Tech for good

At Infosys, we are going through a transformation journey to become AI-first and as part of this, we are weaving AI into all aspects of our business, including TechForGood. We are working on applying AI to solve societal problems in the areas of healthcare, e-governance, and education in a responsible manner.

SightConnect

Infosys' TechForGood initiative, in partnership with Infosys Foundation and LV Prasad Eye Institute, has designed and launched the SightConnect mobile application with the goal of making preventive eyecare accessible to everyone. The app can be used by patients or healthcare workers anytime, anywhere to test for eye conditions, diagnosis and further referral to specialists for in-person management of the case. It also enables remote communication between patients, healthcare workers, doctors, consultants, technicians, and eye banks.

> **More than 119 million lives empowered via TechForGood programs in e-governance, healthcare, and education**

Artificial intelligence is used for triaging, visual acuity test, accessibility across Indian languages, cataract, red eye detection and to determine the distance between the smartphone camera and the eye.

AI helps the app to precisely measure the distance between the smartphone camera and the user's eye. This is crucial during visual acuity tests, where factors like phone brightness, optotype size, and viewing distance – all impact accuracy. By determining the eye position using facial contours, the AI model allows us to calculate the optimal "distance to object" for the test.

- **AI-powered triage:** Using a series of questions and a visual acuity test, SightConnect generates a preliminary assessment of eye health, indicating whether an urgent or routine consultation is recommended. It has been tested successfully in clinical trials at LVPEI.

- **Enhanced visual acuity test:** To ensure accuracy during the self-assessment, the app utilizes AI to precisely locate facial landmarks in real time using the smartphone camera. By analysing the contours of the eyes, the app verifies if the user is testing the correct eye as instructed.

- **Multilingual accessibility:** It removes language barriers by offering automated translations for both the app text and the Interactive Voice Response (IVR) system. This is powered by the Ai4bharat IndicTrans2 (IT2) – Bhashini model.

- **Cataract and red eye detection (clinical trials):** SightConnect uses a specialized AI model to analyze eye images for potential signs of cataract and red eye. Clinical validation for this feature is under way.

Responsible By Design

To ensure that AI is used in a responsible manner, a Responsible AI framework is used in implementing and governing AI. The framework focuses on regulatory compliance, explainability, reproducibility, fairness and bias, safety, privacy, security, model validation, IP protection and infringement, sustainability, AI audits and standards, and governance.