

DIGIEDUHACK SOLUTION CANVAS



Title of the solution:

Team name:

Challenge addressed:

Challenge category:

Background of the team:

(multiple selections possible in case of mixed teams)

Empowering learners and educators through AI-driven mentoring and emotional intelligence in digital higher education

Higher Education Students

Teachers

Others (please specify)

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?

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?

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?

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?

LUMINA targets three main groups: students, tutors, and universities. Students benefit from personalized, empathetic mentoring that improves motivation, wellbeing, and learning outcomes. Tutors gain efficient tools for feedback and early detection of student challenges, reducing workload and improving engagement quality. Universities benefit from stronger inclusion, collaboration, and data-driven insights.

The solution is relevant because it addresses real issues in digital education—disconnection, stress, and lack of personal support—by making AI human-centered, ethical, and transparent.

To fully meet each group's needs, LUMINA uses co-design workshops, pilot mentoring sessions, and continuous feedback dashboards, ensuring that users are active participants in shaping and improving the system.

LUMINA is built with its users, not just for them.

Describe it in a tweet

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

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?

Transferability

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

LUMINA: the AI that feels
LUMINA merges artificial, emotional, and ethical intelligence to create a mentoring ecosystem built on empathy and collaboration. Unlike traditional AI tutors, it prioritizes human connection and emotional wellbeing. Five key innovations:
Emotional Intelligence Layer – ethically detects motivation and wellbeing
Cross-University Mentorship Exchange – connects students and mentors across Europe.
Transparency Mode – explains every AI decision in human language.
Ethics Co-Design Toolkit – lets users shape the AI's values.
Mentorship Growth Passport – supports lifelong and reflective mentoring.

Unlike typical tutoring AIs, LUMINA uniquely combines:
Empathetic, transparent network of shared growth.
Emotional Intelligence Layer (AI that "feels" motivation).
Cross-University Mentorship Exchange.

Transparency Mode & Ethics Co-Design Toolkit.
Mentorship Growth Passport for lifelong development.
It shifts from automation to ethical augmentation, blending empathy, ethics, and adaptability.

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?

LUMINA is highly transferable across different educational contexts and disciplines because it is built on a modular, adaptive AI architecture and designed around universal human learning needs — motivation, feedback, and connection. It can be applied not only in university tutoring, but also in teacher training, vocational education, and corporate learning. For instance, the same Emotional Intelligence Layer and

Mentor Co-Pilot used for university students can support employees' professional development or teacher mentoring programs, helping identify stress or learning gaps early.

An example: a Business Administration department could pilot LUMINA to improve feedback and engagement. Later, the same system could be adapted for Engineering or Psychology courses, where emotional awareness and collaboration are equally vital. This flexibility makes LUMINA a sustainable and scalable solution that enhances learning wherever human guidance and empathy are needed.

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?

Pilot deployment across 3–5 YERUN universities (Phase II). EU grant proposal for scaling (Erasmus+ / Horizon Europe). Continuous user co-design and ethics auditing.
Long term: LUMINA evolves into a European digital mentoring standard promoting

Giada: Coordinated the team; defined the project vision, Managed collaboration, timelines, and kept the team focused on the project's vision and hackathon goals.

Ilaria: Identified users core challenges and explored alternative solutions using design thinking methods. Collected insights from all members.

Alessia: Developed the solutions and the final presentation speech and ensured our message was coherent, persuasive, and inspiring.

Beatrice: Made the presentation visually engaging and compelling; turned complex ideas into a clear, captivating story.

Leonardo: Focused on research and the practical design of how LUMINA could be implemented across universities, and helped evaluate the final impact and structure.

LUMINA – The Adaptive and Empathic Mentoring Intelligence is an AI-powered mentoring ecosystem designed to humanize digital education. It combines adaptive technology with empathy, ethics, and collaboration to support both students and tutors. LUMINA integrates several modules: the AI Pathway Engine for personalized learning journeys, the Emotional Intelligence Layer for detecting motivation and wellbeing, the Mentor Co-Pilot for efficient, fair feedback, and a Cross-University Mentorship Exchange connecting learners and tutors across Europe. The Transparency Mode and Ethics Co-Design Toolkit ensure users understand and shape AI decisions, while the Mentorship

