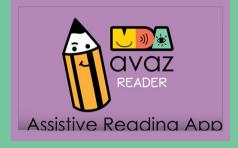
An MDA Publication

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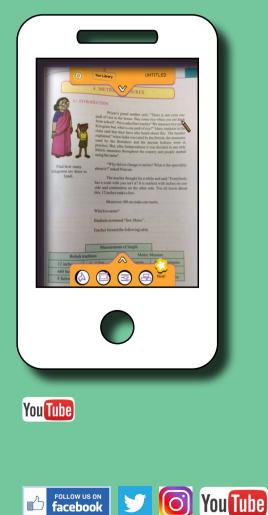
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### MDA Avaz Reader App Demo



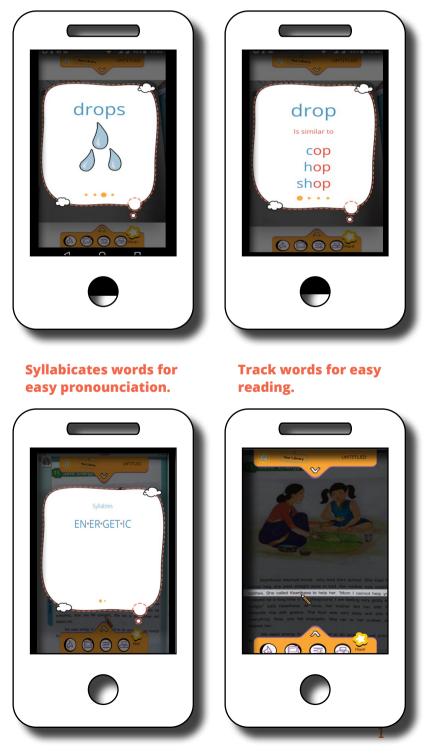
You Tube

### Buy MDA Avaz Reader App Here:



## A glimpse of what MDA Avaz Reader App Can Do

Provides pictures and words with similar word endings.



# Why Did We Develop MDA Avaz Reader App?



Narayanan CEO, Avaz

At Avaz, we create technology products that empower and enable people with disabilities and their caregivers. We have been associated with Madras Dyslexia Association (MDA) for the past few years by virtue of Ajit Narayanan (Founder, Avaz) serving as the Secretary of MDA.

Over the last two decades, MDA has enabled thousands of children to overcome learning difficulties through their time-tested instructional methods. The team at MDA has always been very keen to use technology to enable their students to learn better. They also believe that if an appropriate assistive technology solution is provided to every child with a learning disability - significant impact can be achieved.

So, when MDA approached us, wanting to translate some of their instructional methods into technology solutions, we were thrilled. We have always been motivated to solve problems faced by children with disabilities – and were very excited to partner with MDA to create a first-of-its-kind product for children with Dyslexia.

When we started discussing potential ideas, we focused on 3 things:

• Picking a specific problem for which a solution was desperately needed.



Ajit Narayanan You Tube

- Use the various instructional methods of MDA to solve that problem.
- Integrate them into a technology product which can be accessible to the maximum number of children around the world.

The specific problem that we picked to address was to enable children with Dyslexia read better, and to be able to do so independently. When children read a printed text, they face many challenges. They may find a word difficult to pronounce. Or they may get distracted because of the pretty pictures accompanying the story. Usually a teacher is at the child's side, helping them with pronunciation and ensuring that they remain focused on reading. But what of the times when there is no one to guide the child?

MDA Avaz Reader brings together several proven reading strategies to enable children to read independently.

Let's take an example of a boy named Veera, who has Dyslexia and finds it difficult to read books by himself. Usually, he would have to rely on someone to be by his side while he is reading. But with the MDA Avaz Reader by his side, Veera can now pick up any book in his school library, take a photo of the story that he wishes to read and happily enjoy the story all by himself! The app processes the text in the photo and shows a pencil icon that Veera can drag using his finger to track what he is reading. Veera drags the pencil to ensure that he is following the flow of text correctly. Now let's say he gets stuck at pronouncing the word "cry". He summons the Hints feature in the app which shows various "rhyming" words like "fry","try"...seeing which Veera is now able to figure out the pronunciation of "cry" correctly.

As he continues to read, the scientifically designed interface of the app ensures that he is reading one sentence of text at a time - without getting distracted. Veera is then unable to pronounce the word "laugh". He summons Hints again, which gives him the option to listen to the app speak out the word. He listens to the app say "laugh", repeats it and proceeds to finish reading the story.

Isn't this powerful? A child anywhere in the world, now has access to world-class instructional support from within a smartphone. Support that enables them to read better, independently! The possibilities are endless!

In close to a decade of creating technology solutions for people with disabilities, we have always been humbled by the impact of assistive technologies on users and their loved ones. Assistive technologies can significantly change the life of people with disabilities. We have seen it first hand with our very first product, Avaz AAC : A communication app which enables people with speech disabilities communicate.

Bringing together expertise packed learning strategies with state of the art technology, we are confident that MDA Avaz Reader will be a game changer for people with learning disabilities!

# Genesis of the MDA AVAZ Reader App



#### Harini Ramanujan, Mala Natrajan Special Educators, MDA

Technological scaffolding can give a significant independence to the functioning of children and adults with dyslexia. Madras Dyslexia Association had been toying with this idea for a while and carried out a study of the impact of some apps that could read-out texts. Encouraged by acceptance of such apps by students being remediated by MDA, Invention Labs was brought in on the merit of their effective app – Avaz-a picture and text based communication app for children with communication challenges.

Based on the scientific theories of the teachinglearning process, MDA Avaz Reader App strives to provide the user with a reading environment that emulates the time-tested reading strategies taught in a remedial class. This not only provides support, on demand, during every instance of reading, but also reinforces all facets of reading viz. decoding, fluency and comprehension.

The development team spent many hours with us at Ananya to understand the strategies that are taught to our children to cope with reading difficulties. These strategies were then categorised to enable a phased development of the app. This paves way for a strategy of continuous development of the app. The work done in the past one year has resulted in the release of the 1st version of the app.

A robust OCR technology enables the reader to take up any textual material and smoothen rough edges, if any using, the Review process. This is the only process that needs Internet connectivity. This enables that the material can be presented in fonts and spacing best suited to the reader.

The reader gains from the contextual clues available in the original textual material, hence this app presents the text in its original form too. Observing the merit of a "window focus", the app provides this option for a line-by-line display of text to keep the reader's attention to the required line. One of the important objectives of the app is to facilitate the skill of transfer of learning among the struggling readers. The present version of the app includes fine points like hints for a difficult word that highlight similarity in end or starting blends with known simpler words, syllabication and picture hints in a manner similar to the methodologies adopted in the remedial classroom.

Testing and evaluation are essential to ensure a quality product. The teachers at Ananya meticulously followed the test plan and recorded their observations while the children used the app to read texts appropriate to their level. In addition, this reader app was tested in schools on children with deficit in English language. The children demonstrated significant improvement in fluency and comprehension. All applicable feedback was ploughed back to deliver a reading app that provided support as close as possible to that given by a special educator.

It is with much happiness that we would like to share a response from one of the students of Ananya. "Ma'am, I love this app. Now I can read independently without asking for help from anyone".

#### Madras Dyslexia Association

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