DIGIEDUHACK SOLUTION CANVAS

Title of the solution: Learn by Concept, A new way to learn

Team name: LBC

Challenge addressed: Human + AI in Education

Challenge category: Emerging Technologies for Education

DIGI EDU HACK 2023

Describe it in a tweet:
Describe your solution in a short catchy way in maximum 280 characters

Discover a novel approach to learning with 'Learn by Concept', an AI-powered, personalized education app that emphasizes concept-based pedagogy and adaptive pull learning.

Solution description:
Please describe your solution. 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 success of the solution be measured? How will the solution provide benefits to the challenge owner?

Our solution, 'Learn by Concept' is an AI-powered educational application designed to enhance digital education across various fields. With two key components:

- Concept-Based Learning: Complex educational content is simplified into "concepts" each offering clear explanations, examples, and customization options. Users can tailor their learning, bookmark concepts, and explore diverse categories. Generative AI is integrated for content creation.

- Adaptive Pull Learning: Combines autonomy and personalization, allowing learners to choose what and when to learn. Future plans include integrating Machine Learning for pedagogical asset enhancement and optimizes content and pace.

The goal is to evaluate the success through user engagement, completion rates, ratings and feedback, guiding ongoing app enhancements. 'Learn by Concept' leverages AI to enhance the user's educational journey. It introduces a novel pedagogical method, enabling learners to grasp concepts incrementally. This innovative approach complements traditional education, simplifying content and personalizing learning for greater effectiveness.

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

Nowadays Learners frequently encounter challenges in accessing educational resources that are easily understandable and readily available. This obstacle affects their learning experience and their ability to find accessible content that suits their needs.

Also, conventional educational methods may not encompass a holistic approach to providing tailored pedagogical content. As a result, the delivery of personalized learning materials is hindered, limiting learners' opportunities to access content that aligns with their specific requirements and preferences.

Our solution leverages AI to simplify complex content into digestible "concepts," enhancing accessibility. It also plans to use AI for personalized content delivery, adapting to individual learner needs, thereby revolutionizing the learning experience and resolving the issues of content accessibility and personalization.

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

The target goup is learners of all ages and backgrounds, including students and professionals.

The solution will benefit both learners and educators by simplifying access to educational materials and offering personalized content. This enhances the learning experience, promotes better understanding, and supports more effective teaching methods.

The objective is also to help vulnerable populations, including individuals facing socioeconomic disadvantages.

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

Learn by Concept' aims to have a significant impact on the field of education. It aims to enhance learning accessibility, efficiency, and personalization. The platform's streamlined approach to complex content is set to improve learning efficiency, and AI-driven personalization will ensure tailored content delivery, enhancing engagement and outcomes.

We can measure the impact with different ways:

User Engagement: Tracking user interactions with the platform to gauge active participation and interest.

Proficiency Improvements: Monitoring learners' progress and proficiency in their chosen subjects over time.

User Feedback: Gathering feedback from users to understand their satisfaction, identify areas for improvement, and implement necessary changes.

Educational Partnerships: Establishing collaborations with schools and institutions serves as an additional measure of impact, signifying recognition and integration into the broader educational ecosystem. Such partnerships demonstrate the platform's effectiveness in enhancing the learning experience and its value to educational institutions, as well as the number of students benefiting from the solution.

Innovativeness:
What makes your solution different and original? Can anything similar be found on the market? How innovative is it?

I built the 'Learn by Concept' application because as a student, I've always struggled to find the right pedagogical content such as videos, courses, articles, and more that matched my specific needs. I noticed that there was no such application available on the market, which is why I decided to work on it. My goal was to create a platform where learning content comes to the student, rather than the other way around, making the learning experience more tailored and efficient. This introduces a new approach to learning and an innovative method for personalizing the learning experience.

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

For now, the solution scope is to focus on fundamental knowledge areas, but I believe that 'Learn by Concept' is highly adaptable due to its concept-based learning and AI-driven personalization, making it relevant in various contexts. For instance, in healthcare, it can simplify complex medical concepts and enhance healthcare education. It could also be applied to other, more specific contexts, while retaining the spirit of adaptive pull learning and the concept-based learning approach

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

Exactly a month ago, I initiated this project, starting with a proof of concept for an Android application and implementing generative AI for learning content. This hackathon has taken the project to the next level by enabling me to find a partner and assemble a team with my friend, who is a teacher and possesses development expertise.
In the short term, the next iterations include deploying the application on iOS, offering it in both English and French, and automating the creation of pedagogical content.
In the mid-term, develop Machine Learning algorithms to enhance the user experience and establish partnerships with institutions and schools. For the long term, the goal is to make the application accessible in more languages, such as Chinese and Spanish. Anf finally, at the end, build comprehensive training programs based on the innovative concept-based learning approach.

Team work:
How well did you work as a team? Could you continue to work as a team in the future?

In our team, we are 2, with complementary skills and backgrounds. I bring experience in Engineering, Education, and AI, having previously worked in an EdTech company.
My teammate is a friend who is both a teacher and a web developer.
Participating in this hackathon has been beneficial as it allowed us to solidify our plans and envision the future of the project. With our diverse competencies and backgrounds, we were able to challenge the project and my initial vision effectively. The advantage of both having worked in education is that we share a common language when working on the solution during the hackathon.
Certainly, we envision continuing to work as a team in the future, and we are open to the possibility of integrating new team members with different competencies and backgrounds as the project evolves.