



DIGIEDUHACK SOLUTION CANVAS

Title of the solution:

Challenge addressed:

Background of the team:

(multiple selections possible in case of mixed teams)

Higher Education Students

Teachers

Others (please specify)

Team name:

Challenge category:

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?

Our team proposes MentorIA, a web platform that seeks to enhance school education in communities living in poverty that have connectivity on their electronic devices such as smartphones, also considering native communities where the use of native languages predominates, in order to promote intercultural education with a technological perspective. The platform aims to guide teachers and students in the efficient, ethical and responsible use of the most popular Artificial Intelligence tools. The objective is to reduce technological gaps in education, offering practical guides and case studies for teachers to use these instruments before, during and after the development of their classes, in addition to learning to identify the inappropriate use that can be given to Artificial Intelligence by students in their training process. About the implementation: It is proposed to apply a pilot plan in the town of Cantagallo, located in the district of Rimac, where there is a school that promotes bilingual intercultural education, valuing its language, which is Shipibo-Konibo. 1) Seek to establish contact with community leaders and those responsible for the school to present the Web Page, in addition to the objectives of MentorIA; 2) Hire bilingual teachers (fluent in Spanish and Shipibo-Konibo) to present the web proposal and seek to orient it to the bilingual format; 3) Establish informed consent and have its approval and support from teachers and students (in addition to parents, because they are minors) with their participation; 4) Evaluate teachers and students in the use of Information and Communications Techniques (ICTs) in order to know how much they master in the use of Artificial Intelligence tools; 5) Presentation of the new web format and objectives of MentorIA in Spanish and Shipibo-Konibo; 6) Monitor the use of the web by teachers and students in order to identify the potential and limitations on access to information and instruction; and 7) Evaluate teachers on the information provided by MentorIA: a) Adequate writing of Prompts; b) Identification and prevention of the inappropriate use of artificial intelligence; and c) Ethical and responsible use of artificial intelligence in teachers and students. Our proposal seeks to target localities that live in poverty, but also implementing the intercultural approach, valuing and recognizing cultural values such as their worldview and language. We consider that artificial intelligence is a tool that can be complemented in formal education and with it seek to implement training strategies to mitigate the gaps in access to information, where language is not an obstacle but an opportunity for development that is sought to be implemented in other localities where Quechua and Aymara are spoken in our country.

Context

What is the current or future problem you're trying to solve? How does your solution align with DigiEduHack 2024 annual theme?
How does your solution confront the challenge posed by the hackathon organiser and how does it address the challenge category?

During the COVID-19 pandemic, many limitations and gaps in the accessibility of electronic devices for remote education in regular basic education became visible. Currently, there is much concern about the school training of students in the last three years of secondary education, finding limitations such as reading comprehension, writing, argumentation, as well as applications and case studies in science courses. Our proposal aligns with the annual theme of DEH2024 because it promotes innovation and collaboration to develop personalized educational solutions considering the profiles of teachers and students in a differentiated way, considering Meta AI in the use of their devices respectively. We are aligned with Digital Citizenship due to the implementation of an interactive platform that promotes digital orientation and responsible practices in the use of Artificial Intelligence. Through various multimedia resources such as videos and instructional guides our platform allows teachers and students to acquire essential digital skills in an accessible and attractive way. The platform includes two training modules, for teachers and for students who register or do not register previously. Our proposal contributes to equitable access to education and the empowerment of teachers and students, especially in communities that are in vulnerable conditions due to poverty, inadequate infrastructure in schools and geographical barriers. This initiative promotes creative problem solving by encouraging users to actively participate in their own digital development and in the construction of a safe and collaborative learning environment. The platform is designed to adapt to various knowledge levels and contents, thus fostering a personalized and sustainable learning experience that can be scaled to have a lasting impact on digital citizenship.

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?

The proposal seeks to promote changes in 3rd, 4th and 5th grade of secondary education, with the aim of providing a comprehensive educational platform that combines personalized learning, inclusion and the responsible use of Artificial Intelligence. This approach will allow not only the acquisition of knowledge, but also the development of digital skills and civic values that will impact the social sphere and the environment. We are aware of the importance of environmental care, which is why we affirm that our platform will reduce the use of printed materials, promote sustainable practices and create ecological and social awareness in the digital environment. According to Gamboa and Garcia (2024), the differences in the levels of digital appropriation in Peru respond to a set of gaps in the educational, geographic, age group, language, labor and gender spheres. From our proposal we seek to mitigate these gaps oriented towards personalized learning. This will allow not only the acquisition of knowledge about digital literacy, but also the development of skills and civic values in the efficient and responsible use. Example of a case proposal on digital literacy and inclusion in a peri-urban area of the city of Lima: let's imagine a town where students and teachers face barriers to accessing digital education. Through our platform, teachers can access resources such as instructional guides and videos on the proper writing of prompts in order to adapt the content in courses such as mathematics and letters to teach students of different ages, in addition to detecting assignments that have been made exclusively by Artificial Intelligence (GPT Chat) in order to prevent plagiarism. This improves access to quality education, promoting inclusion and reducing digital gaps between areas.

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?

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Describe it in a tweet

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

We are excited to introduce MentorIA! A revolutionary platform that trains peruvian teachers and students in the use of AI for secondary education. In an easy, accessible and sustainable way, MentorIA will reduce the technological gap in vulnerable areas ♥️. #Peru #DEH2024

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?

The proposal has a comprehensive and adaptable approach, which seeks to implement Artificial Intelligence as an educational proposal for the training of teachers and students, promoting its ethical and responsible use. It seeks to implement ease of access to the platform mainly through the use of cell phones, which are common devices in our country. Compared to similar solutions and in the case of plagiarism detectors in the use of ChatGPT, there are platforms such as gptzero.me, khamigo, oeddie, among others, but their function is limited. Our solution is better in the sense that it guides the teacher in the proper use of AIs and this is complemented by training courses in technologies for 3rd, 4th and 5th year high school students. Ethics regarding the use of these intelligences is something that these tools do not have very developed and that is where we come in. Additionally, in the case of students, registering on the platform will allow them to build their profile, highlighting their skills and attitudes during their training in the last years of secondary school, and using Artificial Intelligence to systematize the information on their profile and recommend the course of study they could follow in the future.

Transferability

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

Thanks to its flexible approach, MentorIA can be extended to other educational levels and disciplines. It is focused on secondary school and math and humanities courses, and its guides can be applied in different social realities and countries due to the languages available on the page. Specific examples would be: i) University courses: students could use MentorIA tutorials to improve their handling of professional tools, such as Excel, applying AI in data analysis. ii) Language learning: the AI tools included in MentorIA could also support language learning, offering resolution of doubts, new daily words or interactive and personalized exercises that complement traditional study methods.

Sustainability

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?

As for the areas with the highest percentage of districts with high poverty, we have North Lima with 75% and South Lima with 64%. The prototype would be applied initially in the district of Chorrillos, which is located in the South of Lima. We chose this location due to our university having extensive amounts of data related to the place. Later, we will have to cover the rest of the areas of Lima and develop an offline version for rural areas. Since we have languages such as Quechua and Aymara due to collaborations with municipalities and the government, it will be easy to get communities to connect with our technology. The project works in the medium and long term because the training is continuous, there are always more areas to cover and the more Artificial Intelligences are developed, the better results they will have in schools. Our last step in the project is the collaboration with international organizations that have a deep sense of social responsibility to implement the platform in institutions around the world. Moreover, our website will focus on Vocational guidance as an important pillar in the future.

Team work

Present the members of your team.

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?

PERÚ ES CLAVE is composed by: Joaquin Rodriguez, Alvaro Pacheco, Roger Villareal and Julio Meza, we are biology and computer science students guided by the teacher Roger. Altogether we have several years of experience on the approach of different projects related to our own areas of interest. We are driven by a strong commitment to inclusiveness and social responsibility. Julio is our expert on coding, Joaquin on design, Alvaro and Roger have amazing ideas to structure the project and make it a reality. We plan to continue working together because we have a strong team ethic and we can always discuss conflicting ideas without feeling judged.

Video link: <https://youtu.be/eNyuE6IUGPY>

Prototype link: <https://www.figma.com/design/bi9g9JqoeXGbyMcOqzKOJA/Untitled?node-id=0-1&t=Vm4Yjm95jnWpRfzi-1>

