



DIGIEDUHACK SOLUTION CANVAS

Title of the solution:

Challenge addressed:

AI and emerging technologies for Education

Background of the team:

(multiple selections possible in case of mixed teams)

Higher Education Students

Teachers

Others (please specify)

Team name:

Challenge category:

AI and emerging technologies for Education

Researchers

Primary School Students

Professionals

Secondary School Students

Solution description

What is the final product/service/tool/activity you're proposing? What are its main elements, technologies and objectives? Could you please include a brief implementation plan with some key overall milestones, resources required and eventual barriers foreseen?
How could your solution be used to enhance digital education nowadays? How could its success be measured?

The final product proposed is the AI Academic & Language Tutor Suite
Key Objectives: Improve equity, provide continuous support (24/7), enhance comprehension and writing skills, and ensure responsible AI integration.

Elements and Technologies:
- Academic & Language Tutor: Virtual assistant with real-time text correction, after-hours support, and adaptive language assistance. (Technologies: Generative AI (LLMs), NLP, Adaptive Learning Algorithms).
- 24/7 Online Access: Ensures constant availability.
- Simplified and Adaptive Materials: Provides summaries, glossaries, and gamification exercises.
- Ethical and Monitoring Framework: System to monitor usage, prevent abuse, and ensure adherence to ethical guidelines.

Implementation Plan The implementation follows a gradual approach:
Phase 1 (3 Months): Minimum Viable Product (MVP) Implementation – launch of a basic AI tutor focused on language support and academic feedback.
Phase 2 (6 Months): Partial Implementation – expansion of features to include 24/7 access and adaptive/simplified materials.
Phase 3 (12+ Months): Ideal Implementation – full institutional integration and training for faculty staff.

Resources and Barriers
- Resources: Cloud computing (for LLMs), LMS APIs, AI/Software Developers, Educational Content Experts, Project Manager/Ethicist.
- Foreseen Barriers: Faculty resistance, data privacy and ethics, and the digital divide (mitigated with training and user-friendly interfaces).

Enhancing Digital Education and Measuring Success
- Enhancement: Makes learning highly individualized (Personalization), democratizes access (Equity), and automates routine faculty tasks (Faculty Efficiency).
- Measurement: Based on Learning Outcomes (e.g., increase in pass rates/grades), User Engagement (e.g., frequency of use), and Ethical/Equity Impact (e.g., reduction in achievement gaps across demographic cohorts).

Context

What is the current or future problem you're trying to solve? How does your solution align with DigiEduHack 2025 annual theme?
How does your solution confront the challenge posed by the hackathon organiser and how does it address the challenge category?

Context

Current/Future Problem: Unequal Access to Personalized Academic Support and the risk of passive AI usage.

Alignment with the DigiEduHack Theme: The solution addresses the need for Inclusive and Adaptive Digital Learning Ecosystems by leveraging AI to democratize access and overcome barriers.

Confronting the Challenge: It addresses equity and accessibility by providing continuous and personalized support to marginalized students.

Target group

Who is/are the target group/s of your solution and how will they benefit from it?
Why is your solution relevant to them? how do you plan to engage these groups so you fully meet their specific needs?

Primary Group (Students): Off-campus students, working students, international students, and students with low digital literacy.
—> Benefits: Continuous 24/7 access, language assistance, simplified materials, and conscious use of AI to bridge linguistic and logistical gaps.

Secondary Group (Faculty and Tutors)
—> Benefits: Increased efficiency through automation of routine tasks (language correction, basic Q&A), freeing up time for complex mentorship activities.

Institutional Group (University)
—> Benefits: Improved student retention, satisfaction, and academic reputation, alignment with equity and digital innovation goals.

Engagement Plan
- Students: Personalized onboarding, intuitive interfaces, and use of gamification to encourage regular use.
- Faculty: Provision of clear data on ROI (Return on Investment) in terms of time saved.
- Institution: Regular presentation of metrics demonstrating the reduction of the equity gap and improvement of retention rates.

Impact

How will your solution catalyse changes in education and what impacts will it have at social and environmental level? Could you provide examples or scenarios illustrating how such changes and impacts might unfold?

Social Impact (Equity and Inclusion): Acts as a "leveler," ensuring the Democratization of Access and the Reduction of the Equity Gap between different student cohorts.

Scenario: A faculty member like Dr. Chen reallocates time saved (thanks to AI for basic feedback) to complex mentorship, elevating the quality of human interaction. A student like Elena, with language difficulties, rapidly improves academic writing with the AI assistant, promoting inclusion.

Environmental Impact: The provision of 24/7, location-independent academic support indirectly contributes to the reduction of commuting for off-campus students, leading to a reduction in carbon emissions.

Scenario: A student like Juan reduces a weekly 100km trip to campus because the AI tutor handles 90% of their routine questions.

Describe it in a tweet

How would you describe your solution in a short catchy way with maximum 280 characters?

NEXT-GEN DIGITAL EDUCATION: Our AI Tutor provides adaptive, always-on academic guidance to bridge knowledge gaps, offering personalized support and resources to every student. Smarter, more inclusive learning for all, anytime, anywhere.

Innovativeness

What makes your solution different and original? Are there similar solutions or approaches currently available or implemented by education sector practitioners? If so, why and to what extent is your solution better?

Originality lies in the convergence and institutional alignment. It is not a generic AI but an integrated, curriculum-aware educational assistant.

Differentiation: Offers Holistic Integration (unified platform for tutoring, language, and ethics), Contextual Depth (uses institutionally verified content), Pedagogical Language Support (teaches academic style, not just correction), and an Integrated Ethical Framework.

Transferability

Can your solution partly or fully be used in other education/learning contexts or disciplines? Could you provide any example?

The solution can be used partially or fully in any educational, learning, or professional context, as its architecture is based on universal pedagogical principles (adaptive personalization and real-time feedback).

Examples: Corporate training (regulatory compliance), Technical/Vocational training (writing technical reports), K-12 education (personalized explanations and AI ethics).

Sustainability

Once you have a prototype, what are your plans for a further development, implementation upscale and replication of the solution? How do you see it working in the mid- and long term?

The scalability plan involves three phases:

- Short Term (6-12 Months): Pilot & Validation (rigorous validation and ethical protocols).
- Mid Term (1-3 Years): Scale-Up & Integration (deep institutional integration as a core pedagogical tool).
- Long Term (3+ Years): Replication & Transformation (global licensing to other sectors and focusing teaching on high-value human skills).

Team work

Present the members of your team.

Why are you the perfect team to develop this work and what are the competencies you all bring in so the solution is developed successfully? What is your expertise within the thematic field concerned? Are you planning to continue working as a team in the future? If so, why?

Team Members: Caroli Chiara, Cimarelli Thomas, Incorvaia Valeria, Paccapelo Sara, Silenzii Katya.

The composition is interdisciplinary, bringing together experts in AI/ML, Educational Technology, Ethics/Governance, and Product/UX Design. This synergy ensures the solution is technologically advanced, pedagogically sound, and ethically compliant. The team specializes in the thematic field of AI-Augmented Higher Education, focusing on adaptive language processing, data-driven equity, and rigorous ethical frameworks. The team is committed to continuing the collaboration due to a shared vision and the recognition that scalability requires the constant synergy of their combined expertise in AI, Pedagogy, and Ethics.