



DigiEduHack Solution
Santiago de Querétaro - TEC DE
MONTERREY DIGIEDUHACK QRO
Challenge: How transform our campus
to a smart campus using emerging
technologies?

All

Inclusive learning experience

A learning experience that makes educational system inclusive for people with visual impairments and deaf by translating in real-time classes into languages they can comprehend.

Team: MexaPower

Team members

Nat Arreola, Ian Viramontes, Daniela Rangel, Ricardo Arteaga, Sofía Villicaña

Members roles and background

We all study Creation and Development of Enterprises at ITESM Campus Querétaro, México and we are passionate about helping people and looking for solutions that will change our city and our country.

Contact details

janrehak@tec.mx

Solution Details

Solution description

Our solution consists in a software that acts as a platform where the classes can be translated from voice to sign language/text or braille, the last one with help of a strip (braille keyboard). This software will be installed in any e-device and the strip will be connected via Bluetooth. This software will also allow teachers to receive in a normal language/text works or exams that were answered in braille, making classes more inclusive, didactic and interactive.

In addition, to make classes and their content more accessible, this solution will allow the development of soft skills in every student, because there's not isolation of students with disabilities from the group.

The success of the solution will be measured in the number of disabled people that attends school and their development.

Solution context

What is the problem you are facing?

There is no inclusion of people with visual and hearing impairment in common schools, without limitations.

What is the challenge that you are solving?

Make the classes adaptable for any of these deficiencies, without complicating the teacher, classmates or the person with the deficiency.

Solution target group

Schools that are not fully inclusive with people that have visual and hearing deficiencies.

Solution impact

The benefits are the followings:

- Regular schools: Schools are affected as they have to adapt to this new software and will inculcate a more inclusive culture. They will benefit by expanding their acceptance range thus, earning more tuition.
- Teachers of those schools: They'll have to adapt to this new software and will inculcate a more inclusive teaching method. They'll benefit from learning how to teach anyone without no matter their health condition, which will make them more valuable for any learning institution.
- Students: The students are going to be affected by leaving their comfort zone and socializing with people with these deficiencies, developing more empathy. They can also learn how to communicate and even read braille or sign language, which is a competitive advantage in the future.
- Their community: The community will be affected in a very positive way because the people will develop more empathy virtues and little by little the community will learn how to be very

inclusive. Everybody can benefit from this and make their community the best living place ever.

- People with these deficiencies: They are affected because they will not have any limitations at the time of choosing their schools and will be full of options. They will also have to leave their comfort zone and socialize with people different from them. They will benefit because they can now control their decision to go to any school they want and have a better opportunity for their future

Solution tweet text

An all-around learning experience for people with visual and hearing disabilities in any learning context through your mobile device.

Solution innovativeness

You do not require investment in any hardware because they will use only what they already have. A mixture of emerging technologies is an original solution and has not yet been used to solve this problem.

It can be some similar things in the market because our solution is integrated with different software that already exists. Our solution is quite disruptive and will have a very positive outcome.

Solution transferability

Can your solution be used in other contexts?

Yes, it can be used in any interactive situation. A good example is making traveling easier and more enjoyable. It can also make communicating with anyone easier.

What parts of it can be applied to other context?

All of them, the whole software needs to be used in order to be applied in any context. All the technologies we are using are being merged to become a whole.

Solution sustainability

We believe that our solution is sustainable since you can use existing devices (such as cell phones) to use our software, making it unnecessary to purchase more devices as well as making it easily accessible for most people.

Solution team work

We have been working very good! We are really good friends and although we study the same major, we have a different approach to problems and that has helped us to find a solution that can integrate different technologies to solve a very important problem.