Unequal Access to Advanced AI

Affordability, university support, and human capital accumulation

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Question

Can unequal access to advanced AI create lasting skill gaps among students who start with the same skills and put in the same effort?

Background

We draw on **Roemer's idea of equality of opportunity**. Students with similar effort can face different learning conditions because of family resources or the support their universities provide.

Data & Method

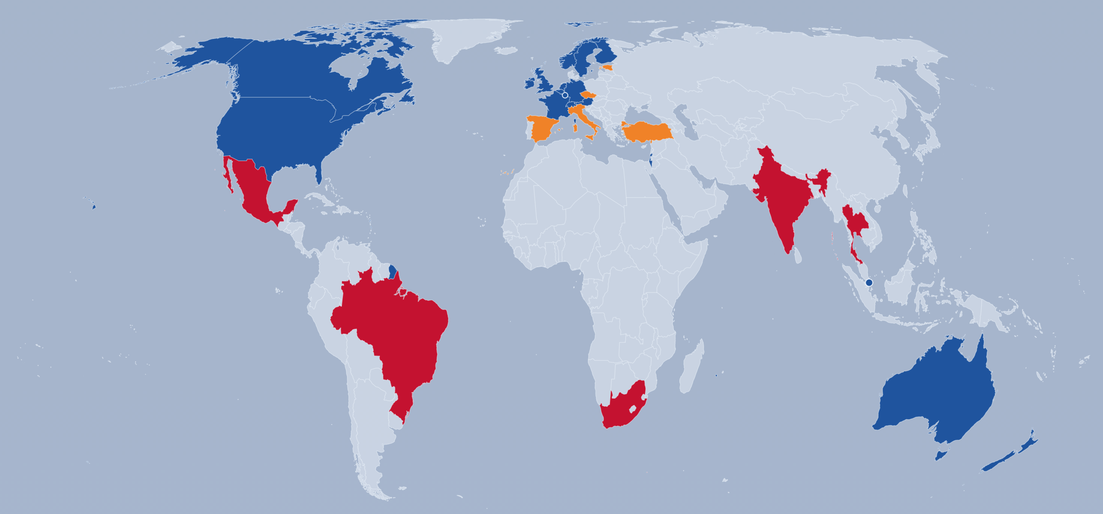
Prices We compared 30 economies. All three top-tier prices were available in 28.

Policies We reviewed records for 81 universities and 29 governments.

Method A descriptive cross-country comparison of what top-tier AI costs relative to income and what universities and governments provide, linked by a simple model of skill accumulation.

World Map

Average annual subscription price as a share of GNI per capita (2025, adjusted to Sep 2026 prices)



≤10% · >10% to 25% · Over 25% · Outside sample

7.5%
Median annual burden

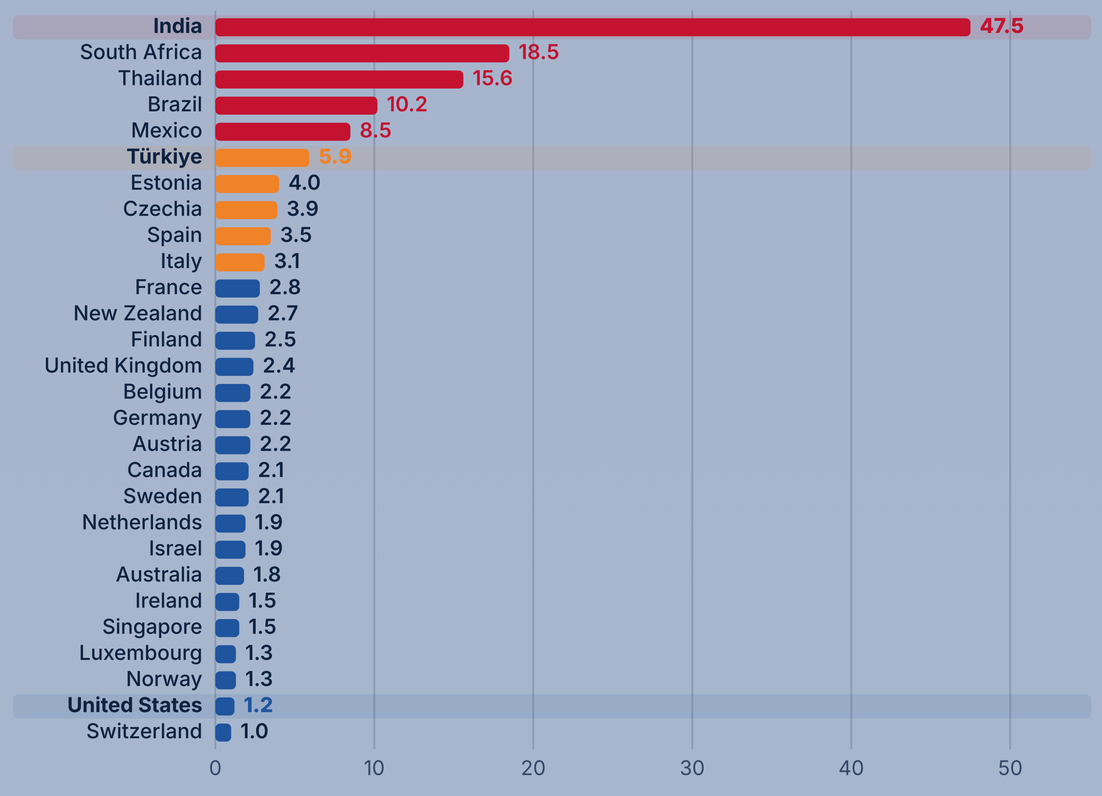
10 of 28
Economies above 10%

Both figures use the average of three top-tier plans.

Affordability Gap

Days of average income for one month of access

Average of ChatGPT Pro 500, Claude Ultra and Google AI Ultra 20x



Access

Documented student provision	n = 81
Frontier AI access for all students or all undergraduates	12
Frontier AI access for selected students	5
University-run AI platform	14
Basic AI tools only	26
No verified student access	24

Mechanism

1 Costs and support — Fees after university or state support

2 AI access — Access depends on the remaining cost

3 Skill accumulation — Learning across periods

Model

Same starting skills and effort in both scenarios

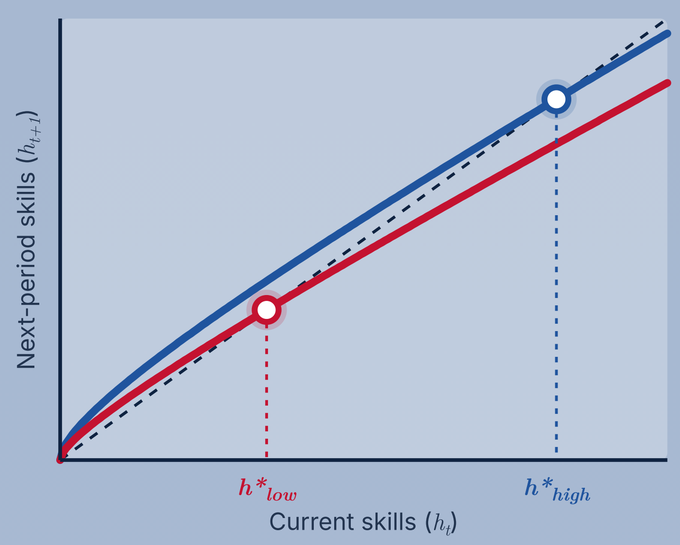
ACCESS

$$a_i = \frac{s}{s + (1 - \sigma_i)\, p_i / y_i}$$

HUMAN CAPITAL ACCUMULATION

$$h_{i,t+1} = (1 - \delta)\, h_{i,t} + (b + \gamma a_i)\, h_{i,t}^{\alpha}$$

s: access parameter · σ: share paid by university/state · p: annual price · y: income · b: basic learning · γ: AI learning gain · α: returns to skills · δ: skill depreciation



Each dot shows the long-run skill level for its access scenario.

Discussion

13 / 29 economies with national guidance

8 / 29 with funding or a partnership

12 / 81 universities: frontier AI for all

Across 29 economies, 13 had national guidance and eight had funding or a partnership. **Only 12 of 81 universities** offered frontier AI to all students or all undergraduates. **Who bears the cost?** Limited campus coverage makes access depend more on what students can afford. In the model, unequal access can create lasting skill gaps even with equal starting skills.

Conclusion

Subscription costs and university or state support shape access to AI. If AI helps students learn, **unequal access can lead to lasting differences in skills.** Targeted university or state subsidies could lower costs for students who face the highest burdens relative to income.

References