

CONCEPT NOTE

Akhand Jyoti Mobile App for Patient Support

Background Details- Akhand Jyoti Eye hospital- a unit of Yugrishi Shriram Sharma Acharya Charitable Trust, is the largest Eye hospital in Eastern India with its 350 bedded tertiary hospital in a rural village Mastichak, Bihar along with 3 secondary hospitals of 50-60 beds each in Ballia (Uttar Pradesh), Samastipur & Purnea in Bihar. Additionally, it has 8 Vision centers across various parts of Bihar. Akhand Jyoti caters to about 3000 patients daily through its network of hospitals, vision centers and community outreach screening camps. Apart from these it does an average of 70,000 sight restoring surgeries annually, 80% of which are free of cost to the needy patients.

As a non- profit entity Akhand Jyoti aspires and serves the indigent rural population from whom access to quality and affordable eye care is a distant dream. Akhand Jyoti is therefore on a mission to eradicate avoidable blindness in low income regions of Bihar and Eastern Uttar Pradesh.

The Problem- Akhand Jyoti's hospital network is based in rural areas and the target population travels in from across the 38 districts of Bihar & 4 key districts of Eastern Uttar Pradesh. Because of limited space of the fixed facilities, the patient load is unmanageable to screen and handle and often patients must wait for long periods to avoid treatment. Such limitations burdens patients with longer wait time, long distant of travel and loss of pay (as most of these patients are daily wage earners)

Solution: To mitigate and enable the patient to access faster and reliable services, Akhand Jyoti intends to develop an APP to service patients with live doctor consultation and on spot prescription generation. This would also help reduce the patient load at fixed facilities and enable the doctors to focus on patients who need critical care. Patient requiring consultation for common eye ailments can be consulted in most of the cases by tele- consultation with the APP freeing up time, space and travel constraints of the patients.

Interestingly, media reports of the telecom industry claim that there are 200 million active mobile data users in Rural India, 97% of users access the internet on their mobile device. Increased availability of bandwidth, cheap data plans and increased awareness driven by government programs seem to have rapidly bridged the digital gap between urban and rural India. Consequently, the penetration in rural India has increased from 9% in 2015 to 25% in 2018

The report claims that Bihar shows the highest growth in new internet user additions across both urban and rural areas, registering a growth of 35% over last year

Why Now- The development of the APP was a pressing issue for quite some time and in need of resource allocation. However, in the light of the COVID-19 crisis, the post COVID-19 outbreak scenario will make social distancing mandatory. In this light Akhand Jyoti would have to cut down on the screening and servicing of the patients at screening camps and fixed facility. This would leave a lot of patients without any recourse to avail basic eye care facility.

It is in this context the development of the APP is a priority more than ever. The APP would provide an alternative to these patients to access eye care without having to leave their home.

What will the App do(Summary)- The App will help connect patients from rural Bihar & Uttar Pradesh(in the present scope, can be expanded into newer territories) to report for Video/Chat consultation, follow up, prescription generation, schedule appointment with Akhand Jyoti doctors and allow them to access primary eye care services from the comforts of their home.

Parallely this App would also allow our community outreach workers to interact with patients in remote areas and help them connect to Akhand Jyoti Doctors, beam patient images and prescription to provide on- spot access to primary eye care.

What exactly the App do (Technical Description)- Using mobile data the App will provide patient real time access to Akhand Jyoti specialist Ophthalmologist for a remote consult and prescription generation. It will enable our doctors to update patient conditions, history, diagnosis, suggest remedies and remotely generate a prescription for the patient during the office working hours. Patients can also schedule appointments for eye care specialist consultation/follow- up, surgery appointment at suitable available time slots on request. Users can also enter set- up confirmation to customize App for their follow-up updates, reporting time at their nearest fixed facility. The App would also allow users to customize reminders, notifications as and when required.

At the doctor's end the App would have a user interface to do video consult with the patient, write prescription, suggest follow-up appointment dates.

All these patient related data would be masked against data theft and saved in a cloud data base. The App would have the capability to sync these data to our existing Hospital Information System

Who would be the users - There would be 3 group of active users for the App in its App and web interface format:

- New and existing rural Patients of Akhand Jyoti Eye Hospital for quick, easy to use online consultation and prescription generation
- Akhand Jyoti's Community Outreach workers- Use the App to bridge patients in remote areas directly with the doctor's office for access and continuity of care.
- Doctor's at Akhand Jyoti – Use the web interface of the App to provide online consultation to the patients.

How would beneficiaries find the App- The App would only be an Android App(an estimated cent percentage of the target users are android users)and would be hosted on the Google Play store and would be available for a free download. Marketing of the App would be through the App

store, on the ground through volunteers, word-of-mouth and through targeted messaging to our existing database.

How would the user use the App- Once downloaded, the App would allow the user to select their preferred language between Hindi & English> auto select location>enter UHID details(if patient is seeking follow-up visit)or select as new patient> enter mobile no> OTP generation request & verification> selection between live appointment, appointment scheduling, clinic and specialist selection> access live consultation> end call.

During the call the attending doctor would fill in the necessary medical details, provide diagnosis and prescription. Once the call has ended the doctor would sign out of the session and the respective prescription would be made available to the patient in his App. The User can choose between 2 Options Display or Download. The Display option would allow the user to view the prescription within the App while the download Option would enable the user to download the prescription.

In general, keeping in mind that the target audience would be patients with eyesight problem the User Interface would be in Bold typeface with minimum navigation.

A setting options in the App would allow the user to store favorites', location and other necessary details pertaining to his previous visit/consultation.

Who will be building this product? - Akhand Jyoti has a boutique technology partner on job based contractual model. They have been instrumental in developing Akhand Jyoti's website and has extensive industry knowledge on healthcare APP development as they work for several healthcare/hospice organizations in India, UK & USA. With over a decade of experience in technology development they are adept at executing this project in a structured time frame and bare minimum resources.

Market Size & Opportunity- Currently Akhand Jyoti consults around 3000 patients daily across its network of hospitals, primary vision center clinic and community outreach work. Through proper penetration of the APP we expect to handle around 100 consults/day which would account for close to 30,000 consultation in the first year alone. This would progressively increase in the following years and by the 3rd year we should be able to handle a capacity of about 450 consultations/day which would translate to 135,000 consultations/year.

Funding Requirement- The project would seek a funding of 1.8 million INR. This would include the product development cost, licensing and integration cost.

Project Timeline- The project would need between 150-180 days to become live from ground up.