

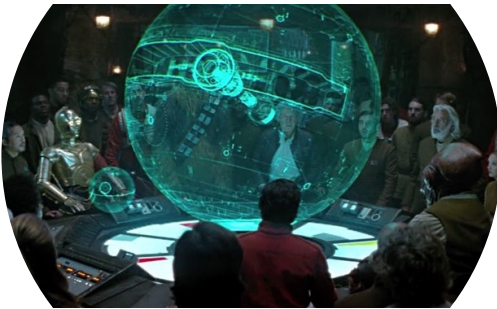


DigiEduHack Solution

Emerging technologies for holistic learning (Berlin)

Challenge: Emerging technologies for holistic learning (Berlin)

Engaging students with immersive technology



Using immersive technologies to teach and educate

Students don't engage in the classroom with the subjects learned. The students don't absorb the information and forget the material after a short while. We suggest using immersive tech AR VR and the Meta-Verse to engage the students in the subjects we wish them to learn about.

Team: AR, VR, and Meta-Verse for Education

Contact details

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Solution Details

Solution description

Our solution includes using immersive technologies in the school. These technologies include AR, VR, and Meta-Verse applications such as Roblox in order to keep the student engaged and interested in the subjects and materials the school want them to learn about. The teacher could build their own worlds and presentations in this platform, or use pre-prepared one provided by the school district or other facilities.

At the classroom the teacher will use AR or VR to show the students actual things that relate to the subject in matter. For example, a history teacher could invite a historic figures like Napoleon, Washington etc., to talk about themselves, or in physics class Isaac Newton could demonstrate the

3rd law of motion. After the teaching is over, the students will get related assignments that happen inside a Meta-Verse, Roblox like environment, that have immersive quests in them. For example, a student could find himself/herself talking and engaging with historic figures, helping them achieve their goals, and learn about them in the process.

This solution can be used in every subject learned today – math, history, science, computer science, biology, chemistry and others. It is just dependent on the imagination of the teachers and their support systems, as a very important part of the process is teaching the teacher how to use, create and share their creations.

Measurement will be assessed by the satisfaction of the students using the platform, and their engagement in the assignments e.g., how much time they spend in it, and their finishing states. Also, the students could be tested to see their knowledge in the learned subjects, and how it helps them remember more.

Solution context

The problem we try to solve is that students don't engage in the classroom with the subjects learned. There is a distance between the subject and material that the teachers teach, e.g. math, physics, history, and the students. The students don't experience the subjects first handed, so most of them don't absorb the information and forget the material after a short while. We think that today's modern students need more engaging means of learning, more similar to the ways they experience communication and interactions in their free time, meaning a more modern way of learning and transferring information. The students are immersed in their own digital worlds (Meta-Verses) and we think we can use this experience to engage them in educational activities.

Solution target group

We target the solution to all levels of education, mostly middle and high school. It will require commitment from the school administration and teachers to learn how to use these technologies, and how to communicate them to the students (teach the teachers). It will also require the school the means to purchase and distribute the technology in a simple and safe way.

Solution impact

The immediate impact should be the level of interest the student show in the learned subject. It should show that after learning via these immersive experiences, the students will absorb more information than in classical teaching, and will remember more of the actual important materials learned. These could be measured using different kinds of testing – not exams – that in them the student can demonstrate the knowledge that was acquired.

Solution tweet text

Using AR and VR in the classroom to teach the students, and give them related assignments inside a Meta-Verse will help them absorb and remember the subjects learned.

Solution innovativeness

The solution is different because it combines immersive technologies. There are some separate

solutions for AR, VR and Meta-Verse platforms, but none of them use the same platform to create a holistic experience for the students and teachers alike. Roblox does offer educational tools, and other offer VR tools. What we suggest is a single platform for creators to use, in order to create a fluent and immersive experience

Solution transferability

This solution could be used in many other environments, besides schools and educational facilities. This kind of immersive experience could be used in higher education, professional training and others. It is already used partially for commercial uses, mainly in Roblox.

The solution is also not exclusive to school subjects. It could also be used to help people with emotional disabilities to experience emotional expressions via the quests, and the AR and VR parts could help them open up to communication possibilities they don't usually able to use.

Solution sustainability

Implementing the solution could be divided into two phases:

Mid-term: planning the platform, coding and testing it. Then start testing it in small pilot environments.

Long-term: implementing the solution in middle and high schools all over the country, with support from educational administrations (governments and local).

Solution team work

We worked on the solution, and came to the conclusions together

Yes, of course, we would like to work together again