### **Pratham India** **Addressing Educational Equity: The Challenge of Access and the Promise of Technology**

The foundational belief in education as a force for equality is continually challenged by the disparity in access to opportunities. While technology has long been heralded as a solution to bridge these gaps, the reality is that the high costs associated with developing educational technologies have often limited their reach. Traditional investment strategies, driven by the pursuit of financial returns, have skewed technological advancements towards markets with the ability to pay, leaving behind those in greater need but with lesser means. This imbalance is starkly evident in the EdTech sector, where tools like AI reading assistants are plentiful for English speakers but scarce for languages such as Hindi, Gujarati, or Marathi, underscoring a business model that overlooks the needs of larger populations due to perceived lower revenue potential.

At the Pratham, we've confronted these challenges head-on, dedicating our efforts to create technologies and content that aim to bridge this opportunity gap. Our work has already impacted hundreds of thousands of children directly and, through strategic partnerships, reached millions more. In just five years, we have developed over 17,000 content resources and built a coalition of more than 100 organizations committed to open learning initiatives. Our approach and achievements, including the recognition of Pratham’s model by the World Economic Forum as a school of the future, reflect our commitment to inclusive and accessible education.

### Bridging the Technological Divide: Creating Foundations for AI Innovations in the Global South

While automated assessment systems and teacher support technologies are becoming mainstream in developed regions, their absence in the global south is notable. Our initiative aims to bridge this divide by creating the necessary datasets and implementation platforms, ensuring that advancements in educational technology reach every child, regardless of geographical location. Our entry into AI-driven solutions in 2019 was motivated by the prohibitive costs and limitations of traditional technology licensing models, which did not align with our mission to democratize access to education.

#### Developing Datasets and AI Models

The Pratham team's expertise in large-scale assessment and data collection is a strength that we are building upon. Our approach to dataset development is meticulous, considering factors such as the Language Diversity Index (LDI), age, and gender to ensure representation and prevent bias.

An exemplar project is the ReadNet initiative, supported by Schmidt Futures, we created an open dataset from over 2,000 hours of reading assessment audio collected from 140,000 children. The collaboration with AI4Bharat, IIT Bombay, EkStep, and researchers from Raytheon, among others, aims to advance reading assessments in Indian languages, highlighting the critical role of open data in educational AI research.

Building on this foundation, we also created a dataset from 50,000 child-submitted projects, allowing research into children’s problem-solving and creativity. Moreover, recognizing the need to support caregivers with accurate information, we launched a WhatsApp bot, BaalSakhi, capable of responding in 12 Indian languages, using data verified by authoritative sources. This bot, designed to be accessible and user-friendly, is part of our broader effort to empower parents and caregivers with the knowledge they need to support their children's education and well-being.

#### Scaling Through Partnerships

Our scaling strategy hinges on established partnerships, pivotal for implementing and refining our tools. Partners facilitate dataset creation, annotation, and the nuanced development of our AI modules. Education experts and practitioners contribute significantly, ensuring the AI model meets rigorous error threshold standards and remains free from bias. Pilots with educators and parents provide essential feedback, shaping the tool's reliability and validity. By integrating our solution into existing implementation frameworks, we can offer timely, actionable insights, fostering continuous improvement and widespread adoption.

Our AI initiatives have garnered recognition for their potential to serve a vast, underserved audience. Collaborations with leading institutions like IIT Bombay and AI4Bharat at IIT Madras have been pivotal, allowing us to contribute to and enhance AI tools for reading and translation, specifically tailored for educational content.

### Collaboration for Impactful Reach: Fostering an Ecosystem for Development and Adoption of DPI in Education

However, we recognize that technology development cannot occur in isolation if we aim for widespread impact. It's crucial to cultivate an ecosystem that can effectively utilize technology in educational contexts. To this end, we've established a robust network of content and implementation partners who share our philosophy of open learning. Our reach has also expanded to international projects through a collaboration with the Ekstep Foundation in Africa and the Middle East, to promote the adoption of Digital Public Infrastructure in Education. We are also working on a creativity collective with the MIT Media Lab, to share the knowledge about building creativity skills in children.

Pratham's approach to AI in education is grounded in the belief that technology should serve as a universal leveler, offering every child, regardless of their background, the opportunity to learn and grow. Our initiatives are a testament to our commitment to making this vision a reality, focusing on creating accessible, impactful solutions for the communities most in need.