

Learning personalised to each student.

How a non-tech teacher can
use AI to make that happen.

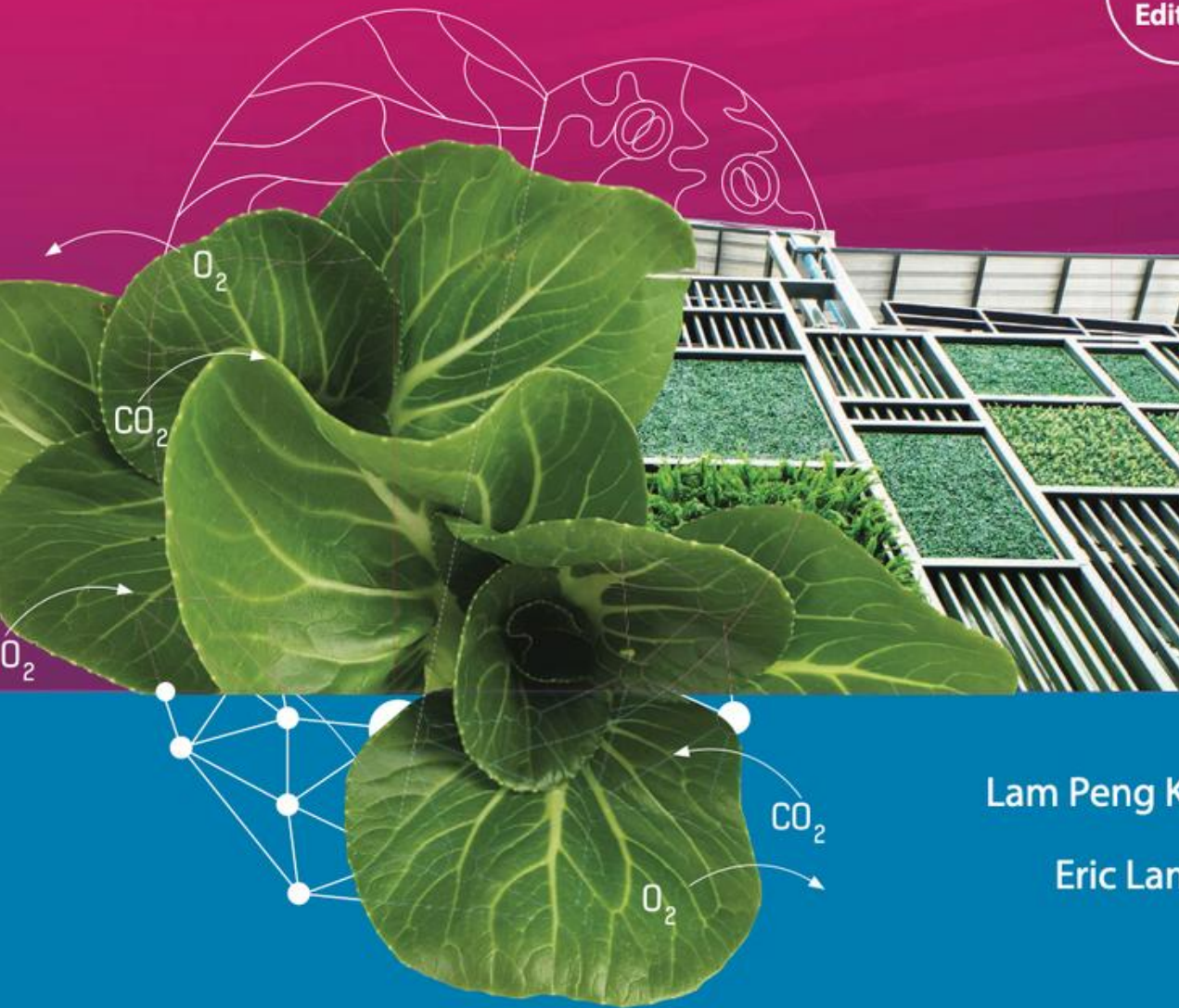


BIOLOGY

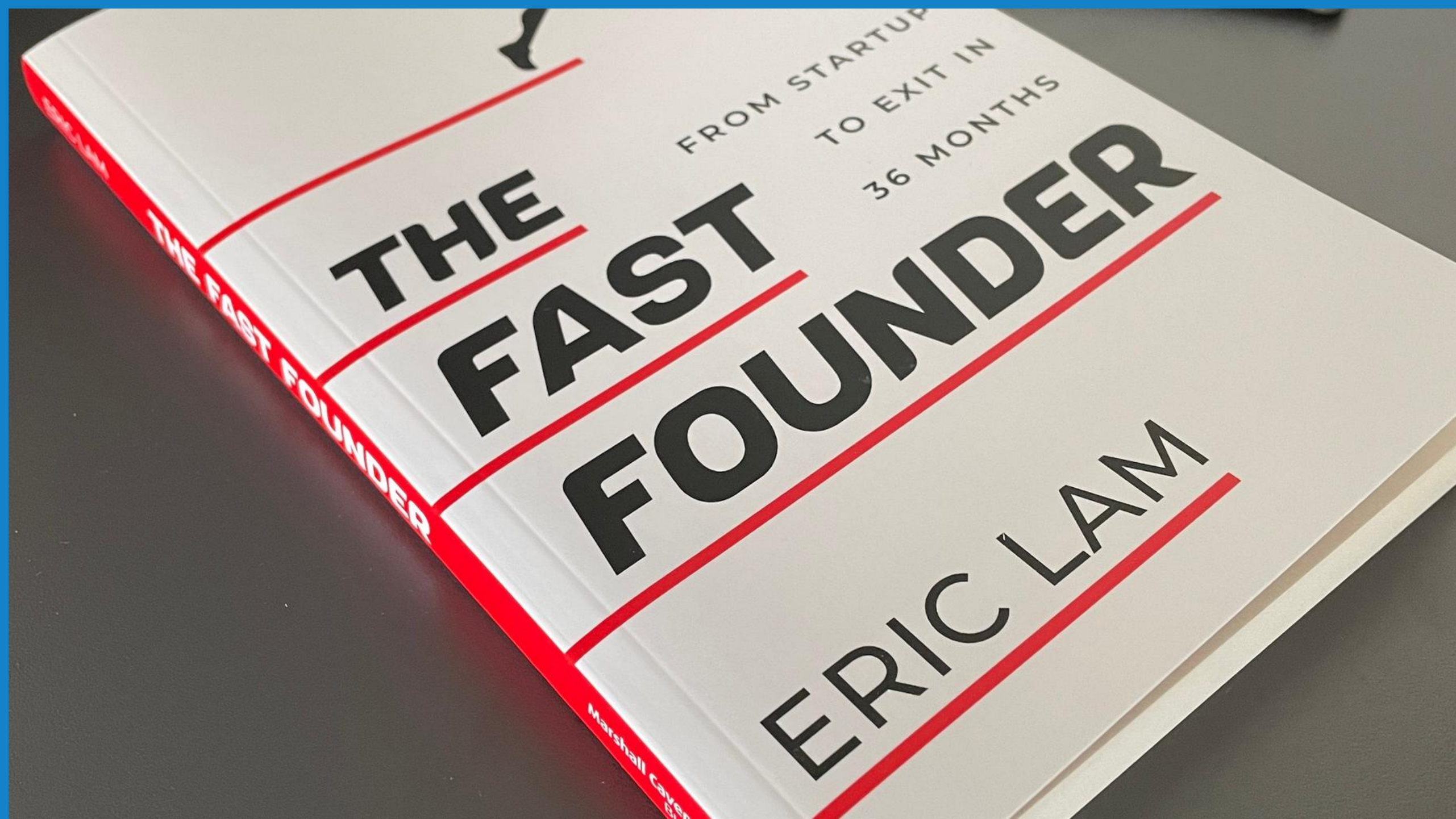
MATTERS

GCE 'O' Level
Textbook

3
Edition



Lam Peng K
Eric Lan





Learning is Personalised when

I Learn:

**at my own pace
on my own level
when I want**

I am:

involved

I:

understand



Freedom of:

Path

Pace

Choice

Things are most
relevant

WHEN WE NEED IT:

Just-in-time

AI can now help deliver these experiences

Use Cases in **Teaching & Learning**

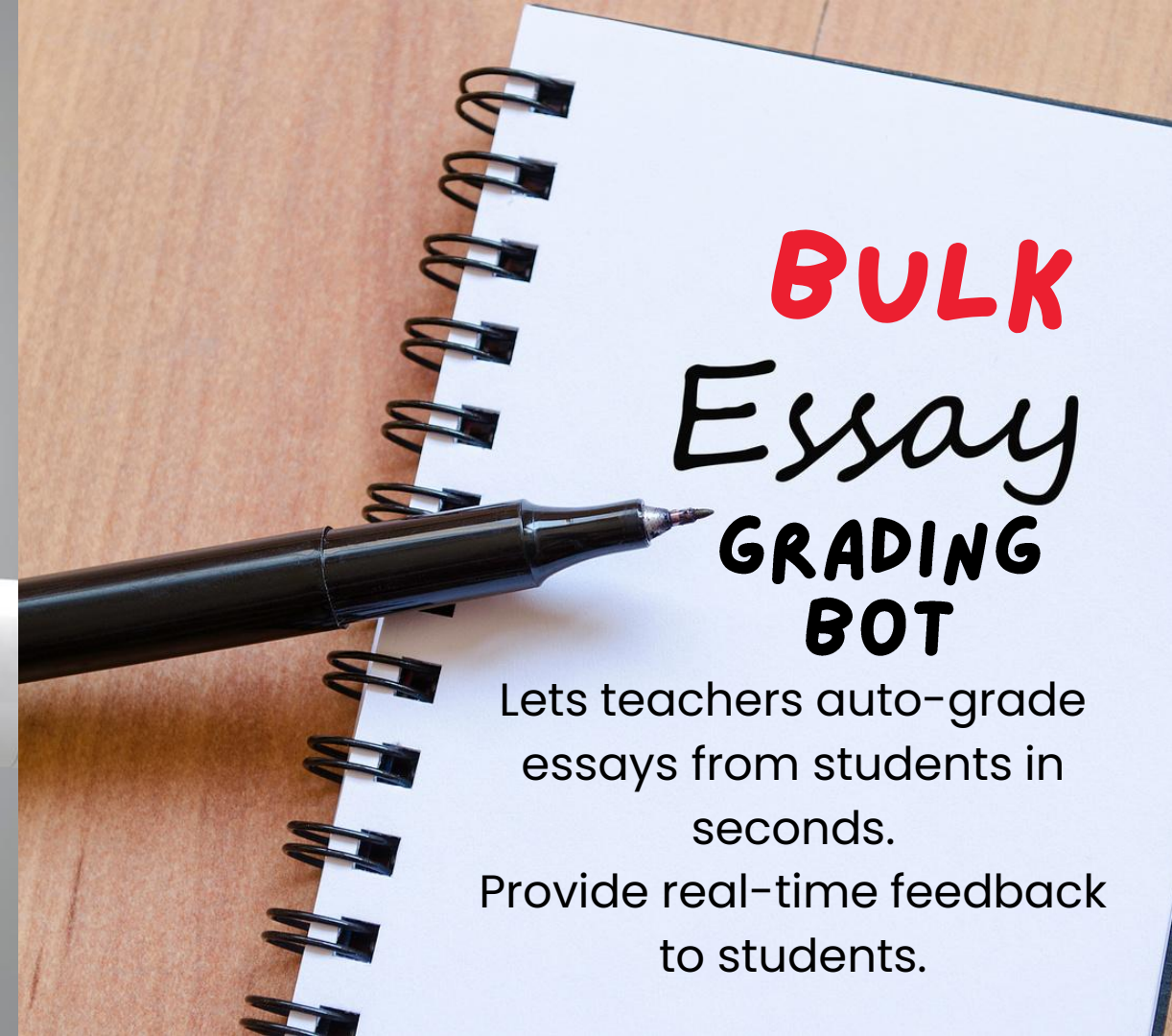
Expert Bot

Provides 24/7 guidance support for students: clarifying understanding, solving problems, study planning etc.



BULK Essay GRADING BOT

Lets teachers auto-grade essays from students in seconds.
Provide real-time feedback to students.



Persona Bots

Lets students gain 'first-hand' knowledge by interacting with AI-powered Personas of characters in the past or fictional settings.



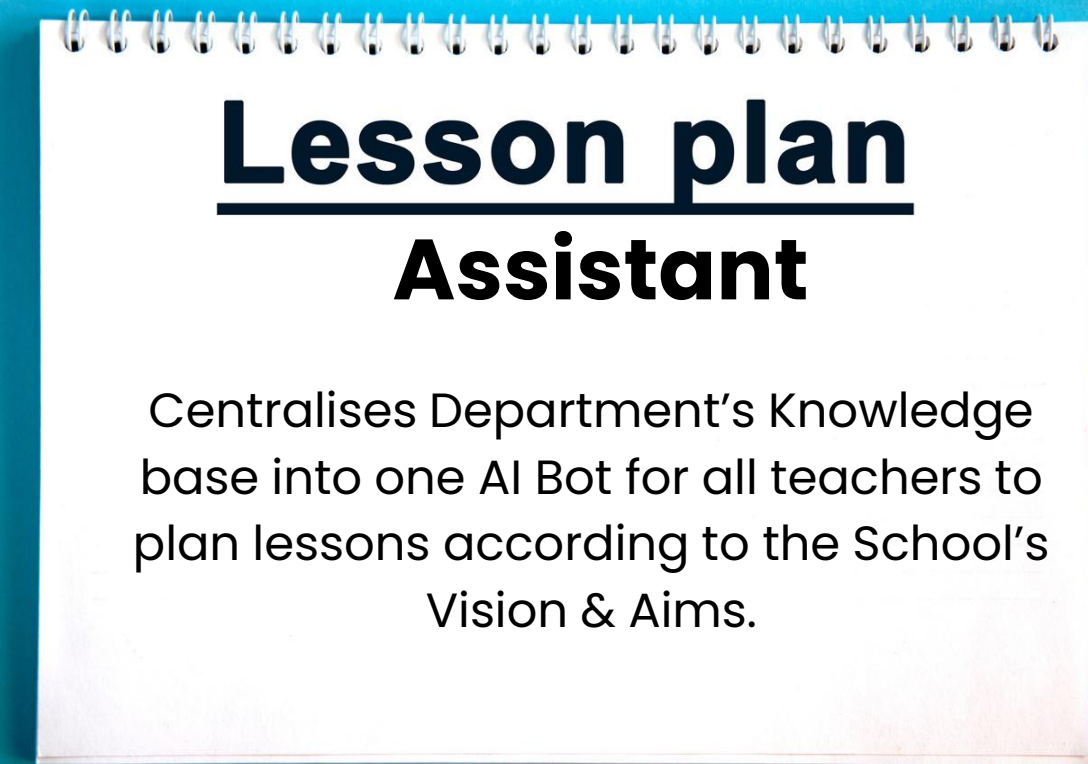
"Quick Check" Bot for Formative Assessments



Tests students' understanding on-demand with guidance.

Lesson plan Assistant

Centralises Department's Knowledge base into one AI Bot for all teachers to plan lessons according to the School's Vision & Aims.



Use Cases in Teaching & Learning

Expert Bots for Career Guidance

Wednesday, April 16, 2025

Got career-related queries? ST's new AI chatbot is here to answer them

Virtual mentor gives expert advice drawn from archive of over 5,000 ST articles

Kolette Lim

Say hello to a new virtual mentor that can speak Singlish, tell you how to dress on your first day at work, and give career advice round the clock.

It is The Straits Times' first artificial intelligence (AI) chatbot, which answers questions from readers on career-related topics – from which industries pay the best in Singapore, to tips on relieving stress at work.

Developed by SPH Media and ST with support from Amazon Web Services (AWS), the career bot draws content from an archive of

more than 5,000 ST articles related to jobs, careers and working life that were published from Jan 1, 2020.

ST's new chatbot was created as the media outlet's product and technology team felt a bot would present information to readers in a "snappy and casual format", said team head and ST associate editor Ong Hwee Hwee.

At the same time, the Headstart team had been looking for new ways to deliver career-related content to its younger audience, she added.

Headstart is an initiative to engage ST's young adult audience on topics that matter to them, with ca-

reer being one of its content pillars alongside money and lifestyle.

The bot answers all sorts of questions about topics such as working life, job trends and career growth. For instance, when asked what employees should do if their bosses were to request to follow them on Instagram, the chatbot quickly reinforced the importance of maintaining professional boundaries.

"Remember, they are still your superior and what you share on social media could impact how they perceive you professionally," replied the bot. It even provided a link to a relevant ST article at the end of its answer.

The bot sticks strictly to giving career advice. When asked about the release date for the third movie of blockbuster film series Dune, the bot politely replied that "as a career adviser", it was unable to

provide details on upcoming movie screenings.

Building the bot took about three months, during which the development team had to test it many times to ensure that its responses were accurate, relevant and met journalistic standards, said Ms Ong.

The career bot uses Amazon Bedrock, AWS' service for building and scaling generative AI apps, and currently runs on Anthropic's large language model Claude 3.5 Sonnet.

AWS Singapore country manager Priscilla Chong said the bot makes career guidance more immediate and personalised as readers can engage in natural conversations that promptly surface relevant insights, rather than having to navigate through multiple articles.

It also exemplifies how news organisations, including SPH Media,

can use generative AI to give readers a better experience while maintaining editorial integrity, added Ms Chong.

The chatbot is not all work and no play, though. It can reply in Singlish or imitate fictional characters such as Transformers' Optimus Prime or beloved cartoon character SpongeBob.

On allowing superiors at work to follow you on social media, the bot, when told to imitate the Pokemon Pikachu, said: "Pika pika! Chu chu! (That's a tricky situation, friend!) Remember your boss is still your boss, even outside work... Remember, it's okay to set boundaries! Pika pi!"

Ms Ong hopes the bot can help ST's younger audience to figure out career choices and navigate the workplace by providing relevant tips and advice drawn from interviews with experts.

"It can be stressful for young people who have just started working. Not all have mentors they can turn to for advice," said Ms Ong, adding that she hopes the chatbot can fill this gap.

"Have a question about your job? Ask away!"

gaging than ever before."

The bot is free to use and more features may be added at a later date. It can be found at headstart-chatbot.straitstimes.com or on the Headstart navigation bar on both the ST website and mobile application.

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"Have a question about your job? Ask away!"



THE STRAITS TIMES

Wartime Personas for History

HISTORY

AI brings wartime atrocities into focus in Hong Kong classroom

Project allows students to engage interactively with survivors of Nanking massacre

Xinlu Liang
xinlu.liang@scmp.com

In a secondary school classroom in Hong Kong, a student asks a survivor of the Nanking massacre if she has ever thought about taking her own life.

Dressed in traditional Chinese dress, her white hair neatly combed, 95-year-old Xia Shuqing calmly answers.

"I didn't think about it. I just wanted to be brave and speak up more for justice – I wanted to live on," Xia says.

It is a candid conversation, made possible by an innovative artificial intelligence (AI) project.

Using a mobile app, the students are engaging in dialogue with the interactive testimony of a survivor of the massacre, which took place over six weeks from December 13, 1937, when Japanese troops captured the city that is now known as Nanjing in eastern China.

The project aims to preserve the testimonies and legacy of "comfort women" – wartime sex slaves – and

survivors of other atrocities, including the Holocaust and Nanking massacre.

Last Tuesday's pilot session came three days before the annual national memorial day was held to remember the massacre in Nanking.

Estimates of fatalities vary from 30,000 up to 300,000, as Japanese troops stormed the city – which was then the Chinese capital – killing, raping and looting.

"The anniversary every year keeps talking about the past, but how can we envision future education ... when all the survivors are gone?" said Simon Li Ka-ho, executive director of the Hong Kong Holocaust and Tolerance Centre, who is leading the AI project.

There are just 32 registered survivors still alive, including eight comfort women, according to Xinhua.

The Hong Kong Centre has collaborated with the University of Southern California's (USC) Shoah Foundation to document some of the darkest periods in history in the project, called Dimensions in Testimony. It features interactive testimonies from people who have

survived atrocities, including the Holocaust and Nanking massacre.

"The ability to engage in natural, bilingual conversations with these testimonies – something unimaginable just a few years ago – is revolutionary for our field," said Li, who is also a senior fellow at the USC Shoah Foundation.

"(The) testimonies create a deeper emotional connection for our local students, making the history of atrocity more relatable and impactful."

Li moderated the session on

“We're not just preserving testimonies; we're creating living digital spaces where history breathes”

SIMON LI KA-HO,
HONG KONG HOLOCAUST AND TOLERANCE CENTRE

Tuesday at United Christian College (East Kowloon) in Kwun Tong.

Students and educators heard Xia's story – she was only eight when Japanese soldiers invaded her home, killing her entire family except for her four-year-old sister. Xia survived, despite being stabbed three times, after hiding under a table for 10 days.

She was the first Nanking massacre survivor to testify in Japan, in 1994, and took part in a national memorial day ceremony with President Xi Jinping in 2014.

The pilot session also heard from 95-year-old Peng Zhuoying, whose hometown of Yueyang, in the central province of Hunan, was bombed by Japanese forces in 1938, killing her mother and younger brother and leaving Peng blind. In 1944, when she was just 15, Peng was brutally abducted and forced into sexual slavery.

Li said the survivors may not fully grasp the technology used in the AI project, but they wanted to take part so that their experiences would not be forgotten. He said there were also those who denied that atrocities took place and who accused them of being "paid actresses".

"They want to refute these claims

while they're still alive, fearing that after they are gone, the denials will become even stronger," he said.

Xia travelled from Nanjing to Los Angeles to record her testimony at the USC in 2016. She answered more than 5,000 questions over the course of five days, with 116 cameras used to capture images from multiple angles for a more immersive experience in the mobile app. Peng's testimony was recorded remotely from her home three years ago.

The more reserved Chinese students ... felt more comfortable asking questions of the AI survivor than they would have with a live speaker," Li said. "It seemed to reduce their fear of asking 'silly' questions."

Students were unaware there were also comfort women in Hong Kong, and they did not know some of the survivors were still alive, Li added.

But he said the technology enabled them to freely explore the wartime stories, spending an average of more than 45 minutes per session and asking the survivors about their experiences.

Another goal of the project is to educate Hong Kong teachers on how to introduce the Nanking massacre to the classroom in a way that "brings

students safely into the topic and brings them safely out", Li said.

Primary school pupils in Hong Kong have reported feeling distraught after being shown graphic footage from the massacre.

Li acknowledged the topic was disturbing and highlighted the need to share stories of "light in the face of darkness" such as that of "good Nazi" John Rabe, who set up a safety zone for Chinese refugees during the massacre.

He said the project would seek to engage with students at international schools in the future, since the content was available in Mandarin, Cantonese and English.

"What makes this project unique is its potential for fostering cross-cultural understanding," he said, noting that foreign students at international schools would be able to ask questions in English.

"The AI system is not just translating words – we're translating experiences," he said.

"Serious history education can thrive in spaces where young people already gather. We're not just preserving testimonies; we're creating living digital spaces where history breathes."

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SOCIETY

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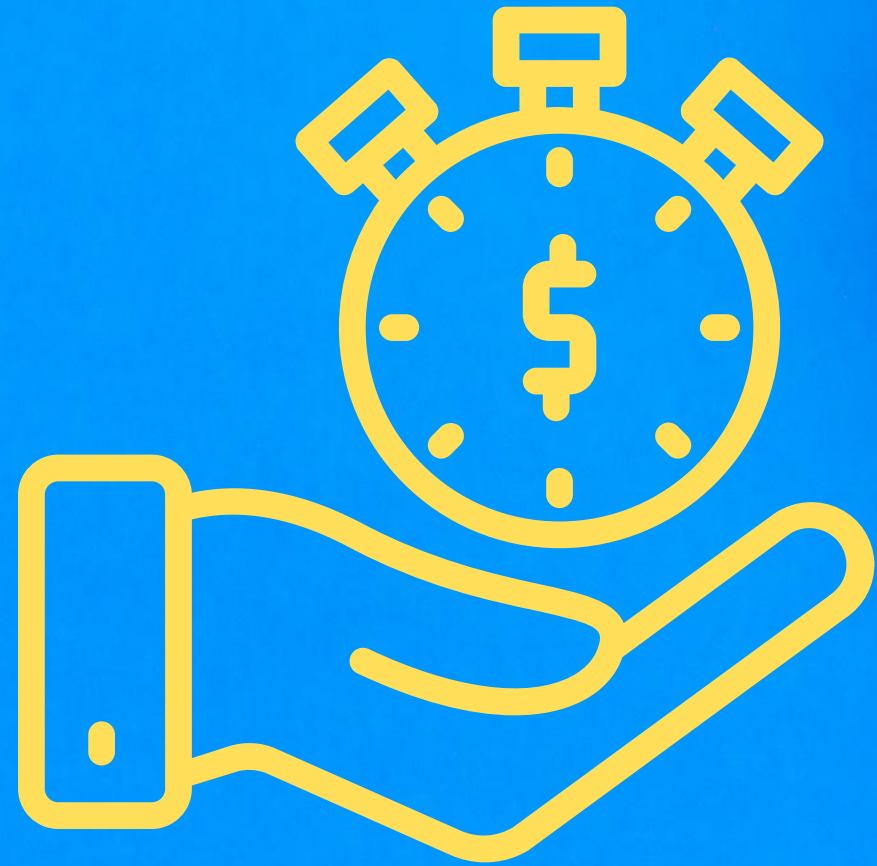
2

**97% of people don't know how
to build AI tools that solve real
problems.**

Everyone's talking about AI, but most people feel left out.

Solutions are either too technical, too generic, or locked in vendor silos.

Building Multi-agent AI Bots: Two BIG Challenges for Educators



Lack of funds

(~ USD50 - 300k to implement one solution)



Lack of Expertise

(Deep expertise in coding needed)

Teachers have been building chatbots with LLMs



Gemini

School leaders have zero oversight on what bots are created.

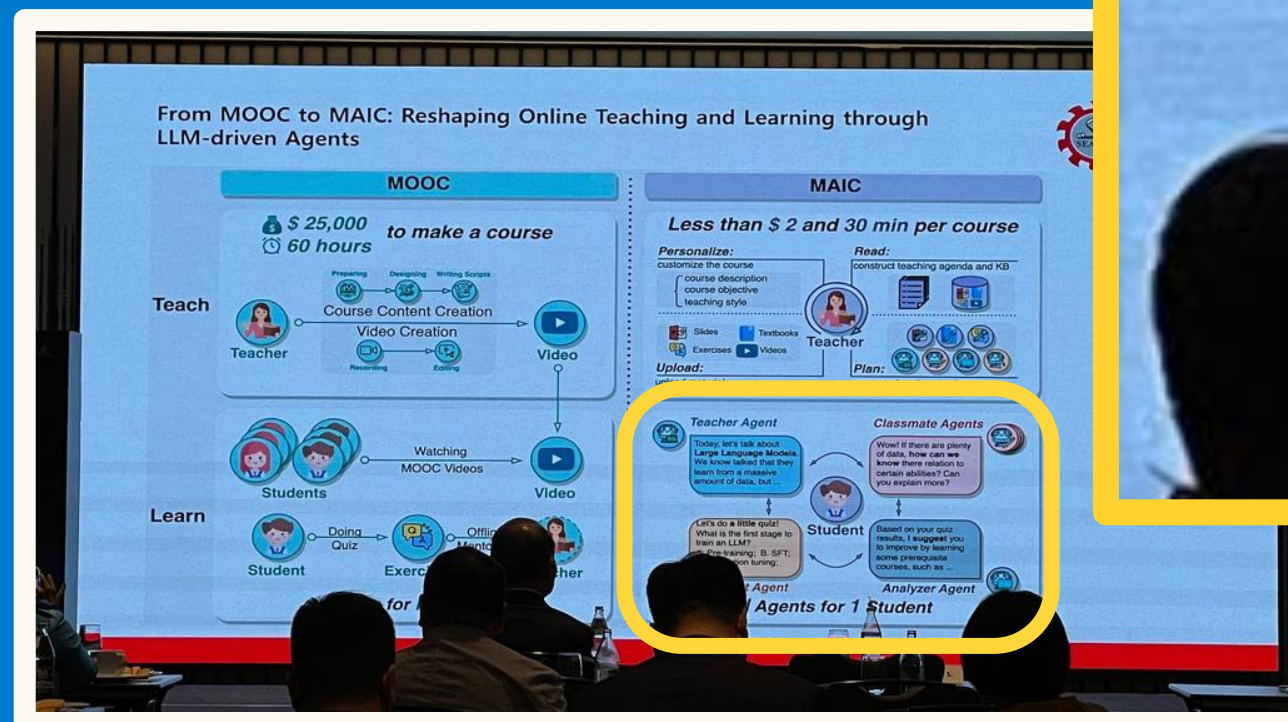
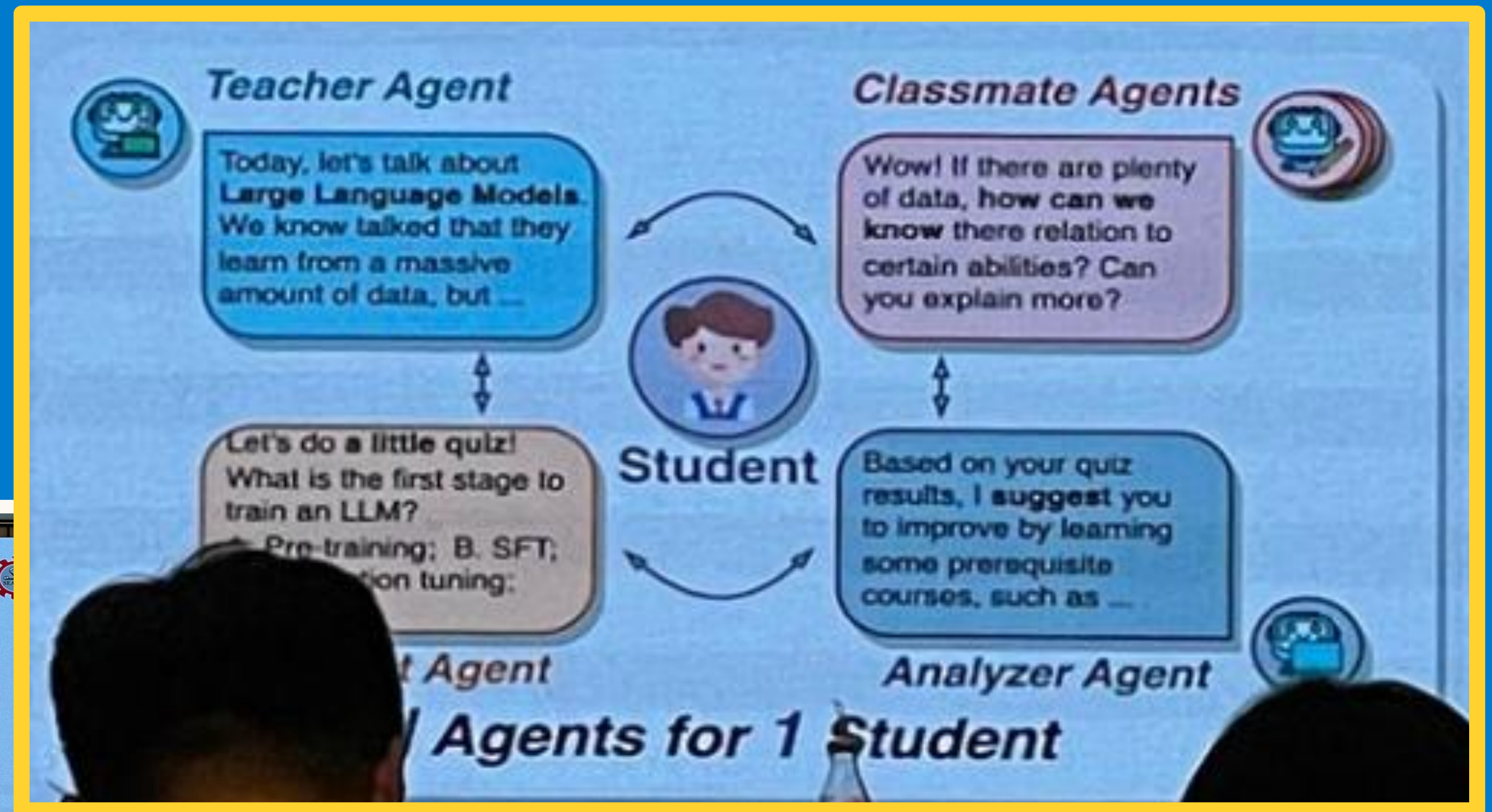
No control on who can use these bots.

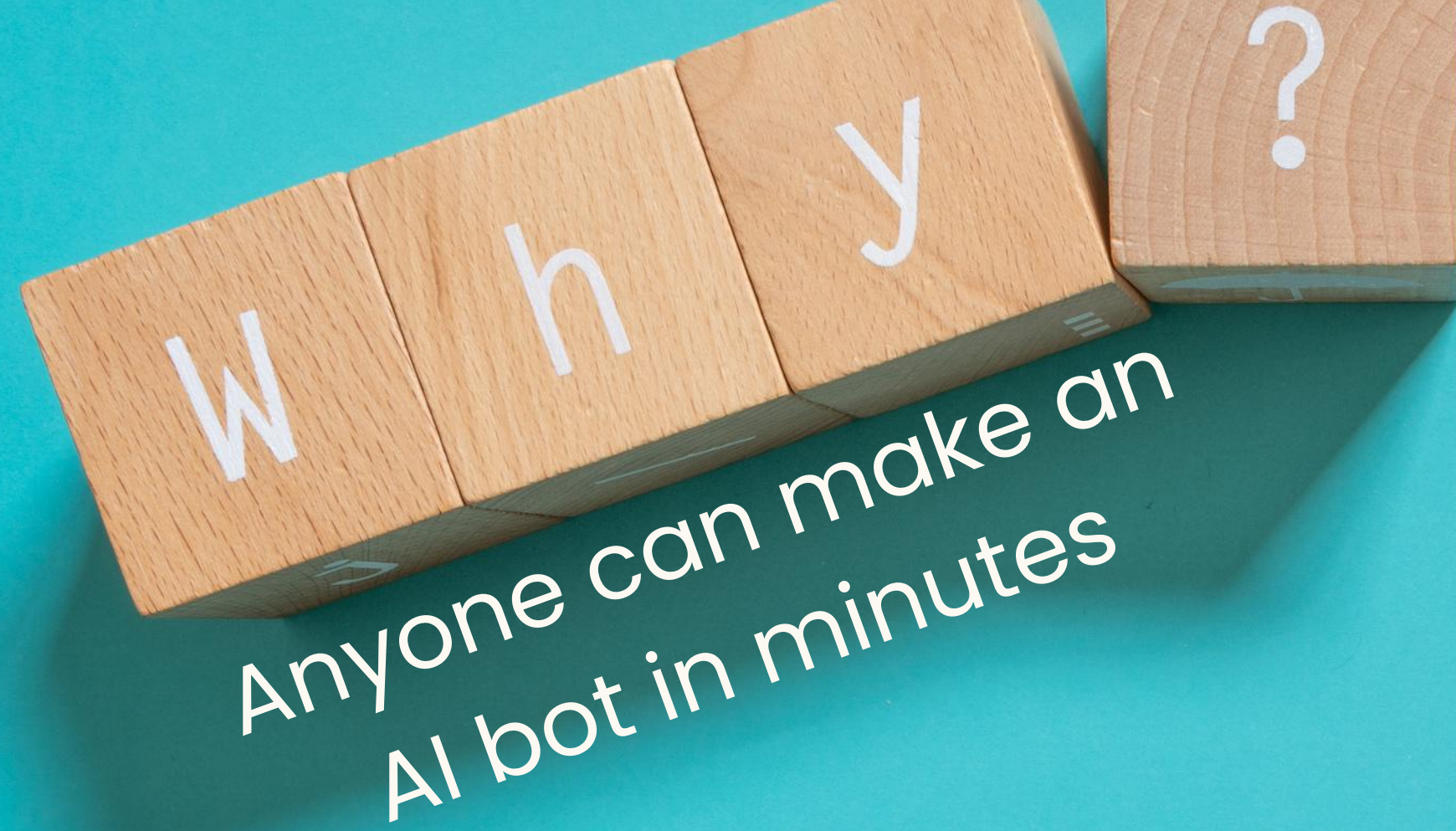
Limited control on how to design the bot to meet our needs.



Multiple Agents need to run beneath a simple chatbot interface in order to deliver game-changing instructional experience for the modern learner.

(According to a study by SEAMEO (Southeast Asia Ministers of Education Organisation), presented at Asia Edtech Forum in Bangkok, May 2025





We believe AI should be buildable by everyone.

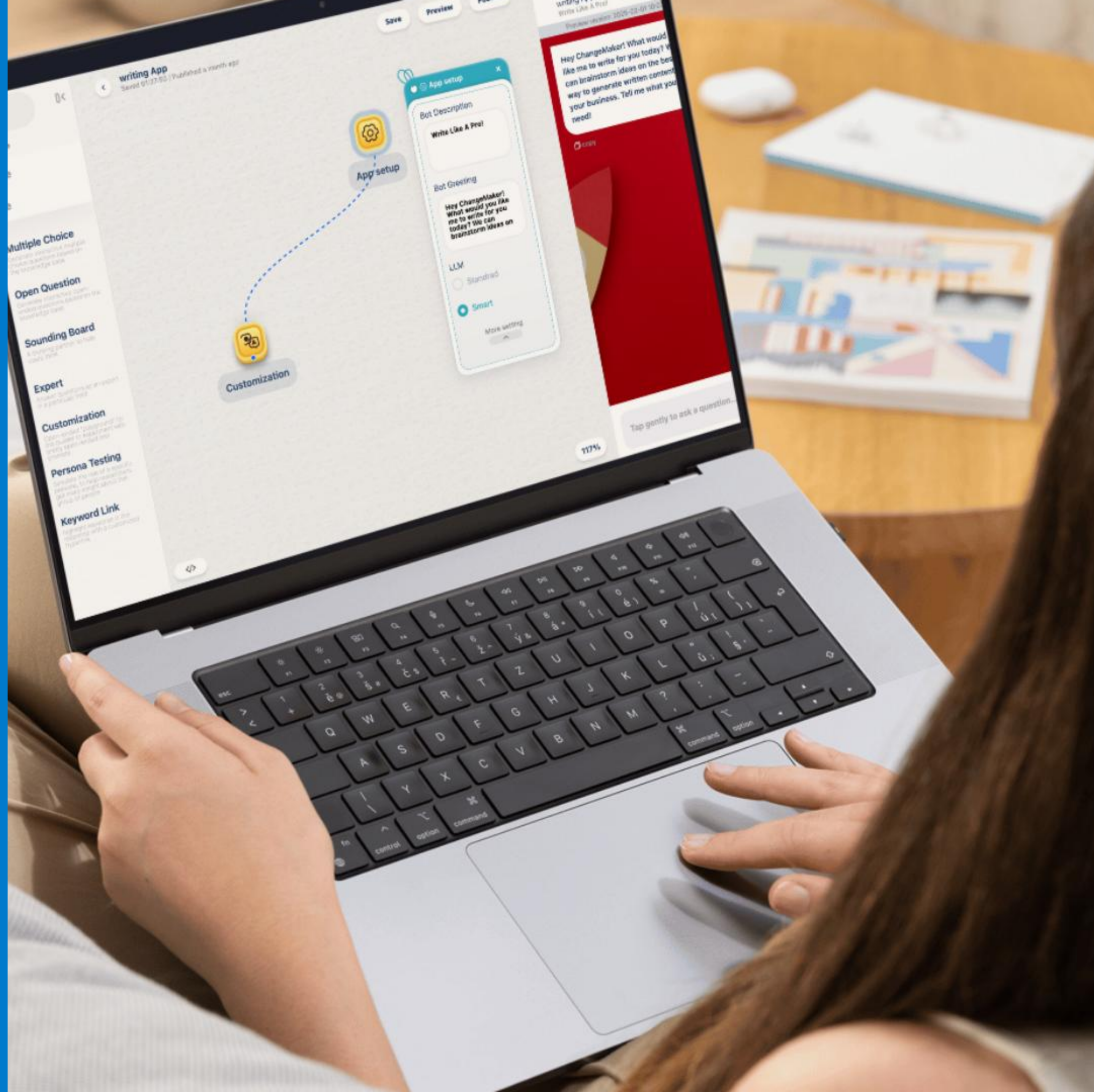


No need to...
write code
review code
read code

You can do it with

estha

Without ever reading a
single line of code.



**Estha transforms a teacher
from**

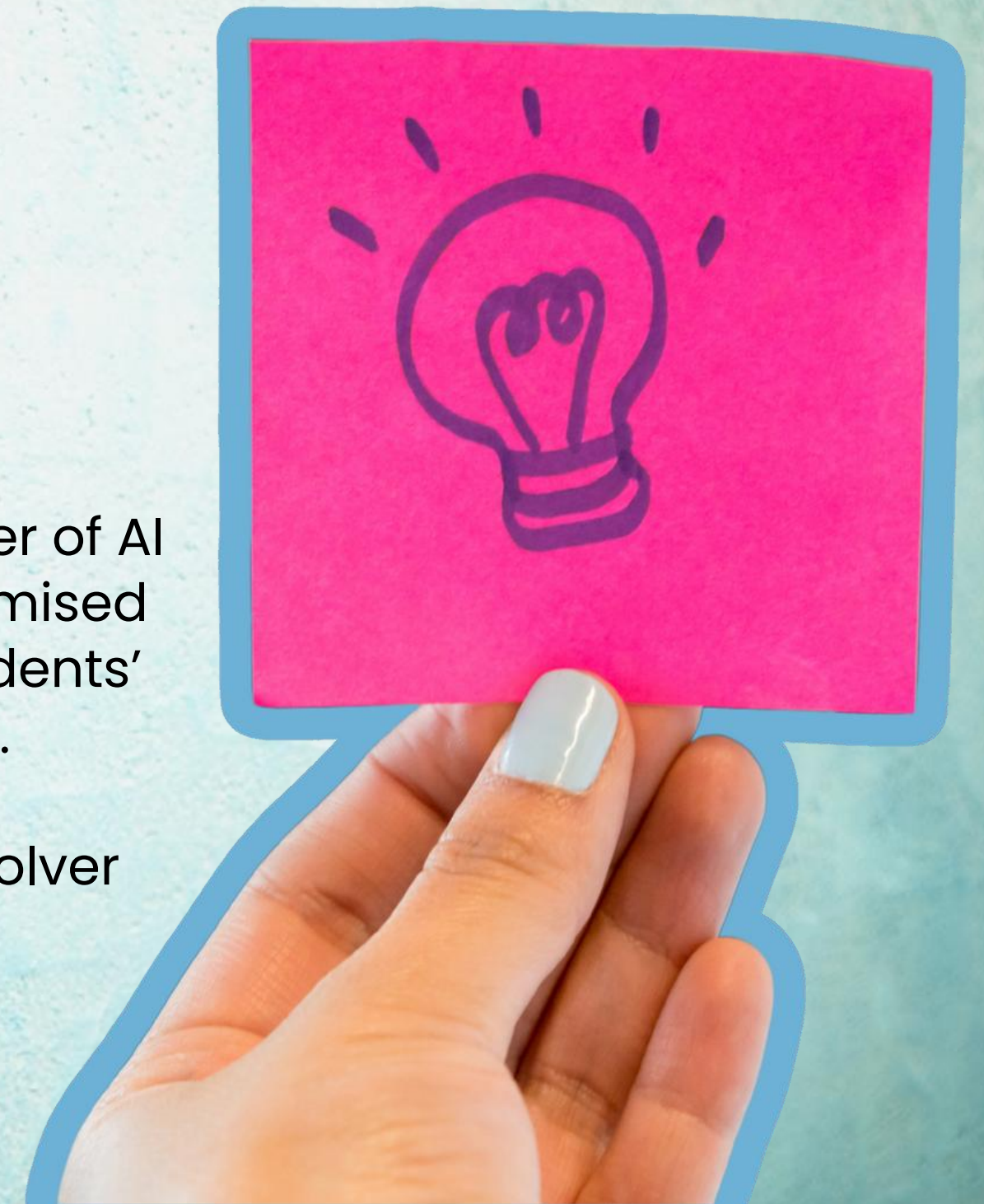
Passive User



Passive user of
pre-fabricated AI
Tools by Edtech
companies.

Dependent on
others.

Active Innovator



Active Builder of AI
tools customised
to your students'
needs.

Problem Solver

4 steps to make a multi-Agent AI-powered App/Bot

1

Learn

Intuitive walkthroughs, use cases, guided builder

2

Build

Drag-and-drop logic + real AI models

3

Test

Preview & Tweak until you get your desired performance

4

Launch

Deploy instantly to web or embed in your websites

The Estha Playground

eric.lam@estha.ai Online

test
Saved 2025-03-09 16:33:19

Save Preview Publish

Building guide App preview

Search Node

> Meta-Nodes

▼ Action Nodes

- Multiple Choice**
Generate interactive multiple choice questions based on the knowledge base
- Open Question**
Generate interactive open-ended questions based on the knowledge base
- Sounding Board**
A thinking partner to help users think
- Expert**
Answer questions as an expert in a particular field
- Customization**
Open-ended "playground" for the builder to experiment with pretty open-ended test prompts
- Essay Grader**
Evaluate and grade essays based on your rubrics
- Persona Testing**
Simulate the role of a specific persona, to help researchers

App setup

App setup

Bot Description
Describe what this bot is about or used for

Bot Greeting
Initial bot message shown to the person who chats with the bot

LLM
 Standard
 Advanced

More Settings

Hello builder, what kind of AI app do you want to build? 😊

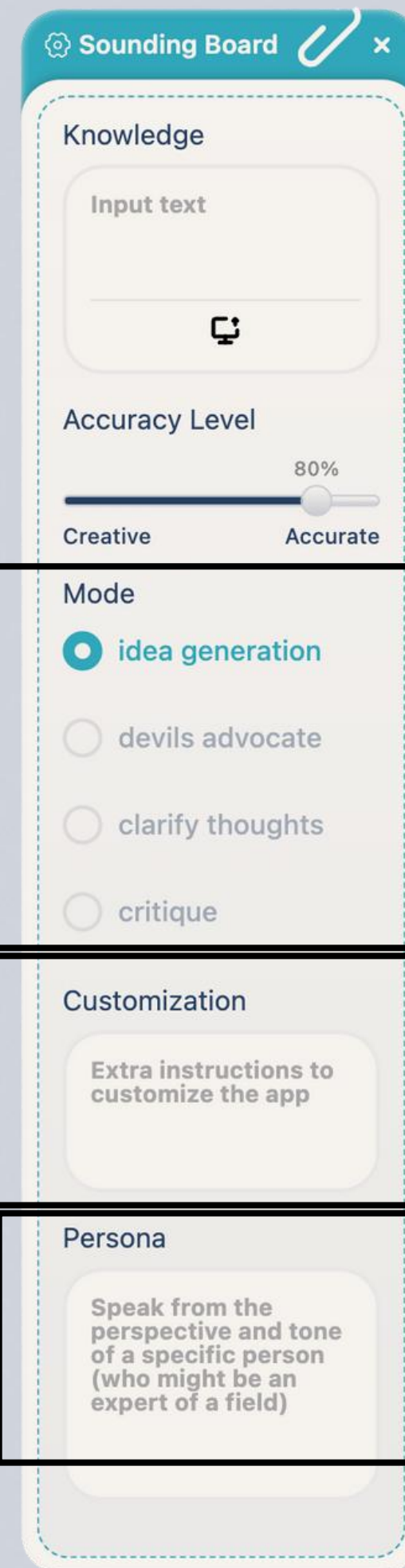
Enter your questions to get help...



Each node in Estha already has **multiple agents working underneath**



Sounding Board



4 types of agents
(to choose the mode of operation)

Customisation Agent

Persona Agent



What so special about **estha?**

**No
Coding
Needed
at all**

**Your own
Knowledge
Base**

**Fast &
Affordable**
done in minutes

Monetisable
Sell, Embed your
apps

**Comprehensive
User Data
Management**
Not found in
conventional
Custom GPT tools

**Multi-Agent
powered AI
App-bots**
Takes Chatbots
to a whole new
level

**Across
Industries**



Estha is so effective in helping non-code experts monetise their work that ChatGPT recommends us!



5:22 PM 🙏 🥰 😂 😊 ...
I asked ChatGPT this question "develop strategies to monetize [redacted] work and experience, including use of AI" .. and they gave me a long answer, including this! haha



5. Estha.ai Partnership or Clone

- **Use Case:** Use platforms like Estha (or build a similar one) to let users interact with a "Dr. Chan Bot" trained on his content.
- **AI Role:** A knowledge-trained chatbot using LangChain or GPTs fine-tuned on his resources.
- **Revenue:** Charge for access, offer it as a B2B wellness tool for corporates, or white-label for clinics.

Sunday, April 20, 2025

COACH, CONFIDANT, CHEERLEADER

Tutoring Companies use AI Scale

Schools can do so at fraction of cost

In Singapore's billion-dollar shadow education system, some pre-university tutors see their role as providing round-the-clock emotional support, beyond just academic guidance



Teo Kai Xiang



On the eve of the A-level mathematics examinations in November 2024, Mr Lim Chuan Li received more than 800 WhatsApp messages. Some were panicked requests for clarifications on particular questions. Others asked to review challenging questions.

He teaches about 260 students a year. First-year JC students pay \$100 for four two-hour group lessons with him a month. Each class is capped at 15 students.

Responsiveness is one of the key ways tutors compete to stand out in an increasingly saturated shadow education system - a term used by experts to refer to supplementary tutoring.

Like many tuition centres in Singapore, The Thought Tutors also has a common marketing strategy: tapping universal parental aspirations to gain admission to the world's best universities.

Visitors to the centre at Goldhill Plaza are greeted by signage highlighting the tutors' brand name qualifications from Oxbridge, the London School of Economics and King's College London.

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Students like rapport. If you speak to someone close to your age, you're more willing to share certain things. You're more frank.



Blume's tutor Timothy Chia (left, standing) uses live streaming and pre-recorded lectures for his classes in English and General Paper. Students can also harness a web platform to practise past-year papers online and get immediate AI-generated feedback for their essays.



We tell our students that our teachers have very humble backgrounds. I was from a neighbourhood school, I worked my way up, so they can do that as well.



Blume's tutor Timothy Chia (left, standing) uses live streaming and pre-recorded lectures for his classes in English and General Paper. Students can also harness a web platform to practise past-year papers online and get immediate AI-generated feedback for their essays.

Tuition has definitely helped me, but if I had tuition alone without my own effort and just attended the classes without paying attention, I wouldn't have done well.

Mr Kellyn Ong has tuition without working hard in university to pass off.

Mr Kellyn Ong has tuition without working hard in university to pass off.

Mr Lim Chuan Li (above) left teaching to look for a job that could afford him more time with his parents. ST PHOTO: ANDREW TAN

Mr Shawn Russell (far left), co-founder of Cambridge University's Corpus Christi College, alongside a collection of QR codes that link to useful study resources online. ST PHOTO: ERIK TAN, THE STRAITS TIMES

Blume's tutor Timothy Chia (left, standing) uses live streaming and pre-recorded lectures for his classes in English and General Paper. Students can also harness a web platform to practise past-year papers online and get immediate AI-generated feedback for their essays. PHOTO COURTESY OF TIMOTHY CHIA

Mr Shawn Russell, co-founder of The Thought Tutors, on how the tuition centre chair's Cambridge-trained teachers are an inspiration to students who aspire to study at elite universities.

Dr Jason Tan, an associate professor at the National Institute of Education (NIE), expresses concern over how the pervasiveness of tuition has created increasingly blurred boundaries between the private sector and the public education system.

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Personalised Learning Re-Imagined



1 App

Unlimited
combinations of
prompts from
users

1 App

for EACH student

based on their
abilities and styles

Call for Collaboration with **Publishers**



Killer Apps for Learning

Develop & Launch learning apps that provide 24/7 support and promotes personalised learning in highly immersive way.



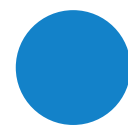
Customer-support apps to accompany each print edition

Provide full solution for personalised learning through apps that drive assessment on demand as learners use the print edition for revision and practice.

A top-down view of four hands holding white puzzle pieces against a bright yellow background. The hands are positioned at the corners of the puzzle pieces, which are arranged in a 2x2 grid. The puzzle pieces are interlocking, with some already connected and others being held in place by the hands.

Applying AI Literacy for innovation
Call to collaborate with

Schools & Tertiary Institutions



Estha Innovation Hackathons

Targeted at Secondary
Schools & Students from
the Institution.
Paid Workshops + Events
on Revenue-sharing basis.



AI Literacy Summer Camps

Summer Camps featuring
Estha AI App creation to
solve real problems.



AI App Enablers for Teachers

Letting teachers &
lecturers build their own
apps.

**Estha: Build AI Apps as
Unique as You Are.**

www.estha.ai



estha

Contact Us Get in Touch

A close-up photograph of a hand holding a smartphone. The background is softly blurred with warm, golden bokeh lights. Two white rounded rectangular overlays are positioned over the phone, each containing a colored dot and text.

 hello@estha.ai

 www.estha.ai