

AudioCane: Promoting Social Justice for Visually Impaired Students in Bangladesh through Education and Sustainable Infrastructure
Bangladesh
Bennington College
Md. Abrar Abdullah Arpon

Mission: To ensure equal opportunities and access to education for visually impaired and print-disabled students in Bangladesh by building a sustainable infrastructure for the education of blind and visually challenged individuals.

Context: According to a 2010 study by the World Health Organisation (WHO) and the International Agency for the Prevention of Blindness (IAPB), approximately 800,000 Bangladeshis are blind. Around 13.8 percent of the country's people aged 30 or more suffer from low vision. The report further states that 22 percent of newborns face extreme risk of retinopathy of prematurity every year, which is one of the leading causes of blindness. Globally, a person becomes blind every five seconds, and one child goes blind every minute. Although no survey regarding the prevalence of visual impairment in Bangladesh was conducted in the last eight years, it is apparent from the study that every year, the number of persons with visual impairments must increase significantly in the country.

Bangladesh's visually impaired community includes some of the worst victims of negligence and marginalization. Very few can overcome intense social and practical barriers to continue their education. Even if they rise above those challenges, our failure to ensure their universal right to access knowledge in their mother tongue has further curbed their immense potential. Bangladesh is one of the few developing nations yet to build a sustainable infrastructure for blind students. Some NGOs are working to make education accessible for blind students. Still, most of them lack the technical ability to digitalize education for blind students for grassroots level students. AudioCane started to digitalize education in an accessible form that ensures equal opportunities for all students, protecting the authors' rights and sustainable development.

Project Description: AudioCane is a digital education platform that aims to make education accessible to blind students at the grassroots level while protecting authors' rights and promoting sustainable development. Starting in December 2021, the organization has grown to include 150+ volunteers (roasters available on request) from around the world, with a network of volunteers in all 64 districts of Bangladesh. Volunteers from ten universities in four countries are working together to research audio-navigable mobile applications and libraries through AudioCane. The volunteers create and distribute audiobooks (also known as DAISY Audio/Talking Books) remotely using online tools such as Slack, Trello, and Google Workspace. AudioCane has been recognized by the 3Z Global Centre, an initiative by Nobel Laureate in Peace Professor Muhammad Yunus, as a 3Z Club working towards inclusive education and the goal of zero unemployment.

Methods and Strategies: Volunteers at AudioCane have three roles: audio artist, sound editor, and manager. Whenever an audio artist has time, they send a message in a designated Slack channel, and a manager assigns a task from the "To Do List" on Trello. The necessary PDF is provided in the Slack channel, and once the audio artist completes the recording, it is uploaded to a review drive, and an alert is sent to the Slack channel. The manager then checks the drive to confirm the work is uploaded and labeled correctly before acknowledging the audio artist. The sound editor and manager roles follow a similar process using raw audio from a separate drive. The books are distributed by the volunteer network that exists in all 64 districts of Bangladesh.

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Goals and Objectives: Our main goal is to create a support structure to bring blind and visually impaired students into mainstream education through specialized audiobooks. To achieve this, we plan to operate in five phases, starting with a visit to at least 30 schools. From these, we will choose five schools to build student clubs that ensure a support network for blind individuals. Further on, we will sign up eight audiobook creators to obtain audio rights. After we have these, we will conduct a one-week training for the students in making specialized audiobooks and supporting their blind peers continuing with building three audio studios with recording equipment and computers for the clubs. While working on the clubs and the creator sign-ups, we will also build our own website to host our audiobooks and work as a connecting platform for the support network. Until now, the audiobook distribution was through our volunteer network, but building a platform to distribute these books will make it easier for everyone to access the resources.

Qualification: The team at AudioCane includes college students from various educational and cultural backgrounds, bringing a diverse range of skills and experiences to the project. In addition, the organization's partnerships with institutions and social clubs in Bangladesh provide a strong foundation for the project's sustainable development. I am the project founder and chief co-ordinator; I study computer science, media studies, and film production and have a background in e-commerce, business management, and event planning. I have previously worked for the National Children's Task Force, Bangladesh, to ensure children's rights and attain MDG. I also have previous experience working with BRAC and USAID. I studied software product development, a product design and management course that has enabled me to think critically and design efficient products for users.

Sustainability: Previous efforts to create accessible materials, such as ePub books for blind students, have failed due to a lack of planning, technical complexity, and clear vision. AudioCane aims to address these issues through partnerships with institutions that have a culture of book recitation and social clubs. These clubs will be trained in creating accessible books, ensuring a continuous supply of materials.

Impact: AudioCane aims to promote social justice and empower this marginalized community by providing equal education for visually impaired students in Bangladesh. The organization's sustainable infrastructure and partnerships will ensure long-term success. By the end of the project, AudioCane hopes to be the main platform of education.

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Project Timeline:

Phase	Activity	June: Remote from the US	July: Remote from the US	August: In person in Bangladesh	Matrix of Success
Phase 1	School Visit & Creator SignUp	✓	✓	✓	<ul style="list-style-type: none"> • Visiting at least 30 Schools • Choosing five schools for building club • Signing up 8 Audio Book Creators
Phase 2	Building Club		✓	✓	<ul style="list-style-type: none"> • Adding 50 new club members
Phase 3	Club Training		✓	✓	<ul style="list-style-type: none"> • Conducting 1-week training
Phase 4	Audio Lab Setup		✓	✓	<ul style="list-style-type: none"> • Setting three audio Studios
Phase 5	Website and App Development School Visit & Creator SignUp	✓	✓	✓	<ul style="list-style-type: none"> • Making an accessible website