



OCASTA

DigiEduHack 2023

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SUMMARY

Our proposal introduces an innovative digital education solution designed to address pressing challenges within the education sector. Recognizing the need for a more personalized and adaptive learning experience, our app leverages cutting-edge artificial intelligence to revolutionize the way educators and learners interact with educational content.

The **identified problems** in traditional education, including a lack of personalization, demotivation, and suboptimal learning experiences, serve as the driving force behind our solution. The app's features include adaptive learning algorithms, a customizable question bank, and real-time data analytics, collectively shaping a dynamic and tailored educational environment.

Our primary **target audiences** are educators and learners across various educational levels, with a broader societal impact on improved education quality and innovative teaching practices. The proposed implementation plan outlines short-term pilot programs, mid-term scalability to a broader audience, and a long-term vision of becoming a globally recognized education tool.

Key **elements differentiating our solution** include the incorporation of advanced AI for real-time adaptability, a user-friendly interface, and a comprehensive approach to addressing the diverse needs of both educators and learners. Market analysis reveals a unique positioning against competitors, with a focus on ongoing innovation and responsiveness to emerging trends.



Impact measurement metrics encompass individual academic performance improvement, increased scholar engagement, and user satisfaction surveys. Our team, consisting of passionate individuals with expertise in education, entrepreneurship, and communication, is dedicated to realizing the vision of transforming education through technology.

The proposal outlines a comprehensive implementation plan, including budget and resource requirements, risk analysis, and a timeline of milestones. With a commitment to continuous improvement, scalability, and a data-driven approach, our solution aims to not only enhance educational outcomes but also contribute to the broader evolution of educational practices globally.



INTRODUCTION

In our pursuit of advancing educational excellence, our engagement in this year's DigiEduHack prompted a thorough exploration of prevailing issues within the global education landscape. As we delved into the terrain of educational concerns, our attention honed in on a matter of great importance—the standardization of education.

This document serves as an analysis of the problem and culminates in our proposed solution. Our team endeavors to illuminate the consequences, opportunities, and potential pathways connecting education standardization and adaptive education to effect meaningful change.



THE CHALLENGE

The identified issue centers around the deleterious impact of **excessive standardization in the educational system**, reducing the teaching and learning process to quantifiable indicators. This uniform approach **neglects the diversity** of skills and abilities among students, seeking to measure their success through standardized parameters. Albert Einstein's analogy, comparing judging a fish by its ability to climb trees, underscores the incongruity of evaluating students uniformly without recognizing and appreciating their individual strengths. This issue suggests the imperative to adopt more flexible and personalized approaches in education, acknowledging the various forms of learning and the unique potential of each student.





PRESENTING THE SOLUTION:

OCASTA

The proposed application introduces an innovative approach to **enhance teaching and learning**. Teachers have access to a diverse question bank from which they select specific questions to design personalized exams. These exams, administered as diagnostics to all students, are automatically assessed by the artificial intelligence, Minerva.

Based on the results, Minerva **identifies problematic areas** for each student and **generates customized tasks designed** to address those weaknesses. After a period of time, the original exam is re-administered to assess progress. This student-centered approach, backed by artificial intelligence, aims to provide a more adaptive and effective education, continuously improving the learning process.



TARGET AUDIENCE

Our main customers will be **private schools of Elementary, Middle and High School** education, some examples could be:

- Nuevo continente
- Colegio John F. Kennedy
- Colegio Washington
- Instituto Thomas Jefferson
- Colegio Harvest
- Colegio del Tepeyac





THE OCASTA PROCESS

1

The application provides the teacher with access to a diverse and extensive bank of topics and questions.

Access to Question Bank

2

The teacher chooses questions deemed suitable for the exam, thereby customizing the assessment according to the specific goals and topics of the course.

Question Selection:

3

The application utilizes the artificial intelligence system Minerva to automatically assess the exams and analyze response patterns for each student.

Automated Evaluation

4

The exam is administered to all students with the purpose of diagnosing their current skills and knowledge in the selected topics

Diagnostic Exam Administration

5

Based on the diagnostic exam results, Minerva identifies areas where each student has struggled the most and designs personalized tasks to address those specific weaknesses.

Design of Customized Tasks

6

Students receive and complete the personalized tasks designed to strengthen their knowledge in the identified problematic areas.

Task Implementation

8

After a specified period, the original exam is administered again to assess student improvement and consolidate learning.

Second Exam

7

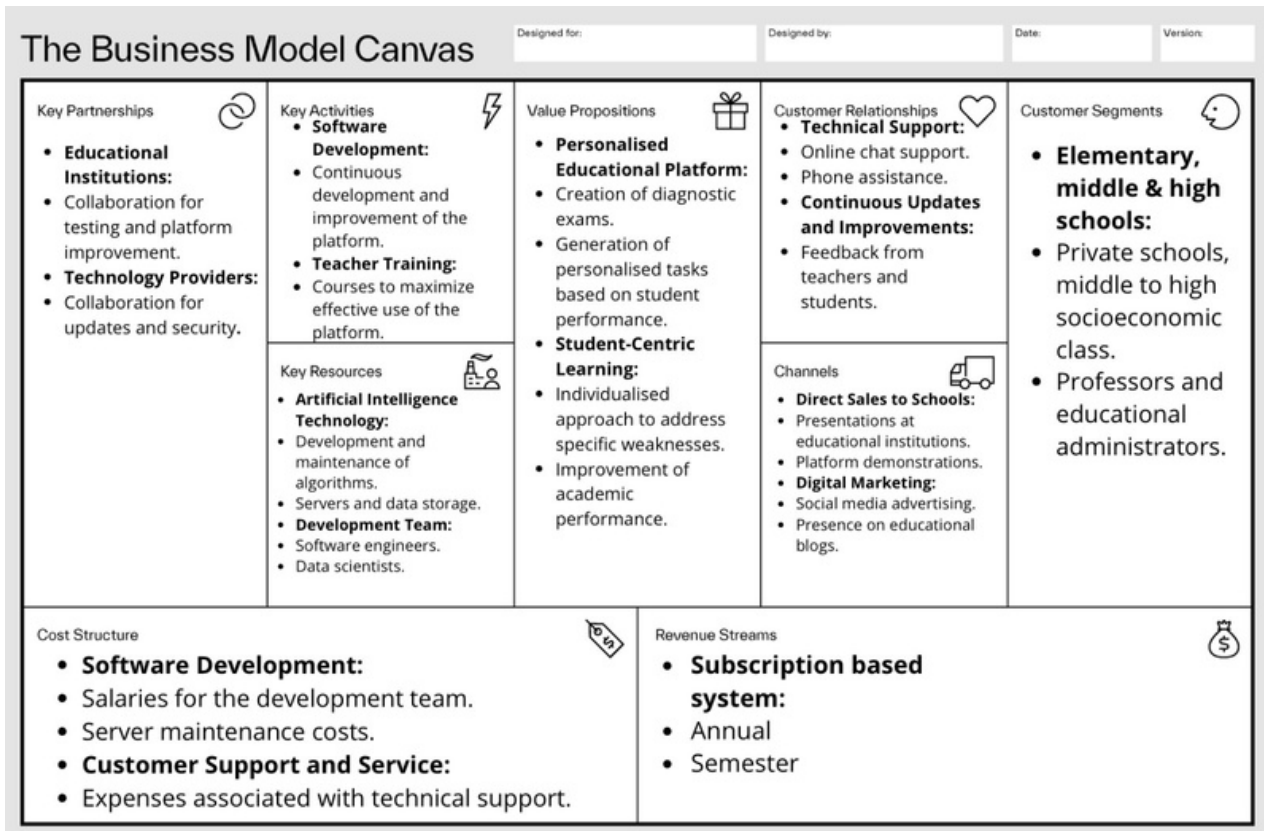
Minerva continuously monitors each student's progress, adapting additional tasks as necessary.

Continuous

INNOVATION AND UNIQUENESS

Our proposed solution stands out in the educational technology landscape through a fusion of cutting-edge technology and pioneering pedagogical approaches. At its core, our innovation lies in the implementation of real-time adaptive learning algorithms powered by advanced artificial intelligence. This dynamic system continually adjusts learning materials based on individual student performance, ensuring a uniquely personalized educational journey. What further sets us apart is the introduction of a customizable question bank, enabling educators to tailor assessments to suit their teaching objectives and accommodate diverse learning styles. Our user-friendly interface, complemented by collaborative features, not only enhances the educator and learner experiences but also fosters a sense of community. Comprehensive data analytics provide educators with profound insights, facilitating data-driven decisions for continuous improvement. We elevate engagement by incorporating gamification elements, transforming the learning experience into an enjoyable and motivating journey. Beyond technology, our solution emphasizes cross-disciplinary collaboration, transcending traditional subject boundaries. Moreover, our commitment to global scalability and cultural sensitivity ensures that the benefits of personalized education are accessible to learners worldwide. In essence, our solution represents a pioneering blend of technological sophistication and pedagogical innovation, reshaping the landscape of digital education.

BUSINESS MODEL



SOLUTION CANVAS



Title of the solution: OCASTA
Challenge addressed: Emerging technologies in education

Team name: OCASTA
Challenge category: Emerging technologies for 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 success of the solution be measured? How will the solution provide benefits to the challenge owner?

A groundbreaking app for educators: generate customized exams from a question bank, and let artificial intelligence design individual tasks to reinforce weak areas identified in initial assessments. Tailor learning for each student, fostering academic success

Context

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

Ocasta addresses the problem of impersonal education, aiming to combat scholar demotivation and poor learning experiences caused by the lack of personalization. Our challenge is to use AI to tailor content and assessments to individual students, providing a more engaging and effective learning experience, and accommodating different learning rhythms and styles.

Target group

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

The first stage of target group is private schools of middle to high socioeconomic class, this solution will affect both students and teachers. Teachers will benefit from streamlined exam preparation, while students benefit from having tailored learning experiences that iron out their weaknesses.

Impact

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

Our solution's impact is measured by improved individual academic performance, increased scholar engagement, positive educator feedback, enhanced learning outcomes, high user satisfaction, adoption rates, long-term academic progress, and potential expansion through partnerships.

Describe it in a tweet

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

Revolutionize education with our app, Customize quizzes leverage AI for tailored tasks, and reinforce weak areas. Individualized learning for academic success!

Innovativeness

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

A lot of people think that the rise of artificial intelligence means the ends of many jobs like teachers, but we don't want that, our main goal is to create a tool for teachers to use, combining both Artificial intelligence with human Intelligence.

Transferability

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

The app targets elementary and middle school but can extend to high school and college. It also has potential applications in corporate settings, including employee training, specialized courses, and self-directed study.

Sustainability

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

Our business model is a user-based subscription system that will have a value of \$60 per school period, while charging a unique amount to the school to subscribe to our system.

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?

Our collaboration succeeds through open communication, respect, and a shared project vision. Diverse skills create a dynamic work environment.



TEAM OVERVIEW

Edu Macedo - Education Specialist:

- With a background in education and a passion for innovative teaching methods, Edu serves as the Education Specialist on our team. He brings experience in disruptive educational systems and competencies evaluation. His expertise ensures that our solution aligns seamlessly with educational principles and enhances the overall learning experience.

2. David Torres - Entrepreneurship and Technology Strategist:

- As the Entrepreneur, David brings a unique blend of business acumen and technological and educational expertise to the team. David has successfully led tech ventures in the past. His role involves shaping the project's strategic vision, ensuring its market viability, and overseeing its integration into the broader educational technology landscape.

3. Mafer Ramirez - Communication and Design Specialist:

- Mafer is our Communication and Design Specialist, responsible for crafting a compelling narrative of innovation in the education sector and creating an strategy to ensure a user-friendly interface. Mafer combines her knowledge about education, as an educator and a student herself, with creativity and a keen understanding of the process and the challenges faced in education with the user experience. Her role is crucial in conveying the innovation of our solution to both educators and learners, fostering a positive and engaging platform.

CONCLUSION

Our proposed innovative digital education solution represents a transformative leap forward in the realm of personalized and adaptive learning. By seamlessly integrating cutting-edge technology with advanced pedagogical principles, we envision a future where education transcends traditional boundaries. Our real-time adaptive learning algorithms, customizable question bank, and user-friendly interface redefine the educational experience, providing educators and learners with a dynamic and personalized journey.

The commitment of our diverse and skilled team, comprising experts in education, entrepreneurship, technology, and communication, ensures the success and viability of our solution. Through pilot programs, scalability initiatives, and a long-term vision for global recognition, we aspire to not only address current educational challenges but also contribute to the evolution of educational practices worldwide.

As we embark on this journey, we invite collaboration, feedback, and support from stakeholders who share our vision for a more engaging, effective, and personalized education. Together, we can propel the education sector into a new era, where the boundaries of traditional learning are surpassed, and each student's unique potential is unlocked. The proposed solution is not just a project; it is a commitment to shaping the future of education.

