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CONCEPT NOTE

Regular meeting of THE

Inter-American Council for Integral Development (CIDI)

25 OCTOBER 2022

(Prepared by the Executive Secretariat for Integral Development)

THEME: ARTIFICIAL INTELLIGENCE AND DIGITAL TRANSFORMATION FOR A SUSTAINABILITY AGENDA IN THE AMERICAS: PUBLIC POLICIES AND ETHICAL CONSIDERATIONS TO PROMOTE SUSTAINABLE DEVELOPMENT AND TACKLE CLIMATE CHANGE

1. **Background/Justification**

The fast evolution achieved over the last ten years by Artificial Intelligence (AI) research and the deployment of technologies including deep learning, advanced hardware, and software, tied to the availability of high performance computing capacity, Big Data, and cloud services, has led to the so called “golden decade” of A.I. development.[[1]](#footnote-1)AI is now able to generate text, language, code, carry on visual image classification and speech recognition, and undertake increasingly sophisticated applications for education, health, businesses and government services, including abilities to react to data in specific environments, conduct fast decision-making and project multiple steps in the future (foresight).[[2]](#footnote-2)/

The 2022 AI Index Report indicates that AI is “at a critical crossroads” because of the transition of AI to a more “mature technology” that is fully integrated into the economy and society with “real-world impact.”[[3]](#footnote-3)/ The rapid level of progress of AI calls for a regional dialogue on the approaches to develop policies and programs that both address the risks and leverage the potential benefits that AI, Automation, and Machine Learning present for the Americas. There are important questions related to the research and development of AI capabilities for development concerns in OAS member states; new business and economic opportunities as well as ethical and regulatory issues on the use and implementation of AI.[[4]](#footnote-4)/

Some of the main AI challenges for Latin America and the Caribbean include the limited number of skilled workers on AI and the lack of collaboration between universities and industry to connect education to the economy and to address problems at the community level. Other issues are the low pace of adoption of AI in business processes, the lack of quality data available as well as the underdevelopment of the enabling regulatory framework to allow new business opportunities based on AI solutions.[[5]](#footnote-5)/ Other concerns for the region are the lack of transparency, privacy, and diversity (in terms of race, gender and language), in the development of AI, which can lead to inherent biases and inaccuracy in AI models and algorithms.[[6]](#footnote-6)/

Regional cooperation can be a catalyst to foster collaboration among OAS Member States on Artificial Intelligence. Regional engagement would facilitate addressing areas of common interest, sharing data and resources, and positioning the Americas as an important regional actor to shape the global development of AI.

Harnessing the power of AI technologies would provide OAS Member States with new resources and opportunities to promote sustainable development and climate action.

Digital transformation and AI can potentially serve as enablers for SDGs targets by strengthening the capacities of analyzing the massive databases that are available today, which will provide evidence-based guidance for the development of joint actions to ensure the sustainability of natural resources and the protection of the environment. Furthermore, AI can enable the accomplishment of 134 targets across all the SDGs goals.[[7]](#footnote-7)/

For instance, digitization allows for the development of more accurate datasets so that countries can better measure progress toward their decarbonization and emission reduction targets. On the other hand, AI can help to improve algorithms aimed at reducing greenhouse gas emissions in specific sectors of the economy. A deliberate approach to digitization and AI technology deployment is pivotal if the region wants to achieve net-zero emissions by 2050.

AI advances will be key in understanding climate change impacts, improving the health of ecosystems, reducing marine pollution,[[8]](#footnote-8)/ supporting biodiversity monitoring and conservation,[[9]](#footnote-9)/ combating desertification and restoring degraded land and soil, providing relevant information for environmental planning and decision-making based on evidence, aiming at reducing over-exploitation issues of natural resources, promoting sustainable agriculture, and addressing water-energy and food security and nexus in the Americas. Moreover, AI can become a crucial tool to improve weather modelling and forecasts to better understand disasters; therefore, AI can help us to strengthen regional disaster resilience and manage the impacts of many types of natural hazards and disasters.[[10]](#footnote-10)/

New business models have also emerged from the acceleration of the digital transformation including in infrastructure, water, energy, transportation, agriculture, as well as opportunities to develop new industries and quality jobs.[[11]](#footnote-11)/ Some of the potential niches of opportunity for the Americas include the investment in new energy sources such as Green Hydrogen. In fact, Latin America is one of the geographic regions with the most renewable energy potential to produce and export large volumes of low-carbon hydrogen.[[12]](#footnote-12)/ Another potential opportunity is in Green Chemistry which focuses on “the inherent nature/properties of chemicals, materials, products, processes, or systems and as such is trans-disciplinary in nature, encompassing elements of chemistry, engineering, biology, toxicology and environmental science.”[[13]](#footnote-13)/ If properly developed, Green Chemistry can contribute to the creation of new non-hazardous versions of common products.

AI is not a silver bullet; therefore, it is very important to raise awareness in the region of the risks associated with the unethical and irresponsible uses of it, especially in a society highly dependent on digital technology. Consequently, regulations and a common framework are needed to apply the principles of responsible AI and secure the successful achievement of SDGs. This is of great importance, given that without regulations and a common framework, the irresponsible application of AI can contribute to greater inequality within and among each country, accelerate the depletion of natural resources, decrease biodiversity and reduce resilience to Climate Change.

Outcomes will not be automatically achieved without a deliberate effort to align policies, programs, actions and incentives on digital transformation and sustainability. This session will provide an opportunity for member states to share initiatives and policies to promote the use of transformative technologies, including AI, for sustainable development as the region undertakes meaningful actions to tackle the climate crisis.

1. **Purpose of the Meeting**

This CIDI meeting will discuss the importance of Artificial Intelligence for Integral Development and the impact and opportunities of digital transformation for sustainability in the region from a public policy standpoint, including the opportunities, possible collaboration opportunities as well as the concerns and ethical question arising from the development and application of AI technologies in multiple sectors. Member states will also share good practices to illustrate how governments are developing policy frameworks and programs to develop human and institutional capabilities in artificial intelligence, promote sustainable development and undertake climate action harnessing the power of transformative technologies.

**3. Relevance to the Executive Secretariat for Integral Development (SEDI) and OAS Mandates**

Heads of State and Government of the Americas adopted a “**Regional Agenda for Digital Transformation**” on June 9, 2022, as part of the outcomes of the at the Ninth Summit of the Americas. The Regional Agenda for Digital Transformation affirms the essential role of dynamic and resilient digital ecosystems in supporting vibrant digital economies, enhance preparedness for future health, natural disaster, and climate events, promote digital inclusion for all peoples, increase innovation, competitiveness and investment, among others, by leveraging emerging and digital technologies.[[14]](#footnote-14)/

The **Sixth Meeting of Ministers and High Authorities of Science and Technology (VI REMCYT),** member states of the Organization of American States (OAS) adopted the Declaration of Jamaica “Harnessing the Power of Transformative Science and Technologies to Drive our Communities Forward”, with a focus on increasing connectivity for all in the Americas, providing youth and other populations in situation of vulnerability with the necessary skills and capabilities to participate in the digital and innovation economy.

In the Declaration of Jamaica Ministers Committed to: “1. Redouble our efforts to make Science, Technology and Innovation a fundamental component of the economic recovery post-COVID-19 and an integral factor to promote inclusive, green, resilient and sustainable growth in the societies of the Western Hemisphere,” “4. Work to improve the acquisition and distribution of knowledge of transformative technologies such as Big Data, Robotics, Blockchain, Artificial Intelligence, Quantum Computing, Biotechnology, Virtual/Augmented Reality, New Nanostructured Materials and Advanced Manufacturing, among others, to identify strategic challenges and collaboration opportunities for the region and assess the possible economic, social and environmental impacts of these transformative technologies in the Americas,” and to, “5. Cooperate on the development and deployment of new technologies in ways that reinforce our shared democratic values, including respect for human rights, advance our respective efforts to address the climate change crisis, and encourage compatible standards and regulations. We intend to cooperate to effectively address the misuse of technology, to protect our societies from information manipulation and interference, promote secure and sustainable international digital connectivity, and support human rights defenders.”

Ministers alsoresolved to “15. To urge member states to exchange guidelines for protecting human rights in the context of transformative science, innovations, and technologies, good practices, lessons learned, experiences, training opportunities, and technical assistance to promote research, the use and dissemination of transformative science, innovation, knowledge from local, indigenous, afro descendant, and other ethnic groups; and the voluntary transfer of technology on mutually agreed terms to support post-COVID-19, recovery, the implementation of Industry 4.0 technologies, the development of sustainable bioeconomy and the digital transformation of member states within the framework of the COMCYT and its four Working Groups.”

**Resolution “Advancing Hemispheric Initiatives on Integral Development” 2021: AG/RES. 2967 (LI-O/21),** regarding the strategic line: “Promoting Inclusive and Competitive Economies”, “3. To urge member states to exchange good practices, experiences, training opportunities, and technical assistance to promote: … the implementation of Industry 4.0 technologies and digital transformation of member states within the framework of the Inter-American Committee on Science and Technology (COMCYT) …”

1. **Structure of the Meeting**

Experts will be invited as guest speakers to present some of the main opportunity areas and challenges related to the impact of artificial intelligence on integral development. Member states will be invited to ask questions to the experts on their presentations and/or main points covered during their interventions as part an interactive dialogue guided by the Chair. Following the Question-and-Answer period, delegations will be invited to share good practices, specific offers of collaboration or needs related to this topic. The key guiding questions for these interventions by member states are:

1) What type of policies and programs exist in your country on artificial intelligence to support integral and sustainable development?

2) What type of solutions can you share to develop an enabling framework and policies on AI for the region?

3) What are some examples of practices in your country to promote sustainable development and undertake climate action leveraging transformative technologies, including AI?

Expert Presentations (7 Minutes/Max 10 minutes)

1. **Outcome of the Meeting**

It is expected that the meeting will contribute to:

1. Providing information on main trends, challenges and opportunities on Artificial Intelligence for development in OAS member states;
2. Encourage member states to present good practices with opportunities for cooperation to address concerns and build institutional and human capacities to leverage AI for development concerns;
3. Identify good practices and opportunities of collaboration to advance sustainable development and climate action harnessing the power of transformative technologies in the Americas;
4. Receive feedback and recommendations of member states for strengthening the work of the Executive Secretariat for Integral Development to incorporate solutions and address challenges presented by AI for sustainable development and pursue concrete actions and partnerships with governments, private sector and other leaders within the scope of work of CIDI ministerial and high-level meetings.

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