



# TechDon

Donate Technology to Support Education

# The Problem and Solution



(UN, 2021)

- Low-income students disproportionately excluded from access to technology
- Barriers to **technology based education**
- Solution
- **Repurpose** decommissioned digital devices for the education of low-income students
- Platform where organizations and individuals can donate devices
- Students select what they need and are informed once it is available

# Guerilla Personas & User Stories

See?

- A person would see there friends with a laptop think to themselves I wish I had a laptop
- Seeing others do work around you
- Not a laptop
- See schoolmates do research and they cant or have to stay after school to use school laptops

See and do?

- A person would go to there parents and ask for money ?
- they would search for bursaries to support them affording a laptop
- Search for student discounts and laptops
- Search for a discounted or free laptop

Think and feel

- Why can my parents not afford me a laptop ?
- Why does everyone else have ecteronic equipment but not me
- I wish I could have what they have so that I could also get the school work done
- I want to get the grade but don't have the equipment to study .
- life isn't fair I wish I could get help affording a laptop

Student

Hear ?

- Teacher " Guys the homework is online please get it done by end of the week "
- Student 2 " we have a discord meeting online where we will share the work make sure you upload your work on it "
- Teacher " Please submit your work in pdf form on the wiseflow website "
- " have you started the work its due in 2 weeks "

User name : Thoybur Rohman

Background : a student living with parents with low income

| Actor              | I want to <u>do</u> ...   | So I <u>can</u> ...  | How will I do this...   | Why tech donate....  |
|--------------------|---|--|---|--|
| Student            | I need a laptop to do assist with my studies, but I cannot afford it                          | Complete the work given and achieve the best grade                   | I will look online for places where I can apply for student loans as well as student scheme to aid studies. | Tech donate can offer an easy-to-use platform for a student to make an account and instantly apply to join the que for any technical device.               |
| Company            | I want to replace the old teach in our offices but don't want to throw it all in the garbage. | Bring new and updated software to help us stay with the competition. | Look online for charities as well as those who may need it.   | Tech donate will allow companies to be able to upload pictures of tech and then give them away to students who can reuse and help them with their studies. |
| Individual donator | I want to get rid of this computer in my house I don't use                                    | So that I can have space in my house for furniture                   | I will look online on gumtree and Facebook and ask if anyone would want this                                | Tech donate can help remove unused electronics and give them to a student who would use it to help with their academic studies                             |

# What's Innovative?

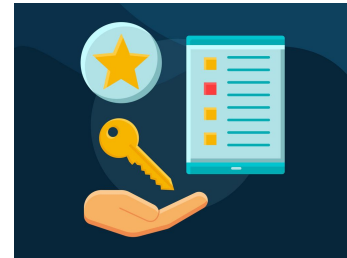


- Technologies which are digital play a crucial role in moderating our 'societies' and 'economies' and shaping the way we come together and work. (OECD, 2016)
- The measures of how much skilled a society is digitally will promote 'innovation' in their lives' different fields; and the volume of technological innovatives. This directly have correlation with education. (OECD, 2016)
- The 'OECD' is a 'global leader in data and analysis internationally' who mentions that educational innovation process will boost higher 'equity' and 'quality' of 'learning opportunities' by bringing 'qualitative' alternates. (OECD, 2016)
- Use of 'ICT' stands as base nowadays for 'personalised' learnings when it comes to organisation of schools systems. (OECD, 2016)
- One statistics done in 'OECD' countries shows a constant increase of percentage of 17 of an 'average expenditure per student' between the years 2005 and 2013. (OECD, 2016)
- The idea of an app which allow free donation of laptops and any types of electronics (ebooks, tablets etc) for students to study is indeed a novel idea. (Eaglescliffe, 2021)
- Countries like Africa, Asia, Europe are in need of aid when it comes to quality education. (Eaglescliffe, 2021)

# Key Features

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- Students, organizations, and individuals can create an account
- Students can enter required personal information & select which electronics they need
- Organizations and individuals can list technological items for donation
- A queue system to allow a fair wait time for laptops on a first come first serve basis
- Students are informed per email once a device has been offered to them
- A person can only apply once and the app will tell us if they received their device or not
- An identity verification system to assure eligibility (enrollment status)



# App feasibility

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Why is our plan realistic and achievable within the deadline?

- Communicate and plan over Discord & Whatsapp, ideas are discussed and meetings are arranged, automated reminders of deadlines
- Technical experience within the team & the group will acquire more technical skills from lectures/online resources/etc.
- Implement Lean to optimize efficiency and use Agile - an iterative project management approach, Sprints
- Work will be distributed equitably, while taking their experience into consideration to ensure fairness
- Teamwork and good communication with platforms such as Discord and with methodologies that make software development easier and result in a better final project



# Skills & Expertise



- Wide range of technologies and experience
  - Predominantly back-end focused
  - Will work to acquire more relevant skills over the year:
  - Front-end / React.js & Spring
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- Prior experience: Level 1 Group Project, Internships, Hobby projects
  - Technologies within team: Java, Python, Haskell, C#, C++, Apache TomCat, MongoDB, HTML, CSS, JS

# References



- Eaglescliffe, B. (2021). *Recycle ideas for Your Old Computer or Laptop*. Available at: <https://turbofuture.com/computers/Broken-PCs-and-Laptops>
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- Railsware (2019) *Agile Product Inception at Railsware*. Available at: <https://railsware.com/blog/inception/> (Accessed: 20 October 2021).
- United Nations (2021) *The 17 Goals*. Available at: <https://sdgs.un.org/goals> (Accessed: 18 October 2021).