

THE UNIVERSITY IN TIMES OF SOCIAL TRANSFORMATION: CHALLENGES FOR SCIENCE AND DEVELOPMENT IN LATIN AMERICA

The university has historically been a fundamental institution for the development of societies. Its contribution extends beyond the education of professionals to knowledge generation, social mobility, and responses to major collective challenges. A transformative university uses knowledge and technology to expand human capabilities, opportunities, and social participation.

Latin America is undergoing technological, economic, demographic, environmental, and social transformations whose pace contrasts with the structural weakness of its scientific capacities. In this context, Latin American universities should not limit themselves to reproducing models from developed countries, but rather generate knowledge to interpret these changes and help shape their direction. This entails moving from a university that adapts to the future to one that actively participates in building it, linking knowledge with the region's social and productive needs.

This perspective has fostered management models aimed at integrating university functions with social needs. Universities have a dual role: to study the major challenges of sustainable development and transform the way they operate to help address them. Accordingly, they expand their functions of teaching, research, and engagement with society to encompass knowledge transfer, innovation, entrepreneurship, and coordination with territorial ecosystems.

Many universities declare themselves socially committed, but the challenge is to make that commitment a structural characteristic. They are the region's main drivers of scientific production and advanced human capital formation, although their impact on innovation remains limited. UNESCO IESALC (2024) argues that increasing investment in R&D is necessary but insufficient: it must be accompanied by internationalization, researcher mobility, technology transfer, links with the productive sector, interuniversity collaboration, and participation in the governance of national research systems. According to ECLAC (2025), Latin America and the Caribbean invests approximately 0.56% of GDP in R&D, compared with 3.0% in the OECD, 3.6% in the United States, and 2.6% in China.

Technological transformation requires reconsidering the role of the university and the value of academic knowledge in a society saturated with information. During the pandemic, numerous Latin American universities adopted digital platforms and systems to continue classes, but technology

only becomes meaningful when accompanied by pedagogical transformation. It can democratize education, but also deepen inequalities and turn Latin America into a consumer of technologies developed in other regions rather than a producer of its own knowledge and technology.

Scientific migration adds another challenge. In the region, researchers face difficulties in conducting high-quality research at the frontiers of knowledge. Attracting leading researchers does not solve the problems of the scientific system without stable positions, appropriate institutional conditions, and opportunities to develop competitive scientific careers. Latin American researchers require not only disciplinary specialization but also the ability to work across disciplines, use digital tools and artificial intelligence, collaborate internationally, and communicate findings beyond academia.

Latin American universities must also respond to profound demographic transformation. Declining fertility and population aging require reconsidering a model focused on young people and moving toward lifelong learning, incorporating those who need to update or reorient their skills. The expansion of higher education has created a more heterogeneous student body in socioeconomic, educational, family, and cultural terms. Intraregional migration poses challenges related to inclusion, recognition of prior studies, cultural adaptation, and academic support. Social transformation is changing not only how many students will enter universities, but also who they will be, what they will need, and how they will expect to learn.

Strengthening Latin American universities means much more than improving academic indicators: developing the capacity to understand the region's problems, generate knowledge to address them, and ensure that it extends beyond the academic community. The challenge is to articulate scientific excellence, social relevance, and innovation to transform knowledge into sustainable development. In a Latin America undergoing transformation, the university cannot limit itself to adapting to the future: it must help build it.

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