

## Call for Research Proposals

### The Role of AI and Digitalization to Promote Growth and Equity in Latin America and the Caribbean

#### A Research Network Project

RG-K1198

#### 1. Background

The rapid adoption of artificial intelligence (AI) and digital technologies presents both significant opportunities and challenges for economic growth and equity in Latin America and the Caribbean (LAC). AI, defined by the OECD (2019) as “a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments,” has wide applicability across sectors such as education, health care, and design (Acemoglu et al., 2018). As a “general-purpose technology,” AI has the potential to raise productivity across different parts of the economy, similar to past technological revolutions like electricity and the steam engine (OECD, 2021).

Machine learning, big data, and increased computing power are behind the recent advances in AI, allowing systems to detect patterns and make predictions from vast datasets. These technologies are already transforming sectors such as transport, where AI powers autonomous vehicles, improves traffic routes, and enhances safety and environmental sustainability. In healthcare, AI is applied to diagnose diseases, discover treatments, and offer personalized interventions. The financial sector leverages AI to detect fraud, assess creditworthiness, and automate customer service, while agriculture benefits from AI in monitoring crop and soil health and predicting yields (Acemoglu et al., 2018; OECD, 2019).

Despite its potential, AI expansion in LAC remains uneven. The digital divide limits access to AI’s benefits, particularly among marginalized populations, and its unbalanced development could exacerbate social inequalities (Acemoglu, 2021). On the other hand, AI and automation can enhance the productivity and job quality of low-skilled workers by automating routine tasks, allowing them to focus on roles that require human skills like judgment and creativity. In LAC, these technologies can help workers transition into better-paying and safer jobs, boost productivity in key service

sectors, and reduce informality by creating new opportunities that blend human and technological skills.

Against this background, this call for research proposals aims to address these gaps, encouraging research on how AI and digitalization can be used to promote inclusive growth and reduce inequality in LAC.

## 2. Objectives

This *Call for Research Proposals* seeks to address this gap by inviting proposals that provide relevant research on how AI and digitalization can be used to promote growth and equity in LAC. We seek research proposals that explore critical aspects of digitalization and AI in LAC, focusing, for example, on one of the following **key questions**:

### 2.1. Social

- *Education*: How does social media affect children? Should governments ban cell phones in schools? How?
- *Health*: How are health systems in the region adopting digitalization and AI to improve health outcomes? For example, how are countries adopting electronic health records, and technologies to improve diagnosis and treatment of key health conditions?
- *Labor Markets*: What are the effects of fast internet access and AI on productivity and labor market outcomes? How are they affecting outsourcing, remote work and the gig economy?
- *Social Protection*: How can digital technologies and AI help governments improve the design, targeting, delivery, and take-up of social programs?

### 2..2. Institutional

- *Taxation*: How and how much should governments tax digital services (e.g., Netflix, Facebook, Uber, Booking) and AI?
- *Crime*: How can AI improve crime prediction, prevention, and justice system efficiency compared to traditional methods while ensuring fairness and better resource allocation in public safety strategies?
- *Regulation*: Should governments regulate AI? How? What are the biases of AI and how governments should counteract them? How should regulation and tax policy consider horizontal equity (across firms providing similar services) while regulating AI?
- *Privacy*: How should governments protect data privacy as rich data are accumulated and linked by different actors? How should policymakers address natural monopolies arising from some firms collecting large data sets in certain areas?
- *Democracy*: What are the ethical, political and practical implications of government involvement in regulating digital platforms to combat misinformation without undermining free speech?

### 2.3. Infrastructure

- *Digital Infrastructure:* What are cost-effective ways to expand digital infrastructure? How should governments regulate providers to increase access to fast and affordable internet?
- *Basic Infrastructure:* How can technology and AI improve the provision of basic services such as water, sanitation and electricity?

### 2.4. Other areas

- *Conceptualization:* What is a useful conceptual framework for understanding digitalization and AI?
- *Private Sector:* How are digitalization and AI affecting the productivity and the business dynamism of firms? Are markets becoming more productive but more concentrated? What happens to firm markups? Who gains from the productivity increases: workers, firms, and/or consumers?
- *Adoption:* To what extent are governments, the private sector, and families adopting AI in LAC? How does this compare to other regions?
- *Macro:* How can we think about work, redistribution and consumption in a world with artificial super intelligence (ASI)? What should governments do now to prepare for that potential scenario?
- *Discrimination:* How can algorithms reduce or amplify discrimination across various domains, such as hiring practices, criminal sentencing, medical diagnoses, credit scoring, and insurance?
- *Finance:* How can digital and AI innovations expand credit access in LAC, and what can governments do to support this while mitigating risks such as data privacy, cybersecurity, and financial exclusion?
- *Climate Change:* How can AI be used to tackle climate change, particularly for mitigation and adaptation strategies?

The papers should aim to produce relevant, rigorous, and actionable policy recommendations for countries in LAC. Hence, the analysis should prioritize empirical studies and policy examples from the region. However, conceptual frameworks, empirical analyses, and policy examples from other regions should also be included when they shed light on important related issues.

### 3. Content of the Studies

This research project will fund studies that explore any of the key questions presented above. Research proposals for other questions that are central to understanding how digitalization and AI can foster growth and equity in Latin America and the Caribbean (LAC) are also welcomed. We are particularly interested in proposals that review and summarize rigorous evidence from LAC or from other regions that can shed light on the links between artificial intelligence (AI), digitalization, and various outcomes, such as social inclusion, institutional efficiency, and infrastructure development. The papers to be funded should typically:

- a) Provide a **conceptual framework** that addresses the central question.
- b) Present **summary statistics** that reflect relevant trends.
- c) Summarize **rigorous empirical studies**.
- d) Highlight and describe **examples** of successful or unsuccessful policy implementation within the region.
- e) Develop **policy recommendations** that synthesize the insights provided to help governments in the region effectively implement and scale digitalization and AI strategies.

Proposals should explore the dual nature of AI and digitalization, emphasizing both the **opportunities** they present (e.g., improved service delivery, greater efficiency) and the **risks** they may introduce (e.g., data privacy concerns, increased inequality). The goal is to help governments in LAC to balance exploiting the opportunities opened by AI and digitalization, and at the same time mitigating the risks that these technological advancements create.

For all the questions outlined above, when possible, proposals should consider how AI and digitalization can be leveraged to promote more **equitable outcomes** by socioeconomic status, gender, ethnicity, and disability. The analysis should not only focus on improving efficiency but also highlight how new technologies can reduce inequality in LAC.

#### 4. Selection Criteria

**Only research institutions from LAC** may present proposals for this research network. Although we expect to fund 6-7 proposals, the final number of proposals accepted will depend on the quality of the submissions and the proposed budget of each proposal. As noted above, the proposed budgets will be evaluated considering the scope of work and the resources required to complete it.

Since this *Call for Research Proposals* is open for a limited period, we encourage the submission of short proposals (no more than 5 pages, but potentially fewer) that:

1. Identify the research question and clearly explain how it contributes to our broader understanding of the relationship between AI and digitalization and social, institutional, or infrastructural outcomes in the region.
2. Review the prior work addressing the question tackled and explain how the proposed paper will present novel analysis and findings.
3. Identify the data sources that the team will use to answer the question and explain the likelihood of getting access to these data. If some data is readily available and other data is more challenging to obtain, proposals should indicate whether partial answers to the research question can be achieved using the accessible data. Demonstrating evidence of data availability or the team's ability to collect relevant data is crucial.
4. Present some initial ideas about the key components of the proposed paper (conceptual framework, analysis of trends, review of empirical studies, discussion of policy implementations in the region and potential policy recommendations).

5. The proposal should describe how the findings of the research can inform policy recommendations in LAC.
6. Proposals must be submitted in **English**.

Final papers will be considered for dissemination as IDB working papers or technical notes depending on the approach followed and the nature of the methodology and analysis performed. Authors have the option to submit the manuscript for publication to the journal of their choice after publishing the document as an IDB Working Paper or IDB Technical Note and with written authorization from the Bank, but they must mention that the study was financed with the support of the Latin America and the Caribbean Research Network of the Inter-American Development Bank. All raw data and properly documented programming code that produced results should be submitted with the final draft. The project coordinators may explore the possibility of having the studies published in an academic journal, in which case they would be subject to a system of standard peer review. Proposals may include suggestions for further dissemination of the final version of the study.

## 5. Proposal Submission

Interested **research institutions** should submit a proposal no later than **October 16, 2024**, through the following [Web Submission Form](#) and using the **provided proposal form**. Please note that there are two options within the **Web Submission Form**: one for institutions and another for teams of individual researchers. Please make sure to choose the “institutions” option. If unable to submit by this means, please send an email to [eltonma@iadb.org](mailto:eltonma@iadb.org).

### Application Guidelines:

- For your application to be considered, please do not modify the provided format and respect the word limit specified in each case. Use the blank space to enter the answer in each section. **This application should not exceed 5 pages in length** (excluding CVs, work plan/schedule of execution, indicative budget, and bibliographical references that are part of the annex of this form).
- To apply, researchers and research teams must send this form (in PDF format) duly completed through **the [Web Submission Form](#)**. **All annexes must be included in this application form and should also be attached individually, following the instructions provided in the Web Submission Form.**
- **This form is subject to the terms and conditions of the call, including the provision on "Arbitration, Applicable Law and IDB Privileges and Immunities."**

Substitutions for researchers originally specified in the proposal may be made with prior approval from the IDB project coordinators, but the principal investigator of the proposal should lead the entire project until its full completion.

Institutions submitting proposals must provide the name and contact information of the legal representative, with the authority to sign letter of agreements with the IDB, if selected to conduct the study. **Please note that the letter of agreement must be signed, and the corresponding invoice submitted before or no later than November 30, 2024. If the institution cannot comply with this requirement, it will not be able to continue with the project.**

Proposing research institutions should be registered as Research Network members (contact Elton Mancilla at [eltonma@iadb.org](mailto:eltonma@iadb.org) ) and should be based in the Latin America and Caribbean region. Note that U.S. and European institutions do not qualify as members of the Latin American and Caribbean Research Network. However, researchers from the United States and Europe can participate in research teams from proposing institutions, and such collaboration is encouraged.

## 6. Coordination and Schedule

The project will be coordinated and administered by the Research Department (RES/RES) of the IDB. The coordinating team consists of Julián Cristia, Claudia Martínez (RES/RES) and a qualified external advisor.

The tentative schedule of activities is as follows:

- **October 16, 2024:** Due date for **receiving proposals**. Institutions should ensure that the complete documentation is submitted through the web form mentioned in Section 5.
- **October 25, 2024:** Announcement of **selected research proposals**.
- **November 30, 2024:** Due date for receiving the **paper outline**. This outline should provide a clear roadmap for the research and demonstrate that data collection and analysis are feasible.
- **January 22, 2025:** **First virtual discussion seminar** of the project via Zoom to discuss and refine the selected proposals and methodology to be used in the research paper.
- **April 14, 2025:** Due date for receiving a **first draft** of research papers and delivery to the IDB of complementary support documents utilized in the research paper.
- **April 28, 2025 (TBC):** **Second virtual discussion seminar** of the project via Zoom to discuss the **first draft** of the research papers.
- **July 15, 2025:** Due date for receiving a **final version** of research papers, and delivery to the IDB of any further versions of the datasets utilized in the research paper. Research papers must follow the **IDB Manual of Style** for working papers. Studies that are of good quality at this stage will be considered for publication in the **IDB Working Papers series**.

## 7. Financial Contribution and Payment Schedule

The IDB will contribute up to **US\$20,000** or the equivalent in local currency as a contribution to the total budget of each study, depending on the scope of the work proposed. We would only reach the upper bound of the per-proposal budget in cases that demonstrate a significant contribution to knowledge about the topics of interest in the region.

The payment schedule is as follows:

- **20 percent** within 30 calendar days upon the date of the last signature of the letter of agreement between the IDB and the institution. **Please note that the letter of agreement must be signed, and the corresponding invoice submitted before or no later than**

**November 30, 2024. In the event that the institution cannot comply with this requirement, it will not be able to continue with the project.**

- **30 percent** within 30 calendar days upon receiving and approval by the IDB of the **outline of the research. Please note that the outline and the corresponding invoice must be submitted before or no later than November 30, 2024.** This outline should provide a clear roadmap for the research and demonstrate that data collection and analysis are feasible.
- **20 percent** within 30 calendar days upon receiving and approval by the IDB of the **first draft** of the research paper.
- **30 percent** within 30 calendar days upon receiving and approval by the IDB of the **final research paper** and delivery to the IDB of the databases and code utilized in the study.

## **8. References**

- Acemoglu, D., & Restrepo, P. (2018). Artificial intelligence, automation, and work. In *The economics of artificial intelligence: An agenda* (pp. 197-236). University of Chicago Press.
- Acemoglu, D. (2021). Harms of AI (No. w29247). National Bureau of Economic Research.
- OECD (2019), *Artificial Intelligence in Society*, OECD Publishing, Paris, <https://doi.org/10.1787/eedfee77-en>.
- OECD (2021), *AI and the Future of Skills, Volume 1: Capabilities and Assessments, Educational Research and Innovation*, OECD Publishing, Paris, <https://doi.org/10.1787/5ee71f34-en>.