Project Proposal: Improve Digital Literacy in Underserved Areas

Aditya Jain Student, Class-11 Mayo College Ajmer jain.adi9508@gmail.com Kartikeya Parashar Student, Class-11 Mayo College Ajmer kartikeya250108@gmail.com Dr. Ashish Vashistha Mentor, HOD- Computer Sc. & AI Mayo College Ajmer avashistha@mayocollege.com

1. Summary: A short overview of your project and its goal.

This project aims to improve digital literacy in underserved areas by creating a centralized platform that connects skilled professionals with schools and communities lacking access to digital education. By focusing on essential skills like AI and Cybersecurity, the program prepares students for a tech-driven future while addressing critical gaps in digital skills, especially in rural regions.

Project Goals

Enhance Digital Literacy – Equip students with foundational digital skills, focusing on AI and Cybersecurity.

Build a Sustainable Support Network – Connect schools with tech professionals, NGOs, and sponsors for continuous engagement and skill development.

Increase Access and Inclusivity – Provide digital learning resources to underserved areas, prioritizing rural and semi-urban regions.

Track and Measure Impact – Implement metrics to assess skill improvements, program engagement, and long-term benefits.

Enable Community Involvement – Foster a platform where schools, volunteers, and sponsors collaborate, supporting social responsibility and growth.



Figure 1 Key Stakeholders for Mayo Digital Literacy Platform

2. Problem: Explain the digital literacy challenges in underserved areas.

Digital Literacy Challenges in India

India faces considerable challenges in advancing digital literacy, mainly due to a lack of trained manpower to foster digital skills among school-level students. According to a 2020 report by the National Digital Literacy Mission, less than 20% of India's rural population is digitally literate, highlighting a vast gap in digital education. Demand for digital skills is expected to grow by 27% by 2025, but a shortage of qualified trainers remains a significant barrier (Ministry of Electronics and Information Technology).

Indian Talent Shaping Global Innovation

Indian tech professionals are making a strong impact globally, leading advancements in AI, cybersecurity, and software development. In 2023, India represented over 10% of the world's software professionals, driving innovations in major tech hubs like Silicon Valley (NASSCOM).

With a growing desire to give back, these well-paid professionals face limited opportunities to channel their expertise into India's digital literacy needs. Though some NGOs work in this space, there is no scalable solution that connects these skilled experts with underserved communities.

Proposed Solution

A centralized Mayo digital literacy platform to connect India's tech talent with underserved communities, improving digital education access and fostering skill development.

Expected Impact

- Significant improvement in digital literacy rates, particularly for students in rural and underserved communities.
- A robust support network of well-trained digital literacy educators who can continue fostering skills locally.
- Stronger community engagement, creating a scalable and sustainable approach to reducing digital skill disparities across India.

Stakeholder	Needs	Platform Solution	
Beneficiary Schools	Digital skill resources for students	Connects with trainers; provides tailored training modules	
Volunteer Schools	Community service opportunities	Enables student-led digital literacy training in underserved areas	
Students and Educators	Access to basic digital literacy	Offers customizable learning modules and hands-on resources	
Tech Professionals and Volunteers	Volunteering opportunities with recognition	Matches with schools; provides certificates and recognition	
NGOs and Government Bodies	Support for local literacy programs	Aligns with policy and coordinates local outreach	
Private Sector Companies	CSR opportunities in digital literacy	Enables funding, resources, and certification support	

3. Solution: Your unique and practical idea to solve the problem.

To address the digital literacy gap in India, this platform aims to connect underserved schools with skilled professionals eager to contribute to social impact. By bridging the divide between trained tech talent and communities in need, the platform enables accessible digital skill development for students, particularly in rural and under-resourced areas. This digital literacy platform not only equips students and educators with essential skills but also fosters a sustainable ecosystem of support through ongoing engagement and collaboration among schools, volunteers, NGOs, and private-sector sponsors.

Core Platform Features

- Skill-Matching and Scheduling: Connects skilled professionals with schools and educators seeking digital training, ensuring that each community receives targeted support.
- **Training Modules and Toolkits**: Provides a variety of digital literacy resources, customizable by region and proficiency, making training adaptable to diverse learning needs.
- Volunteer Recognition and Certification: Offers certificates and recognition for participating professionals, encouraging consistent volunteer engagement and commitment.
- **Progress Tracking and Impact Reporting**: Enables stakeholders to monitor literacy growth and track meaningful metrics, highlighting areas of improvement and measurable impact.

1. User Interfaces (UI)

- Student & Educator Portal
- Tech Professionals & Volunteer
 Portal
- Sponsor & Company Portal
- Admin Portal

2. Core Components

- Authentication System
- Skill-Matching Module
- Training Module Management
- Feedback & Assessment Module
- Scheduling & Calendar
- Certification Engine
- Reporting & Analytics

3. Data Storage & Management

- User Data Repository
- Training Content Repository
- Feedback & Metrics Database

4. System Interactions

- Registration and Role-Based Access Control
- Data Flow from Feedback & Assessment Module to Reporting & Analytics
- Matchmaking Between Skill-Matching Module and Volunteer Portal
- Program Completion and Certification Issuance
- Real-Time Updates Across Scheduling & Calendar and User Portals

5. External Integrations

- Payment Gateway (if applicable)
- Cloud Hosting & Data Security

4. Execution Plan: Step-by-step guide on how you'll implement the solution (with timeline and resources).

Digital literacy goes beyond computer use; it includes critical thinking, problem-solving, and ethical tech usage. Programs cover basic computer skills, information literacy, cybersecurity, collaboration, and more to prepare individuals for the digital age.

Pilot Focus: AI and Cybersecurity

AI and Cybersecurity are vital skills. AI equips students for a tech-driven future, while cybersecurity safeguards digital privacy, making them ideal pilot areas.

Location: Ajmer (NCR Region)

Ajmer's proximity to NCR makes it accessible for a diverse group of students, including those with limited digital exposure.

Weekend Program and Sponsorship

A Saturday-Sunday program allows intensive learning without disrupting routines. Companies and NGOs can sponsor travel and honorarium with branding on certificates. Hardware/software rentals from NGOs help manage costs.

Month	Key Deliverables		
Month 1 (Weeks 1-4)	Application Development : Define objectives, gather requirements, finalize pilot features, and start UI/UX design.		
	 Stakeholder Engagement: Identify and reach out to schools, NGOs, volunteers, and sponsors. Conduct introductory meetings to establish roles and gather requirements. Toolkit Development: Draft initial content for AI and Cybersecurity 		
	modules and gather initial feedback.Application Development: Begin back-end and front-end coding, focus on skill-matching, data-sharing, and tracking features. Conduct functionality tests on key modules.		
Month 2 (Weeks 5-8)	Stakeholder Engagement : Formalize stakeholder roles, finalize schedules for skill programs, and coordinate resources.		
	Toolkit Development : Finalize toolkit content and prepare digital and printable formats for easy access by educators and students.		
Month 3	Application Development : Conduct beta testing with selected users, gather feedback, and make necessary adjustments. Continue functionality testing and optimize the app.		
(Weeks 9-12)	Stakeholder Engagement : Launch pilot skill programs with schools, monitor program progress, and provide support.		
	Toolkit Development : Track toolkit usage, gather feedback from users, and make final adjustments to content.		
	Application Development : Prepare for full launch, finalize branding elements, and ensure data communication workflows are seamless. Host virtual launch event for stakeholders.		
Month 4 (Weeks 13-16)	Stakeholder Engagement : Wrap up pilot programs, distribute certificates with sponsor branding, and collect final program data.		
	Toolkit Development : Analyse data from toolkit usage and program impact, prepare reports, and finalize content based on cumulative feedback.		

Category	Expense Head	Minimum Specification	Budget (INR)
Application Development	Development Team	2 developers for basic features (skill-matching, tracking)	₹ 1,20,000
	UI/UX Design	Simplified, user-friendly interface and layout	₹ 50,000
	Testing & QA	Basic functionality and data security tests	₹ 20,000
	Hosting & Infrastructure	Affordable server with essential storage	₹ 30,000
Stakeholder Engagement	Outreach & Marketing	Digital promotion and one launch event	₹ 50,000
	Partnership & Coordination	Basic coordination with schools, NGOs, sponsors	₹ 40,000
	Certificates & Branding	Printed certificates with sponsor logos	₹ 20,000
	Travel & Honorarium for Trainers	Travel and honorarium for trainers; 2-3 sessions	₹ 60,000
Toolkit & Training Materials	Content Development	Simplified AI & Cybersecurity modules (basic/intermediate)	₹ 80,000
	Toolkit Design & Formatting	Basic graphic design for readability	₹ 40,000
	Printing & Distribution	Limited copies for pilot, digital format primarily	₹ 30,000
	Rental of Hardware & Software	Essential devices/software for training sessions	₹ 30,000
	₹ 5,70,000		

5. Budget: The basic cost to implement the idea proposed.

6. Impact Measurement: How will you track if the project is successful?

To ensure the effectiveness of the digital literacy program, we will employ a structured impact measurement plan. This includes pre- and post-training assessments, ongoing feedback from stakeholders, and detailed reporting for sponsors. By tracking key metrics, we aim to evaluate skill improvements, program engagement, and long-term benefits.

- 1. Pre-Implementation Baseline Survey for Students Before Training
- 2. Participation and Engagement Metrics: Feedback from Students and Beneficiaries
- 3. Skill Assessment Tests and Certification for Students
- 4. Completion Rates of the Training Program
- 5. Feedback Collection from Different Stakeholders
- 6. Post-Implementation Surveys
- 7. Project Reports & Sponsor Impact Metrics for Companies
- 8. Long-Term Tracking

Flow Diagram for MAYO Digital Literacy Platform

Training Need Analysis Form Schools or students fill out a form to identify digital literacy needs, either individually or in bulk.



Trainer Selection and Budget Analysis System selects trainers based on needs, estimates budget, and sends funding requests to sponsors.



Trainer, Sponsor, and Volunteer Confirmation Trainers and sponsors confirm participation. Partner schools confirm the number of volunteers needed for support.



Progress Monitoring Track training progress, monitor volunteer engagement, and ensure training objectives are met.



Arrangements and Offline Training Execution Admin team arranges travel and venue setup. Trainers conduct offline sessions with volunteer support.



Training Material Sharing After confirmation, training materials are shared with trainers for preparation.



Feedback, Assessment, and Certification Collect feedback from participants, conduct assessments, and distribute certificates to students.



Invoice, Impact Report, and Sponsor Promotions Prepare an impact report and invoice for sponsors, including permissions for promotional use on social media and other platforms.



Post-Training Review and Improvements Conduct a post-training review to gather insights and make improvements for future programs.