DIGI EDU HACK 2023

DIGIEDUHACK SOLUTION CANVAS

Title of the solution:	ClassMate AI
Challenge addressed:	Course material tailoring
Team name:	QuestionMark
Challenge category:	Students' education

Solution description

Please describe your solution, its main elements and objectives as well as a brief implementation plan with some key overall milestones, resources required and eventual barriers foreseen. What is your final product/service/tool/activity? How could the solution be used to enhance digital education in the your challenge area? How could the successof the solution be measured? How will the solution provide benefits to the challenge owner?

ClassMate AI is a Moodle plugin that functions as a chatbot within Moodle course pages, addressing both students' and teachers' needs to tailor course materials. It offers customized learning solutions by interrogating, modifying and delivering course materials to enhance accessibility and usability. This chatbot brings personalized tutoring to all students, providing class transcriptions, translations, summaries, and answers to questions about course content. Moreover, it gathers anonymous data on student queries and interactions with course materials, generating automated usage reports for teachers. These reports offer valuable insights to help instructors adjust and enhance their lectures.

ClassMate AI also allows teachers to submit their

Context

What is the problem you are facing?
What is the challenge that you are solving?

Everyone learns in a different way, and many people deal with language barriers, learning impairments and difficult subjects. It's impossible to have access to all-knowing tutors everyday, professors do not have infinite time and private tutoring can be expensive.

ClassMate AI offers personalized tutoring, being aware of the course materials and delivering them

Target group

Who is the target group for your solution?
Who will this solution affect and how?
How will they benefit?

University students and professors are the target audience. Students will benefit from the personalized learning solutions, for example having access to transcriptions, summarizations and explanations of lectures. This will benefit all students, including students with different levels of learning impairments. Students will be able to ask questions to ClassMate AI and professors will be able to monitor anonimized students' activity and interactions with ClassMate AI, to get insights on how the course material is being received.

Impact

What is the impact of your solution? How do you measure it?

We are aware that the Moodle platform currently serves 399,783,974 users across 280 countries. Our objective is not to overhaul the existing learning infrastructure but rather to improve it by creating a personalized 24/7 online tutor that is accessible and user-friendly for all, with a scalable and straightforward implementation. Given that Moodle is an open-source platform available for free, any educational institution can leverage the benefits offered by ClassMate AI. This solution can effectively address accessibility issues while prioritizing privacy and cost considerations.

Describe it in a tweet

Describe your solution in a short catchy way in maximum 280 characters

ClassMate AI is the classmate you can always count on. It makes personalized tutoring accessible to everyone, providing class transcriptions, summaries and answering

Innovativeness

What makes your solution different and original?
Can anything similar be found on themarket? How innovative is it?

Our solution is an all-encompassing tool for personalized tutoring for both students and teachers, that is easy to implement, cost effective, and privacy-oriented. There are currently no alternatives on the market. In addition this is a

Transferability

Can your solution be used in other contexts?
What parts of it can be applied to other context?

ClassMate AI can be used by any educational institution that uses Moodle, a free, open-source platform. It provides learning support for both students and teachers ir any context where personalized tutoring about the

Sustainability

What is your plan for the implementation of the solution and how do you see it in the mid- and long term?

The goal is to develop a third-party app integrated into Moodle through plugins, enabling communication between various databases, models, and files. This solution can be hosted locally by the institution or on the cloud if

Team work

Explain why you are the perfect team to develop this work and what are the competencies you all bring in so the solution is developed successfully. How well did you work as a team?
Could you continue to work as a team in the future?

We are a team with diverse educational and cultural backgrounds. From Education Science, Computer Science, Web Development, and Product Design. With professional experience in crafting educational experiences and working with LLMs,

European Commission

ClassMate AI

The classmate you can always count on

Improving student's education through course material tailoring

Each one of us learns in a different way.

Also, following along in class is not always easy

- Language barriers
- Learning impairments
- Difficult subjects

How can we solve these problems?

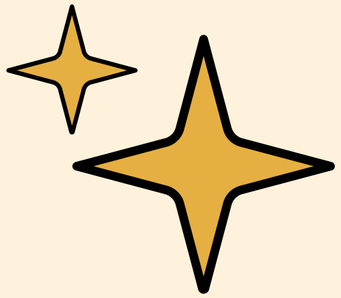
IN AN IDEAL WORLD...

Every student would have access to a tutor that...

- Is always there
- Knows everything about the course materials
- Can answer all of the questions

Currently, most universities use Moodle as a learning platform, providing access to materials and information on the courses.

So, we designed our solution as a Moodle plug-in



ClassMate AI is a plug-in that acts as a chatbot inside the Moodle course page

helping the Students:

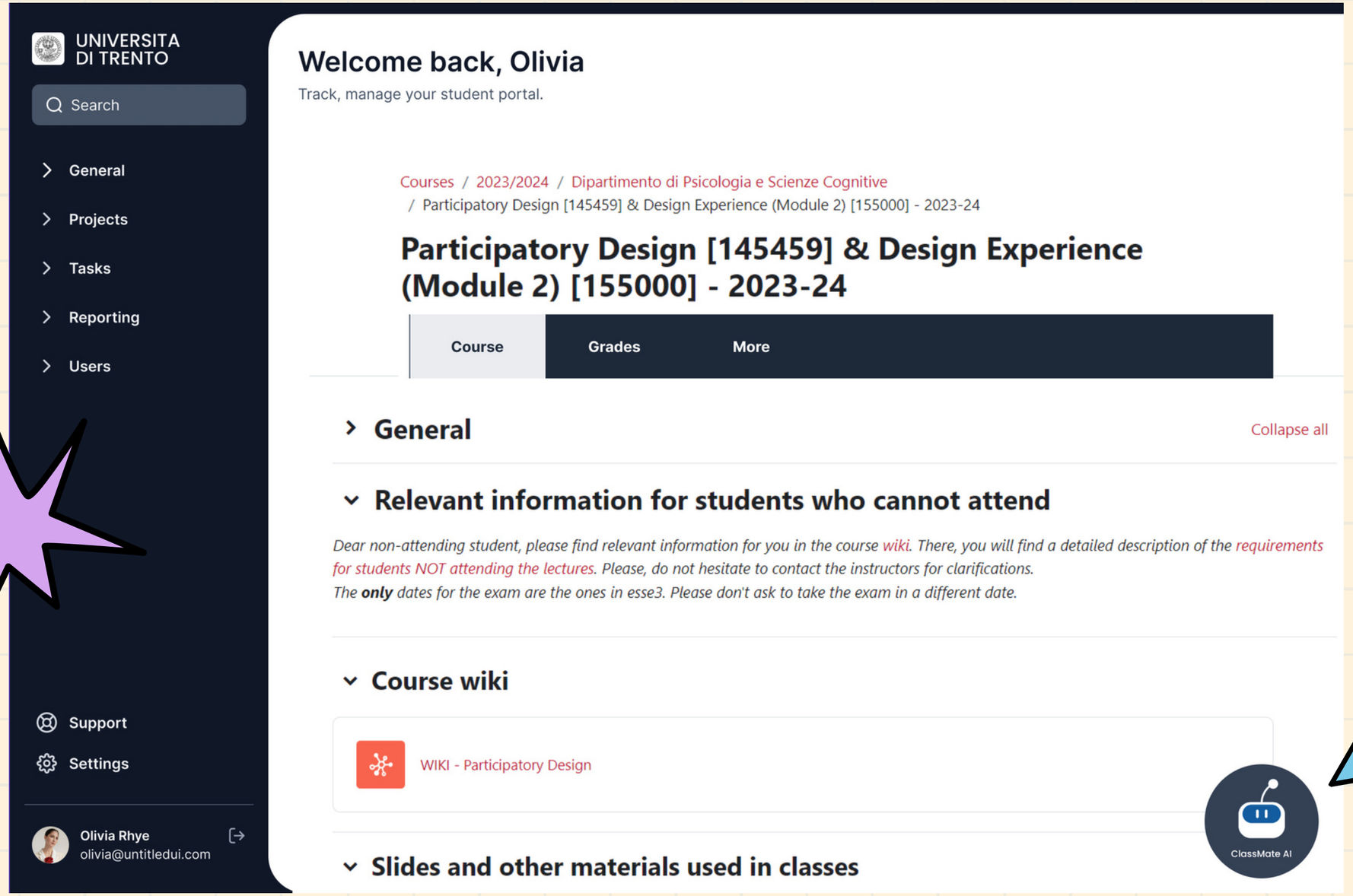
- Lecture transcription
- Answering students' questions about the material
- Material translation
- Personal testing questions
- Suggestions for further material to read
- Mental map creation

ClassMate AI is a plug-in that acts as a chatbot inside the Moodle course page

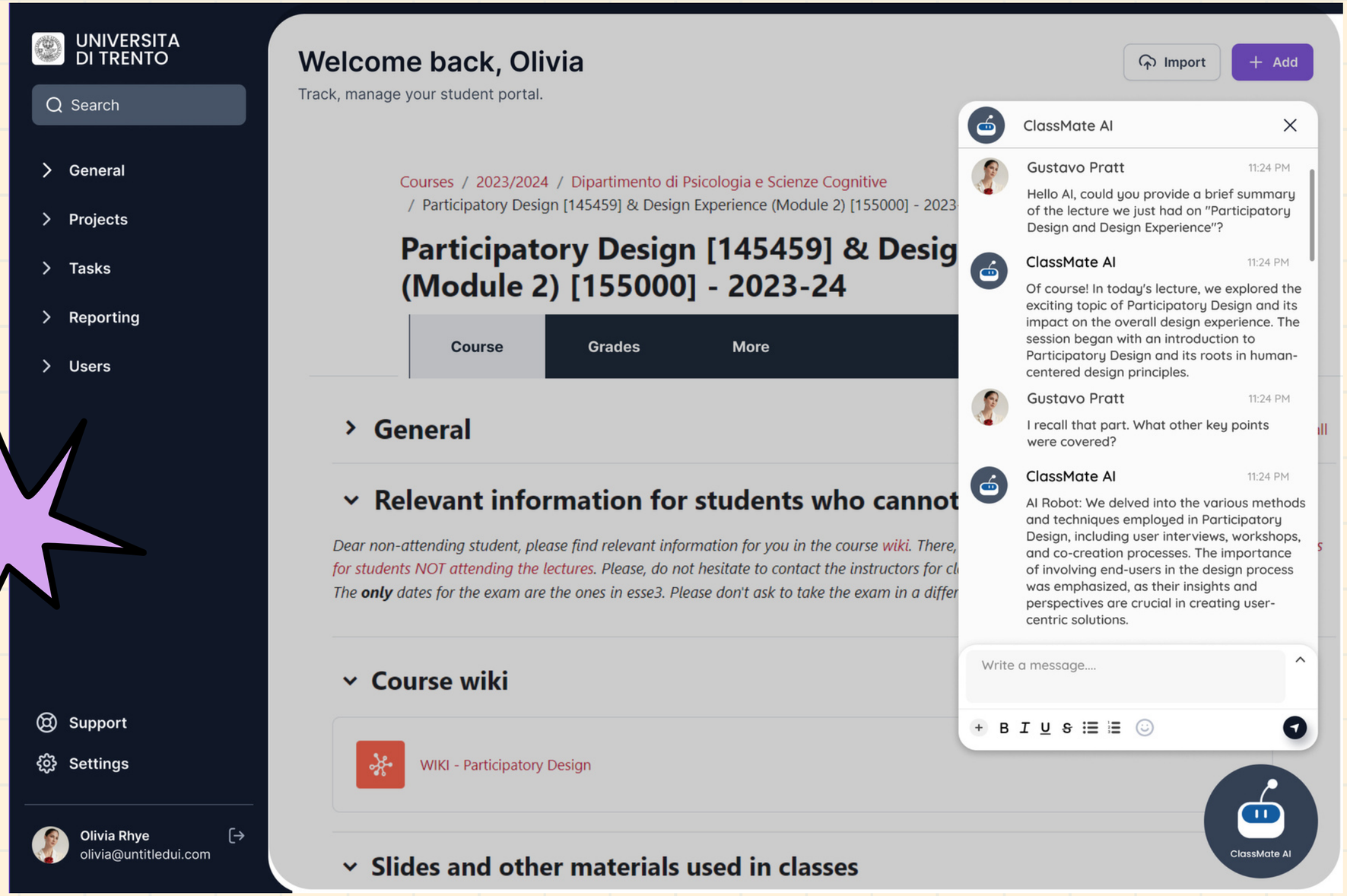
helping the Teachers:

- Automatic reports on students' usage and questions to ClassMate (anonymized)
- Feedback on course materials (quality, accessibility, ...)
- Initial grading of students' submissions (to be reviewed by the teacher)

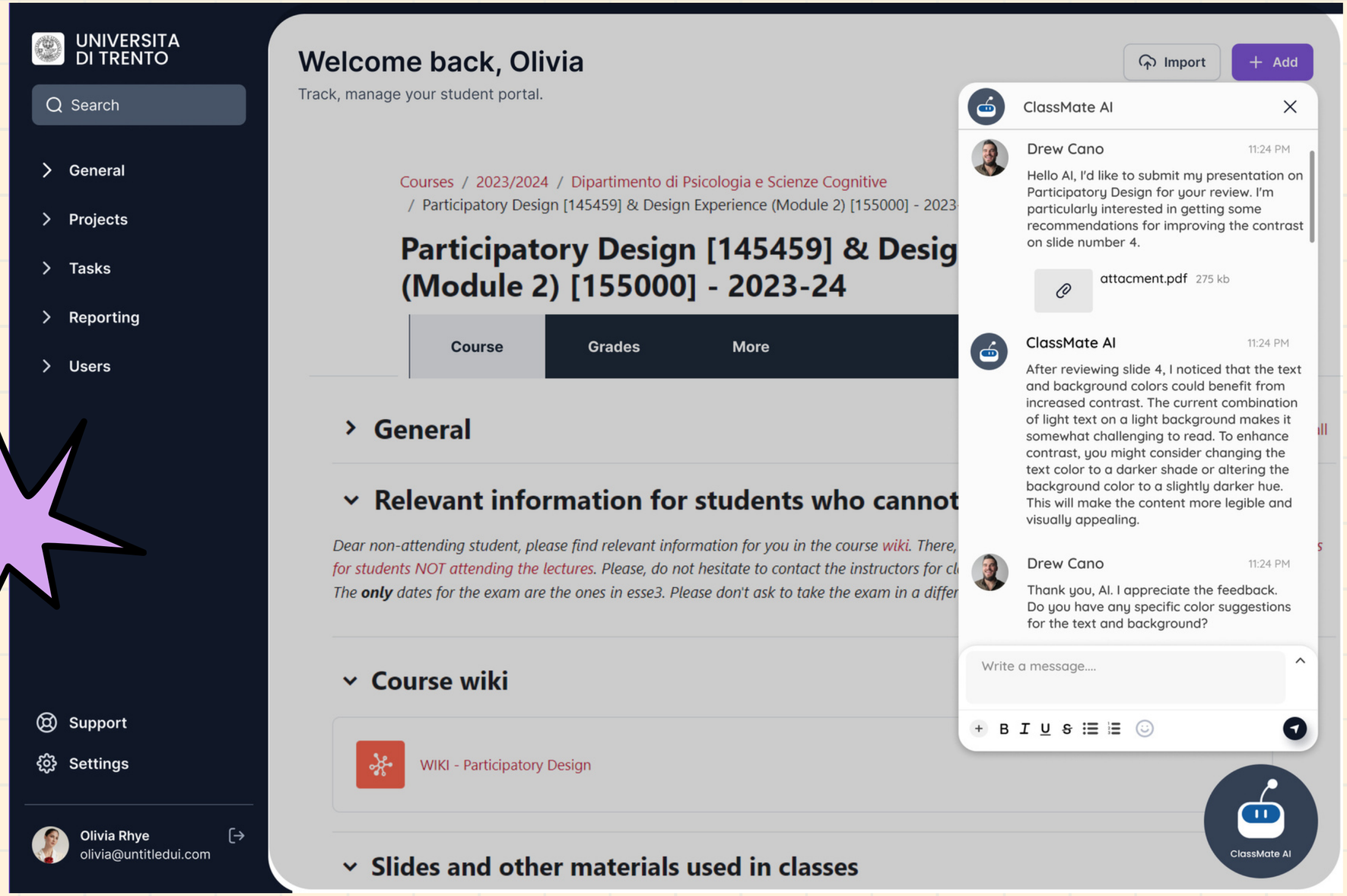
High Fidelity UI



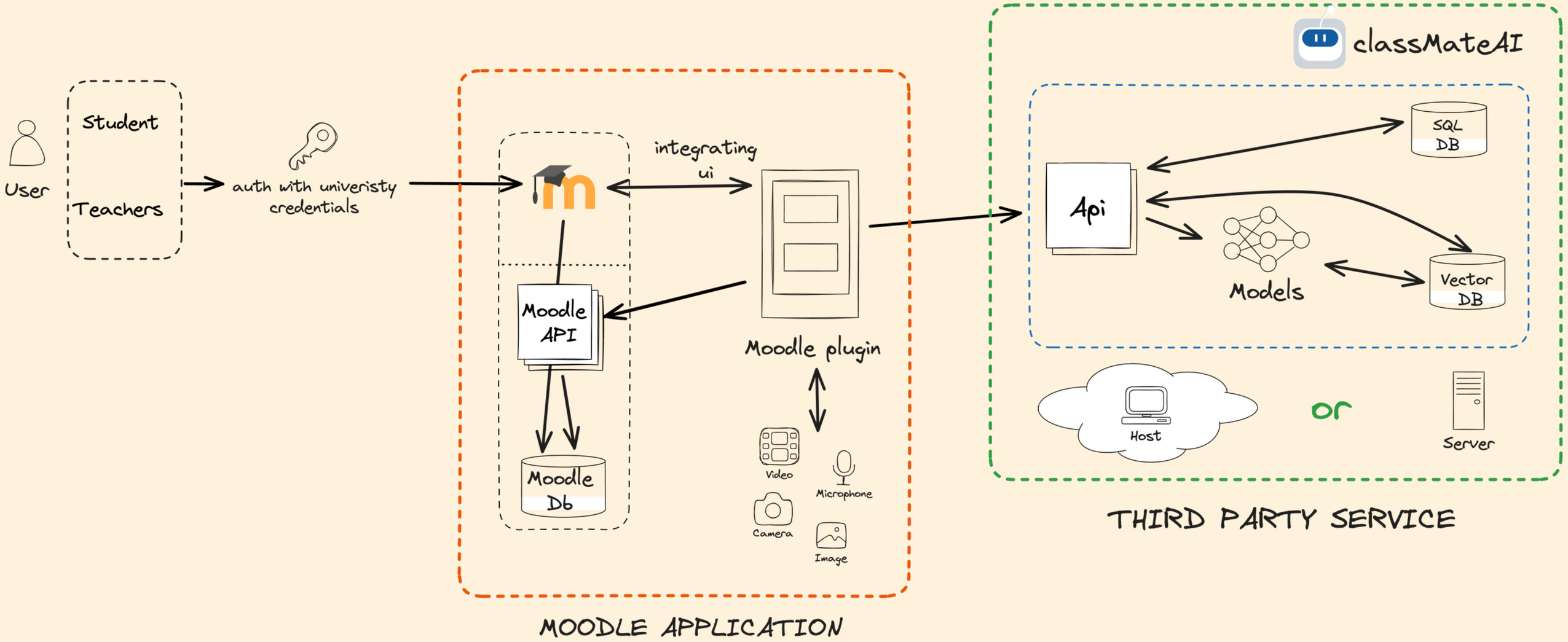
High Fidelity UI



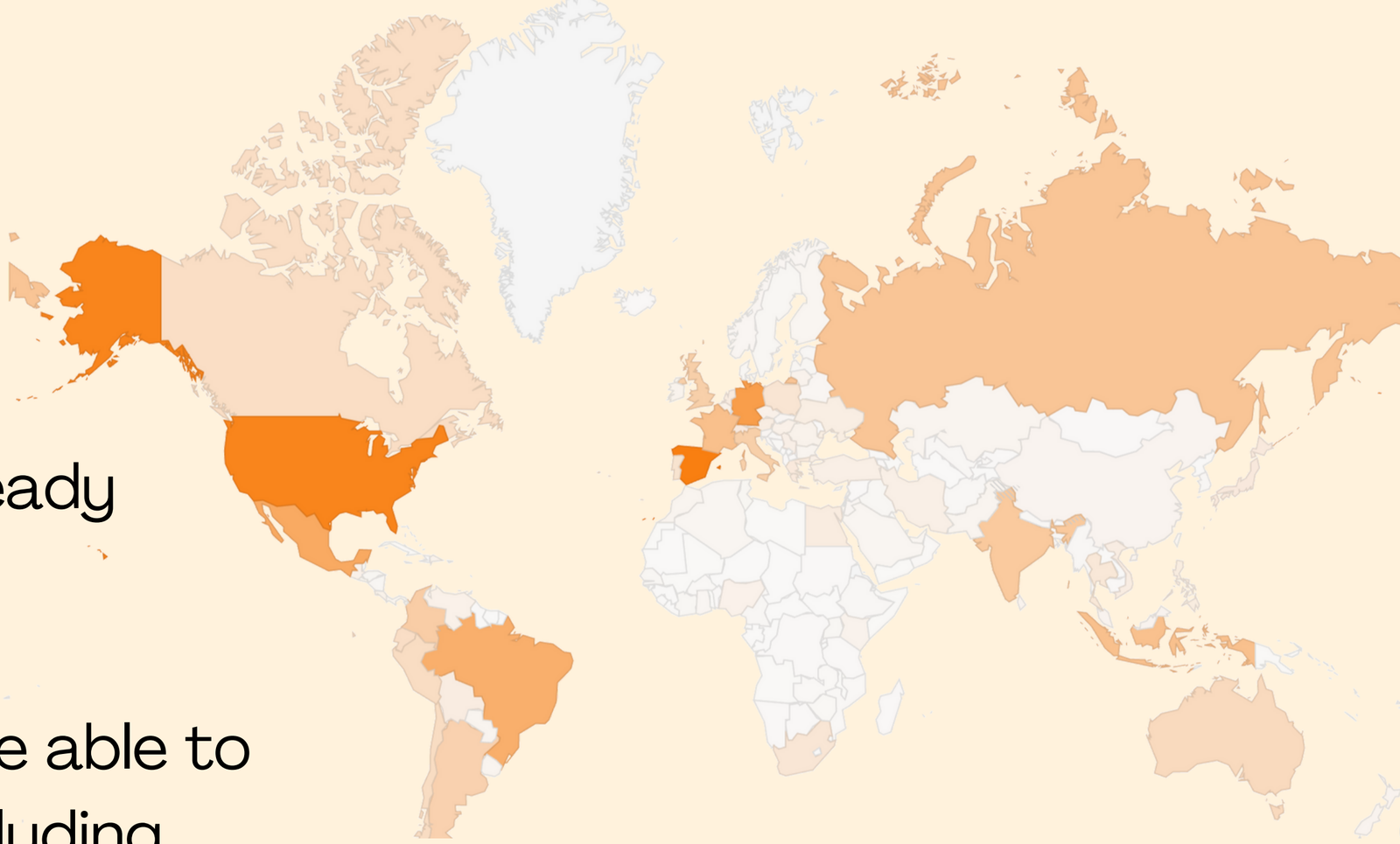
High Fidelity UI



Architecture



Impact



- **165,993** sites are already registered

- **399milion users** will be able to enjoy the benefits, including individuals facing any difficulties

- **238** different countries

Practical and sustainable

- **Hosting Options**: Local or cloud hosting of the AI models based on infrastructure availability.
- **Privacy Assurance**: The institution's control ensures material privacy, involving no third-party companies.
- **Sustainability**: Eco-friendly if the institute uses green energy.
- **Flexibility**: Scalable and transferable solution.
- **Future Outlook**: we anticipate locally hosted solutions becoming more cost-effective and simpler to set up.

ClassMate AI

Making personalized tutoring accessible to everyone with a scalable, easy-to-implement solution.

A Moodle plugin to help teachers and students connect and **transform education together**.