DigiEduHack Solution
Aalto Main Event - New tech, models and applications for future learning
Challenge: The future of learning - think like a human

Alvard: an AI personal study advisor

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We designed and implemented from scratch a draft of a virtual coach to empower each individuals along their eduction journey. Our chatbot aims at personalizing the learning experience to unleash students' capabilities (soft-skills/hard-skills) and increase retention rate.

Team: Alvard

Team members

Antoine, Tijmen, Deso, Lauri, Olivier

Members roles and background

Lauri: selling guys, storyteller

Deso/Antoine/Oliver: Data miners, AI pioneers

Tijmen: hardcord dev

Contact details

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Solution Details

Solution description

We designed a virtual coach to empower each individuals along their eduction journey. Our chatbot aims at personalizing the learning experience to unleash students' capabilities (soft-skills/hard-skills) and increase retention rate. We imagined a coaching chatbot capable of using the data from Weboodi, student feedback as well as built-in psychology/interests tests to help students to match at best their learning outcome expectations with their curriculum. This chatbot could be extended to propose student organizations, relevant job opportunities, erasmus programs, designing the complete study plan, taking into consideration availabilities of the student and so on.

Dreaming is one thing. Coding is another. We developed our minimum viable product in the form of a web-app, that should be easier to integrate to already existing services of the university. Right now, we implemented, with state-of-the-art NLP encoding and keywords extraction, a decision flow in our custom-made (since integration with Google Dialog flow/assistant failed) chatbot to propose a new course. However, due to the crucial lack of data (only available to Oodi administrators), our tasks was extremely difficult and we couldn't provide reliable and robust predictions.

Solution context

Students (and especially exchange students in the team) have hard-time designing their education plan because of they either don't have the relevant information (lack of mentor) or they suffer from information overload, resulting in missed opportunities. Our solution is also a soluton to adress the rigid structure of the current education system.

Solution target group

Our MVP is targetted for university students obviously. However, in a context of life-long learning, the concept can be extended to anyone :

- After secondary school: which university to select ?
- In uni: which course to take ? what internships or jobs ?
- When graduated, what would be the courses that would be interesting as a complement to my career

Solution impact

The big picture requires of course more studies and efforts but should be general enough to be applied in most universities since it relies mainly on natural language processing performed on course description and learning outcomes, plus some other user-related or course-related data. Right now, the MVP is not able to predict like desired due to the crucial lack of data. So it's current impact in not relevant. However, the Aalto staff should have access to all the required data, making the project feasible.

Assessment of the quality of the solution could be performed with direct feedback of the students. We can imagine the chatbot asking for feedback at the end of the year (and by the way ask to write down also feedback on the course, something that you should make mandatory and public we think).

Solution tweet text

Wanna your own and only personal coach and mentor during your studies ? Check out Alvar !
#digieduhack #ai #hyper-personalisation

Solution innovativeness

Coaching chatbots have been found but they are only taking into account the grades of the students and not taking into account their expectations, personality and skills. The integration of AI in a rather hard-to-disrupt sector is quite innovative and well adpated due to the impossibility to assign enough professional humans to everyone.

Solution transferability

Sure, it is a chatbot. See above replies for life-long experience.

Solution sustainability

We imagined a coaching chatbot capable of using the data from Weboodi, student feedback as well as built-in psychology/interests tests to help students to match at best their learning outcome expectations with their curriculum. This chatbot could be extended to propose student organizations, relevant job opportunities, erasmus programs, designing the complete study plan, taking into consideration availabilities of the student and so on.

Solution team work

Yes, we rock ! #lovechallenges
Use of agile development with scrum methodology.