



InteliGente

BUILDING PATHS OF EQUALITY WITH ARTIFICIAL INTELLIGENCE

INTRODUCTION

Technological advances in Artificial Intelligence (AI) have benefited our society and economy, directly impacting people's lives in various areas such as health, environment, and agriculture.

Numerous fields of knowledge demonstrate how AI can accelerate scientific discoveries and innovative solutions.

According to PwC's Global Artificial Intelligence Study, AI could contribute up to \$15.7 trillion to the global economy by 2030.

PROBLEMS

Nevertheless, the development of AI has been concentrated in technologically advanced countries, overlooking the unique needs and challenges faced by less developed regions, such as the Global South

Oxford Insights' assessment of 181 countries worldwide highlights that regions with lower scores in readiness for AI use include much of the Global South, such as Sub-Saharan Africa, some Central and South Asian countries, and some Latin American countries.

PROBLEMS

Oxford Insights emphasizes that without an enabling environment, disparities in AI readiness will exacerbate global inequality.

The rapid advancement of AI can worsen inequality and social division between the Global South and North since AI development depends on digital infrastructure.

Moreover, designing robust and reliable AI solutions frequently requires expertise not commonly found, restricting opportunities and increasing inequality, design, and implementation problems

PROBLEMS

The inequality may be due to the small size of institutions or regions, the need for more resources, or the lack of people with high AI-related skills.

In this context, democratizing AI implies granting accessibility to individuals who are not specialists in the domain.

This democratization should empower each individual, community, or society to contribute according to their aptitude, availability, dedication, and pace, ensuring equal opportunities worldwide.

OUR SOLUTION

As stated by the World Economic Forum, one of the steps to put the Global South on the right path is promoting local education.

Considering this, we have created an educational initiative, InteliGente, that empowers students to develop and apply AI solutions with social impact.

Not only that, but also educate people about the Responsible, Ethical and social use of AI.

OUR BIG OBJECTIVES

OBJ1 — Promote Inclusive Education and Democratize AI Knowledge:

- **Empower students in less-developed regions, providing them with the technical and theoretical skills necessary to develop AI solutions that address local and global challenges.**
- **Integrate active learning methodologies to enhance students' understanding of AI while developing essential competencies such as critical thinking, problem-solving, and teamwork.**

OUR BIG OBJECTIVES

OBJ2 — Develop AI Solutions with Social and Sustainable Impact:

- **Encourage students to create AI solutions that align with the SDGs, focusing on good health and well-being, quality education, gender equality, reduced inequalities, and climate action.**
- **Motivate students to apply their knowledge creatively and meaningfully, preparing them to meet the real**
- **demands of society.**

TARGET AUDIENCE

InteliGente is designed to benefit a wide range of regions, primarily within the Global South, with a main focus on Latin America.

These regions face unique challenges related to technological infrastructure, access to quality education, and availability of resources.

However, in Latin America, our project has a large presence, especially in Brazil, where it was founded.

DEMOCRATIZING AI KNOWLEDGE IN LAC

ENGAGEMENT WITH
UNDERREPRESENTED
COMMUNITIES



SPECIAL SHORT
COURSES



PUBLIC AWARENESS
CAMPAIGNS IN AI



COLLABORATION WITH
INDUSTRY



OPEN-SOURCE
INITIATIVES



INTERNATIONAL
COLLABORATION



COMMUNITY-BASED
DEVELOPMENT



OUR METHODOLOGY

To achieve these goals, we employ three main approaches, including:

- **Training a Generation of Professionals with the Knowledge to Develop Ethical and Social AI Solutions**
- **Materials and Solutions to Democratize AI Knowledge for Non-Experts**
- **Hands-on Games for Educator Training: We created a game called InteliGenteCards to train educators, empowering them to teach ethical and social AI to other students.**

OUR IMPACT

+200k

People
Impacted

+21

Awards Won

+2k

People
Educated

+16

Research
Papers

+54k

Accesses
achieved

+20

Projects
developed

+70

Countries
Reached

+50

Media
Coverages

MAIN RECOGNITIONS

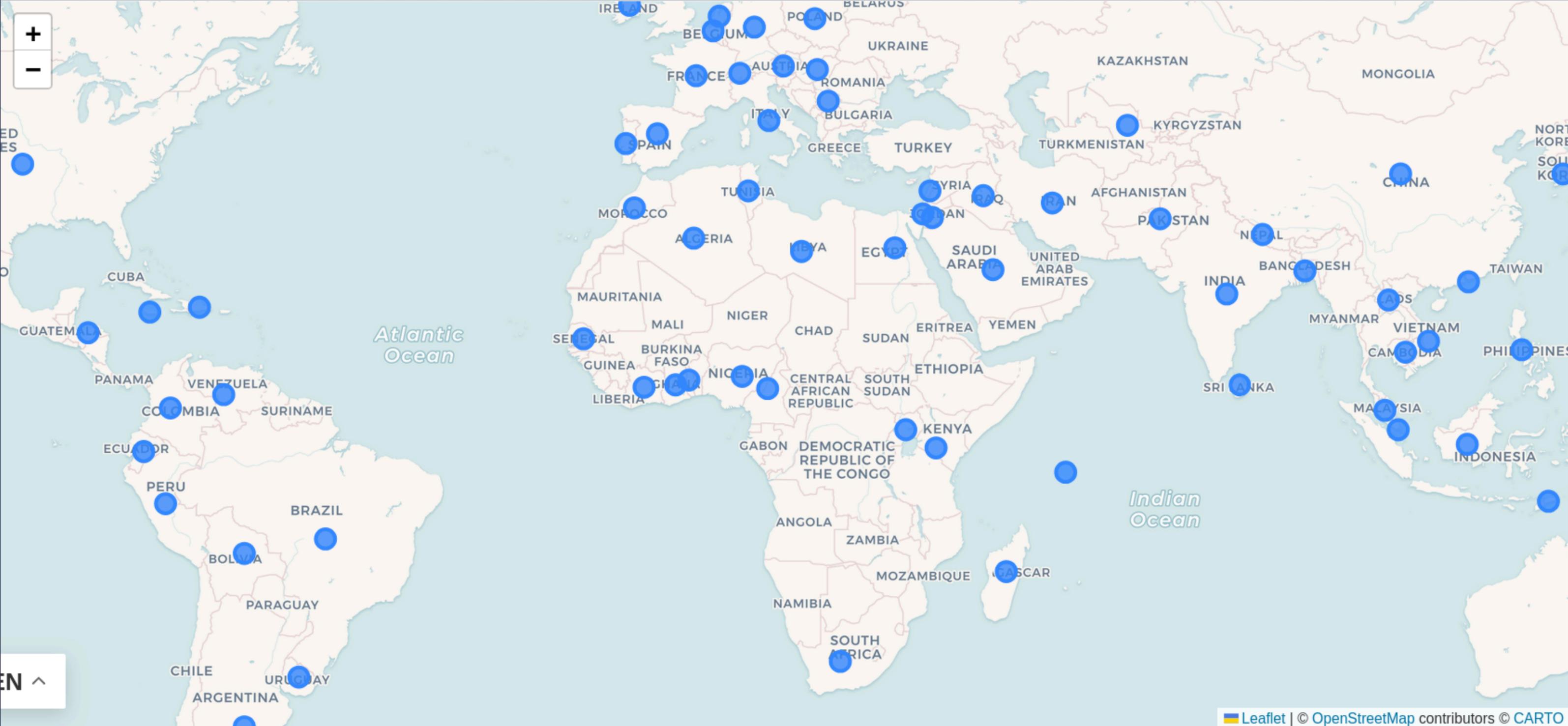
Transformative Educator Award 2024: Named the third most transformative educational project in the State of São Paulo, Brazil.

Transformative Educator Award 2023: Selected among the 10 most transformative in Brazil (Among the 10 finalists in the Higher Education Category – 2897 subscribers).

25th Professor Mário Palmério Top Educational Award 2023: Honorable mention to our project (more than 200 submissions) – Elected among the 5 most transformative projects in Brazil;

Our students have represented Latin America at renowned global events and competitions, including COP28 and the Falling Walls Lab.

NUMBER OF COUNTRIES WHERE USERS HAVE ACCESSED OUR PAGE AND SOLUTIONS



SOME MATERIALS

ANDRÉ C.P.L.F. DE CARVALHO | ANGELO GARANGAU MENEZES
ROBSON PARMEZAN BONIDIA

CIÊNCIA DE DADOS FUNDAMENTOS E APLICAÇÕES



Um baralho interativo para explorar a inteligência artificial e suas implicações éticas. Envolve-se em perguntas reflexivas para entender como a IA impacta nossa sociedade.

InteliGenteCards



InteliGente
CARDS

Decifrando IA: Um guia de Desenvolvimento

Idealizador e Autor: Dr. Robson Bonidia

InteliGenteCards

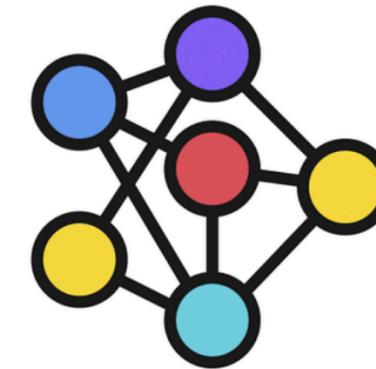
SOME SOLUTIONS

- **AnginaAlert: Identification of Heart Diseases with Artificial Intelligence**
- **Artificial Intelligence in the Diagnosis of Tourette Syndrome in Children**
- **Águeda: Artificial Intelligence for Early Detection of Breast Cancer**
- **BioAutoML: Democratizing Machine Learning in Life Sciences**
- **BioPrediction: Democratizing Machine Learning in the Study of Molecular Interactions**
- **Classifier of Neurodegenerative Diseases: Breaking Paradigms in the Early Detection of Mind Diseases**
- **ITT—Is That True: Unmasking Disinformation with Machine Learning**
- **Others...**

PARTNERS



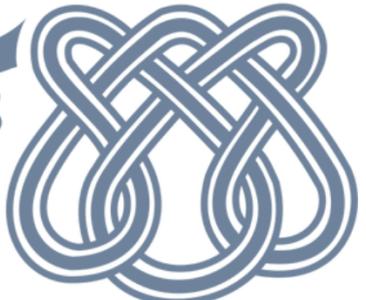
AutoAI-Pandemics
Democratizing Machine Learning



BioAutoML
AUTOMATED FEATURE ENGINEERING

UTFPR
UNIVERSIDADE TECNOLÓGICA FEDERAL DO PARANÁ

ICMC USP
SÃO CARLOS



REFERENCES

- [1] PwC. (2017). Sizing the prize: What's the real value of AI for your business and how can you capitalise? Retrieved from <https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf>
- [2] Yu, D., Rosenfeld, H., & Gupta, A. (2023). The 'AI divide' between the Global North and the Global South. World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2023/01/davos23-ai-divide-global-north-global-south/>.
- [3] Korinek, A., Schindler, M., & Stiglitz, J. (2021). Technological Progress, Artificial Intelligence, and Inclusive Growth. IMF Working Papers, 2021(166), A001. Retrieved Aug 3, 2024, from <https://doi.org/10.5089/9781513583280.001.A001>.
- [4] How, M. L., Cheah, S. M., Chan, Y. J., Khor, A. C., & Say, E. M. P. (2023). Artificial Intelligence for Advancing Sustainable Development Goals (SDGs): An Inclusive Democratized Low-Code Approach. In *The Ethics of Artificial Intelligence for the Sustainable Development Goals* (pp. 145-165). Cham: Springer International Publishing.

REFERENCES

- [5] Oxford Insights. (2023). Government AI Readiness Index 2023. Oxford Insights. Retrieved from <https://oxfordinsights.com/ai-readiness/ai-readiness-index/>.
- [6] Depieri, M. S., & Msipa, S. (2023). Artificial Intelligence in the Global South: Will AI Advancement Deepen Digital Divides and Inequalities? Network Readiness Index. Retrieved from <https://networkreadinessindex.org/artificial-intelligence-in-the-global-south/>.
- [7] AHMED, S.; MULA, R. S.; DHAVALA, S. S. A framework for democratizing ai. arXiv preprint, arXiv:2001.00818, 2020.
- [8] RUBEIS, G.; DUBBALA, K.; METZLER, I. "democratizing" artificial intelligence in medicine and healthcare: Mapping the uses of an elusive term. *Frontiers in Genetics, Frontiers*, v. 13, p. 902542, 2022.
- [9] BANIFATEMI, Amir et al. Democratizing AI for humanity: A common goal. *Reflections on Artificial Intelligence for Humanity*, p. 228–236, 2021.

Dr. Robson Parmezan Bonidia

THANK YOU!