnerable to displacement, while high-skilled labor in digital and technology-intensive industries is concentrated in advanced economies.[14] This trend contributes to the acceleration of brain drain from developing countries, exacerbating structural inequalities in global labor markets. The Commission on Population and Development (CPD)

[8] UNESCO. Recommendation on the Ethics of Artificial Intelligence. Paris: UNESCO, 2021.
[9] International Organization for Migration (IOM). World Migration Report 2022. Geneva: IOM, 2022.
[10] United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. New York: United Nations, 2015.
[11] Acemoglu, D., & Restrepo, P. (2020). *Robots and jobs: Evidence from U.S. labor markets*. Journal of Political Economy, 128(6), 2188–2244.
[12] International Labour Organization. (2019). *Work for a brighter future: Global Commission on the Future of Work*. ILO.
[13] International Labour Organization. (2019). *Work for a brighter future*.
[14] United Nations. (2020). *World migration report 2020*. International Organization for Migration.

has emphasized that these technological shifts necessitate coordinated international responses, including reskilling initiatives, the protection of migrant workers' rights, and the promotion of equitable labor mobility.[15] Effective policy measures should prioritize the development of digital competencies, ethical governance of AI, and comprehensive social protection frameworks to ensure that technological transformation supports sustainable development objectives without deepening vulnerabilities among migrant populations.[16]

These interconnected challenges—automation-driven labor disruption and the brain drain—require coordinated national and international strategies. Sending countries like the Philippines are investing in training programs to prepare migrant workers for tech and healthcare roles, while India offers fellowship programs to encourage skilled professionals to return home.[17] International cooperation, civil society engagement, and regulatory frameworks such as the EU's GDPR are critical to ensuring technological progress benefits all populations and does not exacerbate inequality or exclusion.[18]

Conclusion

The ongoing integration of automation and artificial intelligence into global labor markets presents both opportunities and profound challenges. While technological advancement can increase productivity and create new industries, it also exacerbates inequalities by displacing low-skilled migrant workers and concentrating high-skilled talent in already developed economies. This dual dynamic highlights the structural vulnerabilities of developing nations, which risk losing their most valuable human capital and facing persistent labor shortages. The phenomenon of brain drain not only undermines economic development but also limits these countries' capacity to participate fully in emerging global knowledge economies.

Addressing these challenges requires coordinated action across national and international levels. Policies must go beyond immediate labor market interventions to incorporate comprehensive strategies, including reskilling and upskilling programs, equitable labor mobility frameworks, and social protection measures for displaced workers. International cooperation is equally critical: multilateral institutions, such as the ILO, WEF, and CPD, alongside regional frameworks like the EU, can provide technical assistance, regulatory guidance, and platforms for knowledge

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[15] United Nations Commission on Population and Development. (2019). *Resolution on the demographic dividend and inclusive development* (E/2019/29). United Nations.

[16] International Labour Organization. (2021). *The impact of technology on the future of work: Global trends and policy responses*. ILO.

[17] United Nations. (2023). *UN–PH partnership for OFW reintegration*. https://philippines.un.org/en/237208-un-ph-mark-culmination-partnership-strengthened-more-progressive-policies-protect-ofws-their

[18] United Nations. (2021). *Policy Brief: Digital Transformation, Data Protection, and Social Inclusion*. https://www.un.org/en/desa/publications

exchange. Ethical governance of AI, transparent regulatory systems, and adherence to human-rights principles are essential to ensure that innovation does not deepen existing inequalities or create new forms of exploitation.

Ultimately, the future of global labor migration in the age of AI will depend on the ability of states and international bodies to design proactive, inclusive, and adaptable policies. By fostering skills development, protecting vulnerable populations, and promoting equitable participation in the digital economy, the international community can mitigate the risks of displacement and brain drain while harnessing technological progress to support sustainable development and shared prosperity.

Questions to Address

1. How can countries balance the benefits of AI and automation with protecting low-skilled migrant workers from unemployment and exploitation?
2. What strategies can developing nations adopt to prevent brain drain of high-skilled professionals while encouraging talent return or circulation?
3. What role should international cooperation, NGOs, and civil society play in managing the impacts of automation, AI, and labor migration globally?
4. How can nations align policies on labor migration and automation to achieve Sustainable Development Goals such as decent work (SDG 8) and reduced inequalities (SDG 10)?

Topic B: Universal Digital Legal Identity and Population Data Management

Introduction

More than one billion people worldwide lack any form of legal identity, meaning they cannot officially prove who they are.[19] This identity gap excludes individuals from fundamental rights and essential services, including healthcare, education, financial systems, social protection, and political participation. Without legal identity, people are often unable to register births, open bank accounts, obtain formal employment, or access government assistance, reinforcing cycles of poverty and marginalization. Recognizing the central role of legal identity in inclusive development, the United Nations General Assembly incorporated this goal into Sustainable Development Goal (SDG) Target 16.9, which calls for legal identity for all, including birth registration, by 2030.[20]

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[19] United Nations. (2018). *United Nations legal identity agenda*. United Nations.
[20] United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations General Assembly.

The absence of legal identity is most prevalent in low- and middle-income regions, particularly Sub-Saharan Africa and South Asia, where the majority of undocumented individuals reside.[21] Vulnerable groups—including women, children, rural populations, refugees, and internally displaced persons—are disproportionately affected. UNICEF estimates that more than 40 percent of people without legal identity are children whose births were never officially registered, restricting their access to education, healthcare, and legal protection throughout their lives.[22] This widespread exclusion weakens governance, undermines service delivery, and limits the effectiveness of development planning and humanitarian response.

In response, the United Nations and its partner organizations have increasingly promoted digital identification systems as a pathway toward universal legal identity. UNDP and the World Bank's Identification for Development (ID4D) initiative emphasize that digital IDs—often incorporating biometric technologies—can expand coverage, improve population data management, and enhance access to public and private services.[23] At the same time, UN agencies stress the importance of rights-based implementation, highlighting the need for strong data protection, privacy safeguards, and inclusive design to prevent surveillance, misuse, or further exclusion.[24] Ensuring that digital identity systems are secure, inclusive, and trusted is therefore essential to achieving sustainable development and reducing global inequality.

Current Situation

The absence of legal identity continues to have tangible and severe impacts on millions of people worldwide. In many low- and middle-income countries, individuals without official identification are unable to access public healthcare, enroll in formal education, or receive government social assistance. During the COVID-19 pandemic, for example, UN agencies reported that large populations without legal ID were excluded from emergency cash transfers, vaccination programs, and food aid due to their inability to verify eligibility. Refugees and internally displaced persons are particularly affected; without recognized documentation, they face barriers to humanitarian assistance, legal protection, and safe mobility, increasing their vulnerability to exploitation and statelessness.[25]

Children are among the most affected by the legal identity gap. UNICEF estimates that hundreds of millions of children worldwide lack birth registration, leaving them legally invisible and at heightened risk of child labor, early marriage, trafficking, and denial of education. In fragile and conflict-affected states such as South Sudan, Afghanistan, and parts of the Sahel, weak civil

[21] World Bank. (2022). *Identification for Development (ID4D) global dataset*. World Bank Group.
[22] UNICEF. (2021). *Birth registration for every child: A human rights imperative*. UNICEF.
[23] World Bank. (2022). *Identification for Development (ID4D) global dataset*. World Bank Group.
[24] United Nations Development Programme. (2021). *Digital identity for sustainable development*. UNDP.
[25] UNHCR. (2022). *Global trends: Forced displacement*. United Nations High Commissioner for Refugees.

registration systems have resulted in generations growing up without legal recognition. These challenges directly undermine international commitments under the Convention on the Rights of the Child and have prompted repeated UN General Assembly resolutions emphasizing birth registration as a fundamental human right and a prerequisite for lifelong access to services.[26] [27]

Another pressing global situation is the persistent lack of legal identity for roughly one billion people, concentrated in Sub-Saharan Africa and South Asia.[28] Countries such as Nigeria, Bangladesh, and Afghanistan struggle with large unregistered populations, limiting access to healthcare, education, and financial services.[29] Digital ID systems, supported by initiatives like the World Bank's ID4D project, UNICEF's birth registration campaigns, and the open-source MOSIP platform, have emerged as solutions to increase coverage, improve governance, and enhance financial inclusion.[30] However, these systems also raise privacy, cybersecurity, and surveillance concerns, particularly in countries with weaker governance, where NGOs like Access Now and Privacy International advocate for strong data protection measures.[31]

At the global policy level, the United Nations has consistently linked universal legal identity to peace, justice, and inclusive institutions. The adoption of Sustainable Development Goal Target 16.9 under UN General Assembly Resolution 70/1 formally committed all member states to provide legal identity for all by 2030. This commitment has since been reinforced through the UN Legal Identity Agenda, led by UNDP, UNICEF, and the World Bank, which promotes inclusive, rights-based digital identification systems. Recent UN resolutions stress that while digital ID systems can strengthen governance and service delivery, they must comply with international human rights standards, including data protection, privacy, and non-discrimination, to ensure that technological solutions do not deepen exclusion or inequality.[32] [33]

Conclusion

The continued absence of legal identity underscores a critical governance challenge at the intersection of development, human rights, and state capacity. While digital identification systems offer promising tools to expand access to services and improve administrative efficiency, their success depends on institutional trust, political commitment, and rights-based safeguards. In

[26] UNICEF. (2021). *Birth registration for every child: A human rights imperative*. UNICEF.

[27] United Nations. (2014). *Report of the Secretary-General on civil registration and vital statistics*. United Nations General Assembly.

[28] Rest of World. (2021). *Stat of the day: Without ID worldwide*. https://restofworld.org/stat-of-the-day/without-id-worldwide/

[29] United Nations. (2020). *World Migration Report*.

[30] World Bank. (2022). *Identification for Development (ID4D) global dataset*. World Bank.

[31] United Nations Conference on Trade and Development. (2021). *Digital identity and data protection in the global economy*. UNCTAD.

[32] United Nations Development Programme. (2021). *Digital identity and human rights*. UNDP.

[33] United Nations. (2023). *The United Nations legal identity agenda: Progress and challenges*. United Nations.

fragile or low-capacity contexts, rapid digitalization without adequate protections risks reinforcing exclusion rather than reducing it, underscoring the need to pair technological innovation with strong governance and inclusive design.

The international community has taken important steps through SDG Target 16.9 and initiatives such as the UN Legal Identity Agenda, yet significant implementation gaps persist, particularly in low-income and conflict-affected states. Limited technical capacity, financing constraints, and weak legal frameworks continue to hinder progress. Sustained international cooperation—focused on capacity-building, long-term funding, and regulatory support—remains essential to translate global commitments into effective national systems.

Ultimately, achieving universal legal identity requires a balanced approach that aligns innovation with accountability. Member States must ensure secure, interoperable systems that respect privacy, prevent discrimination, and reach marginalized populations. The legal identity agenda thus offers a broader lesson on how inclusive institutions, rights protection, and digital governance are central to advancing equitable and sustainable development in a rapidly digitizing world.

Questions to Address

1. What safeguards are needed to protect privacy, prevent surveillance or discrimination, and ensure that digital solutions align with UN human rights standards?
2. How can international cooperation, national policy, and long-term investment support SDG 16.9 while building trust, accountability, and inclusive governance?
3. What actions can CPD take—such as funding civil registration systems, supporting UN-led digital ID initiatives, promoting data protection standards, or partnering with NGOs—to help close the legal identity gap without reinforcing inequality or surveillance?