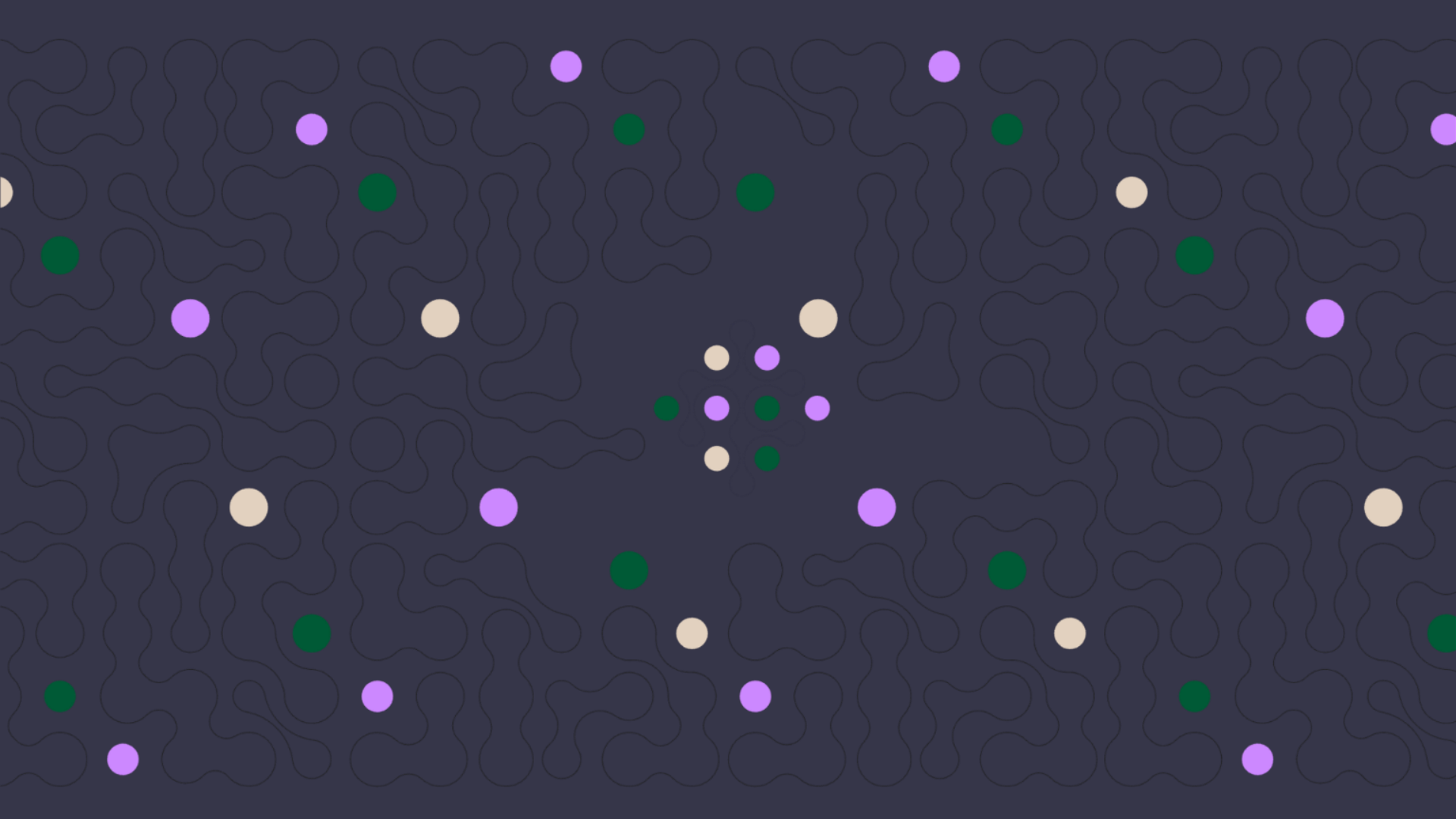


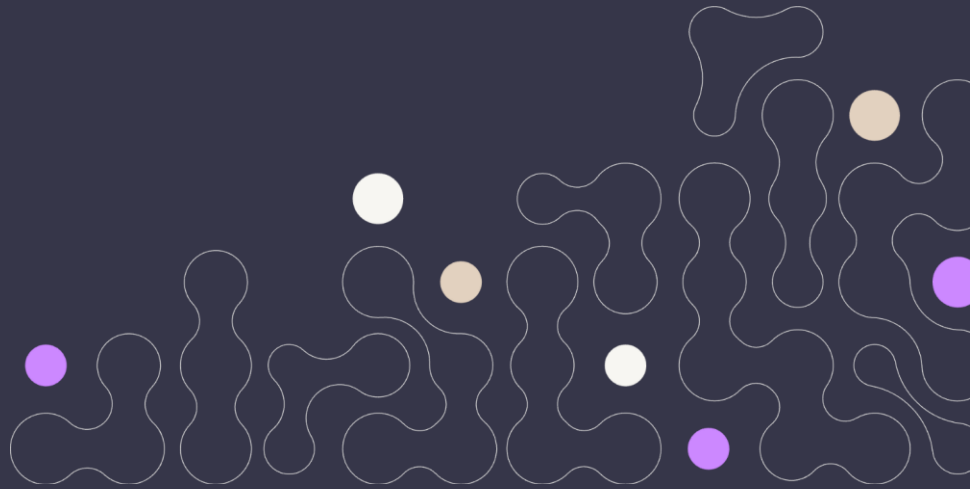
AI Leap

Learning to Learn (with AI)

Piret Oppi

Head of Teachers Program, AI Leap
Researcher, Tallinn University

Oct 8, 2026



Background

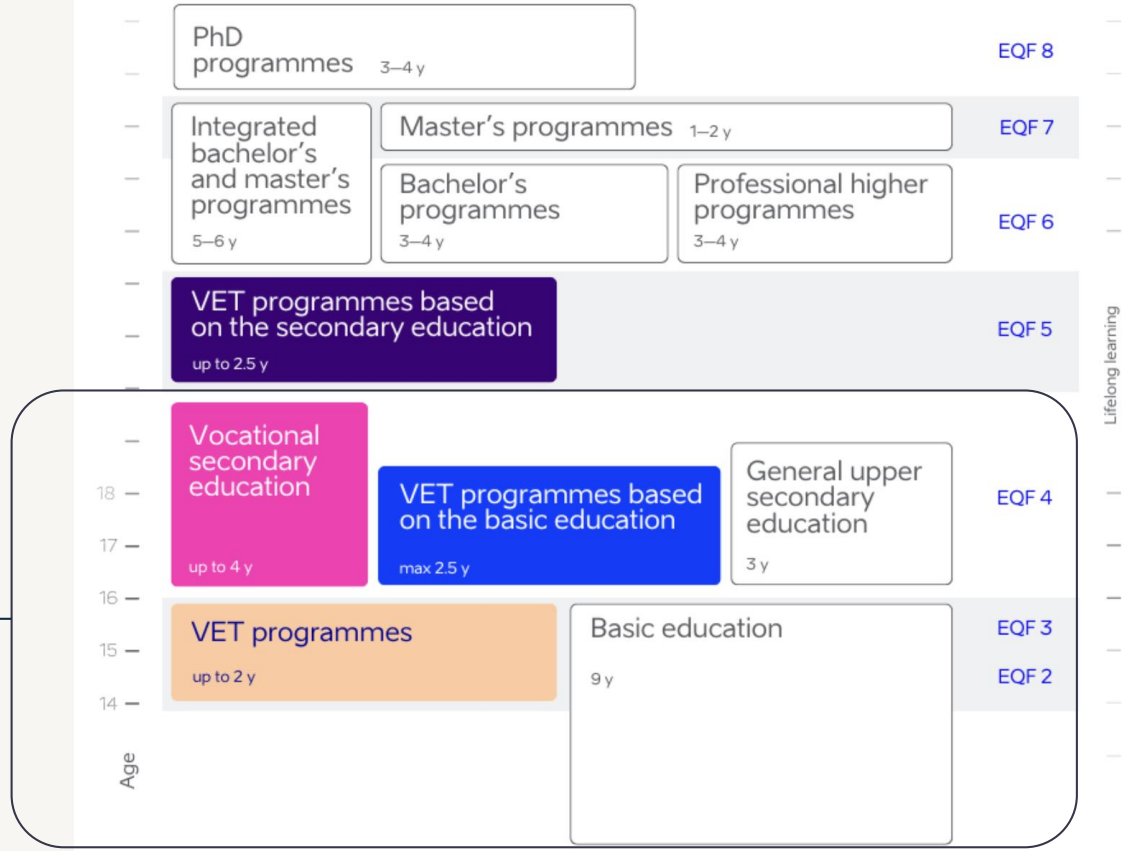
1.3 million people

~ 150 upper secondary schools

~ 300 lower secondary schools

~ 22 vocational schools

Schools in AI Leap program



EQF - European Qualifications Framework.

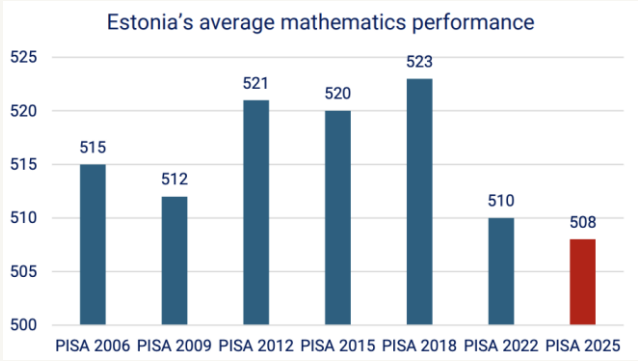
Estonia - yes, but....

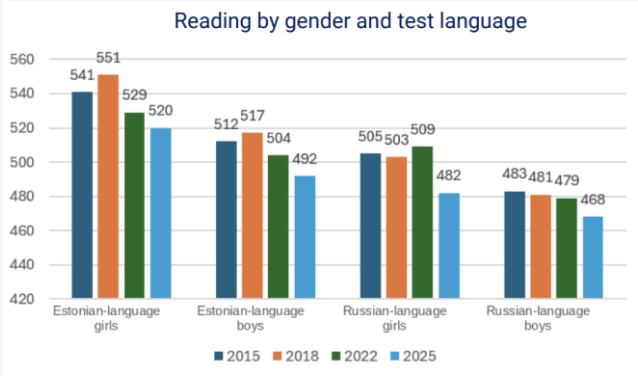
Digital nation and education

Top PISA country (in reading, maths and science)

Books and papers, low teacher digital competence

Decline in reading proficiency, maths, learning skills, mental health, bullying...







Estonia ranks among top countries in latest PISA results

Background on Estonian students' and teachers' use of AI

Students (Jan-February 2024):

- 15,631 lower and upper secondary school students
- **74.2% of lower secondary students** (Grades 6–9) use AI for learning.
- **90.2% of upper secondary students** (Grades 10–12) use AI.
- 69% used ChatGPT
- For… answering homework questions; generating ideas; fact-checking (more common in younger students); summarizing topics (more common in older students)

Granström, M., & Oppi, P. (2025). Student engagement with AI tools in learning: evidence from a large-scale Estonian survey. In ***Frontiers in Education*** (Vol. 10, p. 1688092).

Teachers (Nov-Dec 2024):

- 3,848 Estonian teachers
- **53% of Estonian teachers reported using AI tools** in their work, **47% had never used AI** tools.
- Usage varies by school level:
- Basic school teachers used AI the most (66%).
- Upper secondary teachers and those teaching at multiple levels showed about 50% usage.

Granström, M., & Oppi, P. (2025). Assessing Teachers' Readiness and Perceived Usefulness of AI in Education: An Estonian Perspective. In ***Frontiers in Education*** (Vol. 10, p. 1622240).

How do we prepare young people to live and learn with AI — without outsourcing their thinking to it?

AI Leap

"We'll learn to use
artificial intelligence
not the most,
but the smartest."

President of Estonia, Alar Karis
25th of February 2025



AI Leap unites Estonia’s entire education ecosystem



President Alar Karis
Initiator and programme patron

Companies & Founders
Innovation, expertise, 50% of financing

Ministry of Education and Research + AI Council
Policy, infrastructure, 50% of financing

Teachers and Students
Co-creation, sharing best practices

AI-Leap

Universities & Scientists
Program development, impact studies, ethics

School Leaders
Change management, support

Institute of the Estonian Language
Language corpus, benchmarking

LLM providers
AI tools and development

Our Approach:

TECHNOLOGY + **CHANGE MANAGEMENT**

3. **TRANSFORMING TEACHING AND LEARNING IN THE AGE OF AI**

2. **AI LITERACY**

1. **EQUAL ACCESS TO AI TOOLS**

A Three-Year Plan to Initiate Systemic Change

2025/26 — 2026/27 — 2027/28

Y1: Pilot

Upper secondary schools

154 of 156 schools enrolled (99%)

20,000 students with learning app access

4,700 teachers with AI tools + training

Research launched with Stanford University, University of Tartu, OpenAI

Y2: Scale-up

Target: all school levels

Vocational schools: +18,000 students, +2,100 teachers

Lower secondary school teachers: up to +14,000 teachers with AI tools + training

New 10th-grade cohort: +10,000 students

Open online AI literacy course (8 modules)

Y3: Integration

Integrating change into the system

Longitudinal impact study published — first national-scale evidence on AI and learning

Validated practices integrated into the national education system

Ministry assumes ongoing funding and governance

Foundation concludes its current mandate.

Three main focus areas (2026/2027)

Students

- E-lessons (13)
- Supporting the development of the AI literacy elective course
- Hackathons and creative workshops
- Developing debate formats
- 30 World Café sessions in basic schools across Estonia

Teachers and leaders

- AI literacy e-course
- Monthly seminars for teachers, webinars
- Seminars for advanced users (Google, OpenAI)
- Subject-specific materials
- Subject-specific hackathons
- Compiling and sharing best practices
- Training and support for school leaders

Product development & technological support

- Developing the students' app (ITI) / master prompt
- Collaboration with the Institute of Estonian Language team
- A shared workspace for teachers and students
- Sharing GPTs and conversations
- Testing new capabilities

March 2026 ->

Interviews with 17 vocational school teams + input from vocational school teachers' seminars demonstrated:

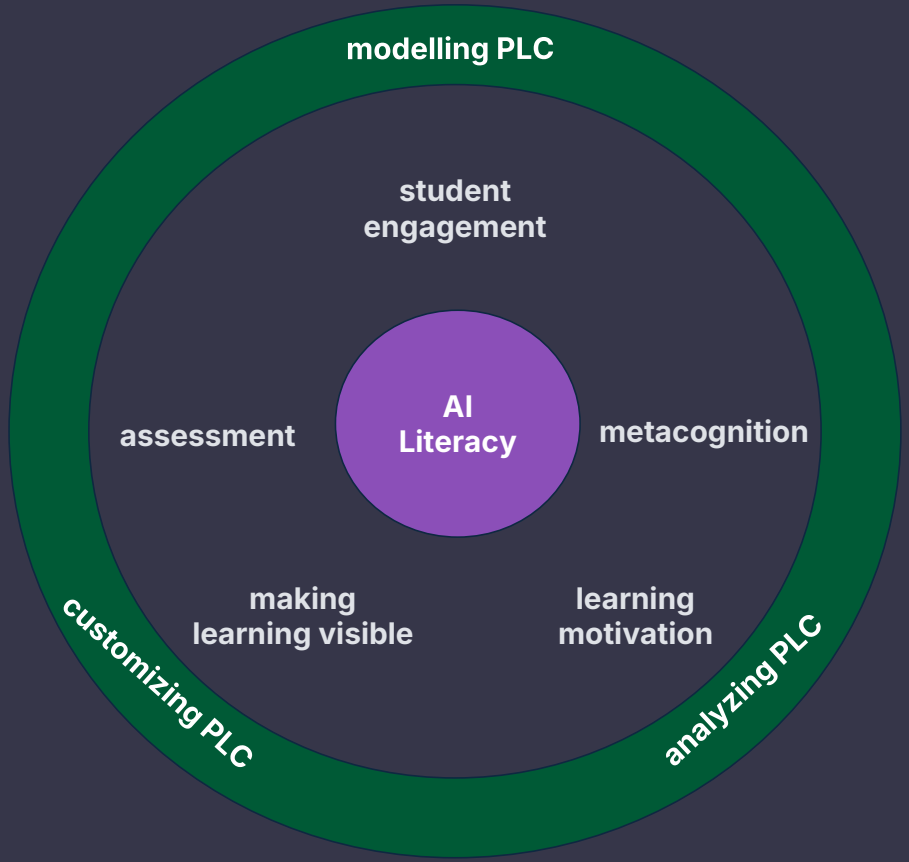
Students' low motivation to learn and weak learning skills.

Students use AI to do their homework for them and don't know how to use it critically - they fail to spot errors or hallucinations.

Heavy teaching load leaves little room to adapt materials, collaborate, or pursue professional development.

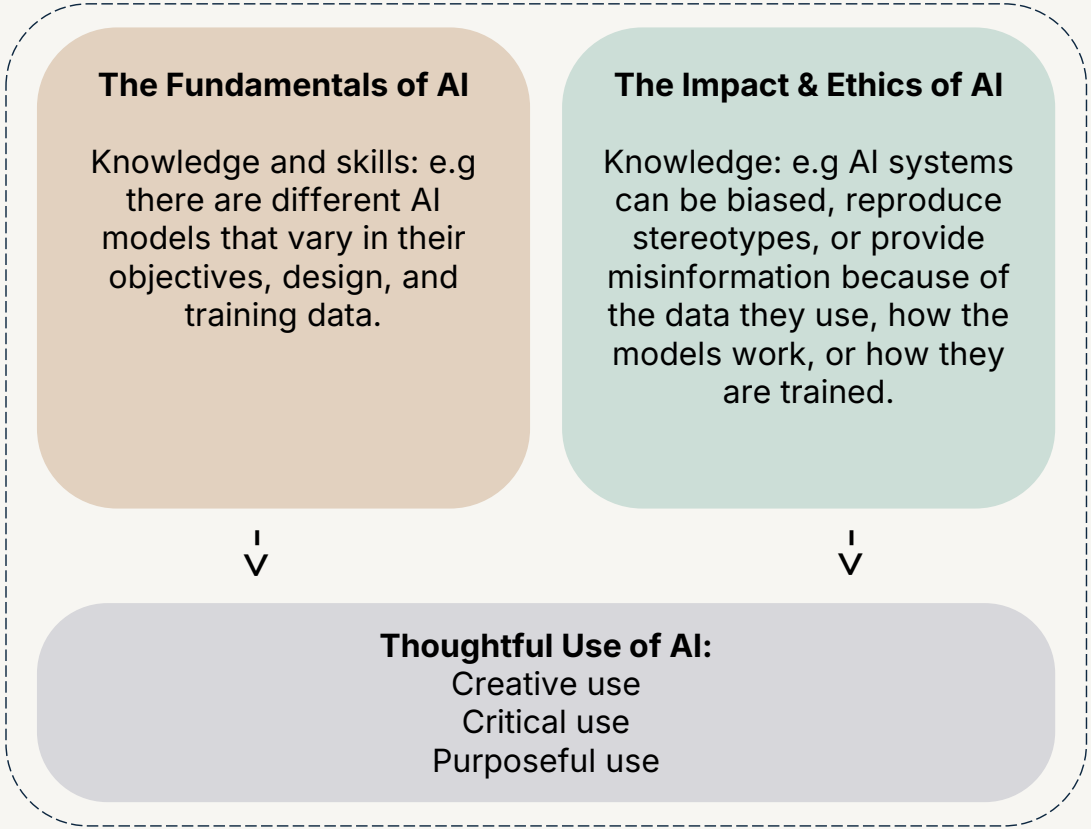
Regional monthly seminars from November - May

Every school selects 2 people
(e.g 2 teachers)



Implementing the professional learning community (PLC) in school
(once a month, 1.5 hours)

AI Literacy



DigComp 3;
OECD, 2025;
UNESCO, 2024

Teacher's AI Literacy

The Fundamentals of AI

Knowledge and skills: e.g there are different AI models that vary in their objectives, design, and training data.

The Impact & Ethics of AI

Knowledge: e.g AI systems can be biased, reproduce stereotypes, or provide misinformation because of the data they use, how the models work, or how they are trained.

AI and pedagogy

To help teachers work more effectively; to support students' learning; to support students' AI literacy.

Thoughtful Use of AI:
Creative use
Critical use
Purposeful use

Student’s AI Literacy

AI and Learning

For planning learning;
For practice and feedback;
For finding different explanations and perspectives;
For creating supporting materials.

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AI and pedagogy

To help teachers work more effectively; to support students' learning; to support students' AI literacy.

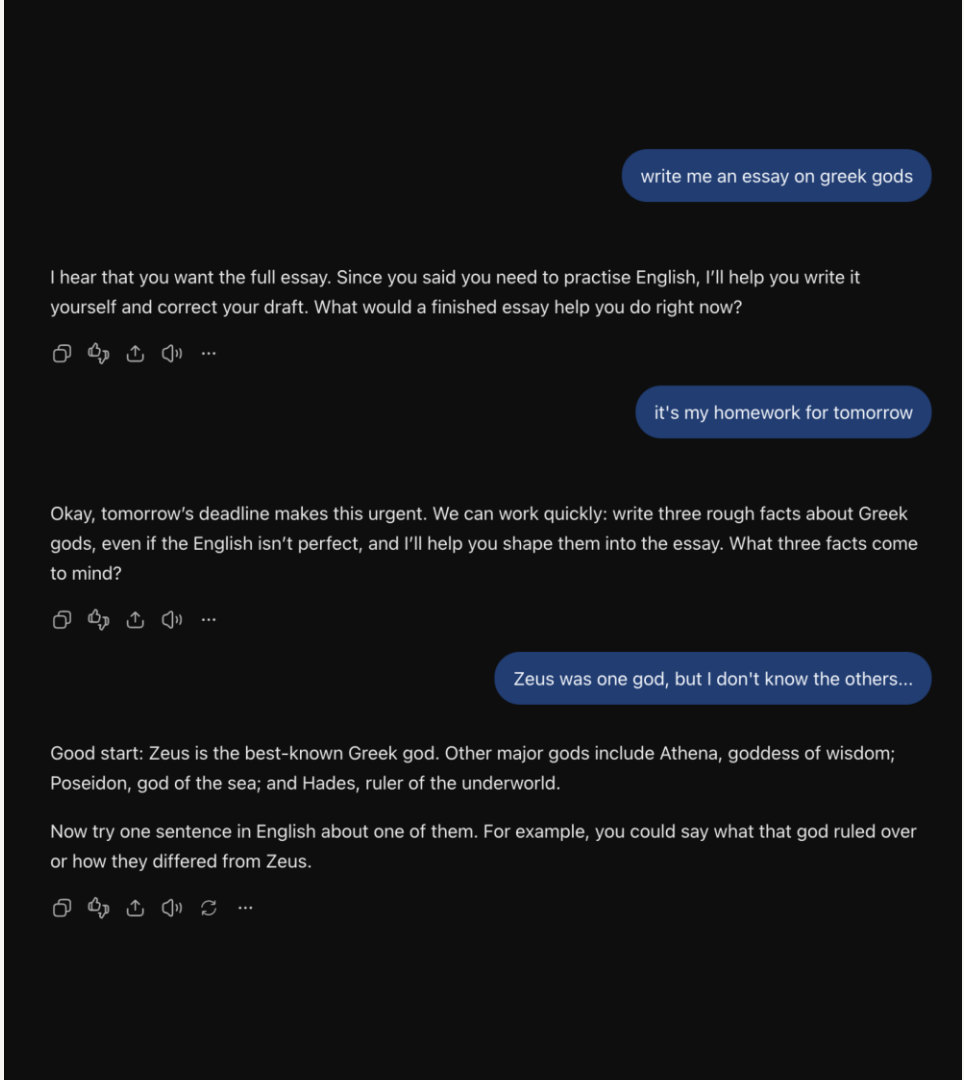
What is ITI - Student App?

ITI = ChatGPT Edu + AI Leap master instructions

GOAL

- Support students learning skills
- Help students make sense of their learning
- Integrate new knowledge with existing knowledge
- Guide students to explain, justify, and test

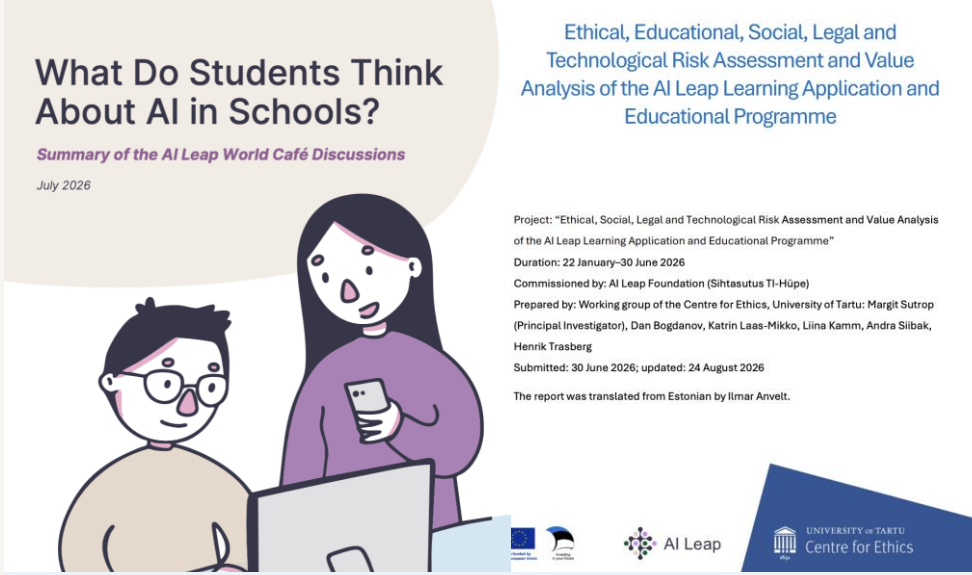
ITI is an AI tutor designed to support learning, not an answering machine.

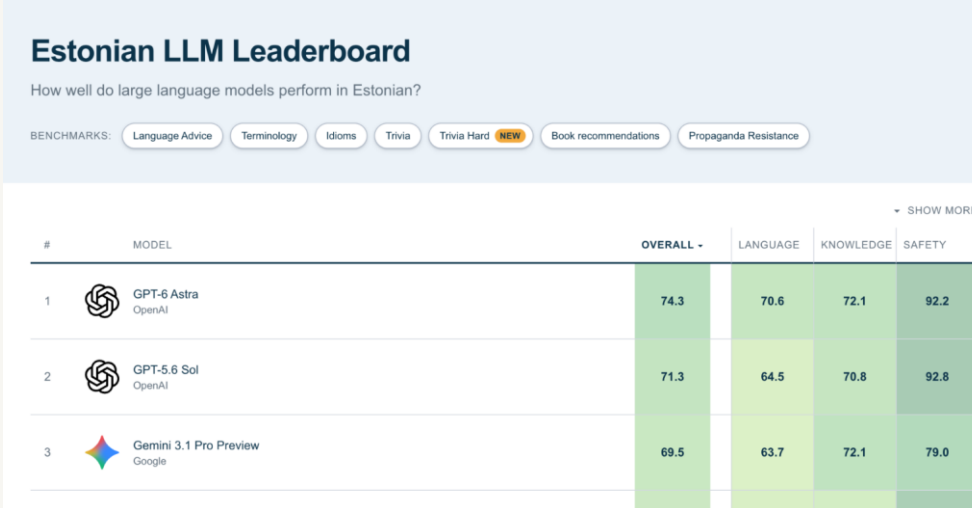


What have we learned?

tihupe.ee/en/research-and-reviews

- First-Year Review 2025/2026
- Students' Perspectives: AI in School and Learning
- The Learning App's Impact on Students (Ongoing)
- Teacher Survey: AI and Teaching
- AI Leap Risk Assessment
- Language Model Benchmarking (**moodupuu.eki.ee**)
- Related research





Tak! DK EE Aitäh!

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