AIs, teachers' training and digital divides

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OBSERVATORIO DE GESTIÓN EN EDUCACIÓN, CIENCIA Y TECNOLOGÍA

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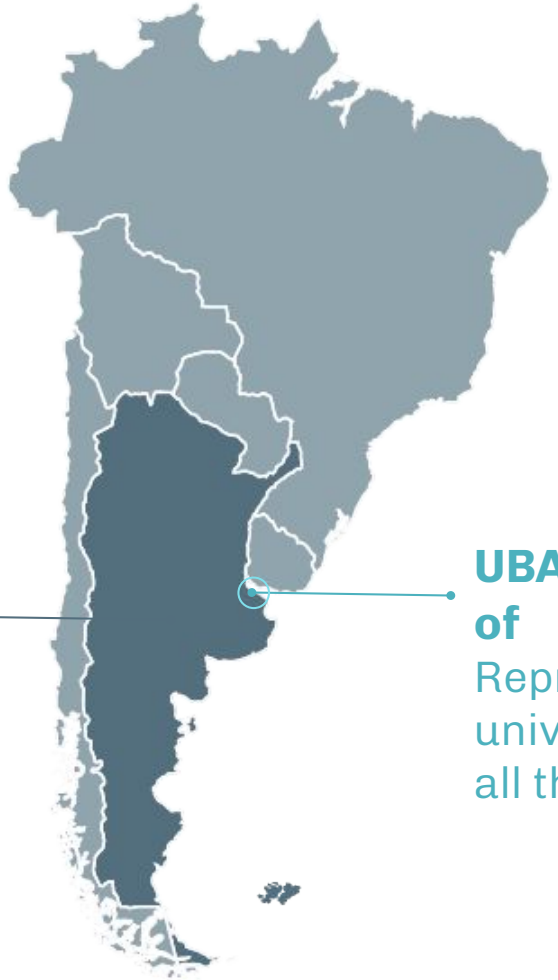
Argentina

Population: 46.000.000



UBA - University of Buenos Aires

Represents 12% of university students in all the country

Education System in Argentina

- **Decentralized structure:** 24 jurisdictions (provinces) + City of Buenos Aires. Each one designs its own curriculum, school calendar, and education policies.

- National government, provinces, and CABA **share responsibility** for planning, supervision, and funding (mainly provincially funded).

- **Inter-jurisdictional coordination body:** Federal Education Council (CFE), where all jurisdictions are represented. Its main role is to ensure the unity and coordination of the national education system. Includes Ministers of Education, university representatives, unions, and specialists. Defines national curricular guidelines and common public policies.

- Each province implements them according to its context and resources.

Compulsory Education in Argentina

- From age 4 to the end of secondary school.

- **Preschool:** ages 4 and 5.
  Primary: ages 6–11/12.
  Secondary: ages 13–17/18 (general or technical).

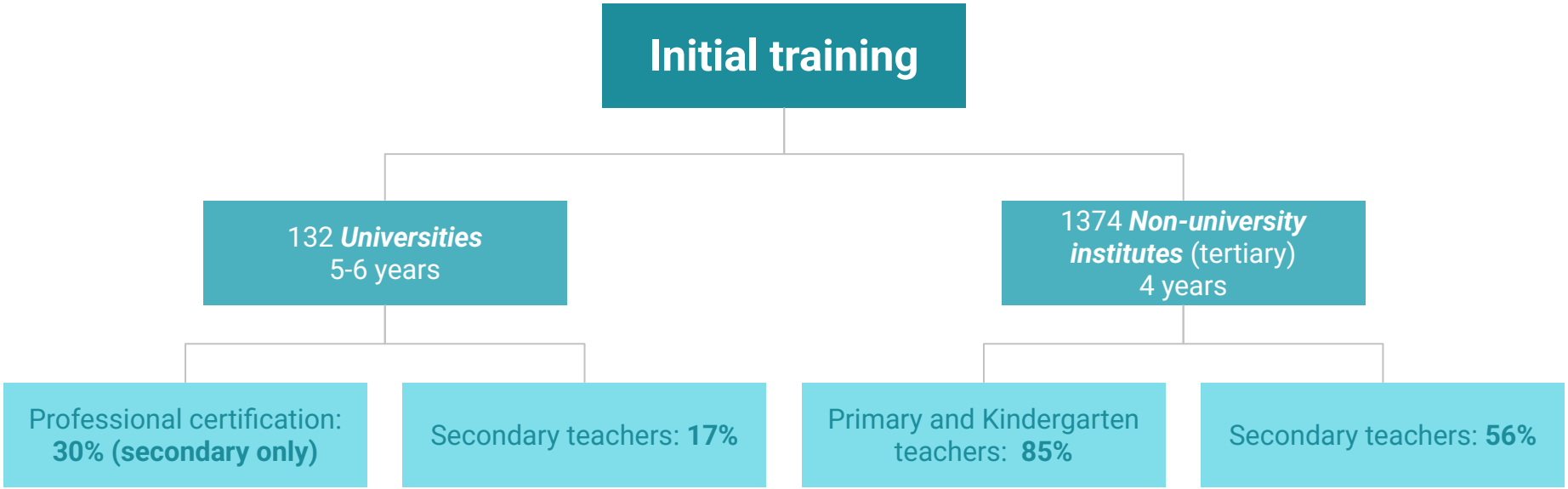
- 14–15 years of compulsory schooling.

- High attendance rates compared to the regional average.

Level	Amount of schools	Amount of students
Preschool	21.076	1.576.572
Primary	22.729	4.723.730
Secondary	13.654	4.062.601

Source: : National Secretary of Education (2024)

Teachers' training: Initial and Continuous



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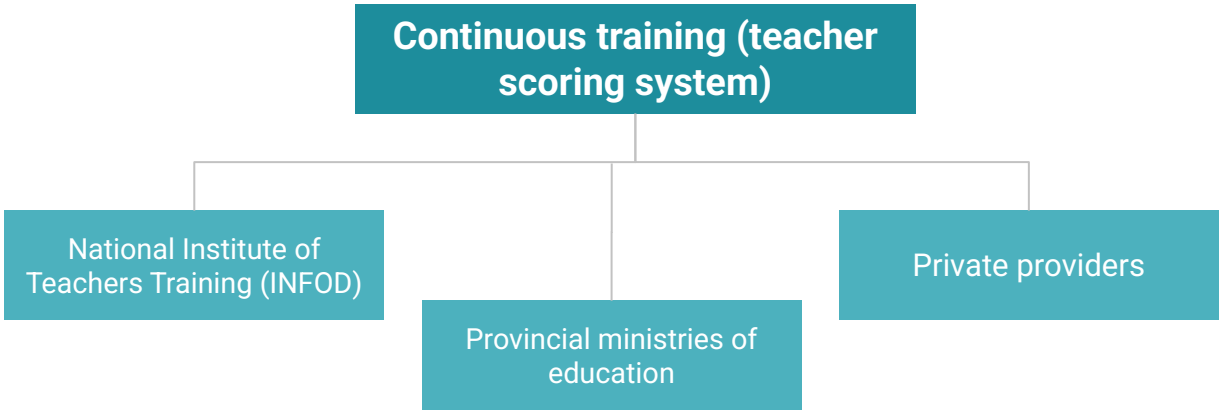
Teachers' training: Initial and Continuous



- Great level of heterogeneity
- Very dissimilar levels of quality
- Marketization

Teaching Career in Argentina – Key Features

- Defined by national laws and to a large extent by jurisdictional regulations.
- Entry requires a teaching degree or a technical/professional qualification related to the field.
- Implementation varies by jurisdiction and according to teacher demand. Students with 50–75% of their program completed may begin teaching.
- No national entry exams for teaching positions. Public competitions exist, but entry often occurs through personal contacts or direct applications in both public and private schools.

Digital Inequalities in Argentina

87%

Primary and secondary schools with INTERNET connection

Nevertheless, access does not always support pedagogical use—often limited to administrative purposes.

32%

Primary and secondary schools have an INFORMATIC LABORATORY

Space with computers/notebooks/tablets and a stable connection.

35%

TERTIARY institutions -teachers training- have an INFORMATIC LABORATORY

Teachers in training lack the ICT tools necessary for their future teaching practice.

61%

Children and young people (9-17 years old) have a COMPUTER AT HOME

This is a critical resource for studying, and it is not available to them either at home or at school.

Source: : National Secretary of Education (2024) and United Nations Children's Fund (2025)

How can we ensure that all citizens develop the digital competences needed for digital citizenship?

Critical

- Recognition that content is never neutral.
- Discernment of reliable information.
- Reflection on educational, social, economic, and political impacts.

Ethical

- Awareness of digital footprint and online responsibility.
- Understanding the limits between public and private spheres.
- Awareness of digital biases

Creative

- Shifting from users to producers or prosumers.
- ICT to develop innovative solutions to real-world problems.
- Understanding the fundamental principles behind digital technologies.

About Artificial Intelligence in Argentina

76%

Students aged 9 to 17 are familiar with the ChatGPT tool

70% of students state that they know more about ICT than their parents.

59%

Students aged 9 to 17 from low socioeconomic backgrounds know about ChatGPT.

Only 31% of children of low socioeconomic level have a computer.

60%

Students aged 9 to 17 report having used ChatGPT.

Among them, 66% say they have used it to complete school assignments (the most common use).

90%

of students report using the internet to study

Only 60% do so on a daily basis (digital divide).

Source: : United Nations Children's Fund (2025)

Teachers and AI

- There is no available data on teachers' use of ICT and AI in Argentina.
- There is no information on teachers' access to digital technologies or on what tools they use for their work.
- There is no data on teachers' perspectives on AI — What do they think about it?
- Regional study in Latin America (Enki Educational Foundation):
  98% of teachers believe that AI has an impact on their professional practice.
  54% are interested in incorporating AI into their teaching process, but have not yet done so.

AIs in Education: Public Policy Initiatives

1	***PAIDEIA Program*** National Strategy for AI in Education, propose an holistic integration of AI tools into teaching and learning across all levels. Student support in using AI- Teacher training on AI integration- Curriculum development with AI-specific content- Administrative system integration.	**Strengths** • Unified national framework and Multi-dimensional & level-specific approach. • Affirms the irreplaceable role of teachers. **Challenges** • Lack of concrete implementation details & public data. • No budget allocation (2026). • Overlooks existing digital divides. • Focus on adopting existing tools; lacks national technological sovereignty.
2	***AI Observatory (CFE)*** has the mission to produce reports, diagnostics, and policy proposals. Also promotes federal dialogue and working groups to share innovative practices.	**Strengths** • Focused governmental body for a comprehensive and collaborative vision. Includes all regions and key actors (universities). **Challenges** • Not yet operational (but created in early 2025). Reports to a non-mandatory (advisory) federal council. • Fails to address the digital divide. Major Gap: Aims to improve ICT/AI teacher training, but the new national guidelines for curricula lack specific directions about ICT and doesn't mention AI or the necessary infrastructure.
3	***Continuous Teacher Training Opportunities on Artificial Intelligence***: offered by National Institute for Teacher Training, jurisdictions, NGOs, tech companies, and universities.	**Strengths** • Recognition of the urgent need to integrate AI into teacher training. **Challenges** • Wide variation in quality: from short 3-hour courses to full diplomas and postgraduate programs. Predominant instrumental focus: how and for what purposes to use AI, without deeper analysis of its societal impact, development processes, or ethical and political implications. • Emphasis on specific platforms and software. Limited reach and scalability.

AIs in Education: Public Policy Initiatives

4

Development of Jurisdictional Programs and Projects for the Integration of AIs in Education (most initiatives launched from 2025 onwards)

- **AI in Education (Tucumán):** *Focuses on the fundamentals of AI, its impact on various spheres of life, and its potential uses in the field of education.*
- **AI in Didactic Planning (Córdoba):** *Supports teachers in lesson design and instructional planning, using AI as an assistant for pedagogical tasks.*
- **AI in the Classroom (National Government, CABA):** *Implements AI tools to assist students in their productions, including the development of didactic guides centered on instrumental uses of AI for classroom activities.*
- **AI as a Pedagogical Partner (Santa Fe):** *Conversational systems (accessible via WhatsApp or other platforms) designed to accompany students' learning processes in a personalized way — answering questions, proposing activities, and encouraging critical thinking, available 24/7.*
- **AI in School Management (Mendoza, Entre Ríos, San Juan):** Uses AI to monitor students' educational trajectories, focusing on attendance and academic performance.

AIs in Education: Public Policy Initiatives

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Development of Jurisdictional Programs and Projects for the Integration of AIs in Education (most initiatives launched from 2025 onwards)

Strength

- Emphasis on teacher training – recognition of teachers as key agents of AI integration.

Challenges

- Limited scope and non-massive implementation.
- Lack of investment in infrastructure and equipment.
- Persistent digital divide (many households without computers – census data).

Challenges on preparing K-12 teachers for the future

- **Digital divides:** Inequality in access to and use of ICT, including AI. This affects all sectors of society and directly impacts teachers' working and learning conditions.
- **Coordinated Public Policies with Sustained Funding:** National education budget cuts force provinces to rely on their own resources, increasing inequality. National programs providing educational technology to schools or students have been discontinued, leaving schools without adequate equipment or infrastructure.
- **Regulatory Framework:** Laws and regulations are needed to ensure AI integration in education and the workforce is planned, ethical, responsible, and informed.
- **Lack of Data:** Government data collection focuses on schools, limiting information on teachers who work across multiple schools and modalities.

Challenges on preparing K-12 teachers for the future

- **Coordination between tertiary institutions and Universities:** Universities should strategically support teacher training, which requires substantial transformation. A unified system is needed.

- **Heterogeneity in Teacher Education:** Wide variety of qualifications and quality differences. The Federal Council of Education (CFE) established last year the Federal Integrated System for Evaluation, Certification, and Acreditation of Teacher Training to promote continuous improvement through systematic and participatory evaluation.

- **Curriculum Renewal:** Curricula at all levels, especially teacher education, must incorporate not only ICT as teaching object but especially AI. Current CFE guidelines give ICT a limited role under General Didactics and make no mention of AI.

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Thank you very much

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