

# From TaigiTube to TaigiSpeech

Developing Taiwanese AI for Language Learning and Home Care Assistance

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Kai-Wei Chang (MIT) · Huang-Cheng Chou (USC)

*2026.05.17 Stanford University*

# Today's Speakers

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## Kai-Wei Chang

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**Postdoc. Researcher, MIT CSAIL**

- PhD, National Taiwan University
- Former Scientist Intern at Meta
- Founder of TaigiTube (台語水管)

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## Huang-Cheng Chou

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**Postdoc. Researcher, USC SAIL**

- PhD, National Tsing Hua University
- Former Scientist Intern at Amazon

# To Our Generous Hosts / Sponsors

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Student Association  
(STSA)**

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台灣人公共事務會北加州分會

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**Keng-lâm Su-īn**

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**The UniTaiwan**

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**g0v**

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**Dr. Jiin Tarnng Lin**

# Acknowledgement

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TheUniTaiwan



Sean Yeh



Jiin-TarngLin



Yipai Liang



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Stanford  
Taiwanese Student  
Association  
(STSA)



耕南書院



Tina Cheng



Weber Wang



Bêng-Hàn Lûi



Patty Ho



FAPA-NCAL



NSTC Grant 114-2917-I-564-030



# About me

2020 - B.S., EE, NTU, Taiwan



2025 - Ph.D., EECS, NTU, Taiwan

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2020 - B.S., EE, NTU, Taiwan



2025 - Ph.D., EECS, NTU, Taiwan

## **Thesis - *Towards a Universal Speech Model:***

*Prompting Speech Language Models for Diverse Speech Processing Tasks*

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2020 - B.S., EE, NTU, Taiwan

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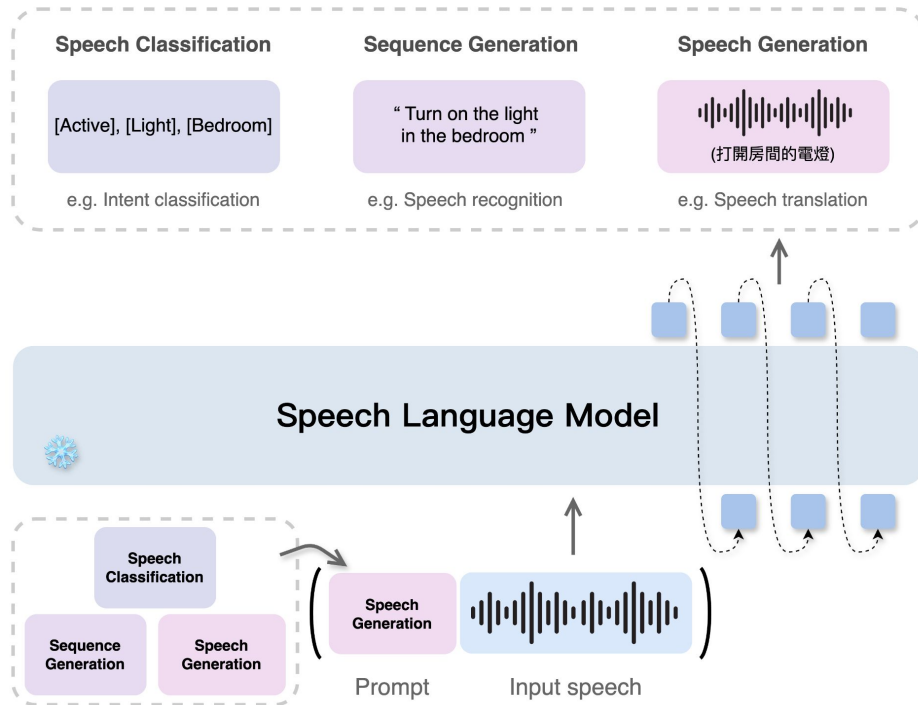
## Thesis - *Towards a Universal Speech Model:*

*Prompting Speech Language Models for Diverse Speech Processing Tasks*



國立臺灣大學  
National Taiwan University

## SpeechPrompt



*SpeechPrompt: Prompting Speech Language Models for Speech Processing Tasks, TASLP 2024*

# About me

2020 - B.S., EE, NTU, Taiwan

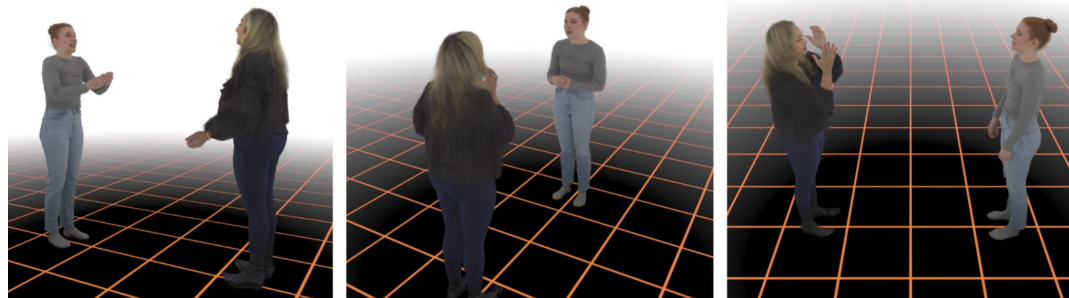


2023 - Meta Reality Labs, Pittsburgh



2025 - Ph.D., EECS, NTU, Taiwan

*Codec Avatar*



Seamless Interaction: Dyadic Audiovisual Motion Modeling and Large-Scale Dataset  
<https://arxiv.org/abs/2506.22554>

# About me

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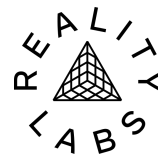
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2020 - B.S., EE, NTU, Taiwan



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## Research Directions:

### Speech LLM

Interact with an spoken dialouge system

### Low-resource Speech AI

Taiwanese Taigi (Taiwanese) - an example

# From TaigiTube to TaigiSpeech

**01**

**Artificial  
Intelligence**

What is AI?

**02**

**Taiwanese  
Taigi**

Can AI  
understand?

**03**

**TaigiTube**

Learning Taigi  
through drama

**04**

**TaigiSpeech**

Home care  
assistant

**05**

**Vision - Why  
Speech AI**

Speaking AI in  
every tongue

**06**

**David's story  
Social Welfare  
Service Center**

Why elder speech

# 01

PART ONE

# Artificial Intelligence

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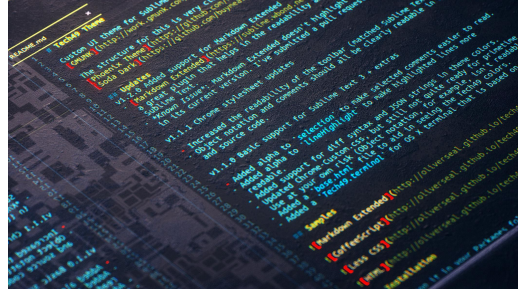
What is AI and what can AI do today

## PART 1 / AI Today

# AI today



Self-driving



Coding



Video Generation



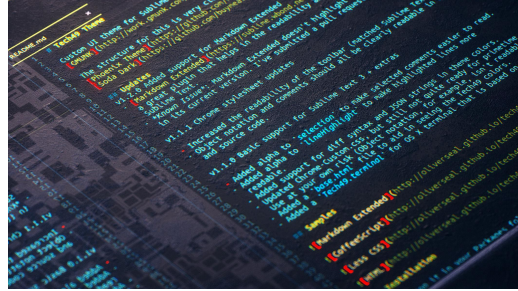
Daily Assistant

## PART 1 / AI Today

# AI today



Self-driving



Coding



Video Generation



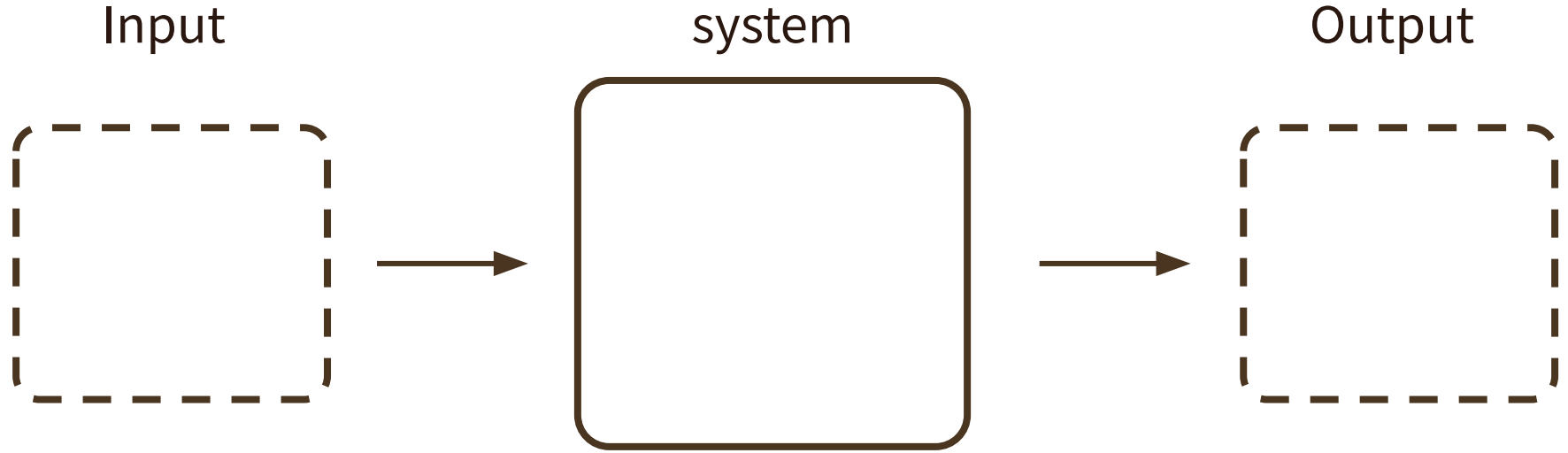
Daily Assistant

## What is AI?

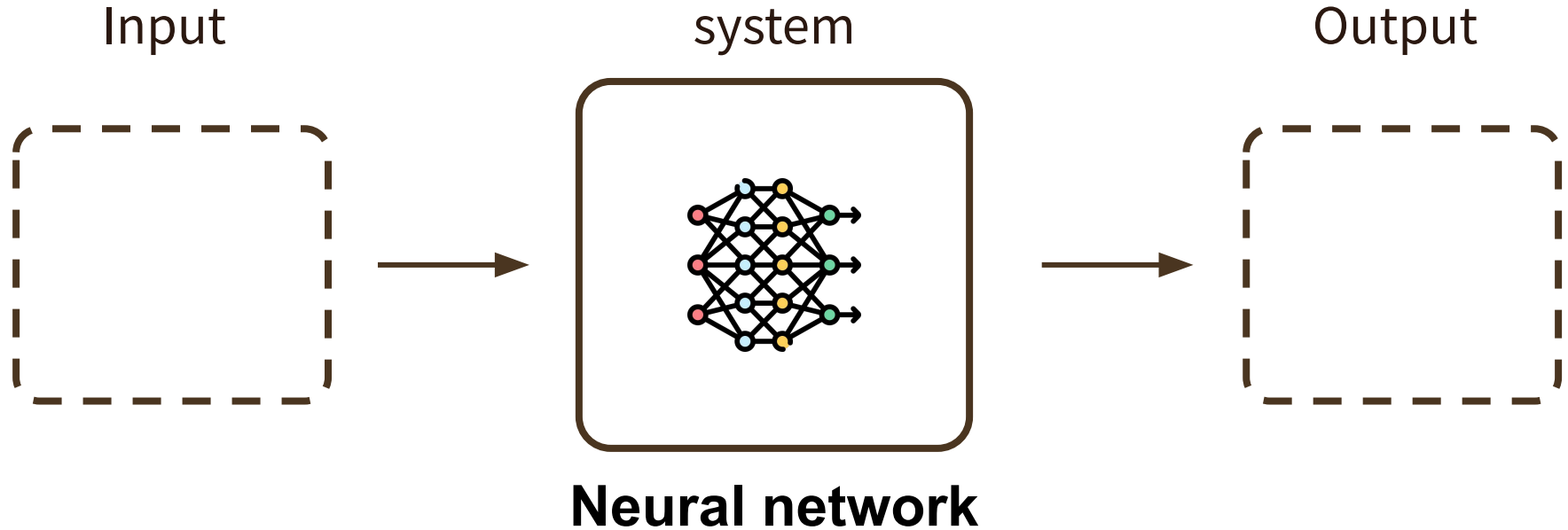
# AI is a data-driven learning system

(From the perspective of an AI scientist)

# AI is a data-driven learning system



# AI is a data-driven learning system



AI uses neural networks to process your input and generate a output

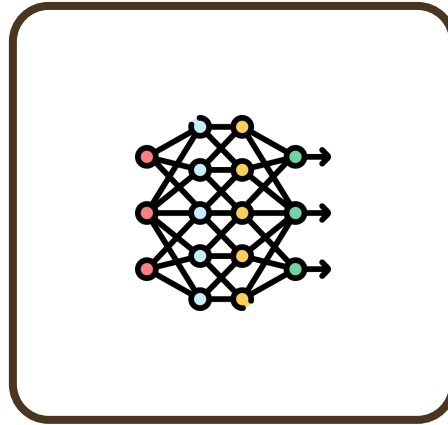
# AI is a data-driven learning system

Input

“Please help me write an email to my professor to ask for sick leave.”



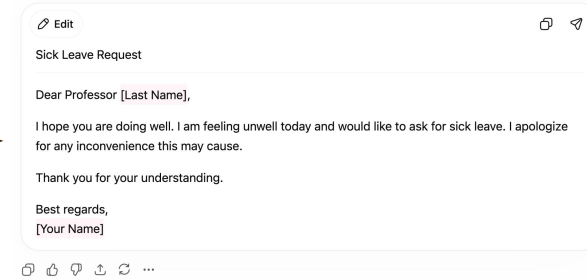
system



Neural network



Output



AI uses neural networks to process your input and generate a output

e.g. Large Language Model



ChatGPT

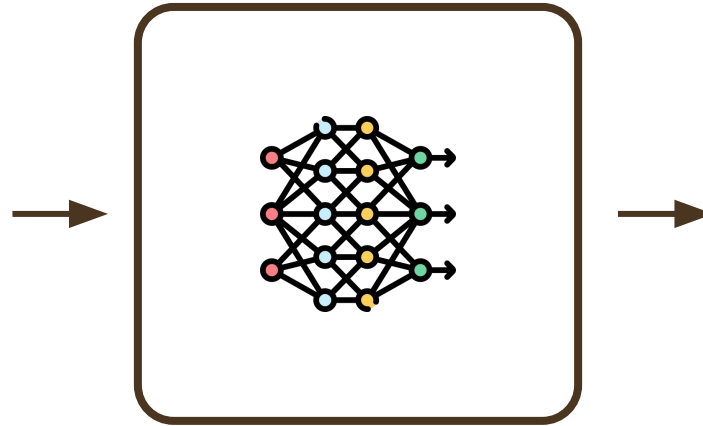
# AI is a data-driven learning system

Input



Street view  
Env. around the car

system



**Neural network**

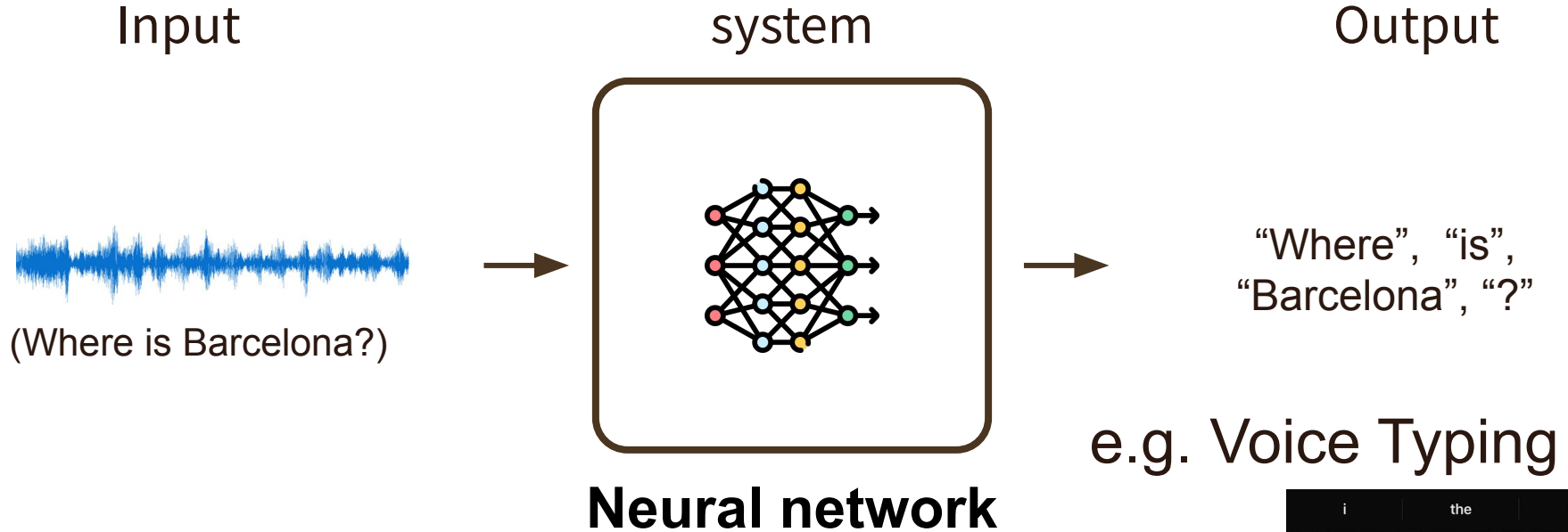
Output

“Switch to the right lane”  
“Speed up”

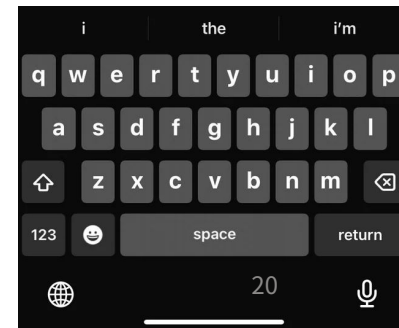
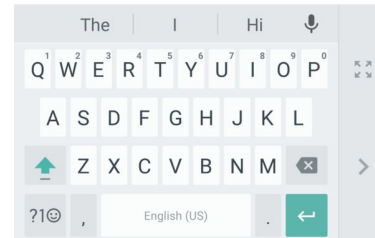
AI uses neural networks to process your input and generate a output

e.g. Self driving

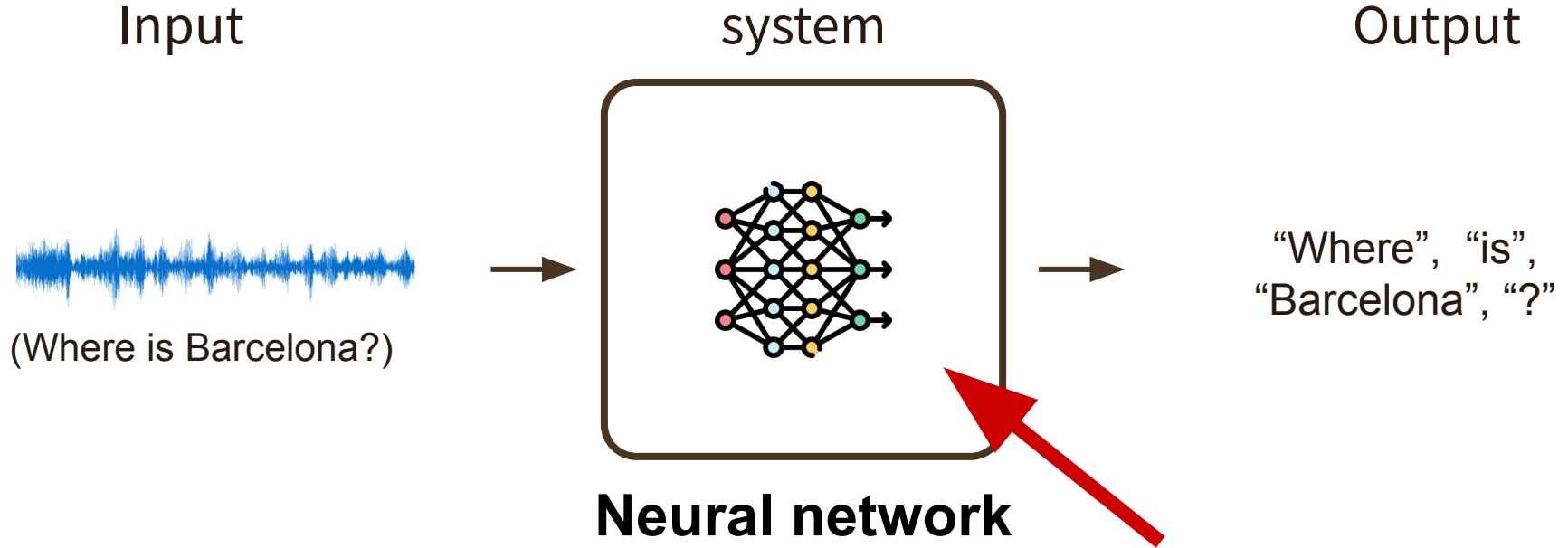
# AI is a data-driven learning system



AI uses neural networks to process your input and generate a output



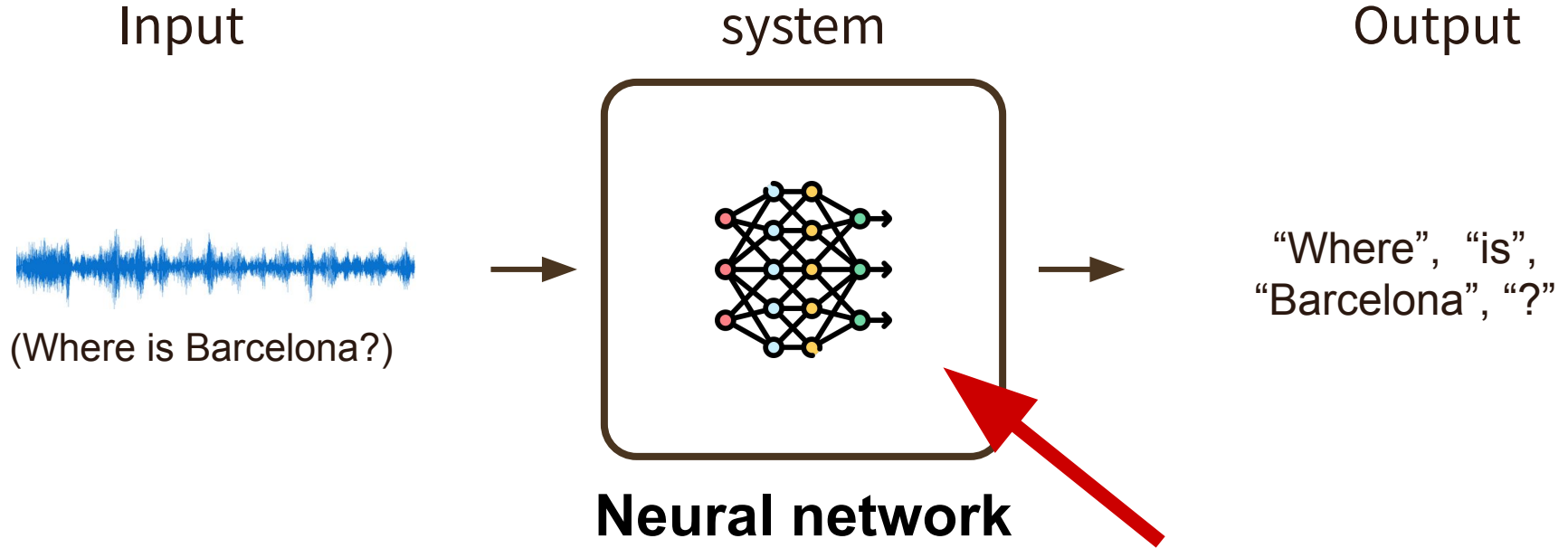
# AI is a data-driven learning system



AI uses neural networks to process your input and generate a output

- Google Gemma 4 - 30 Billion
- DeepSeek V4 - 1,600 Billion

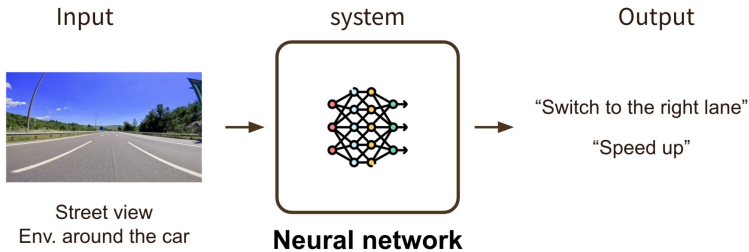
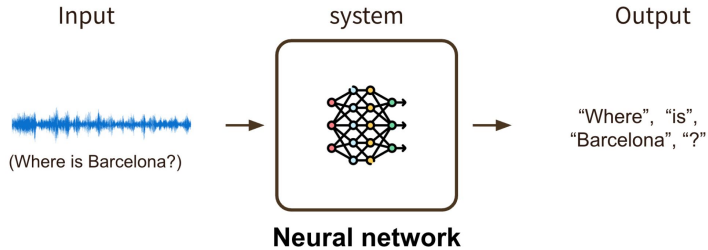
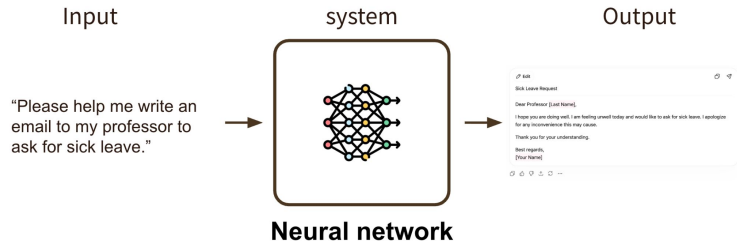
# AI is a data-driven learning system



AI uses neural networks to process your input and generate a output

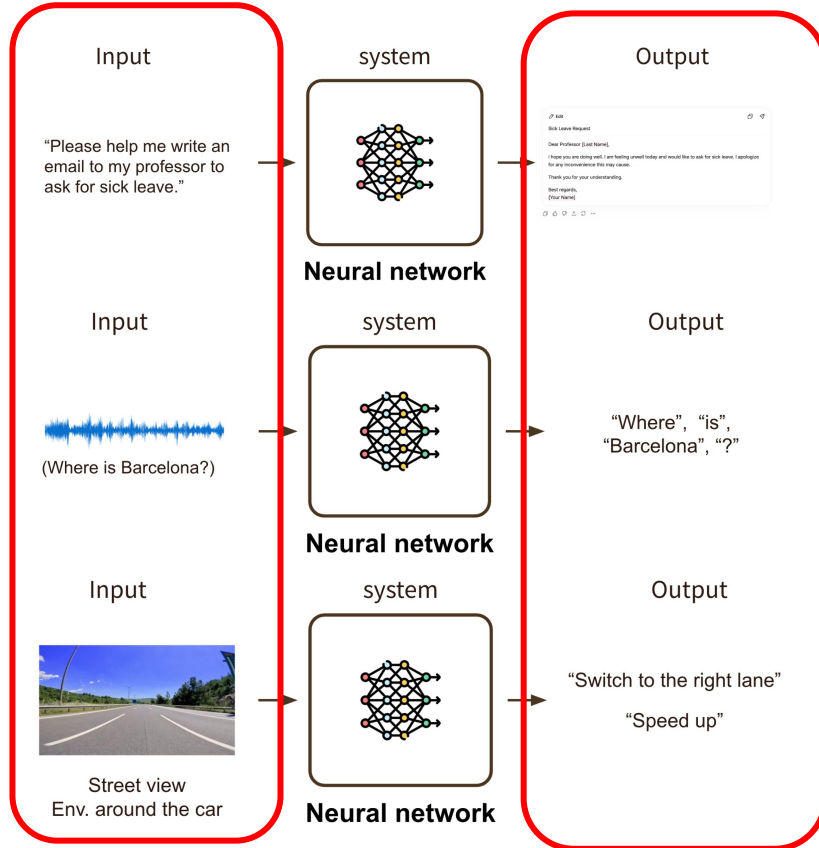
- Google Gemma 4 - **30 Billion**
- DeepSeek V4 - **1,600 Billion**
- (Human brain - **86 Billion** neurons)

# AI is a data-driven learning system



There are hundreds of thousands of applications

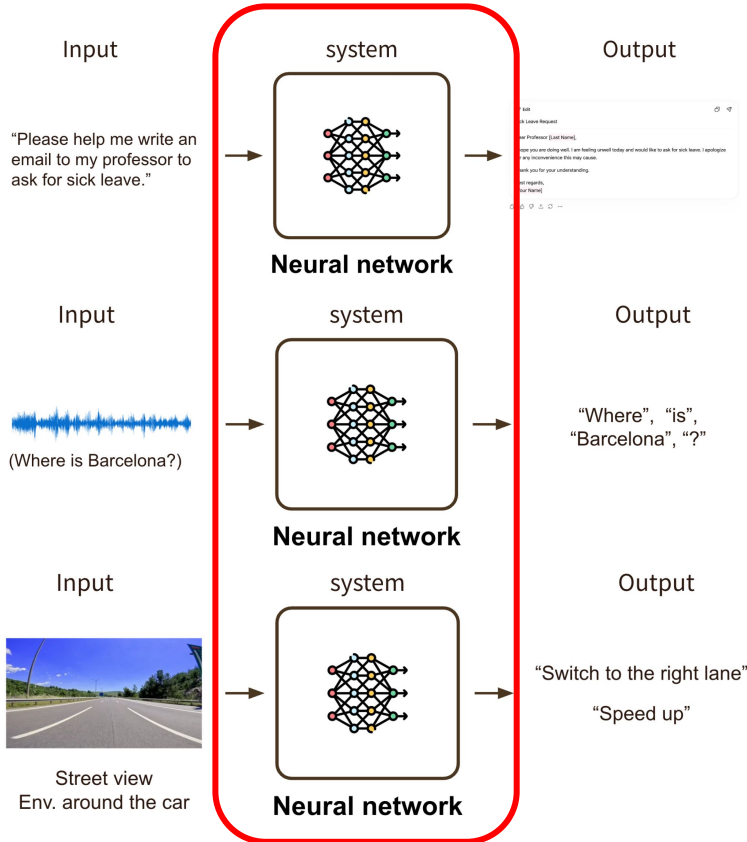
# AI is a data-driven learning system



- **Data:**  
Input and output

There are hundreds of thousands of applications

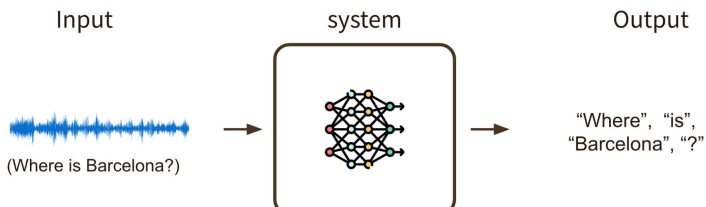
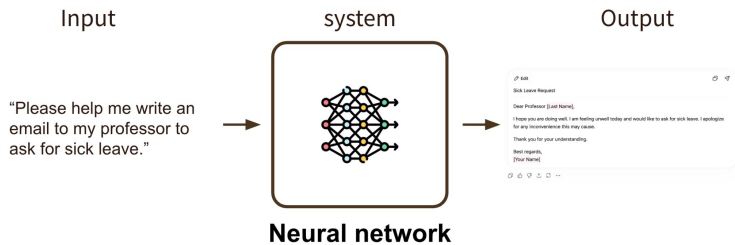
# AI is a data-driven learning system



- **Data:**  
Input and output
- **Learning system:**  
Optimizing billions of parameters in the neural network

There are hundreds of thousands of applications

# AI is a data-driven learning system

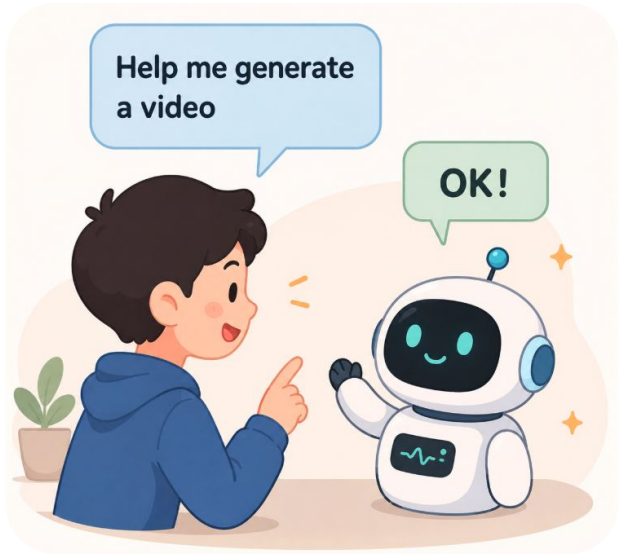


- **Data:**  
Input and output

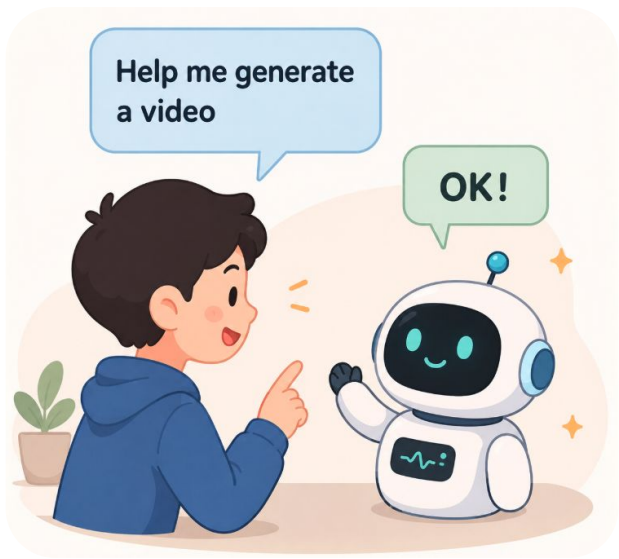
- **Learning system:**  
Optimizing billions of parameters in the neural network

**We were discussing an over simplified version of AI  
more than 200K AI papers every year**

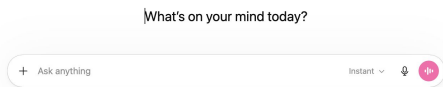
Stanford Institute for Human-Centered Artificial Intelligence. (2026).  
Artificial Intelligence Index Report 2026. Stanford University.  
<https://hai.stanford.edu/ai-index/2026-ai-index-report>



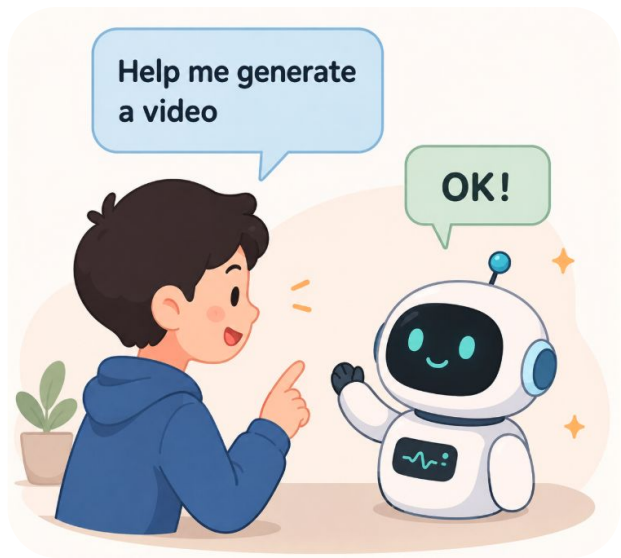
*AI can do (almost) whatever you ask.*



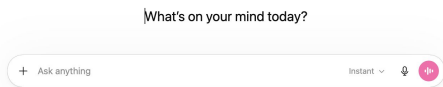
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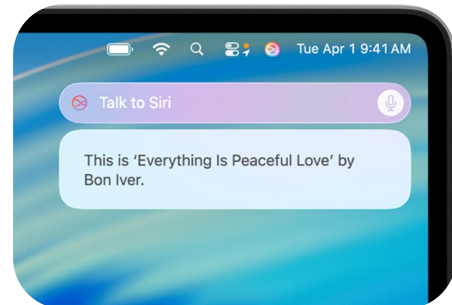
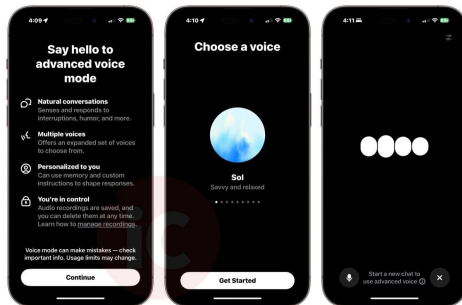
*Text Interface*



*AI can do (almost) whatever you ask.*



## *Text Interface*



## *Speech Interface*

# But wait...

AI understands Mandarin and English — what about our Taigi?

---

## AI understands

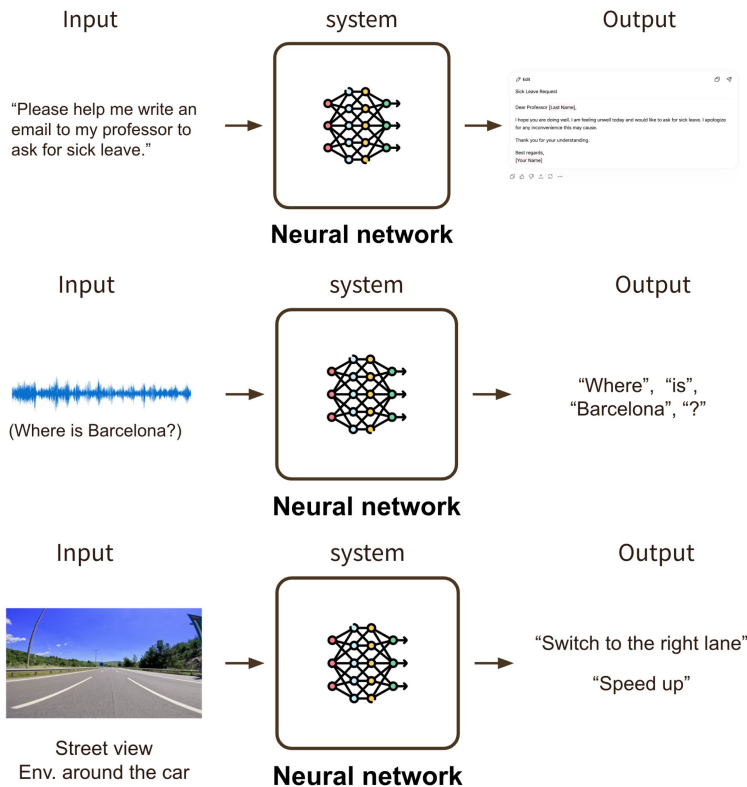
- ✓ English
- ✓ Mandarin Chinese
- ✓ Japanese, Korean...

## AI doesn't understand

**✗ Taigi (Taiwanese)**

*Many "underrepresented" languages worldwide*

# AI is a data-driven learning system

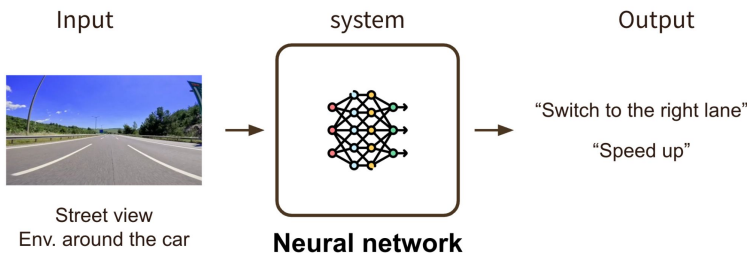
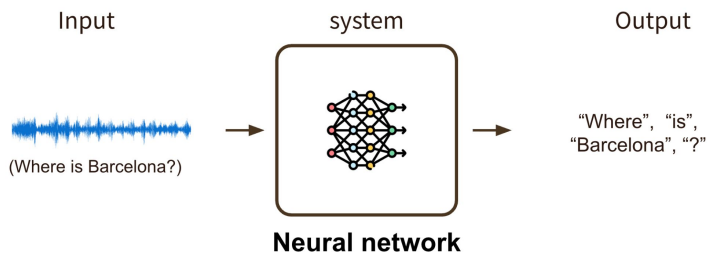
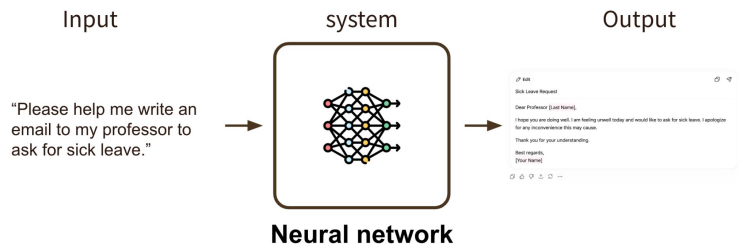


- **Data:**  
Input and output

- **Learning system:**  
Optimizing billions of parameters in the neural network

- pre-trained LLMs
- Strong eco system around AI (hardware, software)
- Reliable training techniques
- ...

# AI is a data-driven learning system



- **Data:**  
Input and output

- **Learning system:**  
Optimizing billions of parameters in the neural network

Data

Data

Data

# 02

PART TWO

## Our Taigi: Can AI Hear It?

---

Looking at the state of our language

*Where Taiwanese stands today*

# How Many People Speak Taiwanese?

> 15M

speakers worldwide

*Can understand and speak Taigi*

## Where they live

Taiwan



North America



Southeast Asia



Japan & Europe



# Two Problems for Taiwanese AI

01

PROBLEM

Fewer and fewer  
people **speak**  
**Taiwanese Taigi**

02

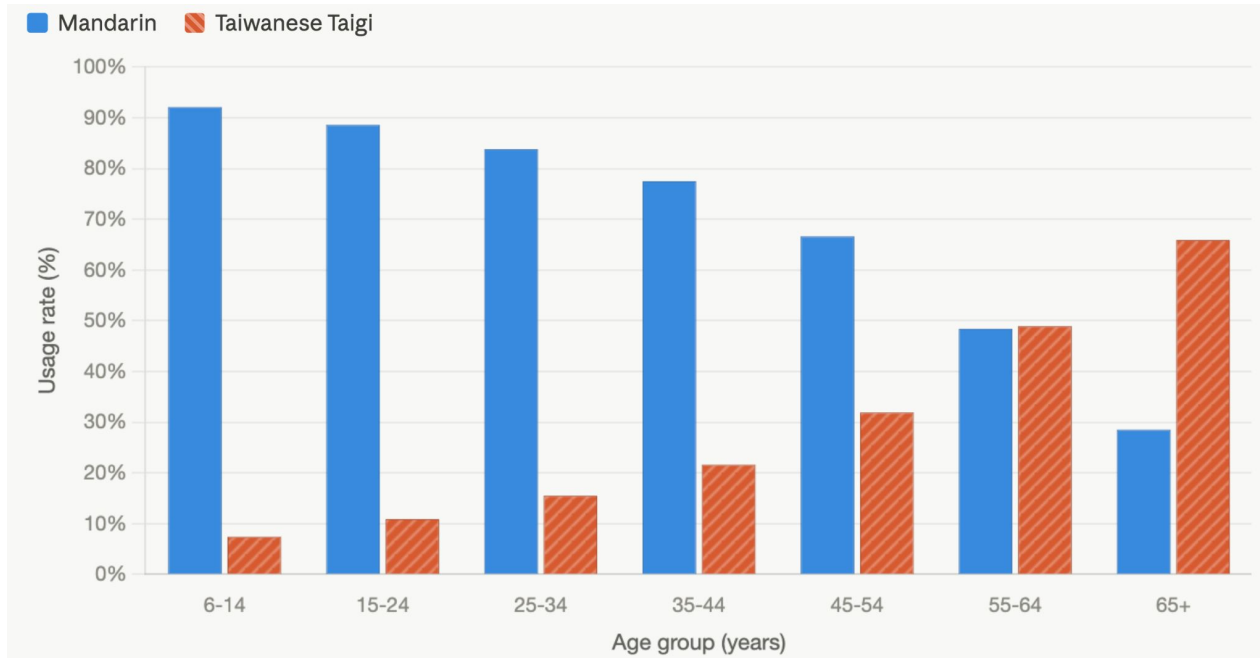
PROBLEM

Not enough  
Taiwanese  
data **for AI**

# The Generational Gap

Statistics from Taiwan Gov.

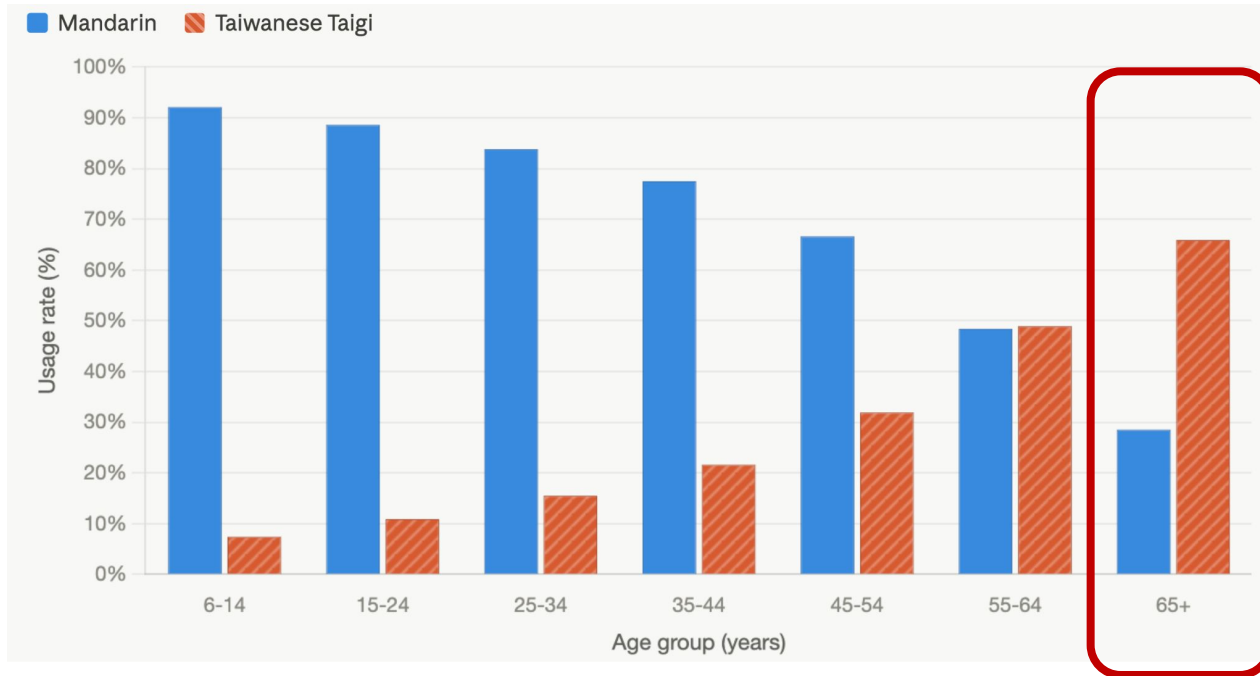
Younger generations speak less Taigi each year



# The Generational Gap

Younger generations speak less Taigi each year

Statistics from Taiwan Gov.

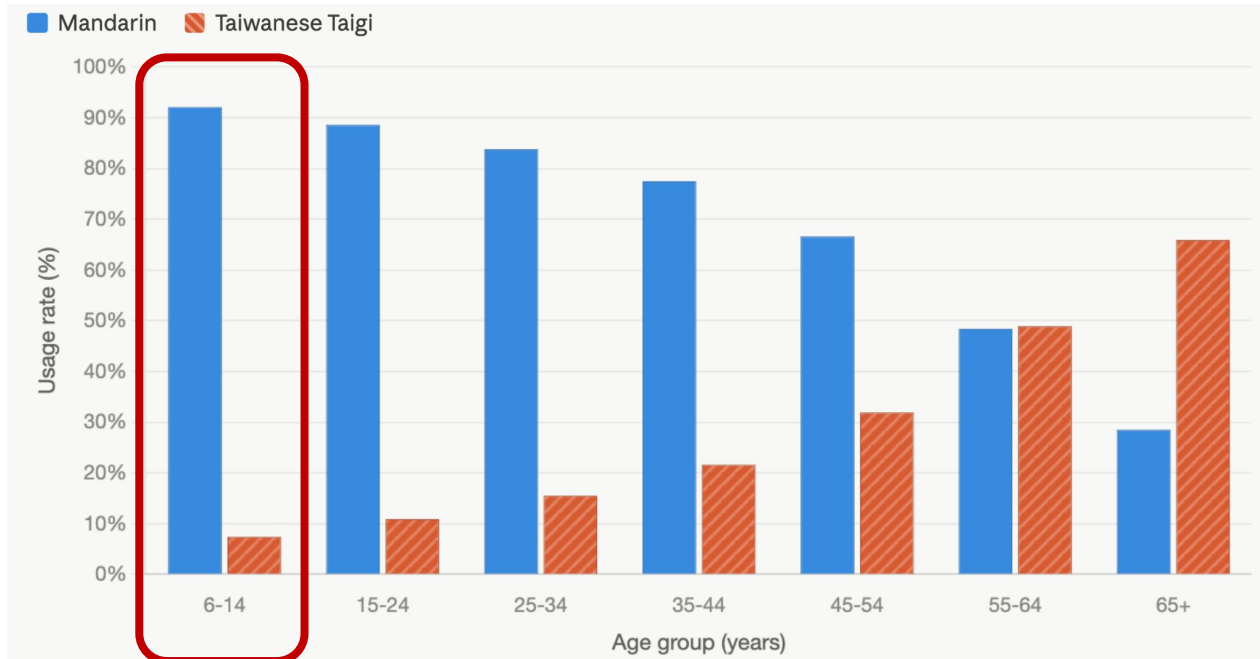


>60%

# The Generational Gap

Statistics from Taiwan Gov.

Younger generations speak less Taigi each year



<10%

# Why is Taigi AI Harder?

Three tough problems that make Taigi tougher than Mandarin or English

## Tone Sandhi

**Tones shift in connected speech**

“心” alone vs. “心情” — different tones

**Each problem multiplies the amount of data we need.**

# Why is Taigi AI Harder?

Three tough problems that make Taigi tougher than Mandarin or English

## Tone Sandhi

### Tones shift in connected speech

“心” alone vs. “心情” — different tones

## Accents

### Different accents (南腔北調)

One word, lots of pronunciations

**Each problem multiplies the amount of data we need.**

# Why is Taigi AI Harder?

Three tough problems that make Taigi tougher than Mandarin or English

## Tone Sandhi

### Tones shift in connected speech

“心” alone vs. “心情” — different tones

## Accents

### Different accents (南腔北調)

One word, lots of pronunciations

## Code-switching

### Taigi + Mandarin + English in one sentence

“我今天去 **7-11** 買 1 個便當和 2 顆**茶葉蛋**，然後我去 **麥當勞** 買 **漢堡** 和 **薯條**”

Today I went to 7-Eleven to buy one bento box and two tea eggs.

Then I went to McDonald's to buy a burger and fries.

**Each problem multiplies the amount of data we need.**

# The Bottleneck: Data

The technology is ready. What we need is Taigi audio.

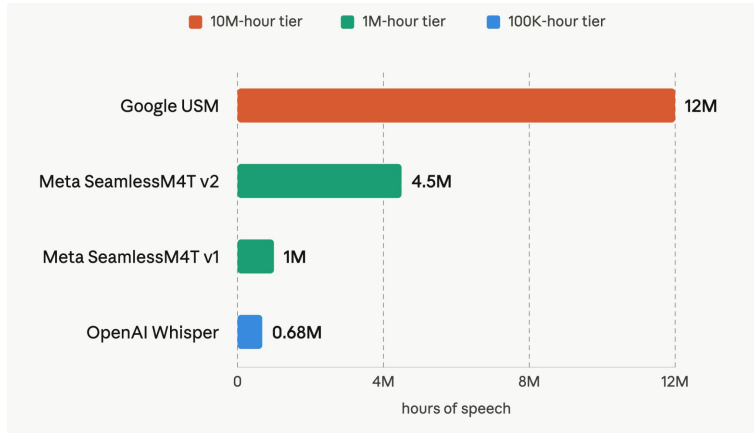
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**AI is what it learns from.**

If it never hears Taiwanese,

**it can't understand Taiwanese.**

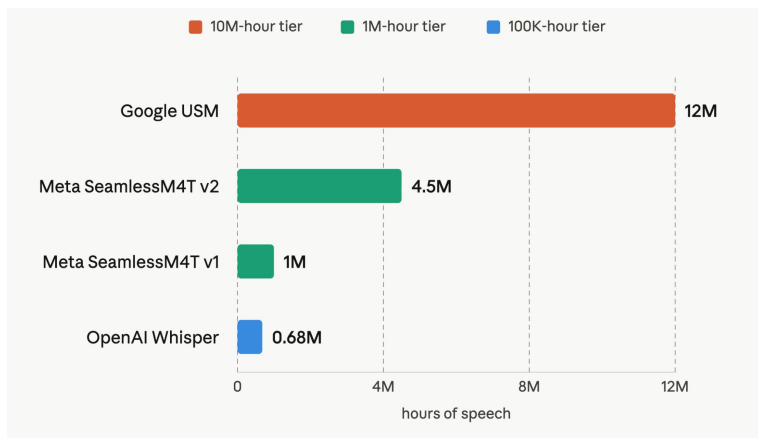
# “Academic” Speech Recognition system



English, Mandarin, ...  
Million hours of speech

*for industry, it's even more*

# “Academic” Speech Recognition system



English, Mandarin, ...  
Million hours of speech

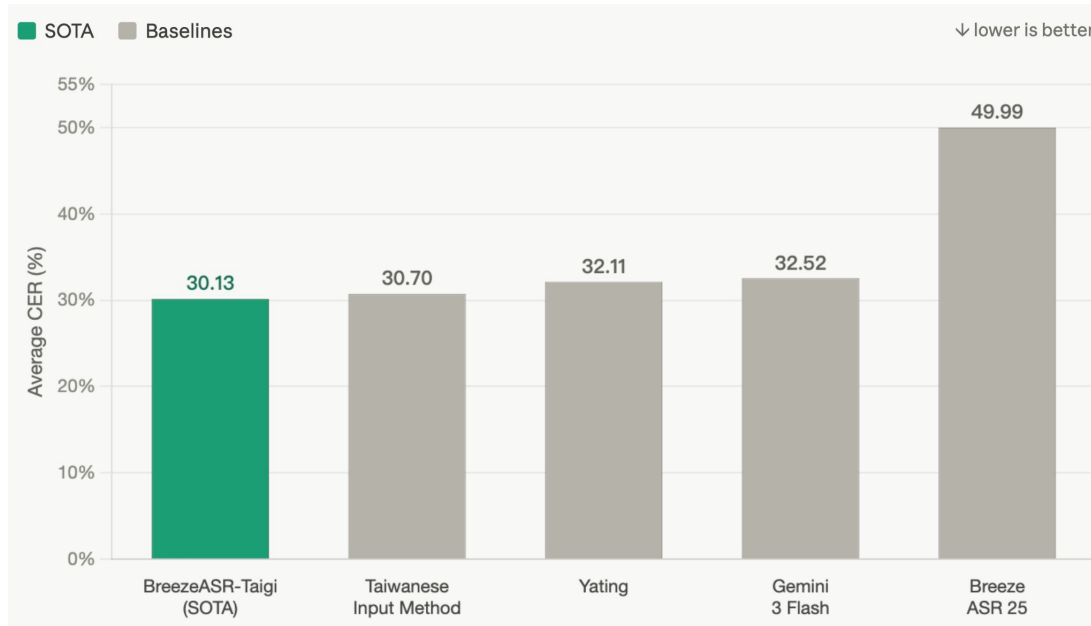
*for industry, it's even more*



Taiwanese Taigi data from the web  
order of 10K hours

# Can AI Understand Taigi?

## The best Taigi Speech Recognition System



Error rate ~ 30%

<https://huggingface.co/MediaTek-Research/Breeze-ASR-26>

01

PROBLEM

Fewer and fewer  
people **speak Taigi**

02

PROBLEM

Not enough Taiwanese  
data **for AI**

# 01

PROBLEM

Fewer and fewer people **speak Taigi**



## TaigiTube

**Make learning Taigi FUN**



Drama-based and News-based learning

**100K+ users in 2 weeks**

# 02

PROBLEM

Not enough Taiwanese data **for AI**



## TaigiSpeech

**Teach machines to UNDERSTAND**



Speech intent dataset

**Healthcare & home assistant ready**

# 03

PART THREE

## TaigiTube

*Learning Taigi from real life*

---



# Let's Try It Together

STEP

1

Type a keyword

*in Mandarin*

STEP

2

Search drama clips

*real clips, real conversations*

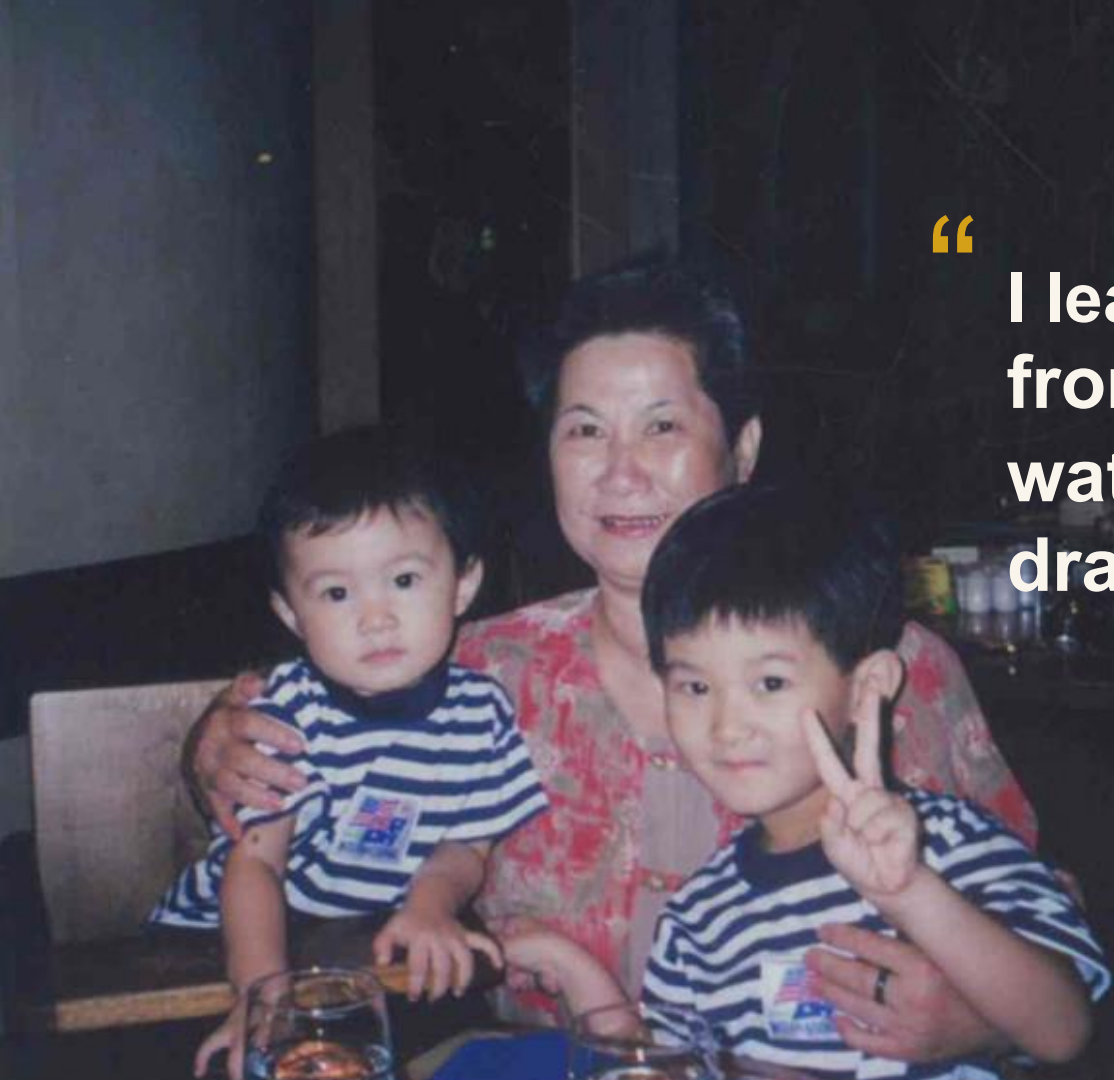
STEP

3

Watch & learn the phrase

*how it's actually spoken*

The screenshot displays the TaigiTube website interface. At the top, the logo 'TaigiTube 台語水管' is shown, along with the tagline '關於水管 · 贊助水管'. A search bar contains the text '毫無瓜葛', and a green '搜尋' button is to its right. Below the search bar are several category tags: '台灣', '你在哭嗎', '水管', '要命', and '不可理喻'. The main content area features a video player titled '「毫無瓜葛」怎麼講：'. The video is from '風水世家 Feng Shui Family Ep 347' and shows a man in a white jacket. The video player includes a play button, a progress bar at 1:47:15 / 1:52:24, and a 'More videos' button. Below the video player, the subtitle '字幕：我們兩人毫無瓜葛' is displayed, along with the episode information '第 1 / 42 部' and two green buttons labeled '上一部' and '下一部'.



“

I learned Taiwanese from my grandma — watching Taiwanese drama (八點檔) together.

'00 7.22

# Real-life phrases

Two examples — how people actually speak Taigi

---

## EXAMPLE 1

It's hot today

**「天氣很熱」**

---

**「快熱死了」** It's hot as hell!

# Real-life phrases

Two examples — how people actually speak Taigi

---

## EXAMPLE 1

It's hot today

「天氣很熱」

---

「快熱死了」 It's hot as hell!

## EXAMPLE 2

Please have a seat

「請坐」

---

「坐坐坐」 坐 (tsē / sit)

# Real-life phrases

Two examples — how people actually speak Taigi

## EXAMPLE 1

It's hot today

「天氣很熱」

「快熱死了」 It's hot as hell!

## EXAMPLE 2

Please have a seat

「請坐」

「坐坐坐」 坐 (tsē / sit)

3 坐 (tsē) have different tones

# Real-life phrases

Two examples — how people actually speak Taigi

---

## EXAMPLE 1

It's hot today

「天氣很熱」

---

「快熱死了」 It's hot as hell!

## EXAMPLE 2

Please have a seat

「請坐」

---

「坐坐坐」 坐 (tsē / sit)

You won't find people saying it this way in textbooks.

# Proverbs (俗諺)

## TaigiTube 台語水管

關於水管 · 贊助水管

感謝您的支持與贊助，讓我們能夠持續投入心力，打造並優化台語水管。您的每一分鼓勵，都是我們前進的動力；也因為有您，才能將更多鄉土劇中的經典俗諺，化作豐富的學習資源，與大家一同分享。

以下，邀請您一起欣賞並體會這些在生活中常用、耐人回味的台語俗諺：



食人一口，  
報人一斗

食人一口，報人一斗



食果子拜樹頭；  
食米飯拜田頭

食果子拜樹頭；食米飯拜田頭



軟土深掘

軟土深掘



食緊搥破碗

食緊搥破碗



倚懸山，看馬相蹄

倚懸山，看馬相蹄



歪膏擱斜

歪膏擱斜



兼二語，  
摸捌仔兼洗滌

兼二語，摸捌仔兼洗滌



人若衰，  
種捌仔生菜瓜

人若衰，種捌仔生菜瓜



好酒沉壘底

好酒沉壘底

## 軟土深掘

Give them an inch, and they'll take a mile.

## 毫無瓜葛

have nothing to do with each other

...

# Create your own learning and teaching materials.



食人一口，報人一斗



食果子拜樹頭；食米飯拜田頭



軟土深掘



食緊拚破碗



倚懸山，看馬相蹄



歪書拗斜



一兼二顧，摸蝦仔兼洗褲



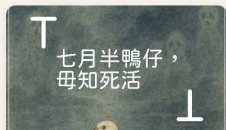
人若衰，種夠仔生菜瓜



好酒沉甕底



烏罈仔貯豆油



七月半鴨仔，母知死活



時到時擔當，無米才煮番薯湯

# Create your own learning and teaching materials.



食人一口，報人一斗



食果子拜樹頭；食米飯拜田頭



軟土深掘



食緊拼破碗



待懸山，看馬相踢



歪言拗斜



一兼二顧，摸蚶仔兼洗褲



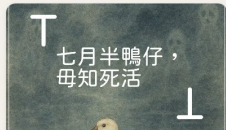
人若衰，種蚶仔生菜瓜



好酒沉甕底



烏罈仔貯豆油



七月半鴨仔，母知死活



時到時擔擔，無米才煮番薯湯

AI

from formal dictionary

video clip



軟土深掘

nńg-thôo-tshim-kút

得寸進尺。軟的泥土比較容易挖掘，用來比喻老實人或讓步者容易被欺負。|

來源：教育部臺灣台語常用詞辭典



# Why does this approach work?

Traditional Dictionary
Words and sentences
Standard recording, single voice
Static text, no emotional cues
✓ <b>Pronunciations are correct</b>

TaigiTube
✓ <b>Full conversations with context</b>
✓ <b>Many actors, accents</b>
✓ <b>See facial expressions, hear emotional tone</b>
Sometimes inaccurate pronunciation
Sometimes found Mandarin results

# Learn Taigi from multiple methods!

v1.5.0 @taro.dict

## 支援外部網站

ChhoeTaigi 台語水管

芋圓字典揣無嘛無要緊!

Taro Dict

Tài-bùn Ke-si-mi 台文雜誌  
ChhoeTaigi M ná si sù-tián — 台語辭典\*

+「台語水管」全文斷詞索引  
(資料集：線頂影片媒體索引)

芋圓字典

無揣著相關的詞。

存外部網站查詢

存 ChhoeTaigi 查詢

ChhoeTaigi

Chhōe siáⁿ-mih 詞：[iá-kú-káⁿ]

+提供「芋圓字典」外部網站查詢

台語水管 TaigiTube X CHHOE TAIGI X Oo Inn

ChhoeTaigi

# May 2025 — TaigiTube launches

And then this happened

---

3

days

## Within the first 3 days:

- FTV, PTS, and TVBS interview
- BCC Radio invited a 40-minute interview
- Social media buzz exploded
- Taigi teachers and students across Taiwan tried it

# 10K

searches

Keyword searches in the first 24 hours

# 100K

users

Reached within the first 2 weeks

# 400

users

Daily active users



# TaigiTube Takeaway

- We can learn Taiwanese differently.
- We can learn Taiwanese the way we learned it in childhood.
- There is still room for improvement:
  - Video sources
  - Search results
- TaigiTube can be integrated with other learning tools.

# 04

PART FOUR

## TaigiSpeech

*Towards Taigi Home Care Robots*

---

# 01

PROBLEM

Fewer and fewer people **speak Taigi**



## TaigiTube

**Make learning Taigi FUN**



Drama-based and News-based learning

**100K+ users in 2 weeks**

# 02

PROBLEM

Not enough Taiwanese data **for AI**



## TaigiSpeech

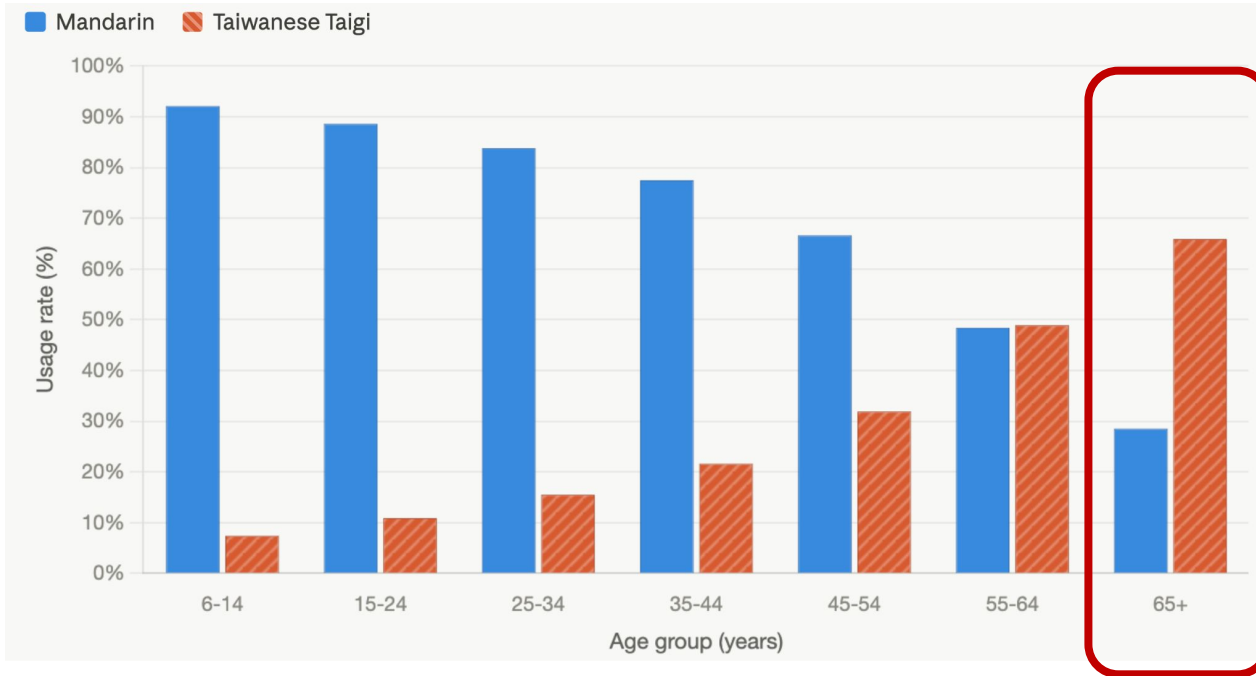
**Teach machines to UNDERSTAND**



Speech intent dataset

**Healthcare & home assistant ready**

There are lots of elders  
can only speak Taiwanese



Don't leave elders  
behind in the AI era!

# Why elders especially need AI

Older adults are more vulnerable and may have limited mobility.

01



## Emergency moments

Falls, feeling unwell, ...

# Why elders especially need AI

Older adults are more vulnerable and may have limited mobility.

01

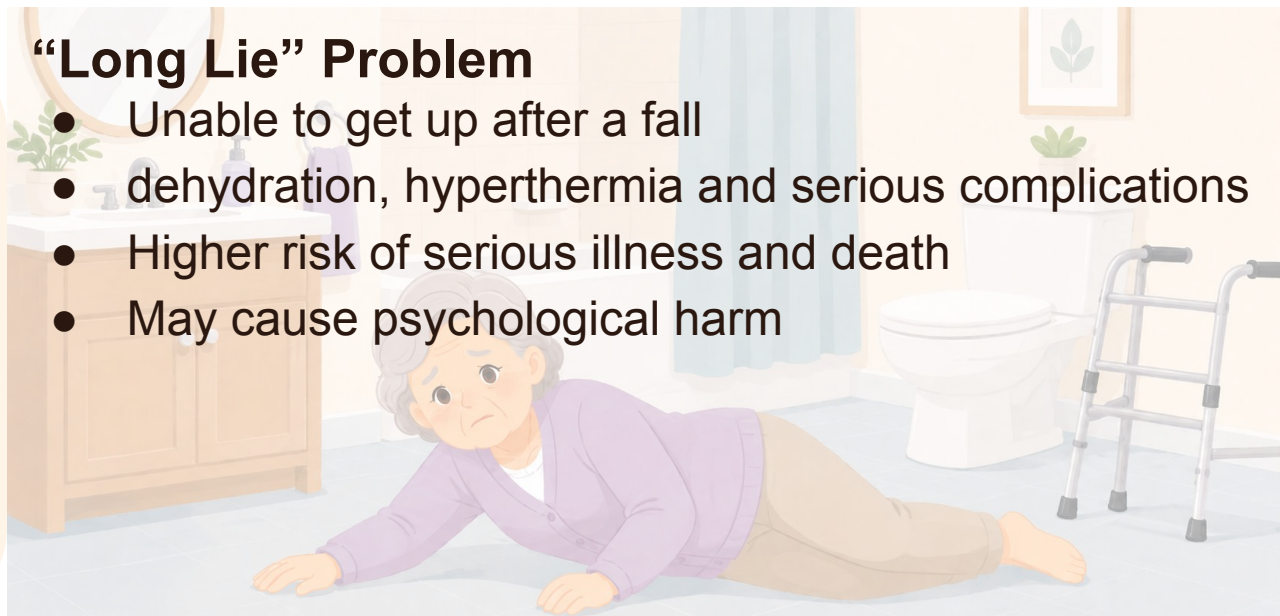


## Emergency moments

Falls, feeling unwell, ...

### “Long Lie” Problem

- Unable to get up after a fall
- dehydration, hyperthermia and serious complications
- Higher risk of serious illness and death
- May cause psychological harm



Concept of the term long lie: a scoping review, 2023,  
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10463813/>

# Why elders especially need AI

Older adults are more vulnerable and may have limited mobility.

01



## Emergency moments

Falls, feeling unwell, ...

### “Long Lie” Problem

- Unable to get up after a fall
- dehydration, hyperthermia and serious complications
- Higher risk of serious illness and death
- May cause psychological harm

**Requires early detection and timely assistance !**

Concept of the term long lie: a scoping review, 2023,  
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10463813/>

# Why elders especially need AI

Older adults are more vulnerable and may have limited mobility.

01



## Emergency moments

Falls, feeling unwell, ...

02



## Home Assistant

Turn on the light, make a phone call



# Why elders especially need AI

Older adults are more vulnerable and may have limited mobility.

01



## Emergency moments

Falls, feeling unwell, ...

02



## Home Assistant

Turn on the light, make a phone call

03



## Daily companionship

Alone at home, no one to talk to

# Why elders especially need AI



**Amazon Alexa**



**Google Home**

not supporting Taiwanese...

# But how do we actually make it?

Data

Data

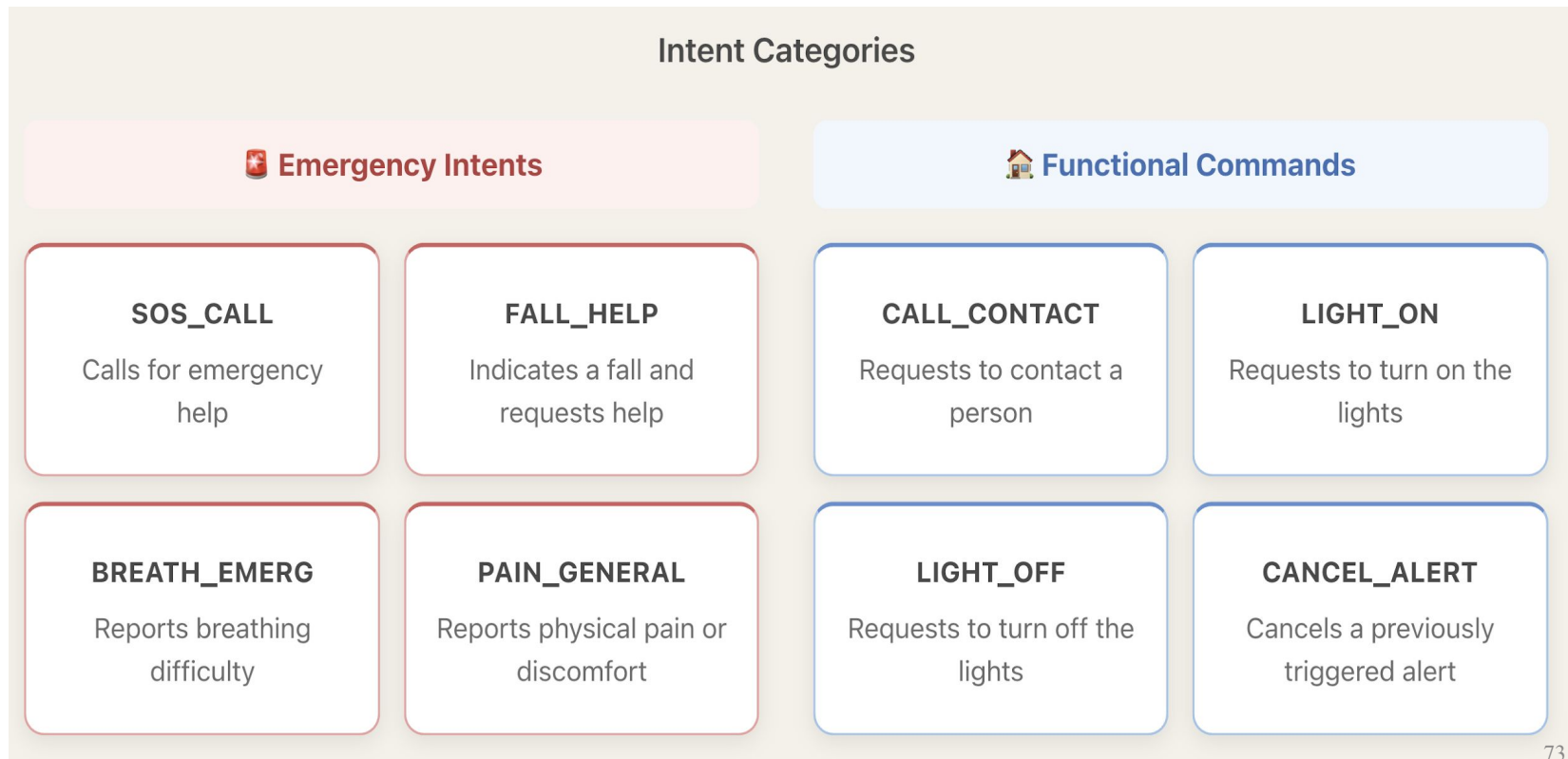
Data

## What kind of data?

- Taiwanese recordings across all accents
- Natural speech (not scripted reads)
- Different scenarios (daily life, emergencies)
- **Elder speech**

# 8 Intent Categories

After discussing with some elders  
and social workers



# How TaigiSpeech collects data

## Step 1

See an everyday scenario

e.g. "Slipping and falling in the bathroom"

## Step 2

Speak in Taigi naturally

Your natural reaction in your dialect

## Step 3

AI learns from real speech

本次進度: 1 / 8 句  
(Progress 1 / 8 Sentences)



請用台語表達情境，可自由發揮  
(Imagine this is happening to you. What would you say in Taiwanese?)

**在浴室滑倒**  
**(Slipping and falling in the bathroom)**

參考語句 (華語)  
(Reference sentence (Mandarin))

哎唷！我滑倒了，爬不起來。  
("Oh no! I fell down and can't get up.")

台語 (閩南語)  
(Taiwanese Hokkien)

點擊下方按鈕或 [按 1] 開始錄音  
(Click the button below or [press 1] to start recording.)

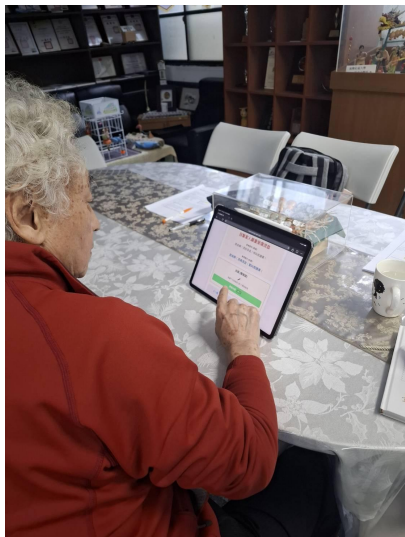
錄製台語  
(Record Taiwanese)

上一個 [按 ←]  
(Previous [Press ←])

下一個 [按 Enter]  
(Next [Press Enter])

# Recording





# Recording results

**21**

Speakers  
13F, 8M

**3,000+**

Utterances

**6.1**

Hours

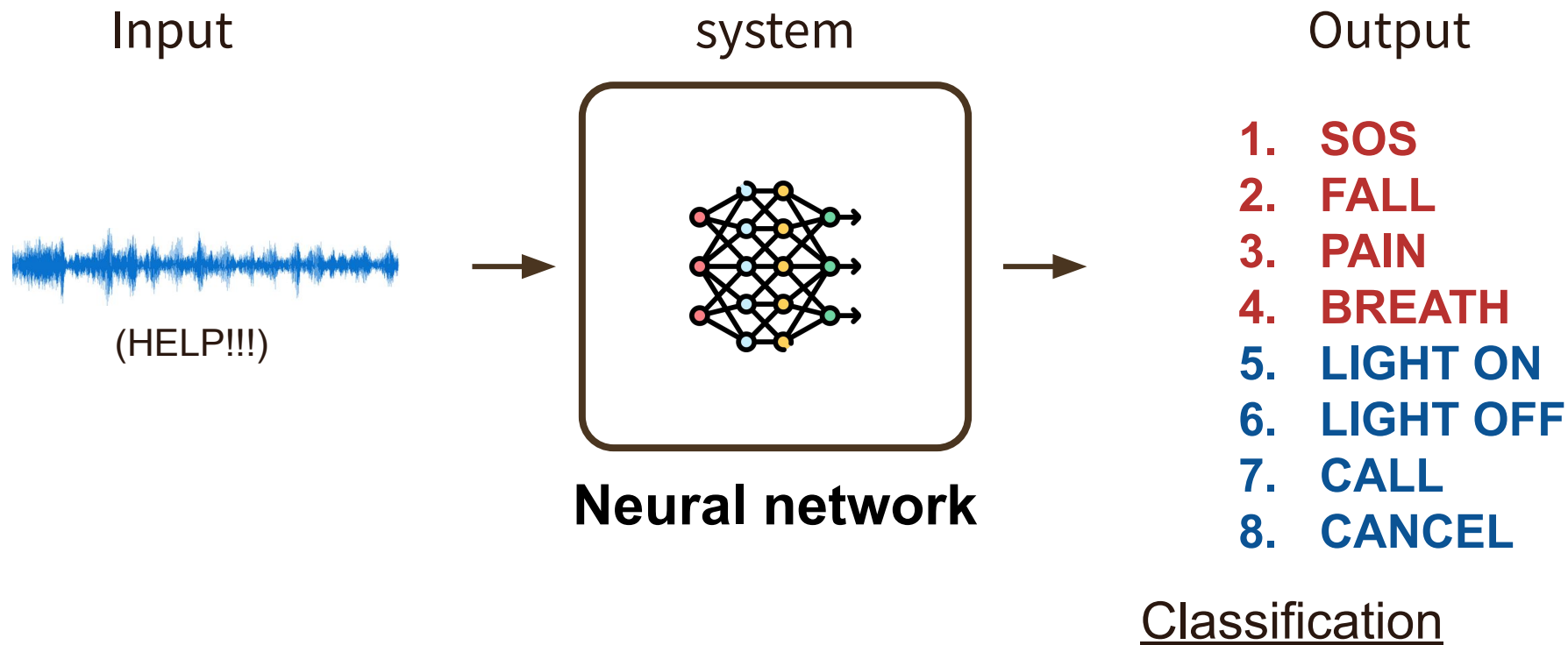
**8**

Intent Categories

**67.9**

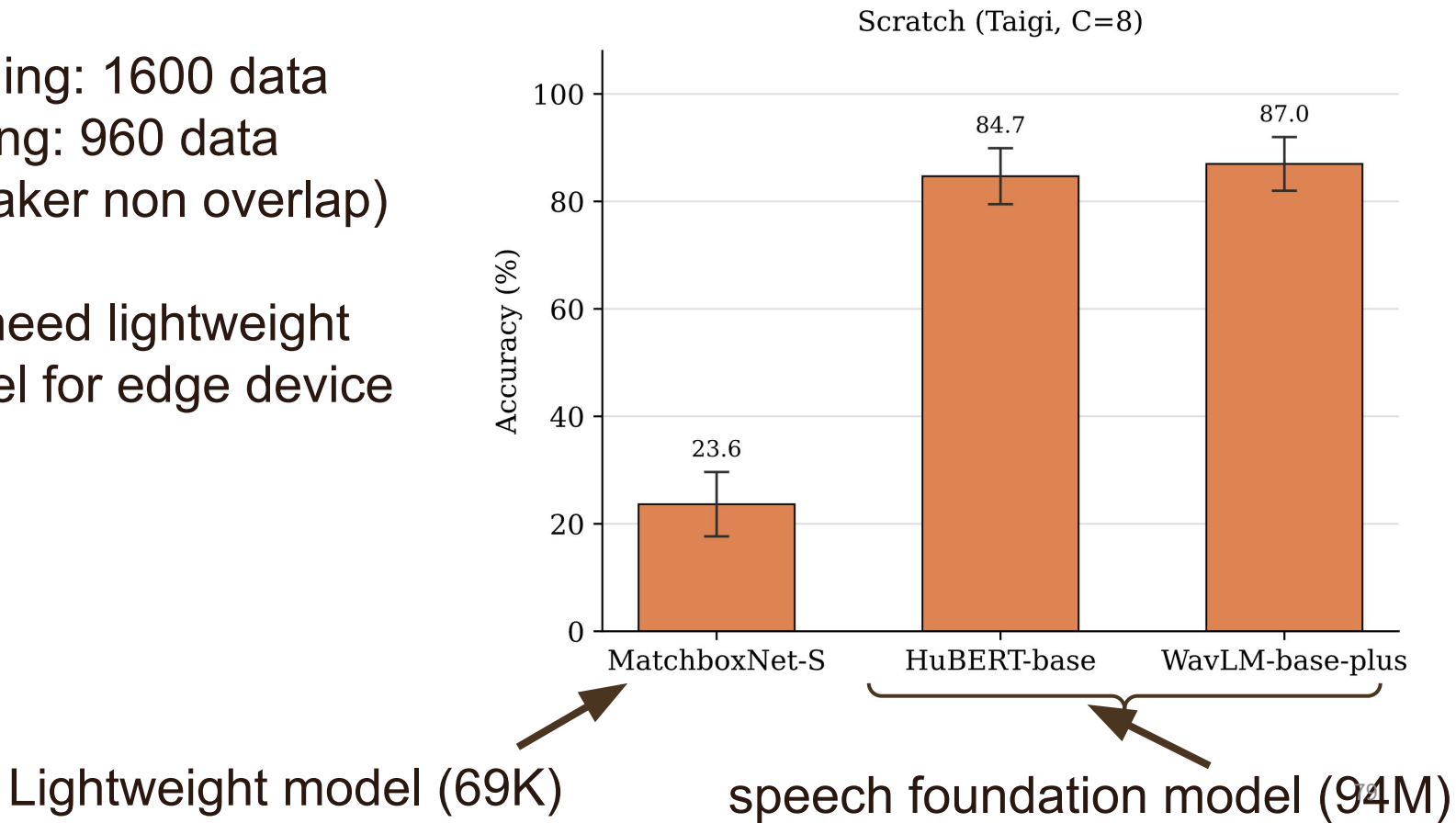
Mean Age (yrs)

# Intent Classification Results



# Intent Classification Results

- Training: 1600 data
- Testing: 960 data (speaker non overlap)
- We need lightweight model for edge device



# Keyword-based Data Mining

Recall how it works in TaigiTube...

keyword search to  
find useful video clips

The screenshot shows the TaigiTube website interface. At the top, the site name 'TaigiTube 台語水管' is displayed in green, with the tagline '關於水管 · 贊助水管' below it. A search bar contains the text '爬不起來', and a green '搜尋' button is to its right. Below the search bar are several category tags: '台灣', '你在哭嗎', '水管', '要命', and '不可理喻'. The main content area features a video player for the clip '「爬不起來」怎麼講：'. The video player shows a man in a suit lying on a chair, with a play button in the center. The video title is '【飛捷義大利生活館】春花望露 Spring Flower Ep', and the channel is '民視戲劇館 Formosa TV Dramas'. The video progress bar shows 1:49:44 / 1:52:20. Below the video player, there are icons for 'More videos', 'YouTube', and social media sharing. The subtitle '字幕：怎麼會爬不起來' is displayed below the video player. At the bottom, there are buttons for '上一部' and '下一部', and the page number '第 9 / 100 部' is shown.

# TV dramas naturally simulate real-world scenario: Emotional, contextual, “natural” speech,



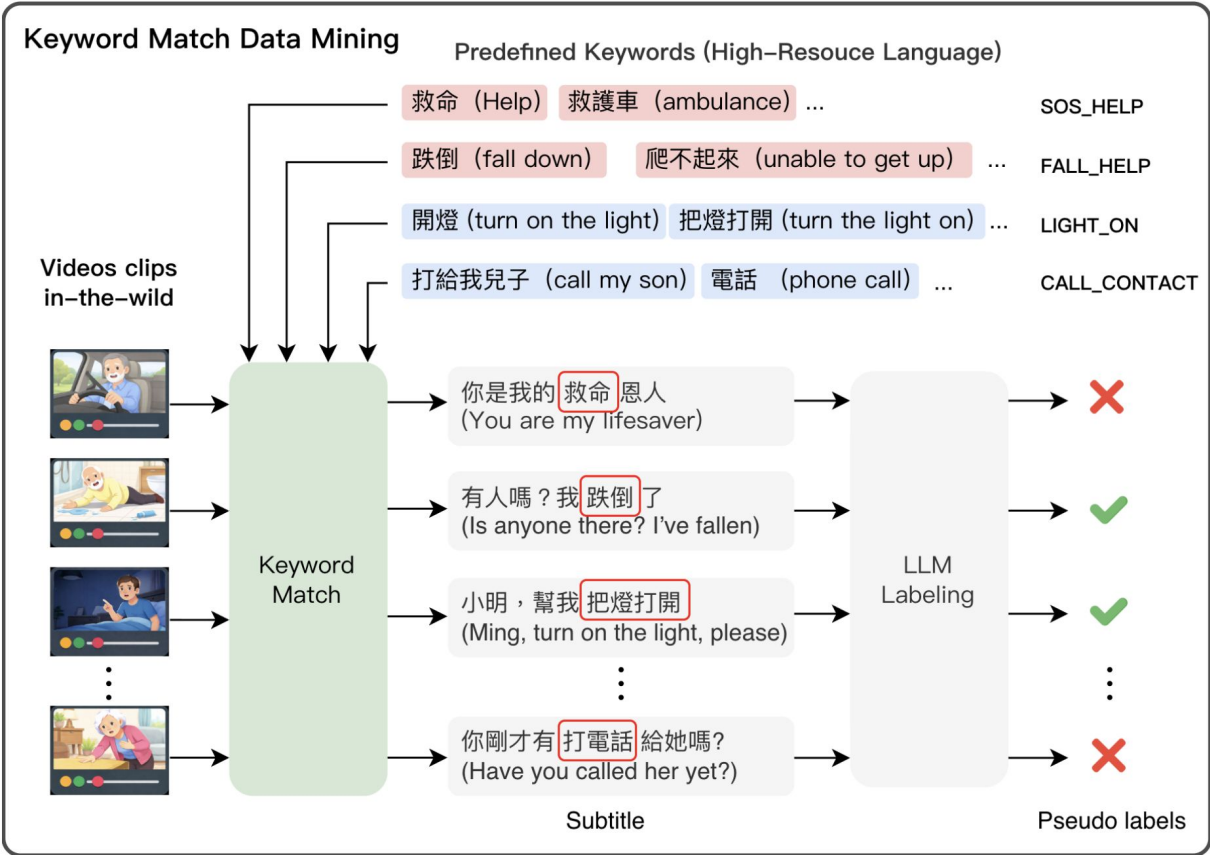
“我爬不起來了”  
(I can not get up)



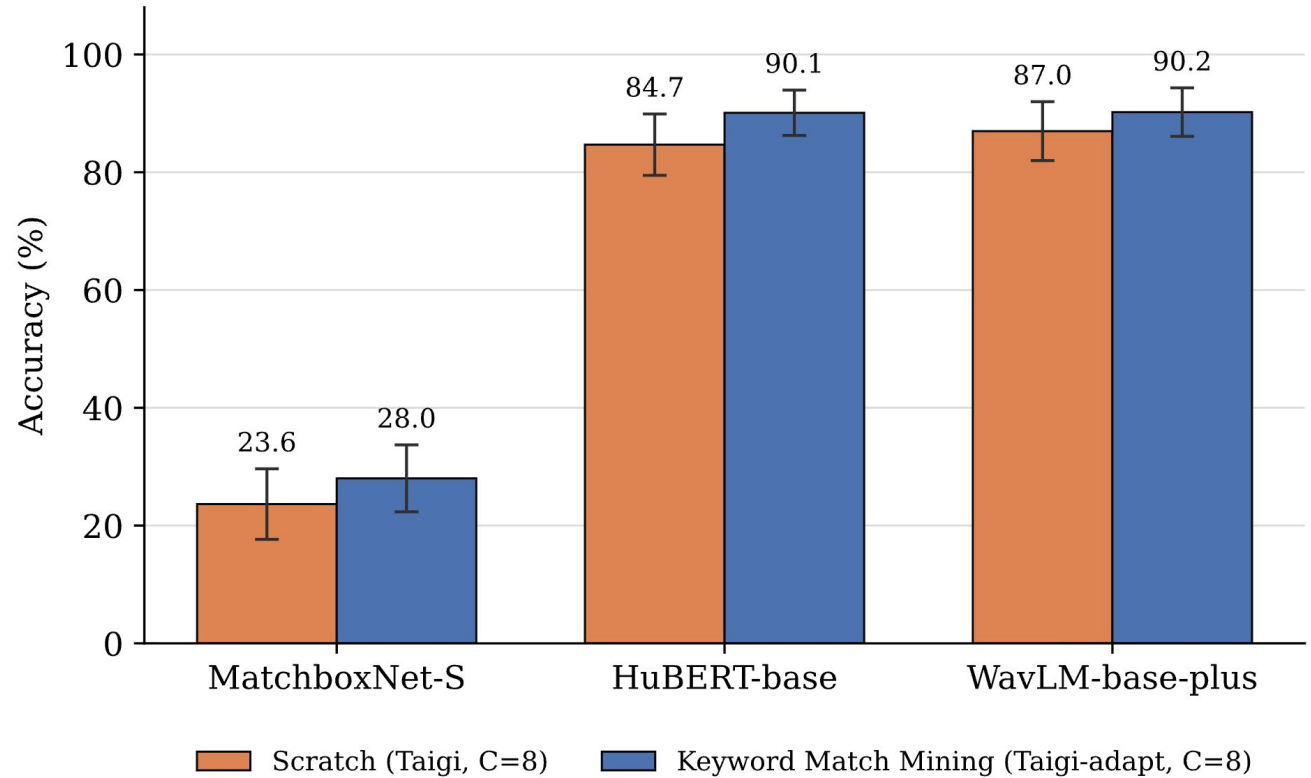
字幕：腳...腳沒力了

“腳...腳沒力了”  
(My legs feel weak.)

found >10K video clips for training

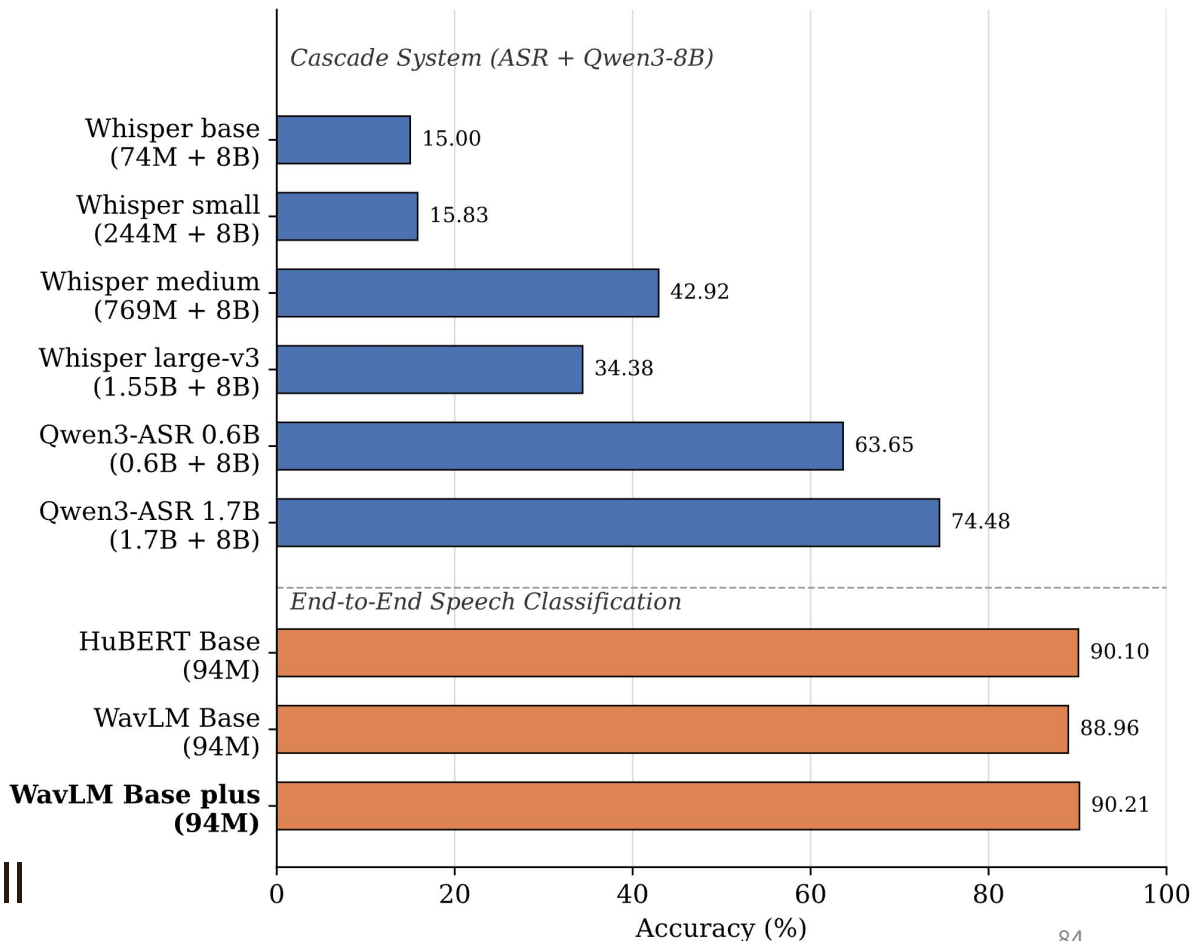


accuracy >90






Cascade ASR+LLM vs. End-to-End Speech Classification (Taiwanese)

Large speech  
recognition model  
+ LLM



Existing AI can not  
understand Taiwanese well

# TaigiSpeech: A Low-Resource Real-World Speech Intent Dataset and Preliminary Results with Scalable Data Mining In-the-Wild

*Kai-Wei Chang<sup>†</sup>, <sup>1</sup>, Yi-Cheng Lin<sup>\*,2</sup>, Huang-Cheng Chou<sup>\*, <sup>5</sup></sup>, Wenze Ren<sup>\*,2</sup>  
Yu-Han Huang<sup>2</sup>, Yun-Shao Tsai<sup>2</sup>, Chien-Cheng Chen<sup>2</sup>, Yu Tsao<sup>3</sup>, Yuan-Fu Liao<sup>4</sup>  
Shrikanth Narayanan <sup>5</sup>, James Glass<sup>1</sup>, Hung-yi Lee<sup>2</sup>*

<sup>1</sup> Massachusetts Institute of Technology, USA

<sup>2</sup> National Taiwan University, Taiwan

<sup>3</sup> Academia Sinica, Taiwan

<sup>4</sup> National Yang Ming Chiao Tung University, Taiwan

<sup>5</sup> University of Southern California, USA

kwchang@mit.edu

- Submit to an international speech AI conference - Interspeech 2026
- Dataset is fully open-sourced



The image shows a landing page for the TaigiSpeech dataset. The title 'TaigiSpeech' is prominently displayed in a large, bold font, with 'Taigi' in green and 'Speech' in dark grey. Below the title, the subtitle reads 'A Real-World Taiwanese Speech Intent Dataset for Elderly Users'. A 'CC BY 4.0' license badge is visible. Two main buttons are present: 'Dataset' with a smiley face icon and 'Paper' with a document icon. At the bottom, there are five smaller buttons: 'About', 'Statistics', 'Recording', 'Acknowledgments', and 'Citation' (with the number 85 below it).

# Future Work

TaigiSpeech is an ongoing project...

Trying to cover more diverse accent, speaker, age, ...



May, 14, 2026 at  
Taiwanese American Center of Northern California

# TaigiSpeech Takeaway

- TaigiSpeech focuses on older adults.
- TaigiSpeech provides a foundation / potential application for Taiwanese speech AI.
- There is still room for improvement.
- Data mining methods such as TaigiTube can help models learn from richer real-world language use.
- **TaigiSpeech is open-sourced under the CC BY license.**



**Lots of people are  
working on Taigi and  
Taiwanese Language AI**

---

# We stand on the shoulders of giants

TaigiTube is largely inspired by YouGlish

---

**YouGlish**

<https://youglish.com/>

Learn a language from YouTube clips

---

**iTaigi**

愛台語

[itaigi.tw](http://itaigi.tw)

Crowdsourced dictionary

---

**Tarodict**

芋圓字典

[@taro.dict](https://@taro.dict)

Systematic Taigi learning

---

**PTS Taigi TV**

公視台語台

[taigitv.org.tw](http://taigitv.org.tw)

New vocabulary database

---

**MOE Local Languages**

教育部本土語言

[mhi.moe.edu.tw](http://mhi.moe.edu.tw)

Official resource hub

---

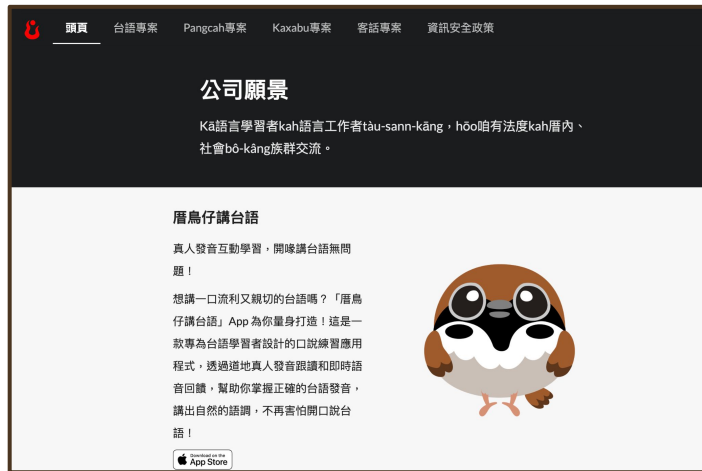
**MOE Taigi Dictionary**

教育部台語辭典

[sutian.moe.edu.tw](http://sutian.moe.edu.tw)

Official standard reference

# We stand on the shoulders of giants



首頁 台語專案 Pangcah專案 Kaxabu專案 客語專案 資訊安全政策

## 公司願景

Ka語言學習者kah語言工作者tàu-sann-kāng, hōo咱有法度kah歷內、社會bô-kāng族群交流。

### 厝鳥仔講台語

真人發音互動學習，開嗓講台語無問題！

想講一口流利又親切的台語嗎？「厝鳥仔講台語」App 為你量身打造！這是一款專為台語學習者設計的口說練習應用程式，透過接地真人發音跟讀和即時語音回饋，幫助你掌握正確的台語發音，講出自然的語調，不再害怕開口說台語！

Download on the App Store

意傳科技: ÌTHUÂN KHOKI

Taiwan Tongues



# Taiwan Tongues


## 台灣通用語料庫

»»»»

在AI的時代，讓世界 懂台灣

90

# We stand on the shoulders of giants




## SARC's TWNL Conversational AI

- **Multilingual/Multimodal**
- **Listen/Speak/Read/Write/Watching**
- **Translation/ChatBot**


### ■ Listen: ASR

- Output Chinese/Taibun/Hakka
- Live Media Subtitling
- Meeting Minutes




### ■ Speak: TTS + Translation

- Input Chinese/Taibun/Hakka
- Taiwanese News
- Hakka News





### ■ Read/Write: LLMs

- Output Taibun/Hakka
- Taiwanese/Hakka LLMs



### ■ Watching

- OCR
- Classification



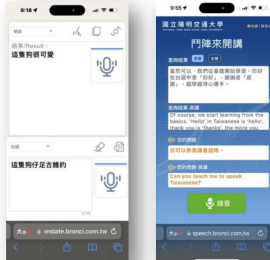

### ■ Translation

- Chinese/Taibun/Hakka

**Chinese:** 今天天氣很好，我們一起出去玩。  
**Taibun:** 今仔日天氣週好，咱做伙來去逛逛。  
**TaiLo:** kin1-a2-jit8 thinn1-khi3 hiah4 ho2, lan2 tso3-hue2 lai5-khi3 tshit4-tho5.  
**Hakka Hanji:** 今晡日天時當好，儂兜爰出來去寮。  
**Hakka Pinyin:** gin24 bu24 ngid2 tien24 sii11 goi55 ho31, en24 kiung55 ha55 cud2 hi55 liau55.


### ■ Speech-to-Speech Translation

- ASR+LLM+TTS



### ■ Spoken ChatBot

- ASR+LLM+TTS



# We stand on the shoulders of giants

MediaTek Research Breeze 3：讓 AI 聽懂台語、說出台  
味、守護台灣

2026年2月26日

## MEDIATEK RESEARCH BREEZE 3

- BREEZE ASR 26 - 台語語音辨識最佳化
- BREEZYVOICE 26 - 文字轉化為台語語音
- BREEZE GUARD 26 - 專為台灣情境設計的安全防護

MEDIATEK - <https://www.mediatek.com/zh-tw/tek-talk-blogs/mediatek-research-breeze-3>

# 05

PART FIVE

## The Vision

*Everyone speaks to AI in their own tongue*

---

**Everyone can talk to AI  
in their own language**



# 7000+ Languages



# 7000+ Languages

- When we're talking about AI:
  - “English”, “Chinese” AI in “TEXT”

# 7000+ Languages

- When we're talking about AI:
  - "English", "Chinese" AI in "TEXT"
- Many languages are primarily spoken

# Why Speech AI?

- Every person can speak their mother tongue
  - Not everyone can write and read

# Why Speech AI?

Speech is the most natural way to  
communicate

# Why Speech AI?

Speech is the most natural way to communicate

Spoken  
language  
(speech)

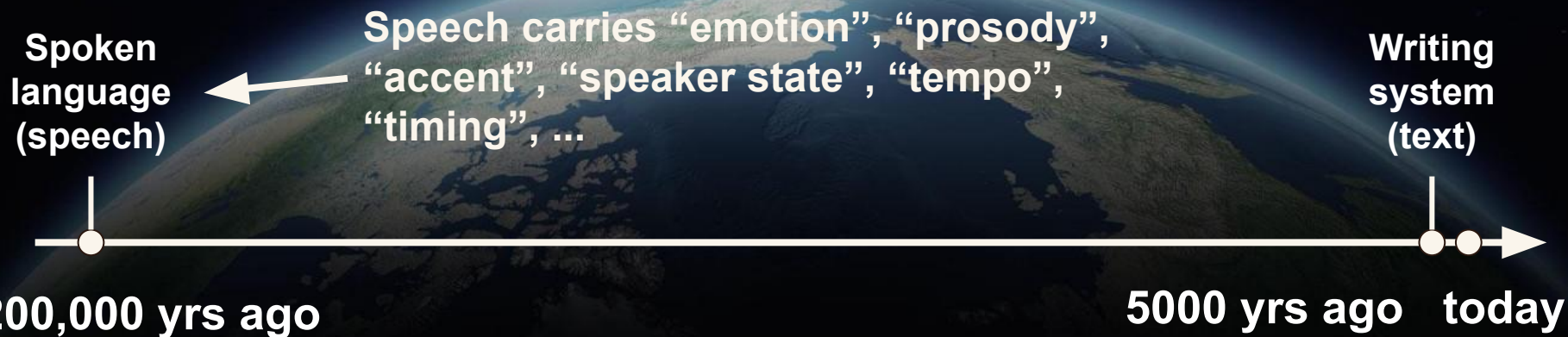
Writing  
system  
(text)

200,000 yrs ago

5000 yrs ago today

# Why Speech AI?

Speech is the most natural way to communicate



# Why Speech AI?

Speech is the most natural way to communicate


“Speech is the soul of AI”

Spoken  
language  
(speech)

Writing  
system  
(text)

200,000 yrs ago

5000 yrs ago today

A view of Earth from space, showing the curvature of the planet and the atmosphere. The text "Thanks for your listening" is overlaid in white, bold, sans-serif font.

**Thanks for your listening**