AI, TEACHERS AND STUDENTS : A PERSPECTIVE FROM CHILE
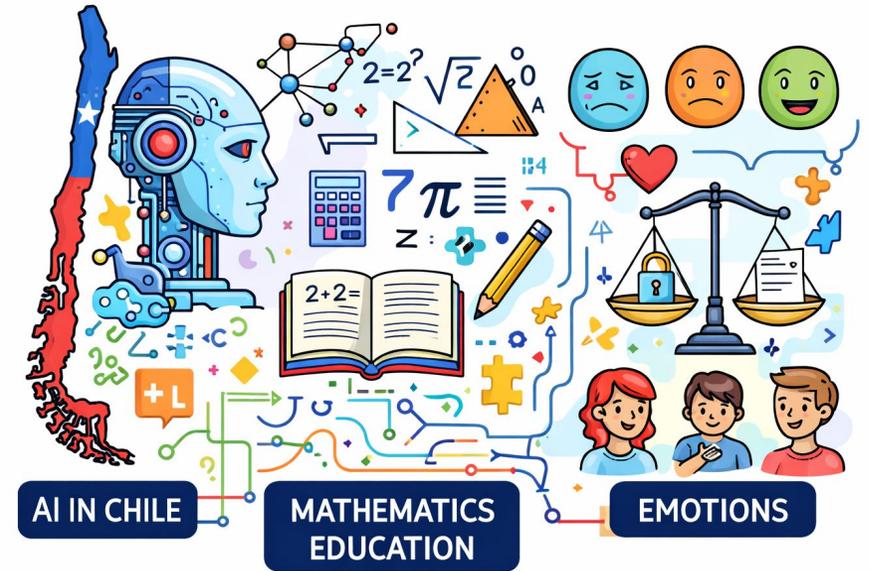
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TEACHERS AND IA: A TENSION

- Teachers are concerned about students' use of AI.

- Assessment is moving from monitoring learning to designing evaluations that capture authentic understanding.

- However, the connections between AI and education are complex.

A LATIN AMERICAN PERSPECTIVE

- In Latin America, there is limited empirical evidence on teachers' actual preparedness to use AI in a formative and responsible way.

- In Chile, the issue is not the use of technology, but rather teachers' pedagogical preparation to use it critically (Alé et al, 2025).

COGNITIVE IMPLICATIONS

- Research suggests that AI use may affect cognition (Kosmyna et al. ; Holmes, 2025).

- This is similar to what happens when we rely on GPS:
we gradually lose the ability to navigate independently (Holmes, 2025).

- Will cognitive skills be weakened if AI is used without pedagogical mediation?

ETHICAL CONCERNS

- It is not yet clear whether children's rights are fully protected in AI-mediated environments.

- Key concerns include:
  - safety,
  - non-discrimination,
  - well-being,
  - and the risk that digitalization deepens inequalities. (UNICEF)

- These tensions also affect mathematics education.

NATIONAL POLICY CONTEXT (CHILE)

- The policy is based on the idea that AI has broad societal impact and therefore requires a national strategy to anticipate its effects.

POLÍTICA NACIONAL DE **INTELIGENCIA ARTIFICIAL**

National Policy IA (Chile)

Three main axes guide policy:

Enabling factors: talent, infrastructure, and data.

Development and adoption: implementation across sectors.

Ethics and regulation: addressing labor, equity, and human-machine interaction.

AI also exposes regional gaps in infrastructure, education, and gender participation in STEM.
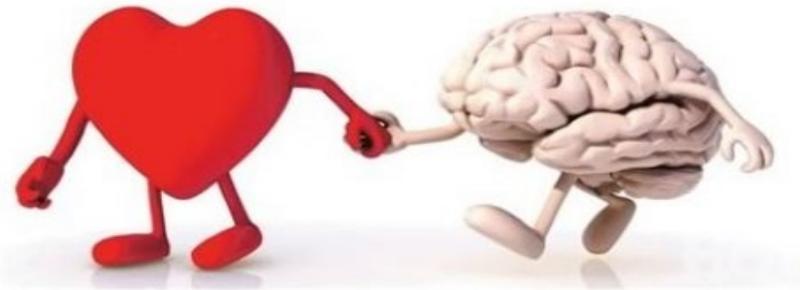
EDUCATIONAL INICIATIVES IN CHILE

- Guidelines for teachers on the use of ChatGPT (2023) Ministry of Education (Mineduc)

- AI Program: Foundations, Citizenship, and Ethics (Grades 9–10) – Innovation Center.

- Curricular recommendations on programming, AI, and machine learning (Mineduc)

- Learning pathway in computational thinking.

- Guiding Framework for Teachers' Digital Competencies.

THE MISSING DIMENSION: EMOTIONS

- **Learning** and **assessment** must remain mediated by the human factor: teachers.

- Generative AI has no feelings.

- It cannot recognize our students' emotions.

- Yet emotions are essential information for teachers' instructional decisions.

- In Chile, the conversation about integrating AI into education cannot be separated from a broader structural challenge facing our school system.

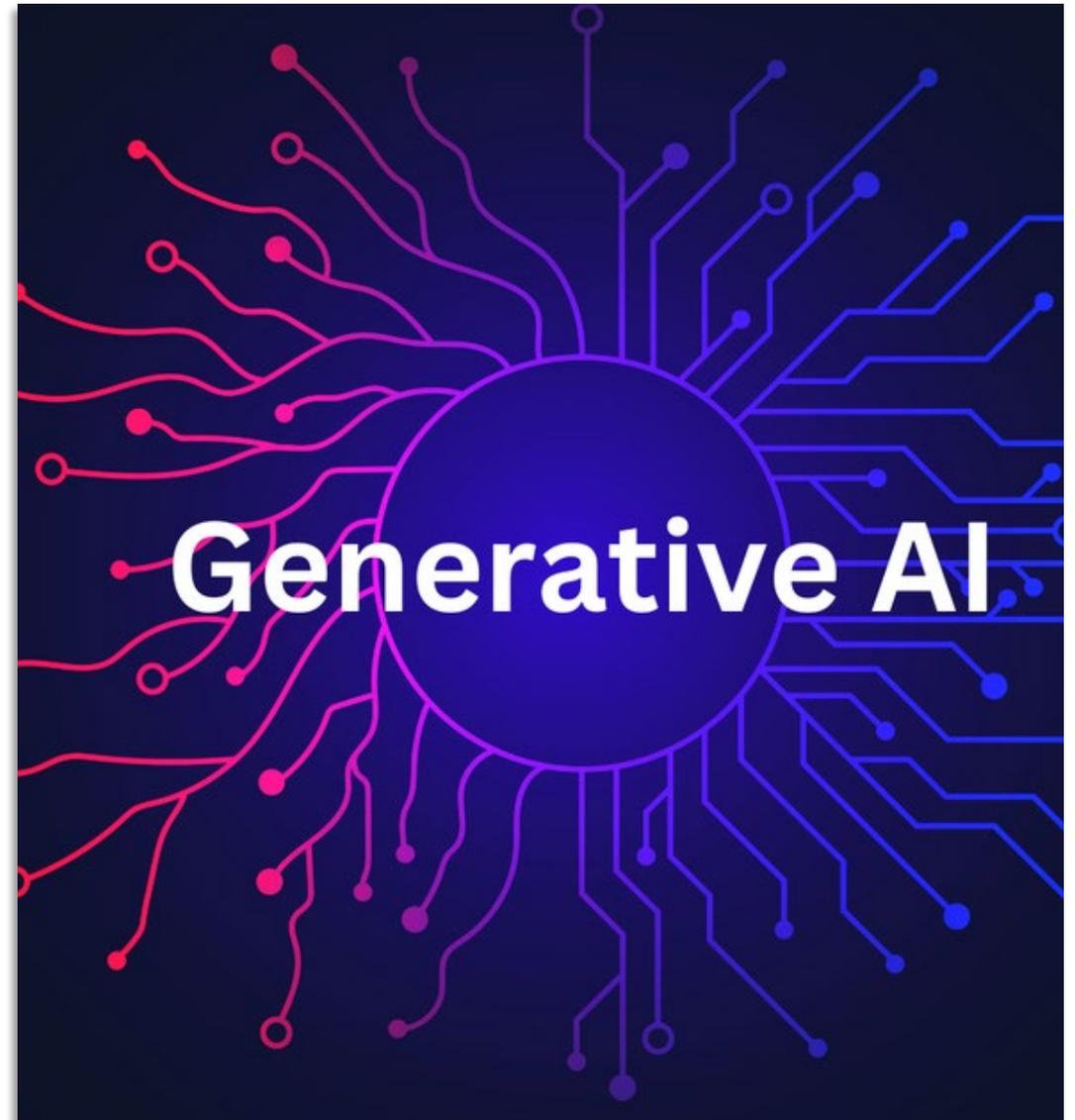- Nearly 23,000 teachers under the age of 40 are currently outside the education system.

- This means that, at the very moment we are asked to mediate the integration of AI, we are also facing a shortage of the very professionals needed to guide that process pedagogically.

- With the new university admission requirements for teacher education programs in Chile, there has been a significant decline (17,5%) in the number of young people interested in pursuing these degrees.

A KEY QUESTION FOR OUR REGION

How do we respond to the emergence of Generative AI in math education?

The focus cannot be only technological.

- We must also address: ethics, critical thinking, and students' emotional development.

AI may transform tools.
But education remains a profoundly human endeavor.

Thank you.

References

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