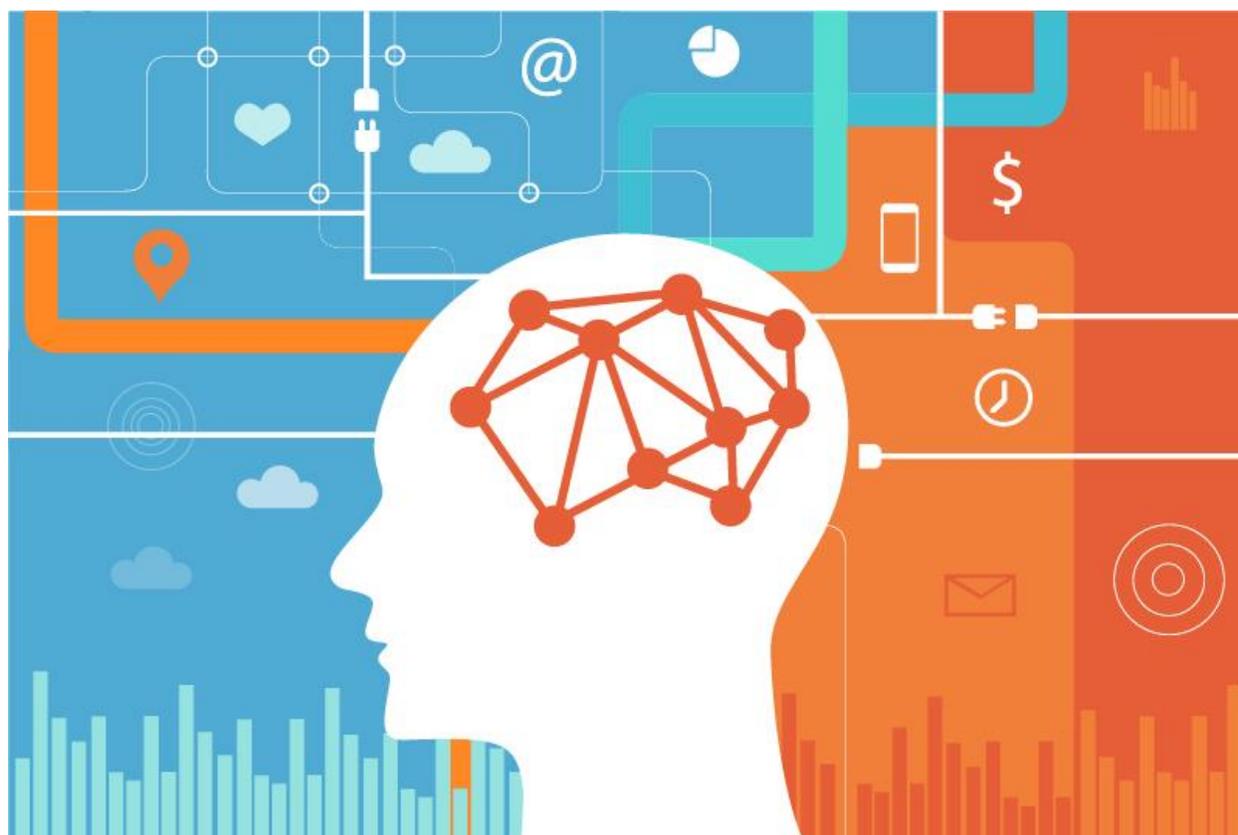


INTAL CONNECTION

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“Fine-tuning Synergies Is the Key to Knowledge-Based Services”

INTAL talked to Andrés López, one of the organizers of the 2018 Latin American Network for Research on Services (REDLAS) conference, about his vision of knowledge-based services, the challenges facing Latin America, and the main aims of the event.



Mr. López discuss the future of knowledge-based services as part of the **call for papers** for the upcoming REDLAS conference, to be held in Buenos Aires on September 12–13, 2018. The complete interview is available in the Spanish-language issue of *INTAL Connection*.

The Future of the Health Sector and the Challenges of New Technologies

The first ever disk drive was developed in September 1956 by IBM and had a storage capacity of 5 MB. That's the equivalent of two or three medium-resolution photos like the ones we take with our telephones. The IBM 350, which 50 years on is now a museum piece, weighed one ton, was 1.73 meters tall, and had to be moved by cranes and cargo planes.

Today, devices not much bigger than a grain of sugar can store and transmit huge amounts of information, as has been shown at Brown University in the United States, which has developed "neurograins," tiny interfaces that can record neuron activity or send predetermined stimuli to the brain.

This was the example that Gustavo Beliz, director of the Institute for the Integration of Latin America and the Caribbean (INTAL/IDB), used to open his presentation at the seminar held in parallel with the Meeting of the Board of Governors of the IDB, which took place on March 21, 2018, in the city of Mendoza, Argentina. The seminar was titled "Training Human Resources for the Health Sector vis-à-vis the Challenges of New Technologies" and was attended by high-profile figures from the sector. The other speakers included Eduardo Luna, vice dean of the University of Mendoza, María Eugenia Schwermer (Policy Wisdom), Juan Antonio Zapata (University of Mendoza), Carlos Thomas (ISG), Luis Navas (Conexia), and Orlando Reos (Sigma Capital Advisors). There is a summary of Mr. Beliz's presentation in the Spanish-language issue of this *INTAL Connection*.

Knowledge-Based Services: The Future of Development?

Exports of knowledge-based services have grown significantly in Latin America and the rest of the world. Services have come to play a more significant role in global trade over the last few decades: global exports increased nearly twelvefold between 1980 and 2016. By comparison, global exports of goods increased nearly eightfold in the same period.[1] This means that the share of service exports in total exports went from 16% in 1980 to 23% in 2016.

At first glance, this does not seem to have been true of Latin America and the Caribbean (LAC). Exports of services from the region grew only slightly more than those of goods. While Latin America's trade in services grew just over 8.5 times between 1980 and 2016, exports of goods increased eight times in the same period. [1] This means that the share of service exports in total exports went from 14.5% in 1980 to 16% in 2016.

However, Mexico's trade pattern was very different to the rest of the region: its exports of goods far outstripped the average, as a consequence of NAFTA. When Mexico is left out of calculations, exports of services from LAC between 1980 and 2016 grew nearly twice as much as exports of goods did. Consequently, the share of services in total exports from the region (without Mexico) increased notably, from 13.3% in 1980 to 21% in 2016.

Servitization: LAC and New Service-Based Business Models

The integration of services into manufacturing activity—the so-called servitization of goods—is one of the main factors behind the exponential growth in services in the global economy.

Four decades earlier, a strategy for diversifying or adding value based on adding services would have been considered fanciful, to put it mildly. Not only were most services hard to trade, the sector was considered synonymous with low productivity and limited innovation.

But the world has changed radically in recent years: **new production and trade paradigms** that came hand-in-hand with an unprecedented technological revolution have put services at the center of the global economy. This phenomenon is known as “servinomics” and is largely about the transition from manufacturing systems to service-based business models in which companies seek to increase their competitiveness by offering services that complement, or even replace, the goods they produce.

The Spaghetti Bowl of Trade in Services

The WTO agreement, regional agreements, agreements on recognizing academic qualifications, and agreements on visas, investments, the movement of persons, e-commerce, and public procurement are some of the regulatory spaces that affect the complex issue of trade in services. The exponential advances in the digital economy have reduced the cost of generating, transmitting, and storing information, which has driven service exports. **Knowledge-based services** play a major role in the generation of innovation, productivity, and demand for skilled human resources within modern economies[1]. The region has significant potential in these areas[2], trade in which has increased fourfold since the early 2000s and exports of which have caught up with or even outstripped those of some primary products[3].

According to a survey of a series of Latin American export firms[4], the main factors that determine competitiveness are linked to the internal allocation of resources, including the quality and availability of human resources and labor costs. Although the quality of human resources in LAC are generally described in favourable terms, disadvantages have been observed in relation to the availability of personnel, their language skills, and local labor legislation. The challenge, therefore, is about increasing the supply of highly skilled human resources and those with special qualifications to reduce this bottleneck. Local companies sense they are at a disadvantage in terms of the quality and cost of communications infrastructure and their ability to access and afford financing.

[1] López y Ramos (2017b)

[2] <http://www.tholons.com/digitalnationsupercities/>

[3] [INTAL-Interactivo](#)

[4] Lopez, Niembro y Ramos (2017)

The Digital Economy Takes SMEs Across Borders

The success stories of disruptive local firms that have gone international prove that LAC has plenty of talent and creativity to offer the world.

The benefits of the digital ecosystem are clear: we can communicate better and faster, it allows us to work remotely, it generates new disruptive business models, and it blurs physical boundaries.

But for LAC in particular and developing countries in general, there is an even deeper reason. It has to do with access. Through the so-called digital economy, Latin American men and women can work from home, sell their products or services online, take part in internet-based training programs, or access tailor-made financial services via smartphone. In short, they can become globally visible.

Of course, there are still many disparities and obstacles that we need to get past. According to the IDB report titled "*La gobernanza de las telecomunicaciones: Hacia la economía digital* [Telecommunications governance: towards the digital economy] (link in Spanish)," only 10% of the population have access to fixed broadband, in contrast to 28% in OECD countries. Approximately 30% have access to mobile broadband, far from the 72% OECD average. Connections in the region are also worse quality than in the developed world.

At the Service of Robots

Advances in artificial intelligence (AI) are impacting service robotics, which will grow by over 25% per year in the next three years.

Robotics has come a long way from traditional industrial applications, expanding towards service activities as part of a dynamic process that is transforming the outlook for the economy, the workforce, and foreign trade. Progress in AI and the development of new materials and lighter, lower-cost electronic devices have contributed to the growth in service robotics, a sector in which start-ups play a key role.

According to the consultancy firm IDC, the market for service robotics and related technology will grow at an annual compound rate of over 26% from now to 2021. The main innovations are taking place in sectors as diverse as logistics, defense, livestock, construction, entertainment, medicine, security, public relations, cleaning, inspection and maintenance, and patient care and rehabilitation.

A More Streamlined, Efficient Border Between Colombia and Ecuador

The two countries are to modernize the Tulcán–Ipiales border crossing to improve flows of freight and passengers along the Bogotá–Quito Corridor. The border between Colombia and Ecuador is approximately 600 km long and can be divided into three very different areas based on geographic, socio-economic, and cultural features. These are:

- The Pacific coastal area, which links Nariño Department in Colombia and Esmeraldas Province in Ecuador and relies largely on sea transportation due to the absence of highways.

- The Amazon area, where the the San Miguel Passage and other waterways link Putumayo Department in Colombia and Sucumbíos Province in Ecuador.
- And finally, the Andean area, which lies between Nariño Department in Colombia and Carchi Province in Ecuador. This is the most important of the three areas in terms of migratory flows and international trade, which take place over the Rumichaca International Bridge at the Tulcán–Ipiales border crossing.

The Binational Border Assistance Centers (CEBAFs) that have been implemented at the Tulcán–Ipiales border crossing will optimize customs and immigration operations, prevent the doubling up of checks and monitoring, and reduce the delays currently affecting passenger and freight transit between the cities and production centers of the Andean region in both countries. In addition, improvements to the CEBAF access roads at San Miguel will bring significant economic benefits to nearby border towns by promoting commercial ties and trade in goods between them.

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