



DigiEduHack Solution Colombo - Future of Education in Sri Lanka- Global Perspective Challenge: Colombo - Future of Education in Sri Lanka- Global Perspective Challenge 2021

Applications of IoT Technology in the Education Sector for Knowledge Sharing

Most suitable and relevant Industry 4.0 technology to Sri Lanka ?

Industry 4.0 is a new phase of the Industrial Revolution. It focuses heavily on interconnection, automation, machine learning, and real-time data. Of these technologies, the youth of Sri Lanka have a slight inclination towards IoT technology.

Team: Tech Phantoms

Contact details

dilhanake@gmail.com

Solution Details

Solution description

We have identified four major problems for youths in Sri Lankan society.

The first problem is the lack of motivation for technology education. There are very few resources and resource people available to help the community in their native languages. Therefore, even if someone wants to learn industry 4.0 technologies, they do not have the idea of where to start, how to start, and from whom to get help. For this reason, most of the students are unmotivated to learn these advanced topics in technology.

Using our platform, we will be helping beginners find out where to start. For example, there will be a feature called "Find projects by resources" where a user can enter the resources he has and filter out the projects that they can start with the resources he has. And also, they will be able to be guided by the experts in the community. And most importantly, the best users will be rewarded (the

rewarding process is mentioned in the next step). Using the proposed platform, we can then motivate Sri Lankan youth to pursue technology education.

The second problem that we identified is social media and gaming addiction. A person could be addicted to social media or gaming for two main reasons.

- When they have a lot of free time,
- When they need to make themselves popular or get attention from others,

We have planned to minimize social media or gaming addiction by finding solutions to the above-mentioned issues. We experienced that more students were addicted to gaming and social media in this COVID pandemic period because they had a lot of free time. Using this platform, we will list interesting projects and project ideas in different fields. So students can use their free time to engage in a project. After completing a project, the student can upload short video clips and photos of his creation. And then we will make the best students popular in our community by creating a leaderboard that shows the best projects and who created them. Students are always motivated to complete projects with their own innovations. The goal of the platform is to take the most innovative project to the top of the leaderboard. To accomplish this, we plan to use a voting system where community users can upvote the best projects. But a user will not be able to vote for each and every project he finds on our platform. Users will be required to have "Voting Points" to vote for a project. Those voting points should be earned by users. To earn, they have to complete the projects listed on our platform. So the basic idea is that a user has to be active and complete projects if he needs to vote for other members' projects. This will mostly eliminate the issue of fake votes. As mentioned in the first step, we also plan to make partnerships with related companies and make giveaways for the best users identified on our platform. So the best users and best projects will be rewarded not only with popularity but with valuable gifts related to the field. We can offer advertisement spaces for partnered companies.

The third problem is that Sri Lankan youth are very poor at job selection. Even if they have technical knowledge, they prefer to do government jobs or other unrelated jobs because they do not know about the opportunities they can grab.

So, using this platform, we will identify the users who have the skills in a particular field, and then we will introduce them to the related companies in Sri Lanka. We will show each user's profile on our platform, showing what projects that they have completed and how the community responded. So the companies will be able to identify talented students at an early stage. So they will be able to grant job opportunities and training to talented students. On the other hand, students will be able to submit these platform profiles as their online portfolios when they apply for a job.

And the final problem we are addressing on this platform is a lack of innovativeness. The ultimate goal of this platform is not to force students to build the exact same product referenced in a project on this platform. We always encourage users to be creative and make something special. That's the way they can impress the community and move up the leaderboard. So students will become more innovative when using this platform.

Our goal is to solve the issues mentioned in the above paragraphs. Completely solving these issues will be a long-term goal, but students will become more innovative day by day until we fully achieve these goals.

Solution context

The first problem is the lack of motivation for technology education. There are very few resources and resource people available to help the community in their native languages. Therefore, even if someone wants to learn industry 4.0 technologies, they do not have the idea of where to start, how to start, and from whom to get help. For this reason, most of the students are unmotivated to learn these advanced topics in technology.

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Solution target group

Here we have chosen how to teach IoT to the younger generation in Sri Lanka. The group we have selected for this is for any unemployed youth from grade eight pupils onwards.

The first reason for our choice is that lessons related to the Internet of Things (IoT) have been added to the school curriculum since grade 8 in the current school system. It can also be used by schoolchildren as subject support for those lessons. In addition, this application will enable all young people who are unemployed and aspiring to develop their skills for a job to develop their skills. We can also take as a reason for choosing this team their willingness to accept the challenges they face at this age and their willingness to engage in practical activities.

Solution impact

Our application first assigns the user to task-based projects. Then we can measure our success by the way each user completes the relevant project. If the designs they complete are of a higher standard than the projects we provide, it shows that our endeavor has been successful. In addition, if the design is completed in any way, we can take it positively. We also intend to use a variety of methods to encourage users to maximize our success. Giveaways and the Leaderboard concepts are some of them.

Solution tweet text

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Solution innovativeness

There are a lot of social media platforms available out there. But none of them targets to educate users and motivate them for innovations. Also, this will be a huge solution for the jobless issue in the Srilankan community. Apart from those, companies will be able to find the best human resources using this platform. So this platform will be innovative and there is no such platform available in Sri Lanka. Technically, we are using blockchain technology to make the project voting process transparent. So this project is also innovative technically

Solution transferability

In this project, the initial goal is to develop a platform targeting the IoT field. But we can easily add other field projects to the platform. For example, we can put some graphic design projects where users can complete them and climb the leaderboard. They will also be rewarded in the same procedure. Therefore this project can very easily be transferable to another field.

Solution sustainability

Internet of Things technology is growing more pervasive in practically every business, allowing previously unachievable concepts to become a reality. The worldwide IoT industry was valued at a whopping \$212 billion last year, and it is expected to climb to \$1567 billion by 2025.

The increased use of IoT not only results in considerable economic savings, but also has a wide variety of environmental advantages. Smart technology has the potential to be disruptive on a global scale, improving efficiency and sustainability dramatically.

Students sharing their IoT expertise on the platform can help achieve medium-term sustainability. The students' experiences and expertise will be connected to their LinkedIn profiles in the long run.

Solution team work

Our team always works together. Even this article was created according to the ideas of all of us. It is a pleasure to have a team of people who can work as a team.