



NOVEMBER 22, 2025

AstroAI: Business Plan

KeyEZ

VISION:
PROMOTE AND PRESERVE KHMER LANGUAGE





Executive Summary

AstroAI introduces KeyEZ, an innovative AI-powered keyboard application designed to preserve and promote Khmer script usage among Cambodian youth. It is obvious that the rise of using Sing Khmer, known as អង់គេសសំឡែងខ្មែរ, a writing style that uses Latin letters to represent Khmer sounds has become widespread among GenZ. Over time, the usage of khmer script will decline which result in the loss of language identity.

KeyEZ addresses this challenge by offering an application that provide real-time transliteration, converting SingKhmer input into proper Khmer characters as users type. The application is influenced by Chinese typing systems, such as Pinyin-based keyboards, which allow users to type latins (English) characters using Romanized input (Latin letters) which is then converted into proper Khmer script in real time. KeyEZ's goal is to make Khmer script simple, efficient, and accessible for the next youth, promoting Khmer literacy, linguistic identity in the social media platform. We have three core features such as Singkhmer to Khmer Script translation, hand-writing regconition, and khmer Vocabulary and Grammar Checking

KeyEZ aims to target Cambodian youth, aged 16–50, including students, instructors, and young professionals writer. The app will operate under B2C business, the main revenue stream will be charge by subscription plan.

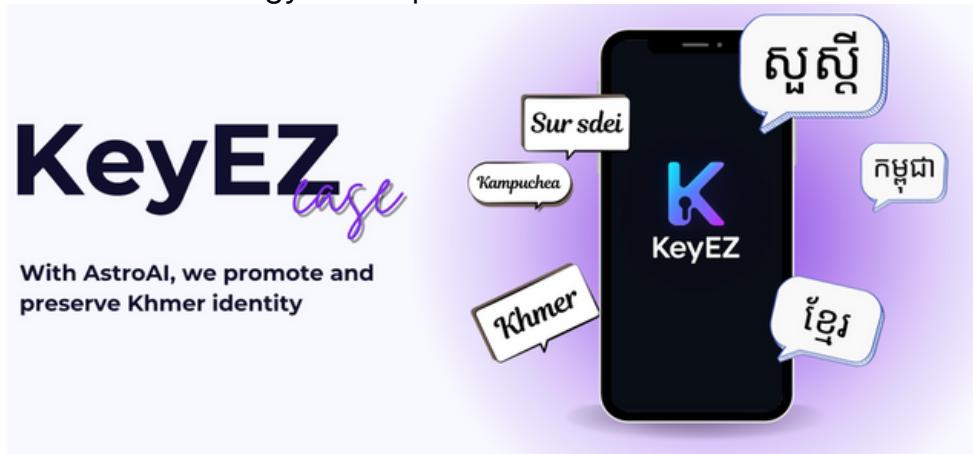
KeyEZ is highly scalable, we have already reach our MVP phase, we would say that we are the first the bring this ideas into the market; however, competitor such as default keyboards, smart keybaord (តាមចុចឆ្នាំតែង) is still a threat to our solution. The product is easily implementable on Android and iOS and can scale as an API for other applications or education systems.

Once the user type the word in singkhmer, our application will provide recommendations, suggestions, and translate those in khmer character. We will help check the grammar and vocabulary. It can be used in schools, universities, and communication platforms to enhance Khmer writing skills, supporting education, literacy, and cultural sustainability.

INTRODUCTION

WHAT WE DO

We are team AstroAI. A team that has the vision to improve, promote, enhance Khmer languages and characters usage in the social media platform. Putting Khmer text in the modern technology development.



PROBLEM STATEMENT

The new generation of Cambodian youth, especially GenZ, have excessively used Sing Khmer to communicate daily through social media platforms such as Facebook, Tiktok, Instagram, and Telegram. SingKhmer, also known as អង់គេសសំនើងខ្សោយ, refers to Romanized way of writing the Khmer language by using Latin (English) letters to represent Khmer sounds when typing online. For example: ស្រីលាន -> srolanh, slanh, sl.

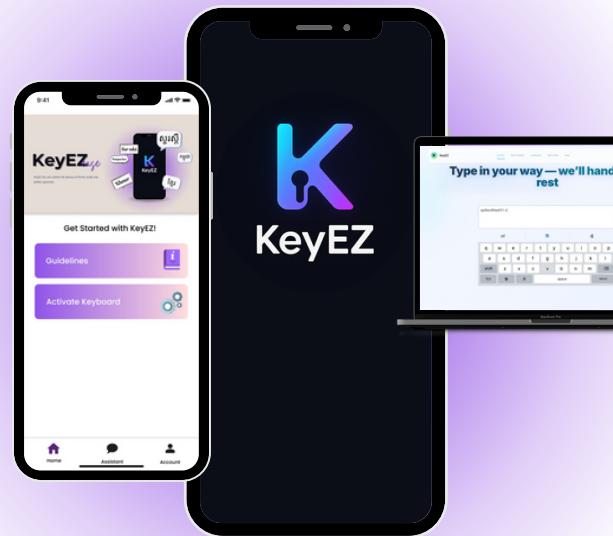
It is obvious that GenZ tend to use singkhmer when texting, commenting, and communicating online as it is easier compared to writing in khmer script. Plus, people who actually used Khmer script also find it is a bit to write in khmer due to the complexity of khmer keyboards unicode.

The image consists of three separate boxes, each with a rounded rectangular border and a thin purple outline. The first box on the left contains a screenshot of a Khmer keyboard layout with various keys and diacritics. The text "Complexity of Khmer script" is written below it. The middle box contains a red stopwatch icon with three black lines radiating from its center, symbolizing time. The text "Khmer keyboard is time consuming" is written below it. The third box on the right shows a computer monitor displaying a document with red and green checkmarks, indicating errors. The text "Spelling and Grammatical errors" is written below it.

- **The complexity of khmer script:** Khmer Keyboard unicode is complex and hard to write.
- **khmer keyboard is time consuming:** Using khmer script take so much time
- **Grammar and Spelling errors:** People spends alots of time revise and check on grammar and vocabulary

SOLUTION

KeyEZ is a smart, AI-powered keyboard designed to make typing in Khmer faster, smoother, and more intuitive. By allowing users to type using familiar Latin letters while automatically converting the input into correct Khmer characters, KeyEZ removes the difficulty of navigating traditional Khmer keyboards. The system is supported by advanced grammar and vocabulary correction features, ensuring that users produce accurate and polished Khmer text in real time. With KeyEZ, typing in Khmer becomes simpler, more efficient, and fully accessible for both students and everyday social media users.



OUR CORE FEATURES

KeyEZ combines AI-powered transliteration with modern keyboard tools to let users type naturally in SingKhmer while the system converts everything into proper Khmer script. Its core features include:

1. SINGKHMER TO KHMER TRANSLATION

Automatically converts SingKhmer input into accurate Khmer characters using deep learning models, improving accuracy as users type.

2. HANDWRITING-TO-TEXT (CANVAS)

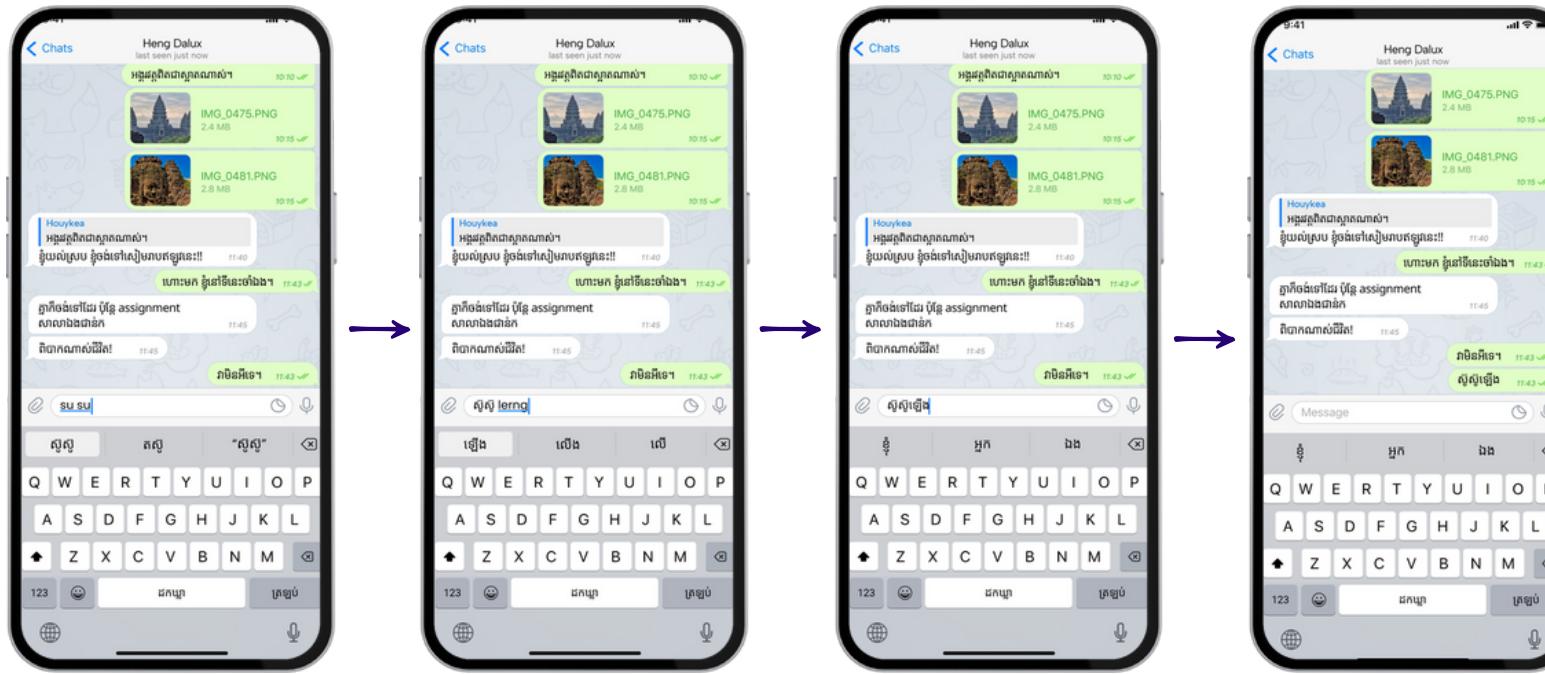
Allows users to draw Khmer letters or words with a finger or stylus, which the system instantly converts into digital Khmer text—supporting literacy and character recognition.

3. GRAMMAR & VOCABULARY CHECKER

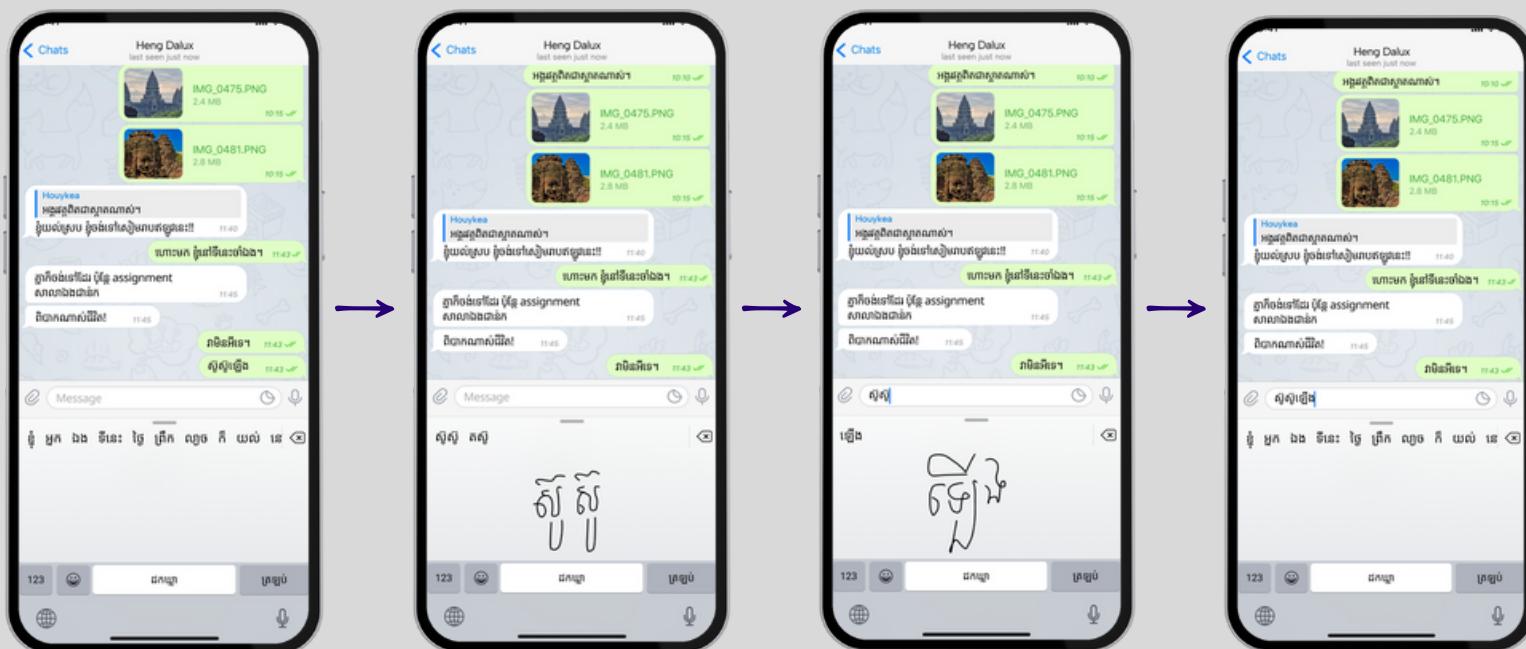
Identifies grammar mistakes and vocabulary errors, offering real-time corrections to help users produce polished and accurate Khmer writing.

HOW IT WORKS

SINKHMER TO KHMER SCRIPT TRANSLATION

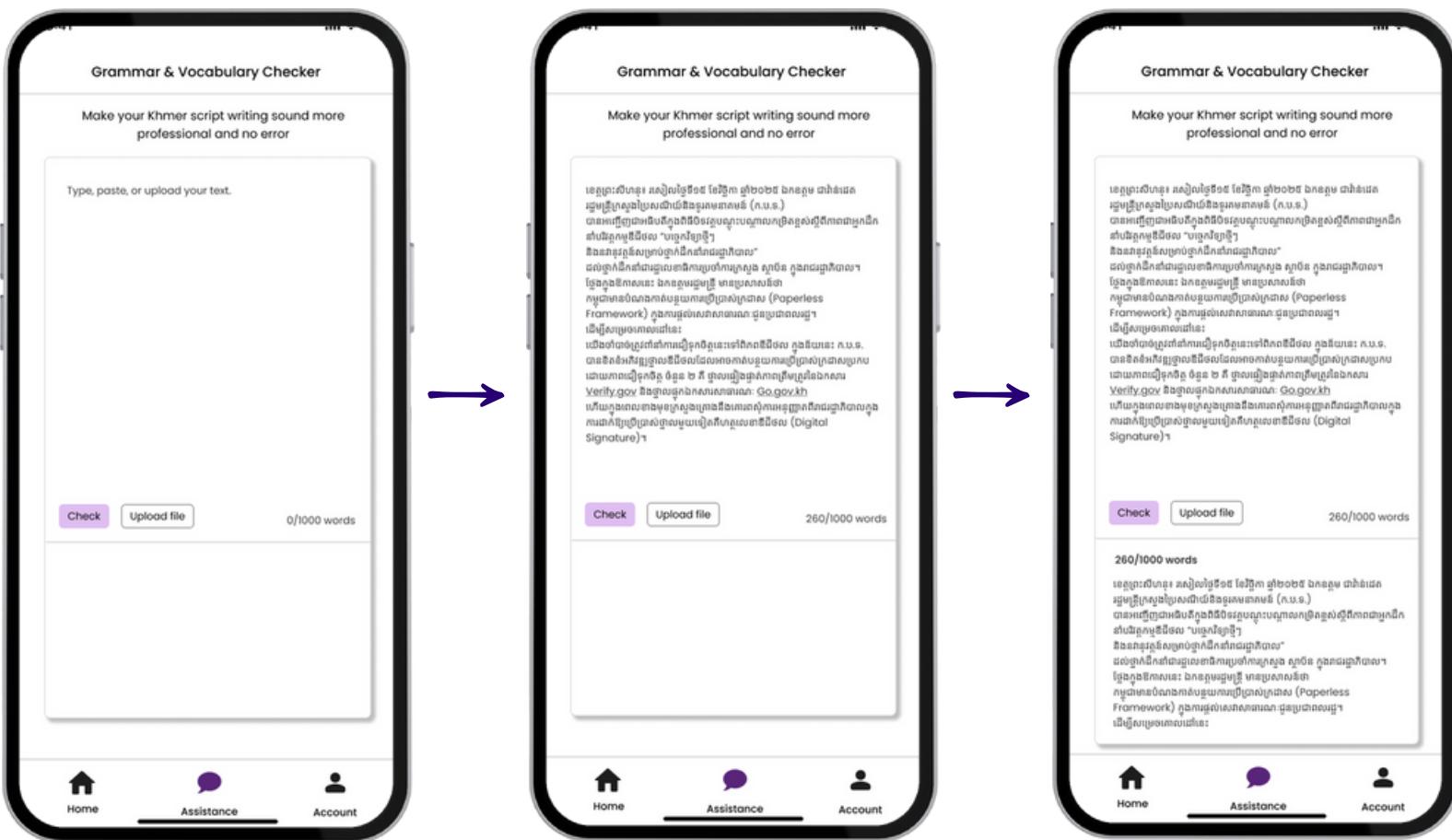


KHMER HAND-WRITING CANVAS



HOW IT WORKS

KHMER GRAMMAR & VOCABULARY CHECKER



METHODOLOGY

- Mobile App Development:**
 - Flutter:** Cross-platform framework for Android & iOS.
 - Dart:** Programming language for app logic and UI.
- Backend:**
 - Django:** Python web application framework for MVP demo and testing
- Database & CI/CD:**
 - PostgreSQL:** Relational database for storing user data, app settings, and transliterated content.
 - GitHub Actions:** Automated pipelines for continuous integration and deployment.
- AI Model:**
 - Seq2seq:** Use for translation between SingKhmer to Khmer script.
- Cloud Hosting:**
 - Render:** Cloud services for scalability and high availability.
 - Docker:** Containerization for backend services to ensure consistency across environments.

TARGET AUDIENCE



Khmer Script user

(University students, Professional Khmer script users)

Phnom Penh city, Cambodia

WHO ARE THEY ?

KeyEZ aims to target GenZ, ages from 16-50, mainly students, young professionals, content creators, and online businesses that have the behavior of using SingKhmer in their communication platform throughout social media. They have the purpose and task to write khmer script daily for personal usage and professional usage.

BUSINESS MODEL

KeyEZ, will operate under a Business-to-Consumer (B2C) model, where our main revenue stream will come from subscription plans. For now, we have Freemium and Gold.

We actually used to Freemium to Gold Plan in order to tackle and connect to our user.

Start free. Go gold when you love it.

Freemium for everyone; Gold unlocks offline, canvas, and unlimited transliteration.

Freemium

Perfect for getting started

\$0 /month

- ✓ Singkhmer-to-Khmer script conversion
- ✓ Handwriting recognition canvas
- ✓ Basic grammar checker (limited)

[Get Started Free](#)

Gold

For professional uses

\$1.50 USD

/month

- ✓ Everything in Freemium
- ✓ Advanced grammar checker integrated
- ✓ Unlimited vocabulary search
- ✓ Priority support

[Upgrade to Gold](#)

Diamond

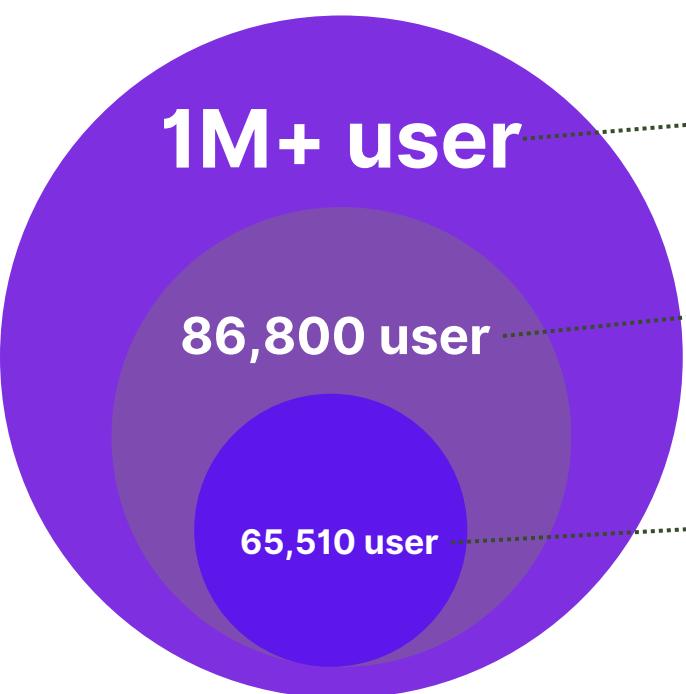
For 10 months uses

\$12.99 USD

- ⚡ Associate with membership
- ⚡ Includes both Freemium and Gold features

[Upgrade to Diamond](#)

MARKET OPPORTUNITY



Total Available Market (TAM)

Other professionals needing Khmer reports

Serviceable Available Market (SAM)

In Phnom Penh,

- Expand the application to Journalist, professional writer, news reporter, Office worker.

Serviceable Obtainable Market (SOM)

- Target: Universities in Phnom Penh who need to write report, thesis, journal, and assignment in Khmer.

MEET OUR TEAM



HENG DALUX

Business Management



LIM HOUYKEA

Team Lead, Fullstack Developer



CHOU KOSOL

Software Engineer



HENG MENGHONG

Business Development Specialist



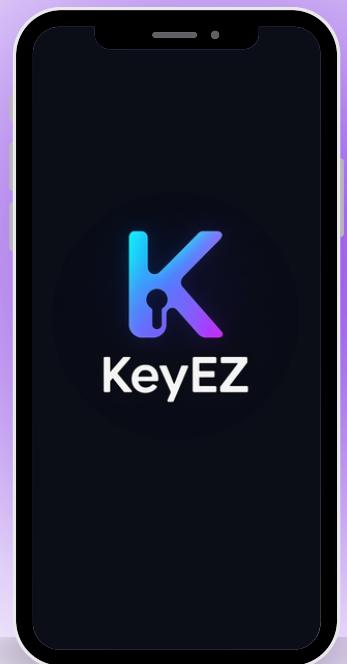
HEAM VISAL

AI/Machine Learning Specialist



Join us in transforming Khmer language education in Cambodia.

We need fuding, resources, feedback, and Guidance support on business model for further growth



With AstroAI, we promote and preserve Khmer identity