De CLARA

Cooperación Latino Americana de Redes Avanzadas

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TICAL 2025

Winning projects of the TICAL2025 Poster Call

RedCLARA Board of Directors 2025-2027

Four Projects, One Vision: Impacting Latin America with Blockchain

RedCLARA
Cooperación Latino Americana de Redes Avanzadas

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Director Ejecutivo RedCLARA

Cooperation, Partnerships, and Leadership

The last months of the year have been especially significant for our community, not only because of the achievements reached, but also because each advance confirms that digital cooperation in Latin America and the Caribbean is entering a new stage. From regional meeting spaces to strategic partnerships with governments and international organizations, the region is moving toward a more integrated, robust ecosystem with greater opportunities for our societies, institutions, and people.

In this context, TICAL2025 once again demonstrated why it is the reference space for research and education networks in Latin America and the Caribbean. With 250 participants from 23 countries, San José welcomed us with a vibrant atmosphere and a program addressing essential topics for the near future: artificial intelligence, education, advanced infrastructure, open science, and digital governance. The collaboration between academia, governments, technology partners, and multilateral organizations confirmed that the region's digital development does not rely solely on technology but also on the ability to build shared agendas. Infrastructure is the means; collaboration and development are the goals.

I would like to express my deep gratitude to all the organizations that made this meeting possible: RedCONARE for its leadership and hospitality; the Delegation of the European Union in Costa Rica; the Ministry of Science, Innovation, Technology and Telecommunications of Costa Rica (MICITT); the Ministry of Public Education; the Vice Ministry of Digital Transformation of Colombia; the universities that were an essential part of the program; and strategic partners such as Academia Copérnicus Costa Rica, LifeWatch ERIC, UNESCO, the National Center for Artificial Intelligence, GÉANT, Florida International University, and SURF. I also extend my recognition to the sponsors who supported this edition—Calriz, Nokia, Internet Society, PC Central/SheerID, and POK—whose presence confirms the value of integrating public, academic, and private capabilities into a shared vision.

My gratitude also goes to the academic committee for an impeccable program and to the RedCLARA team, whose dedication and rigor made every detail possible. And, of course, to our National Research and Education Networks, which form the heart of our network and the foundation upon which we build the digital future of our region.

These months were also marked by a strategic milestone: the signing of the Memorandum of Understanding between RedCLARA and the Ministry of Science, Innovation, Technology, and Telecommunications of Costa Rica (MICITT), with the support of the European Union. This agreement represents a new step in strengthening Costa Rica's digital ecosystem and paves the way for its integration into the BELLA II framework. The partnership will allow joint actions to enhance national infrastructure, boost research, expand innovation opportunities, and consolidate cooperation between Latin America, the Caribbean, and Europe. Costa Rica brings to BELLA II its leadership in digital transformation and one of Central America's strongest technology ecosystems. As we highlighted at the signing ceremony, BELLA II not only builds networks but also builds community: this alliance reflects a shared commitment to turning connectivity into development and knowledge into collective progress.

At a bi-regional level, the IV CELAC–EU Summit held in Santa Marta reinforced the central role of BELLA II as a driver of digital cooperation between the regions. The Global Gateway Strategy and the EU–LAC Digital Alliance highlighted the program as a concrete example of how connectivity, ethical artificial intelligence, and technological capabilities can translate into societal impact: more shared knowledge, more collaborative research, and more opportunities for our countries. New initiatives—including the expansion of the BELLA program, satellite connectivity projects, and a future bi-regional supercomputing network—will further broaden the reach of our joint work. In its third year of implementation, BELLA II continues consolidating an inclusive, open, and sustainable digital ecosystem, with a direct impact on the region's scientific, educational, and technological capacities.

Finally, this period was marked by the renewal of RedCLARA's Board of Directors for 2025–2027. The election of its new authorities comes at a key moment for the region, with stronger digital infrastructures, new scientific capabilities, and increasingly connected academic communities. The new Board—composed of representatives from REUNA, RNP, CEDIA, RedCONARE, RAU, and RedCUDI—assumes the responsibility of guiding the network during a phase in which cooperation, innovation, and joint work will be essential to close gaps, project our countries toward a shared future, and consolidate the progress achieved over two decades of effort.

The year's closing demonstrates that the digital future of Latin America is already underway. With Costa Rica joining BELLA II, a community gathering and exchanging ideas at TICAL, and renewed leadership steering our organization, we continue advancing toward a more connected, integrated region capable of transforming its infrastructure into opportunities for all people. To everyone who makes this path possible, I extend my gratitude and commitment to continue building, together with you, a more inclusive, sustainable digital ecosystem oriented toward human development.

TICAL2025
When Cooperation Shapes the Future

At TICAL2025 in San José, Costa Rica, digital cooperation demonstrated that it is no longer a concept but a transformative force reshaping institutions, countries, and regions. Over three days, governments, universities, research and education networks, technology companies, and multilateral organisations outlined the agenda that will define the future of science, education, and innovation in Latin America, the Caribbean, and Europe.

Ixchel Pérez

Under the theme "Innovation that Transforms", the fourteenth edition of TICAL reaffirmed its position as the leading meeting point for academic, scientific, and technological communities across both regions. Organised by RedCLARA, RedCONARE and the European Union within the framework of the BELLA II programme, the conference brought together more than two hundred representatives from 11 to 13 November, all committed to a shared objective: turning digital collaboration into a driver of sustainable development.

"TICAL is a space where collaboration translates into tangible results," stated Carlos Gamboa, coordinator of RedCONARE.

The event took place at a pivotal moment, when advanced connectivity, artificial intelligence, and open science have moved beyond specialised domains to become strategic axes of regional integration. Aligned with the EU–LAC Digital Alliance, TICAL2025 fostered knowledge exchange, capacity-building, and the development of a shared agenda among academia, governments, and the technology sector.

"Infrastructure is the means; collaboration is the purpose," said Luis Eliécer Cadenas, Executive Director of RedCLARA. "Through BELLA II, bi-regional cooperation moves from discourse to practice, transforming connectivity into science, education, and real opportunities."

Hubert Vargas, Costa Rica's Vice-Minister of Science, Technology, and Telecommunications, emphasised that "advanced connectivity is the backbone of the knowledge society." His remarks highlighted that digital infrastructure underpins learning, research, innovation, and public services in the twenty-first century.

The European Union's Ambassador to Costa Rica, Pierre-Louis Lempereur, underscored that bi-regional cooperation has strengthened capacities, reduced gaps, and promoted open access. "The EU–LAC Digital Alliance is an example of how digital transformation becomes a shared engine for development," he noted.

Artificial intelligence, education, and innovation: challenges of a new era

Artificial intelligence in education was one of the conference's central themes. A presentation by Gustavo López Herrera (University of Costa Rica), based on a study involving more than 450 university students, highlighted that AI offers efficiency and personalisation but also introduces ethical and cognitive challenges. "The risk does not lie in the tool itself, but in how we integrate it," he warned.

The panel "Education that Innovates", chaired by José Palacios—Chair of RedCLARA's Board of Directors and of REUNA (Chile)—reinforced the notion that higher education must lead the digital transition through flexible curricula, continuous teacher training, and stronger links between government, academia, and the technology sector. "Real change occurs when technology amplifies human thinking," said Andrea Concha Salazar (Fundación EAM).

A standout contribution came from Álvaro Soto of CENIA (Chile), who presented the Latin American Artificial Intelligence Index (ILIA) and updates on LaTAM GPT, a language model trained with Latin American data. Soto stressed that the project seeks to "build regional capabilities" through shared infrastructure and sustained collaboration. His message captured the spirit of TICAL: no institution can achieve this alone.

Researchers also highlighted an emerging trend: younger generations are increasingly using AI not only to study but also to organise their daily lives and even to seek emotional support. This raises a dual responsibility for institutions—to strengthen critical thinking and safeguard emotional well-being in environments where automation coexists with growing solitude.

Cybersecurity: a human and regional front

The cybersecurity sessions revealed that AI has "democratised" cybercrime, enabling more sophisticated attacks such as identity fraud, fake video calls, and increasingly convincing scams. The panel "Digital Hunters" warned that the education sector is now the most targeted, with 93% of organisations reporting insufficient resilience.

The conclusion was clear: effective defence requires trust, governance, regional cooperation and human capacity—not just technology. Digital culture remains the determining factor in protecting institutions and communities.

Digital health: data, trust and cooperation

Digital health discussions illustrated how cooperation can save lives. The Latin American and Caribbean University Telemedicine Network (RUTE-ALC) presented advances demonstrating how interoperability, electronic health records, and university telemedicine can improve care, reduce waiting times, and extend specialised services to underserved areas.

A notable example from Costa Rica showed that analyzing more than 50 million clinical records from the EDUS system enabled the identification of risk factors for chronic diseases. The case highlighted a key message: technology advances quickly, but trust advances with people.

Europe contributed regulatory perspectives through the European Health Data Space, underscoring that challenges of governance, interoperability, and security are shared on both sides of the Atlantic.

BELLA II and the infrastructure of the future

The closing panel underscored that research infrastructure, interoperability, and open science are essential conditions for transforming the region's biodiversity, data, and talent into scientific and economic development. In this context, BELLA II—led by RedCLARA and co-funded by the European Union—stood out as one of the central pillars of bi-regional digital cooperation.

In his closing remarks, Luis Eliécer Cadenas reminded participants that connectivity "is not an end in itself" but the enabler that makes artificial intelligence, high-performance computing, and open science possible across the region. He emphasised RedCLARA's role in articulating this vision and consolidating cooperation as a space where universities, national networks, governments, and research centres recognise themselves as part of a single digital community.

"The true transformative power lies not only in infrastructure but in the ability to align purposes and translate that infrastructure into development—a mission that RedCLARA and BELLA II are advancing by connecting Latin America, the Caribbean, and Europe through a long-term cooperation platform," he said.

TICAL2025 concluded by reaffirming that digital cooperation between Latin America, the Caribbean, and Europe is a strategic pillar for scientific and educational development. In a context shaped by artificial intelligence, cybersecurity and evolving learning dynamics, the conference made it clear that digital transformation begins and ends with people. What lies ahead will require a shared vision capable of translating knowledge into development and cooperation into the future.

New strategic alliances drive innovation and digital collaboration

During TICAL2025, two key agreements were formalised, expanding RedCLARA's reach and consolidating a new cycle of cooperation with the productive, academic, and technological sectors.

The first was the Memorandum of Understanding between RedCLARA and ENRICH in LAC. This alliance opens a new space for cooperation among universities, research centres, companies, and innovation ecosystems in Latin America, the Caribbean, and Europe. The agreement will promote interaction between academic institutions and Brazilian business actors through activities such as business matchmaking sessions, trade missions, specialised seminars, fairs, and joint projects in higher education, research, and open innovation. This collaboration will strengthen capacities, create opportunities, and build networks that connect science, technology, and economic development.

The second agreement, signed with the Brazilian company Calriz, reinforces joint work across artificial intelligence, cybersecurity, connectivity, and digital solutions. The alliance aims to explore collaborative projects and share technical expertise to foster digital transformation in the region. With experience in technological modernisation and digital training, Calriz brings a practical and enterprise-driven approach that complements RedCLARA's mission to promote more secure, innovative, and future-ready networks.

Both agreements reflect the shared conviction that collaboration among academia, governments, and the productive sector is essential to building a more connected, competitive, and sustainable Latin America. Each contributes, in its own way, to a stronger bi-regional digital ecosystem where knowledge, innovation, and cooperation drive development.

SPIDER Forum Returned to TICAL

At TICAL 2025, SPIDER hosted the Digital Dialogues Implementation Forum (DIF), a space to assess the state of digital cooperation between the European Union and Latin America and the Caribbean. The session identified opportunities, gaps, and priorities, highlighting the need for strong regional governance, cross-sector coordination, and mechanisms that ensure continuity beyond political cycles.

The discussion focused on BELLA, the infrastructure connecting academic and research networks across the region. Participants emphasized the importance of strengthening the capacities of National Research and Education Networks (NRENs), improving visibility and practical use of connectivity, developing micro-projects that deliver tangible value, and creating an ecosystem linking academia, industry, and government.

Attendees agreed that connectivity alone is not enough; it requires governance, coordination, and institutional collaboration to translate into concrete outcomes. SPIDER reaffirmed its commitment to support these actions through mapping activities, the Twinning Programme, and other initiatives that turn dialogue into practical, sustainable, and high-impact cooperation across the region.

Connecting to Create: **The Workshop that Strengthened the Region's Innovation Community**

Ixchel Pérez

A group of researchers, academics, entrepreneurs, students, and professionals from across Latin America and the Caribbean gathered on 10 November in San José, Costa Rica, to take part in a workshop that achieved something uncommon: transforming a technical meeting into a collective experience of creation, learning, and shared vision.

Under the motto "Connecting minds, transforming realities", the event became a point of convergence where innovation ceased to be an abstract concept. It took shape through dialogue, practice, and cross-sector collaboration.

Organised by RedCLARA together with RedCONARE, RNP (Brazil), CEDIA (Ecuador), CeNAT and the Costa Rican Promotion Agency for Innovation and Research (PCII), attached to MICITT, as a prelude to the TICAL2025 conference, the workshop brought together participants carrying different challenges, projects and aspirations, but united by a common goal: discovering new ways to turn ideas into solutions.

From the outset, it was clear that the workshop was not intended to be a sequence of presentations, but an invitation to experiment. Carlos Gamboa, Scientific Coordinator of RedCONARE, emphasised this by noting that the central purpose was to stimulate creative thinking and foster an environment in which collaboration could emerge naturally. As the day unfolded, that intention took shape.

The reflective process had begun weeks earlier during the webinar "Innovation with Purpose: When the Network Maximises Its Impact", in which specialists such as Jimmy Cruz Jiménez (PCII) and Mauricio Reyes Ariza (Inventta LATAM) shared a strategic perspective on the role of innovation in the region. Both agreed that innovation is a path sustained by strong alliances, shared vision, and the willingness to orient technologies towards challenges that truly matter. This conceptual framework was carried into the in-person workshop, where participants explored how articulation and cooperation become decisive factors in transforming initiatives into concrete actions.

The sessions progressed with contributions that provided a broad view of the regional ecosystem. Eduardo Grizendi, Director of Engineering and Operations at the Brazilian advanced network RNP, reminded participants that innovation only acquires meaning when it generates real value for society. His remarks paved the way for experiences from Brazil and Ecuador that demonstrated how National Research and Education Networks (NRENs) have become platforms capable of driving technological, scientific, and educational solutions with significant impact. From RNP's laboratories and testbeds—where artificial intelligence, blockchain, 5G, and digital identity are explored—to incubation models that have given rise to university-based startups, the presentations showed that sustained collaboration produces cumulative results and transforms entire ecosystems.

CEDIA's contribution reinforced this perspective by illustrating how conceptual prototyping and knowledge transfer can be translated into applied solutions in science, education, and technology. Participants recognised that innovation depends not only on technical tools, but also on the ability to design models that bridge research and action.

One of the most powerful moments of the day was the "Sharing Ideas to Transform Realities" activity. In an atmosphere of active and horizontal exchange, multidisciplinary teams worked on real-world challenges, integrating academic, technological, public, and student perspectives. The exercise demonstrated that the most promising proposals do not emerge from isolated efforts, but from the convergence of diverse knowledge and the dialogue between those who address problems from different angles.

In that space, innovation moved from discourse to practice—strengthened when the region thinks and cooperates.

The closing session prompted a profound reflection on the sustainability of innovation ecosystems. Carlos Gamboa stressed that trust, continuity, and cooperation are essential for innovation processes to flourish. He noted that academic networks are living communities that generate value and build capacities over time, underscoring that collaboration requires consistency and shared vision.

The workshop reaffirmed a conviction widely held across the region: innovating, connecting and transforming is not merely a slogan, but a practice strengthened when multiple actors work in a coordinated manner. What took place in Costa Rica was more than a preparatory activity for TICAL2025; it demonstrated that Latin America and the Caribbean possess the talent, methodologies, and collaborative will needed to advance meaningful solutions.

In a landscape marked by complex challenges, the workshop showed that innovation is built through diversity, creativity, and collective effort, and that ideas—when developed within networks—can become concrete outcomes.

As Luis Eliécer Cadenas, Executive Director of RedCLARA, stated, "cooperation does not advance in a straight line; it grows exponentially. Every connection adds, but above all, it multiplies." That vision encapsulated the spirit of the workshop and reflects the region's commitment to collaborative innovation, which finds its most transformative force in cooperation.

Creativity and innovation shine in the winning projects of the

TICAL2025 Poster Call

Jenny Flores

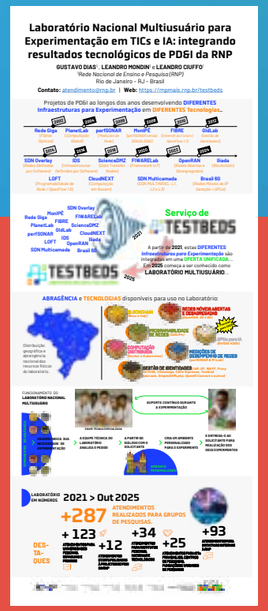
Eight projects were selected as winners of the TICAL2025 Poster Call, an initiative aimed at showcasing best practices, research, and experiences in Information and Communication Technologies (ICT) that provide creative and effective solutions to the challenges faced by the academic and scientific communities in Latin America and the Caribbean.

The selected proposals stood out for their impact and contribution to regional digital transformation. The authors presented their posters during the TICAL2025 Conference, where they had the opportunity to exchange ideas, build partnerships, and share solutions with researchers, leaders, and professionals from the regional digital ecosystem.

The winners are:

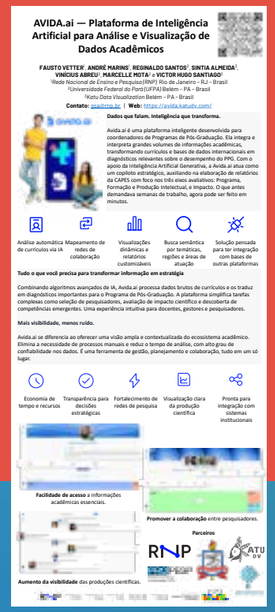
AIRA – Agente Inteligente de Recursos Automatizados. Agente Inteligente con Moodle.

Diego Quisi, Juan Pablo Carvallo, Jorda Murillo, Andrés Alba y Gabriela Cajamarca (CEDIA, Ecuador).



Laboratorio Nacional Multiusuario: Integración de Resultados de I+D+i en TIC en Brasil.

Gustavo Neves Dias y Leandro Neumann Ciuffo (RNP, Brasil) (CEDIA, Ecuador).

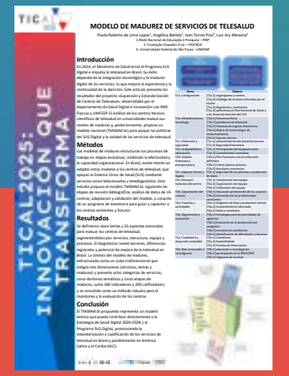


AVIDA.ai – Plataforma de Inteligencia Artificial para el Análisis y Visualización de Datos Académicos.

Fausto Vetter, André Marins, Reginaldo Santos, Sintia Almeida, Vinícius Abreu, Marcelle Mota y Victor Hugo Santiago (RNP, Brasil / UFPA / KatuDV).

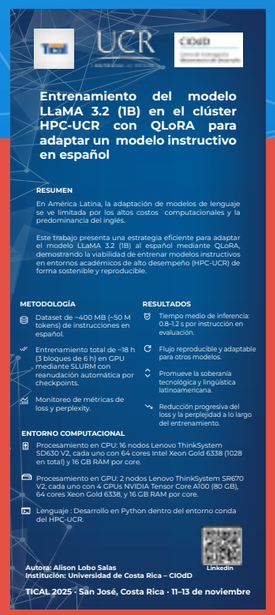
Observatorio Nacional Blockchain: La Web del Futuro.

Leandro Ciuffo y Larriza Thurler (RNP, Brasil).



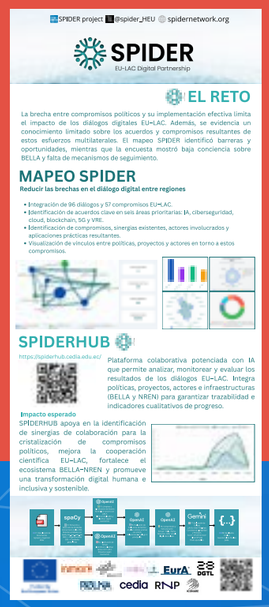
Modelo de madurez de servicios de Telesalud.

Paulo Roberto de Lima Lopes, Angélica Batista, Ivan Torres Pisa y Luiz Ary Messina (RNP, Brasil).



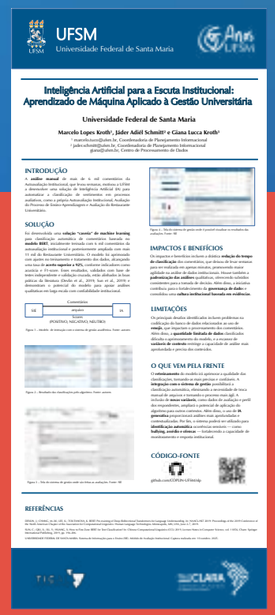
Entrenamiento del modelo LLaMA 3.2 (1B) en el clúster HPC-UCR con QLoRA para adaptar un modelo instruccional en español.

Alison Lobo Salas (Universidad de Costa Rica, Centro de Investigación Observatorio del Desarrollo – CIOdD, Costa Rica).



SPIDERHUB: plataforma EU–LAC para monitorear y acelerar la implementación de compromisos digitales.

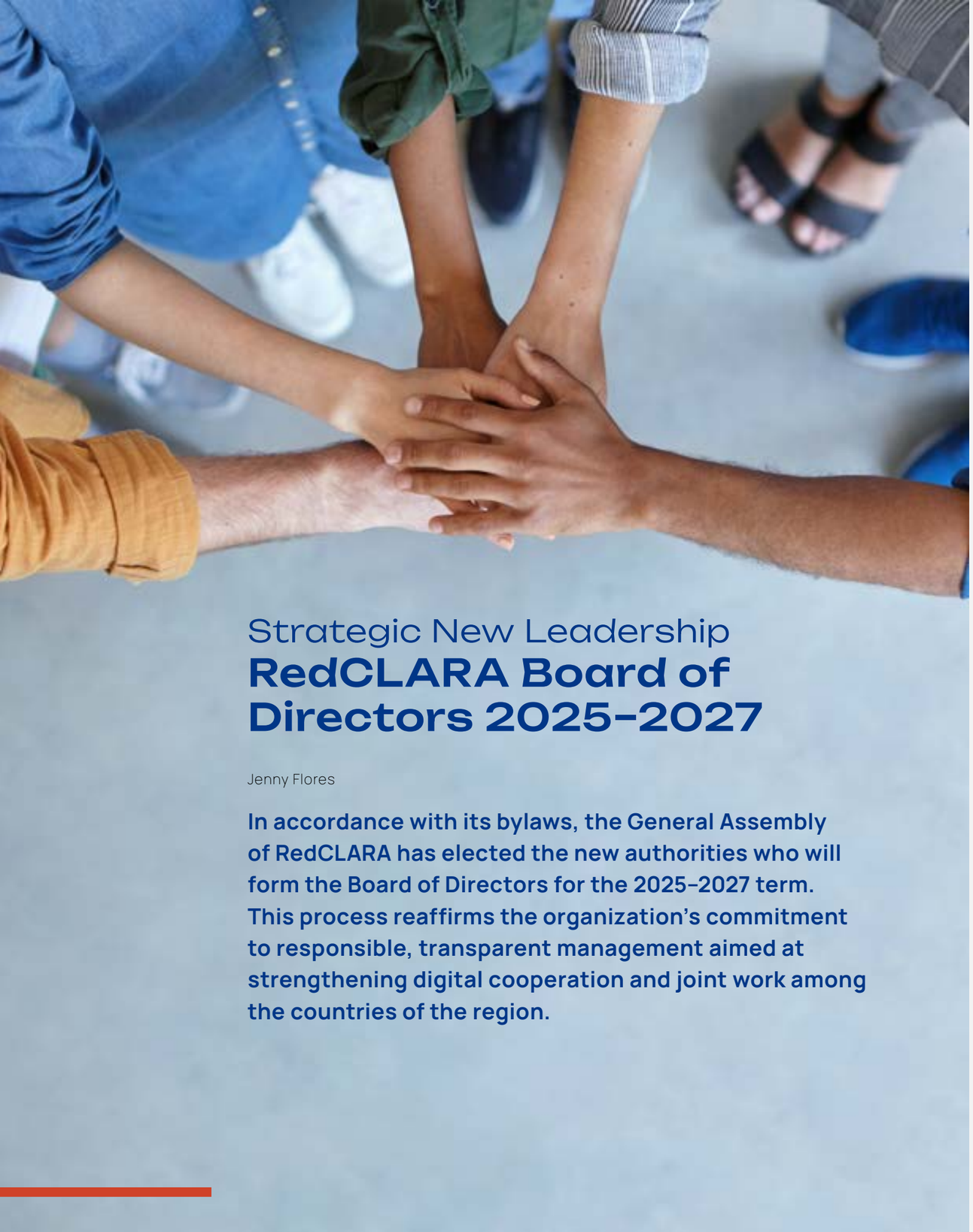
Johanna Fullman, Cristian Patiño, Luis Vargas y Felipe Mendieta (DLR, Alemania / CEDIA, Ecuador).



Inteligencia Artificial para la Escucha Institucional: Aprendizaje Automático Aplicado a la Gestión Universitaria.

Marcelo Lopes Kroth, Jáder Adiél Schmitt y Giana Lucca Kroth (Universidad Federal de Santa María (UFSM).

The selected posters are available on the event's official website: https://tical2025.redclara.net/en/posters



Strategic New Leadership

RedCLARA Board of Directors 2025–2027

Jenny Flores

In accordance with its bylaws, the General Assembly of RedCLARA has elected the new authorities who will form the Board of Directors for the 2025–2027 term. This process reaffirms the organization's commitment to responsible, transparent management aimed at strengthening digital cooperation and joint work among the countries of the region.

RedCLARA brings together and connects higher education institutions and research centers across Latin America, facilitating collaboration among academic and scientific communities. Through its projects and services, it promotes initiatives that support knowledge exchange, innovation, research, and regional development.

The new Board of Directors is composed of:

- President: José Palacios (REUNA – Chile)
- Vice President: Eduardo Grizendi (RNP – Brazil)
- Treasurer: Juan Pablo Carvallo (CEDIA – Ecuador)
- Secretary: Carlos Gamboa (RedCONARE – Costa Rica)
- Board Member: Eduardo Grampin (RAU – Uruguay)
- First Alternate: Paola Arellano (REUNA – Chile)
- Second Alternate: Luis Vargas (CEDIA–Ecuador)

The Fiscal Committee, responsible for overseeing the administration of the organization's resources, was also appointed. It is composed of:

- Danny Silva (RedCONARE – Costa Rica)
- José Arivaldo Frazão (RNP – Brazil)
- Mariela De León (RAU – Uruguay)

The renewal of the Board marks a strategic moment for RedCLARA. The region is at a turning point, with stronger digital infrastructures, new scientific capabilities, and an academic community that grows and strengthens its connections every day.

For more than two decades, RedCLARA has demonstrated that connectivity, when placed at the service of cooperation, becomes a tool for expanding opportunities, closing gaps, and projecting countries toward a shared future. This new leadership arrives to guide that path: a network that not only connects countries but also ideas, talent, and purpose—driving more integrated and innovative regional development with greater opportunities for all.

With the appointment of its new Board of Directors and Fiscal Committee, RedCLARA reaffirms its commitment to continuing to strengthen cooperation, innovation, and the development of the Latin American academic community, advancing toward a more integrated and connected region.

A New Alliance Drives the Digital Future of Costa Rica and Latin America and the Caribbean under BELLA II

The Ministry of Science, Innovation, Technology, and Telecommunications (MICITT) and the Latin American Advanced Networks Cooperation (RedCLARA) have signed a Memorandum of Understanding (MoU) marking a new step in digital cooperation and advancing Costa Rica's integration into BELLA II, the project that promotes connectivity, innovation, and scientific collaboration between Europe and Latin America and the Caribbean.

Credits: RedCLARA, with contributions from the Ministry of Science, Innovation, Technology, and Telecommunications (MICITT) and the Delegation of the European Union (EU) in Costa Rica.

Costa Rica, recognized for its leadership in digital transformation and for having one of the strongest technological infrastructures in Central America, is part of the group of priority countries in BELLA II, along with El Salvador, Guatemala, Honduras, and Peru. BELLA II, which is led by RedCLARA and partly funded by the European Union (EU) through the EU–LAC Digital Alliance and the Global Gateway initiative, aims to create the necessary infrastructure and skills to build a digital environment for science, technology, education, and innovation, tackling important regional issues and encouraging economic growth.

The agreement was signed by Minister Paula Bogantes Zamora on behalf of MICITT and RedCLARA Executive Director Luis Eliécer Cadenas Marín, with the EU Ambassador to Costa Rica, Pierre-Louis Lempereur, as honorary witness.

The alliance establishes a framework for technical collaboration to explore joint actions and support Costa Rica's future integration into the BELLA II digital ecosystem. It seeks to strengthen national infrastructure, promote scientific cooperation, and expand opportunities for innovation and regional connectivity, in line with the objectives of the EU–LAC Digital Alliance. The MoU is valid for two years, with specific projects formalized through additional agreements defining objectives, timelines, funding, and coordination mechanisms.

"Through this alliance, we aim to strengthen Costa Rica's digital and scientific infrastructure, promoting regional cooperation and knowledge exchange between Latin America, the Caribbean, and Europe. At MICITT, our focus is on developing capacities in research, technological innovation, and digital education, enabling scientists,

academics, and entrepreneurs to collaborate on high-impact projects. Participation in BELLA II allows us to contribute to building a robust and sustainable digital ecosystem, where connectivity and open innovation become tools for the country's and region's progress," said Paula Bogantes Zamora, Minister of Science, Innovation, Technology, and Telecommunications.

For his part, Luis Eliécer Cadenas, RedCLARA Executive Director, emphasized the regional impact of this alliance: "The BELLA II project not only builds networks, it builds community. With the signing of this agreement, Costa Rica brings its leadership, talent, and vision to the Latin American and European digital ecosystem. Cooperation is the way to turn connectivity into development and knowledge into shared progress."

The EU Ambassador to Costa Rica, Pierre-Louis Lempereur, highlighted, "We are strengthening the digital bridge between Europe and Latin America, with Costa Rica as a key partner. We are creating unprecedented opportunities in research, education, and innovation by expanding Costa Rica's connectivity from 5 to 20 gigabits per second. High-speed Internet access is no longer a luxury; it is a necessity. It is the foundation on which education systems thrive, businesses innovate, and communities prosper. Through the EU–LAC Digital Alliance, our goal is to ensure that the benefits of digital transformation reach all corners of Costa Rica."

With this agreement, Costa Rica positions itself as a strategic partner in expanding the regional digital ecosystem, strengthening research, education, science, and innovation capacities in the region. The country reaffirms its role as a bridge between Latin America and Europe and as a reference in building an inclusive, sustainable, and human-centered digital future.

"The digital future of Latin America is already underway. With Costa Rica, that future becomes stronger, more connected, and more inclusive," concluded Cadenas.

RedCLARA launches DeCLARA, the podcast that amplifies the voice of digital collaboration in Latin America and the Caribbean.

RedCLARA announces the launch of DeCLARA, a new podcast that gives voice to the people, ideas, and partnerships driving the digital transformation of Latin America and the Caribbean.

Jenny Flores

RedCLARA presents DeCLARA, a new podcast that gives voice to the people, ideas, and partnerships driving the digital transformation of Latin America and the Caribbean.

At a time when connectivity and cooperation have become engines of development, DeCLARA emerges as a space to listen to those who are making the region's digital transformation possible: leaders, researchers, technologists, and visionaries who connect knowledge, institutions, and continents.

"DeCLARA was born as a space to hear the voices that build digital collaboration. We want people to understand what happens when cooperation turns into opportunity. It is not only about technology, but about people, ideas, and alliances that are redefining the role of Latin America and the Caribbean in the digital world," said Luis Eliécer Cadenas, Executive Director of RedCLARA.

With a warm, narrative and dynamic style, DeCLARA explores the stories behind the region's significant advances: from the direct connectivity between Europe and Latin America and the Caribbean and bi-continental projects, to the innovations that bring science, education, and technology closer to more communities.

Through its first episodes, the podcast invites listeners to discover how connectivity becomes action and how regional collaboration is driving a new cycle of knowledge-based development. Topics include the expansion of digital infrastructure and regional cooperation (BELLA II), the innovation highlighted at the TICAL2025 conference, the perspective of Chile's National Centre for Artificial Intelligence (CENIA) on the future of AI, and BELLA II's testbeds that enable experimentation with disruptive technologies such as blockchain, artificial intelligence and cybersecurity.

"With DeCLARA, we aim to amplify the voice of digital cooperation and connect scientific and academic communities with new audiences. It is a format that allows us to humanise technology and showcase the real value of collaboration between Latin America and Europe," added Ixchel Pérez, Communications Officer at RedCLARA and producer of the podcast.

The first season of DeCLARA will be available from 21 October, initially on Spotify. Each episode combines exclusive interviews, analysis, and stories that illustrate how digital cooperation is advancing innovation, education, and scientific growth across the region.

Listen to DeCLARA, the voice of digital collaboration in Latin America and the Caribbean

BELLA II strengthens regional digital infrastructure with new testbeds in bioinformatics, AI, and blockchain.

The BELLA II project, led by RedCLARA and supported by the European Union, has made progress in improving the digital infrastructure of Latin America and the Caribbean by launching two experimental setups aimed at enhancing advanced research and technology: the Bioinformatics and Artificial Intelligence Testbed and the Blockchain Testbed.

Jenny Flores

The Bioinformatics and AI Testbed, developed with the technical support of the Universidad de los Andes in Venezuela, offers a specialized environment to model molecular interaction networks and understand key processes related to gene regulation, metabolism, cell communication, and immune response. The platform combines scientific data from various sources, uses AI methods to create predictive models, and lets researchers test ideas before doing lab experiments, making sure everything is tracked, repeatable, and managed by experts at every step.

To access this environment or request information about plans and preferential rates: Request the Bioinformatics Testbed here.

The Blockchain Testbed, based on LACChain's public - permissioned infrastructure and managed by LACNet, provides a secure, regulated, and collaborative space where universities, research centers, governments, and startups can design, test, and scale blockchain solutions without the costs and risks associated with conventional networks. Its structure, which is spread out rather than centralized, safeguards against future tech issues and allows only certain members to access it, making it a valuable resource for creating smart contracts, digital identity systems, collaborative governance, and decentralized applications.

Both environments work well with the supercomputing system that will start in early 2025, enhancing the region's ability to run advanced simulations, handle large amounts of data, and create important digital solutions. This means that the BELLA II Testbeds create a strong technology base that supports research, teamwork between institutions, and new ideas in important areas.

The service can be requested through this link.

The project will soon announce a third cybersecurity testbed, based on the concept of a cyber range, which will allow the simulation of attacks, the evaluation of technologies, and the strengthening of digital defense capabilities in Latin America and the Caribbean.

Watch video
Testbed Blockchain.

Four Projects, One Vision:

Impacting Latin America with Blockchain

From art and intellectual property to regenerative beekeeping, family farming, and digital education, four projects from different Latin American countries are demonstrating how technology can transform realities. Within the framework of the Early Adopters Blockchain LATAM Program, driven by RedCLARA and LNET, these projects leverage the BELLA II Blockchain Testbed to develop solutions that integrate technological innovation, sustainability, and social development, generating tangible benefits for their communities.

Jenny Flores

The Early Adopters Blockchain LATAM Program launched its call for proposals at the end of September, receiving 13 submissions from seven countries in the region. Of these, four projects were selected to advance to the next phase and are currently in the immersion stage, developing their MVPs (minimum viable products) using the potential of the BELLA II Blockchain Testbed provided by RedCLARA and LNET, along with the supporting ecosystem. The goal is to transform their proposals into real, scalable solutions with regional impact.

The first selected project, "Authorship and Ownership Validator", led from Colombia by the Universidad Jorge Tadeo Lozano, in collaboration with the University of Chile and the International Design Network (enREDo), aims to ensure that artistic and academic works are authentic and that their creators are recognized. To achieve this, the project uses digital technology that securely verifies the ownership of each work. Additionally, universities will be able to issue unique digital certificates that validate authorship, creating a trusted space where art, innovation, and technology come together to support creators.

From rural areas of Colombia, Peru, Ecuador, and Bolivia, the Colmena DAO project works to strengthen sustainable and inclusive beekeeping. Led by Philippe Boland and José Zárate, it combines digital tools with community participation to track honey production, organize democratic decision-making, and economically empower women and youth in these communities.

In the agricultural sector, the Smart AGRO RAF LATAM project, led by Rodrigo Brandão Mansilha with support from the University of Antioquia, Colombia, seeks to enhance transparency and sustainability in family farming. Through digital systems that record all production, the project ensures that products comply with regulations and are fairly valued, facilitating access for small farmers to local and international markets.

From Mexico, the team formed by the University of Guadalajara and the company KeepReading leads the project "Microcredentialing as an Emerging Interaction System." The initiative aims to improve how learning achievements are recognized and validated in the region, using a digital "educational wallet" where students can securely store their accomplishments. These verifiable digital credentials, based on international standards, promote a more open, trustworthy education system that supports academic and professional mobility, allowing students to carry proof of their knowledge safely and reliably.

Over six weeks, the teams will develop, simulate, and validate their solutions within the BELLA II Testbed infrastructure provided by LNET and RedCLARA, and will participate in mentorship sessions covering blockchain best practices, value strategy, go-to-market approaches, and effective communication.

The Early Adopters Program, along with RedCLARA and LNET, is an initiative designed to strengthen blockchain adoption in Latin America's academic and scientific ecosystem. It supports teams in the design, validation, and development of pilots in a safe, scalable, and regulated environment.

The Blockchain Testbed provides a secure, collaborative, and internationally recognized environment to test, scale, and validate Web3, academic, institutional, or enterprise solutions with specialized technical support. It is available to universities, startups, innovation labs, or public institutions. The BELLA II Testbed from LNET and RedCLARA allows experimentation with blockchain technology under the highest standards, access to technical mentoring, and flexible membership options tailored to project goals.

Álvaro Soto, CENIA: “Collaboration Could Be the Latin American Model for Artificial Intelligence”

Artificial intelligence is redefining how we research, teach, and collaborate—raising new questions about its impact and its human dimension. From Chile, Dr. Álvaro Soto, Director of the National Center for Artificial Intelligence (CENIA), reflects on the global and regional challenges of AI— topics he will address during his keynote session at TICAL2025, taking place in Costa Rica from November 11 to 13.

Ixchel Pérez

Created within the framework of Chile’s National Artificial Intelligence Policy (2021), CENIA promotes advanced research, technology transfer, and regional cooperation. Among its flagship initiatives are the Latin American Artificial Intelligence Index (ILIA)—whose third edition, launched in September 2025, includes data from 19 countries—and LATAM-GPT, a collaborative large language model developed by more than 50 institutions.

In conversation with the DeCLARA podcast, Soto discussed the main findings of the latest ILIA report and shared his vision of how Latin America can become a true actor—not just an observer—in the global AI revolution.

What brings us together as a region in AI?

The central motivation is to encourage collaboration between countries. In Latin America, we share many common factors, such as similar challenges in areas like education and security, as well as a shared culture, history, roots and languages. This shared background makes it easier to create joint initiatives. Projects such as the Latin American Artificial Intelligence Index (ILIA) and LATAM-GPT emerge from this spirit, aiming to build shared knowledge and capacities. Our desire to work cooperatively and openly drives us, bringing together colleagues and institutions to forge this path together.

How can AI research be connected with its practical applications across different sectors?

Bridging the gap between research and implementation, or technology transfer, has always been challenging. However, we are currently experiencing a historic moment in which artificial intelligence has become truly disruptive and is facilitating dialogue with different sectors. Engaging industry or other fields from a scientific standpoint used to be difficult, but now the conversation flows more naturally.

At CENIA, we have been fortunate to be at the heart of this transformation at a time when communication between science and society is more critical than ever. Our initiatives go beyond developing AI itself; they aim for sustainable, human-centred development, putting technology at the service of people.

How can artificial intelligence be considered an enabling infrastructure for science and development?

AI’s strength lies in its transversal nature. It’s hard to imagine a field in which it cannot have an impact, whether that be health, education, industry or scientific research. This makes it a unique technology that opens countless doors and possibilities.

The key lies in understanding its essential components. Why didn’t we talk about AI ten or twenty years ago with the same intensity as today? What has changed? Understanding these factors enables us to harness AI for the benefit of humanity.

Sometimes AI is adopted to keep up with trends. While this may be an initial motivation, it’s crucial to go deeper and truly comprehend AI.

At TICAL2025, I will give a keynote speech addressing the core technical elements behind this revolution and how they can be translated into real opportunities. Unlike other disciplines, such as quantum mechanics, AI is something we can all relate to because intelligence is part of our everyday lives. In that sense, we are all, to some extent, experts in intelligence itself, which helps us to grasp the true magnitude and impact of this technology.

Nevertheless, opposition to AI persists in some quarters and across sectors.

It’s a disruptive technology and, if not managed properly, it can have negative consequences. These concerns are legitimate and must be taken seriously. We must keep technology under control and remember that it is a means to an end, not an end in itself. The true goal is to improve people’s lives — AI must serve humanity.

This requires an understanding of its scale, amplifying its positive aspects, and avoiding adverse effects. One of my main concerns is the disruption that AI may cause to the labour market. Today, we have what I call ‘cognitive tractors’. Just as physical tractors once transformed agriculture by replacing manual tools such as hoes and rakes with machines that increased efficiency, we are now seeing a similar shift in cognitive tasks.

Many of these tasks will be affected, and the key question is how to ensure that these changes benefit society as a whole, rather than just a select few. These are crucial discussions to be having today. AI has already moved beyond the scientific sphere and is now a technology that we must study and understand in terms of its social impact.

What progress or setbacks has the region shown according to the latest ILIA?

Created four years ago, the Latin American Artificial Intelligence Index (ILIA) provides reliable data to inform decisions on AI development in the region. It evaluates three main dimensions:

First, enabling factors (infrastructure, connectivity, and talent). Second, development, which includes research, entrepreneurship, and technology transfer, is an integral part of our mission. And third, governance (regulation and incentives).

Initially covering 12 countries, the project now includes 19 nations across Latin America and the Caribbean. Each country has its own national profile and comparative data. The most rewarding aspect has been observing the Index evolve into a regional reference tool, utilised by governments and institutions to develop public policies and inform their AI strategies.

The Index is also a genuinely collaborative effort, made possible by organisations across the region that contribute to and help gather data from diverse national contexts.

Which key findings stand out in the latest edition?

There are encouraging signs, but challenges remain.

On a positive note, several countries that were previously lagging have made significant investments. The Dominican Republic is a standout example of improvements in connectivity and infrastructure, while Costa Rica has strengthened its training programmes and human capital development.

There has also been growth in AI-based start-ups, and more countries are prioritising national AI strategies. All of this demonstrates increasing attention, motivation, and tangible progress across the region.

However, there is still a lack of urgency. While some national strategies have been developed, they lack the funding needed to drive initiatives quickly. Meanwhile, the pace of AI growth across regions such as Europe, Asia, and North America is accelerating rapidly. Rather than narrowing, the gap between us and those regions is actually widening.

We must act decisively and collectively to embrace the artificial intelligence revolution and become active participants, not just spectators, of this transformative era.

What role does international cooperation play in speeding up policies and capabilities?

That's the foundation. In ILIA 2025, we analysed how different regions have adopted general strategies to face the AI revolution, together with Peruvian researcher Omar Flores. In the United States, the focus is on protecting and incentivising major tech companies such as OpenAI, Google, Meta, and Amazon through policies that reinforce global leadership.

China takes a similar approach, combining state protection with extensive access to data and some degree of open-source collaboration, in an attempt to reduce the gap with North America. In Europe, there is a strong emphasis on AI factories and regulation.

The question is: what is Latin America's AI model? I believe that collaboration and open sharing should be our approach. The recent evolution of AI shows that openness is a successful strategy.

Over the past two decades, AI's explosive growth has primarily been driven by democratised access to technology, data, and open resources. Many of the most widely used AI frameworks, such as PyTorch and TensorFlow, and datasets were publicly available. They were created by companies such as OpenAI, Google, and Meta, and further advanced by academia.

Open collaboration and knowledge sharing are virtuous in themselves. Latin America, with its unique identity and shared values, could adopt this approach as a model for development and set an example to the rest of the world by showing how openness and cooperation can drive inclusive technological progress.

You are also collaborating on a GPT model specific to Latin America now. Can you tell us more about it?

Yes, that's a concrete example. LATAM-GPT is an advanced language model that we are developing using data and resources from across the region.

The idea is to demonstrate that a collaborative, cooperative model can work for Latin America. Data comes from

"Collaboration and sharing under the open source model **are the model we should follow."**

50 to 100 institutions throughout the region. The project also includes a shared computing network because these large models require significant computational capacity, which no single country can provide on its own.

However, by working together, we can develop a regional AI infrastructure that can support large-scale models. Furthermore, sharing the resulting knowledge provides us with a collective advantage. 'Together we are stronger' is not just a phrase; it's a development model in action. LATAM-GPT aims to demonstrate that cooperation can be a successful path for Latin America.

What is your vision for Latin America's place on the global AI stage in the coming decade?

Personally, I'm not particularly concerned about whether we become a global superpower. What I hope is that the region becomes happier and more prosperous thanks to AI. Suppose AI helps everyone living in this part of the world feel more fulfilled and thrive. In that case, not just a select few, but everyone, through inclusive technological progress, will make the story of AI in Latin America a happy and successful one.

CyberBridges:

A Region United to Strengthen Cybersecurity

Jenny Flores

This year, cybersecurity was established as a priority for the academic and research community across the Americas. Although attention traditionally focuses on October, during Cybersecurity Awareness Month, RedCLARA and its partners CANARIE, Internet2, and LAC4 extended this commitment by developing, from October to December, the seminar series “CyberBridges: Connecting the Americas for a Safer Research Future.” The initiative conveyed a clear message: digital security is not limited to a single month but requires ongoing and collaborative effort.

The series brought together specialists, technical teams, researchers, and institutional representatives from across the region, with sessions offering simultaneous translation in Spanish, English, French, and Portuguese. Each session addressed emerging challenges, mitigation strategies, and key opportunities to strengthen digital protection in academic and research environments.

Recent reports show an increased perception of risk but also gaps in digital habits that need improvement. The proliferation of potentially malicious artificial intelligence tools, the rise of misinformation, and increasingly sophisticated attacks have created an environment that demands new skills. CyberBridges was designed to provide solutions, dialogue, and tools for a continent facing shared threats.

The series concluded with the final session, scheduled for December 2, led by CANARIE.

October 7

RedCLARA Opened the Series with a Critical Look at Digital Deception

The first session gathered over 100 participants and explored one of the most concerning phenomena: deepfakes combined with social engineering.

Specialist Jorge Merchán, from CEDIA (Ecuador), analyzed how AI-generated falsifications could manipulate perceptions, simulate identities, and facilitate large-scale fraud. A notable financial fraud case driven by a deepfake illustrated the seriousness of the problem.

Merchán emphasized the need to adopt proactive security strategies, strengthen coordination among CSIRTs, and promote collaborative networks to share alerts and best practices. In this context, RedCLARA played a key role in coordinating regional efforts.

October 21

LAC4 Promoted Discussion on Cybersecurity Culture

The second session was led by Iris Palma, digital policy expert and co-founder of NextLatam.

Her presentation highlighted the importance of building a strong institutional culture, where digital protection relied not only on technology but also on continuous training, change management, and organizational resilience. She explained that a sustained cybersecurity culture enabled institutions to respond more effectively to emerging threats, such as malicious AI and advanced social engineering.

November 4

Internet2 Explored Zero Trust Strategies

The third session was led by Dameion Brown, Chief Information Security Officer at Jackson State University. Brown explained how identity management formed the foundation of Zero Trust strategies and how collaborative cybersecurity efforts helped build more resilient communities. He also shared the impact of these initiatives at Jackson State University, within the Mississippi cybersecurity community, and across other regions.

Brown provided practical insights drawn from his daily experience, which combined incident management with oversight of vendor relationships. During the session, he invited participants from across the Americas to exchange experiences, compare strategies, and learn collectively in a rapidly evolving cybersecurity landscape. The session addressed why identity management is essential for Zero Trust strategies, how collaborative efforts shape stronger communities, and what these initiatives had meant for Jackson State University and the broader regional cybersecurity ecosystem.

BELLA II, a reference of bi-regional digital cooperation at the IV CELAC–EU Summit

The meeting reaffirmed both regions' commitment to cooperation, innovation, and inclusive digital transformation as strategic pillars of sustainable development.

Ixchel Pérez / Jenny Flores

This Summit, celebrated at the beginning of November in Santa Marta, Colombia, brought together heads of state and government from both regions under the joint presidency of António Costa, president of the European Council, and Gustavo Petro, pro tempore president of CELAC.

In his statement following the Summit, António Costa underlined the pivotal role of the European Global Gateway strategy and the BELLA II programme, implemented by RedCLARA with the support of the European Union, as a concrete example of digital cooperation between Europe, Latin America, and the Caribbean. He also announced a new package of initiatives to strengthen further bi-regional digital collaboration, including expanding the BELLA programme, satellite-based connectivity projects, and developing a supercomputing network linking the two regions to promote innovation, research, and technological partnerships.

Digital cooperation and meaningful connectivity

The Santa Marta Joint Declaration reaffirms both regions' commitment to a people-centred, open, and secure digital transformation. It promotes the development of ethical and trustworthy artificial intelligence, investment in digital infrastructure, and the strengthening of capacities across the region.

It also recognises the progress achieved through the EU–LAC Digital Alliance, which was launched in 2023 under the Global Gateway framework. This alliance includes initiatives such as the high-performance computing network and last-mile satellite connectivity, which are key areas in which the BELLA II programme plays a central role.

'BELLA II shows that cooperation can deliver concrete results: more connectivity, more shared knowledge, and more opportunities for our countries,' said Luis Eliécer Cadenas, Executive Director of RedCLARA.

Through new connectivity and technological collaboration projects, BELLA II is expanding to Central America and Peru, and continues to consolidate its role as a driver of digital cooperation between Europe, Latin America, and the Caribbean. Now in its third year of implementation, the programme is building an inclusive and sustainable digital ecosystem that broadens access to knowledge, strengthens research and education, and promotes regional integration and technological autonomy.

RedCLARA at the ALC–EU 2025 Civil Society Forum

As part of the Summit, a Civil Society Forum was held, during which RedCLARA's Executive Director, Luis Eliécer Cadenas, participated on the panel on digital transition alongside representatives from Colnodo and Derechos Digitales. The discussion addressed key issues, including technological governance, digital rights, and standards for a people-centred digital transformation.

RedCLARA also contributed to the working groups on digital inclusion and literacy, offering recommendations on access, connectivity, and equity for children and young people, gender equality, Indigenous peoples, and persons with disabilities.

RUTE launches a 2025 webinar series on quantum technologies in health.

Jenny Flores

Quantum computing, a technology that uses principles of quantum physics to process information much faster and more complexly than traditional computers, is beginning to transform various fields. In the health sector, these tools enable the analysis of large volumes of biological data, faster drug discovery, more precise diagnostics, and the development of advanced sensors for health monitoring. In short, quantum health aims to make medicine more efficient, personalized, and accurate.

To explore this potential, the Brazilian Telemedicine University Network (RUTE) organized a series of four webinars on quantum technologies in health between September and December 2025. The sessions were held in partnership with the Hospital Israelita Albert Einstein (HIAE) and the Federal University of ABC (UFABC), with the support of RedCLARA and RUTE-ALC, bringing together researchers, professionals, and managers interested in technological innovation applied to the health sector.

"Having spaces like these allows academic and research institutions in Latin America and the Caribbean to connect with cutting-edge experiences and foster a strategic dialogue on science, innovation, and human capital development," said Tania Altamirano, Academic Relations Manager at RedCLARA. The network played a key role by facilitating collaboration, sharing knowledge, and promoting the integration of the regional community in this emerging field.

The series covered fundamental concepts of quantum computing and concrete applications in genomics, drug discovery, AI-assisted diagnostics, and high-precision sensor development. Each session included discussions on technical and human challenges, interdisciplinary collaboration, and strategies to strengthen Brazil's and the region's presence in this technological frontier.

According to Paulo Lopes, Digital Health Specialist at RNP, quantum technologies represent a major scientific advance but also a risk of technological exclusion if a coordinated strategy is not promoted. Therefore, the series aimed to engage researchers and professionals from Brazil, Latin America, and the Caribbean, fostering cooperation with European academic networks and linking science, innovation, and talent development.

CARLA 2025 in Kingston marked a week of innovation and collaboration in HPC

Jenny Flores

The city of Kingston, Jamaica, hosted the 2025 Latin American High Performance Computing Conference (CARLA 2025), an international forum that since 2014 has brought together the High Performance Computing (HPC) community from Latin America and around the world to present advances, discuss trends, and explore new applications in this strategic field.

The conference opened with two workshops that set the tone for a week of learning and exploration: Simulating Quantum Algorithms with Q-Team and Introduction to Programming for HPC. Keynote lectures by Rupak Biswas (NASA Ames), on exploration technologies for NASA missions, and Ricardo Baeza-Yates (KTH), on the challenges and limitations of data and machine learning, launched a rich exchange of knowledge.

Throughout the week, the regional HPC community engaged in hands-on activities, specialized workshops, and international collaboration spaces. The contributions of women advancing high-performance computing in Latin America were highlighted, and the Women in High Performance Computing (WHPC) workshop—organized by the Latin American chapter of Women in HPC—brought together researchers, students, professionals, and allies committed to expanding participation and leadership in the field.

The program also included sessions on automation, scalability, and best practices for HPC infrastructure, featuring the participation of Sergi Girona from the Barcelona Supercomputing Center (BSC). These activities strengthened CARLA's role as a key space for building capacities, exchanging knowledge, and preparing the next generation of specialists in HPC, artificial intelligence, and data science.

CARLA 2025 remains a reference platform for scientific and technological innovation and collaboration across the region and beyond.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