



DigiEduHack Solution
DigiEduPrimer
Challenge: DigiEduPrimer Challenge
2021

#8 DigiEduPrimer - A Digital Tool for Helping Children Learn How to Read



A Game for Learning Letter Sounds

An intelligent digital device that is capable of teaching a child how to read.

Team: DigiEduPrimer - A Digital Tool for Helping Children Learn How to Read

Team members

Jo, Hyungjoong, Rita

Members roles and background

- Software architecture
- AI / Machine Learning
- Educational Technology

Contact details

daniel@udk-berlin.de

Solution Details

Solution description

Our digital tool will teach a child to read by using *personalized learning*. The solution keeps track of the child's current knowledge and intelligently and systematically takes the child through the journey from illiteracy to literacy. The solution consists of a collection educational games and apps, and incorporates AI technologies like speech recognition for assessing the child's knowledge.

This solution will be a good mechanism for transitioning the education system from group-based learning to personalized learning. It will also help offload overwhelmed teachers in areas where the teacher-to-students ratio is too high.

Success of the solution can be measured by the number of children who are able to become proficient readers after having used the tool.

Solution context

Problem to solve: Millions of children around the world spend years in school without learning how to read a single word. Children who don't have access to quality reading instruction.

"Of the 387 million primary age children unable to read proficiently, 262 million are in a classroom."
— [UNESCO](#)

Solution target group

Target group: Children who don't have access to quality reading instruction.

They will benefit by reaching reading proficiency.

Solution impact

On a global scale, this problem is enormous:

"Of the 387 million primary age children unable to read proficiently, 262 million are in a classroom."
(source: [UNESCO](#))

We will measure impact by collecting data on how many children are achieving reading proficiency after using the tool.

Solution tweet text

A digital tool for helping children learn how to read

Solution innovativeness

Innovation: The intelligent system adapts the learning experience to fit each individual child. All the components (games, apps, content) making up the learning device use the intelligent system to communicate with each other. This makes the learning much more efficient than existing solutions.

Existing solutions on the market are individual apps/games that are not designed to communicate with each other.

Solution transferability

- Can be localized to work with other languages (e.g. Hindi).
- Free and open source.
- Works offline.

Solution sustainability

Short-term/Mid-term: Work with local distributors to help distribute the software and hardware to areas where it's most needed (e.g. India). Organize small pilot tests to measure efficacy and efficiency.

Long-term: Once the proof-of-concept has been demonstrated through a variety of small tests, switch to collaboration with larger organizations to speed up and scale the distribution globally.

Solution team work

The 3-person team combined their supplementary skills (software architecture, AI/ML, EdTech) in a good way, and came up with a promising solution to be deployed into the real world. We will definitely consider more collaboration in the future.