

Enhancing Language Education with AI Tools: Opportunities, Challenges and Future Direction



Penn State University
Na-Young Ryu

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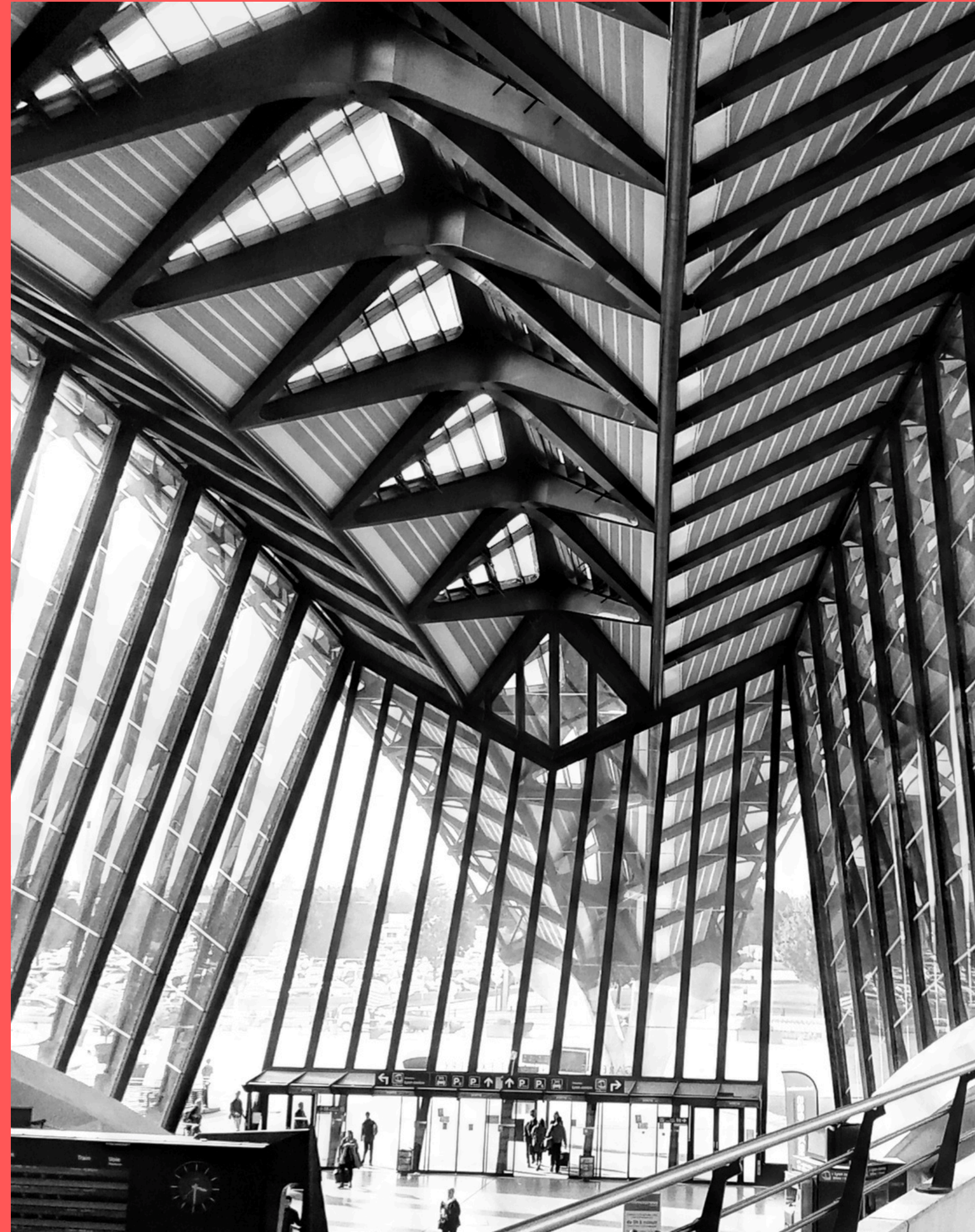
Part 1: The AI Paradox in Language Education

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SURVEY AND ICEBREAK QUESTIONS

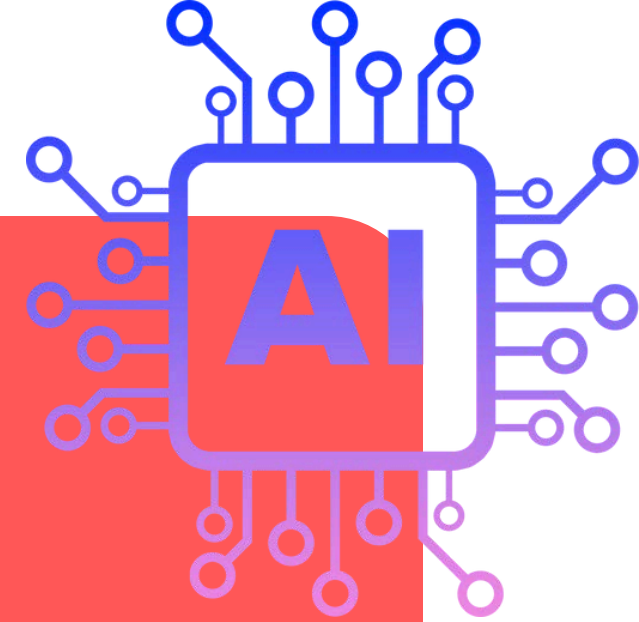


Q1. Have you used AI-powered tools? (Virtual assistants, language translation apps, chatbots etc)

Q2. If you could have a personal AI assistant, what would you name it and what tasks would you ask it to perform?

Q3. How do you think AI has improved your daily life?

Q4. How do you think AI will impact your future studies or career?



PART1

The AI Paradox in Language Education

- Benefits and Challenges of AI Tools in Language Education

Benefits of AI tools in Language education



Personalized Learning

AI can tailor lessons to each student's proficiency level and learning pace, providing customized content and exercises.



Instant Feedback

AI tools can instantly correct grammar, vocabulary, and pronunciation errors, allowing students to adjust their learning in real-time.



Accessibility

AI-powered tools are available anytime and anywhere, providing flexible learning opportunities that fit into students' schedules.



Enhanced Interaction

AI chatbots and virtual tutors offer realistic conversation practice, helping students improve their speaking and listening skills.



Extensive Resources

AI tools like ChatGPT, Gemini, Meta AI, have access to extensive linguistic databases, providing a wealth of information and examples for learners.

Challenges of AI tools in language education

1

Data Privacy and Security

AI tools often require access to personal data, raising concerns about how this data is stored, used, and protected.

2

Accuracy and Reliability

AI-generated content can sometimes be incorrect or misleading, which can confuse learners.

3

Over-Reliance on Technology

AI tools reduce human interaction and inhibit critical thinking skills.

4

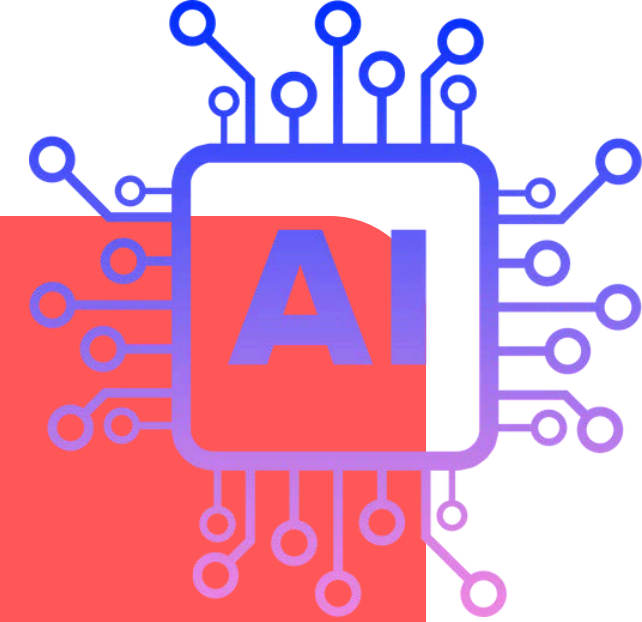
Technical and Accessibility Issues

Not all students have equal access to the necessary technology and internet connectivity to utilize AI tools effectively. AI tools can suffer from bugs, downtime, and other technical issues that disrupt learning.

5

Lack of Emotional Intelligence

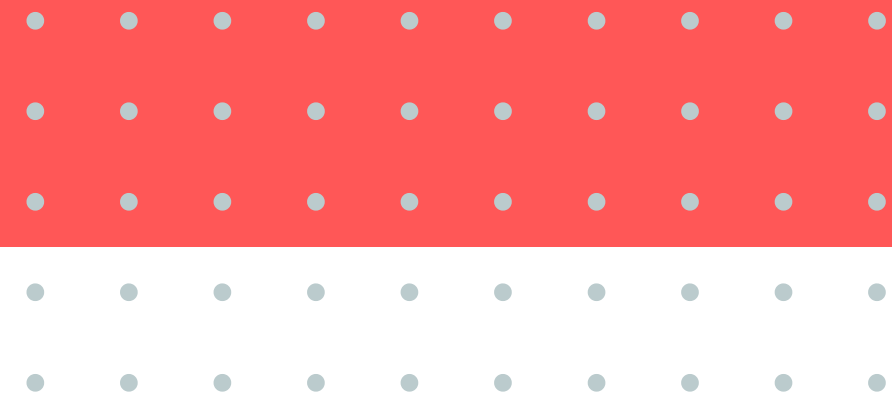
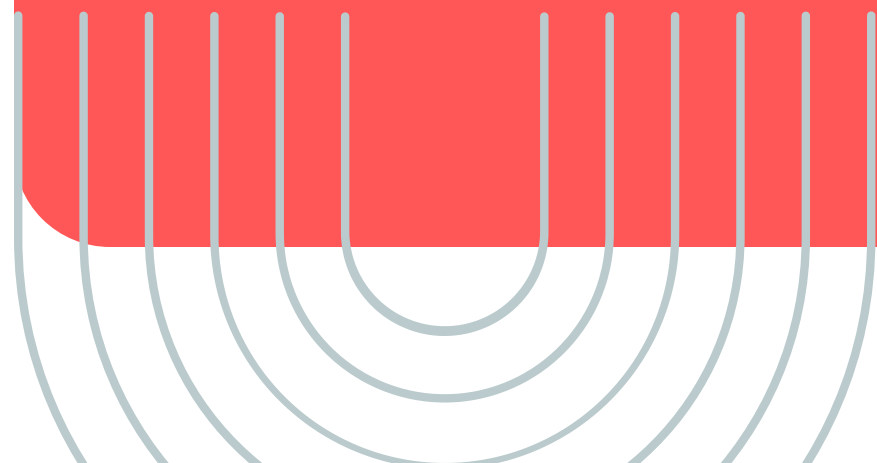
Unlike human teachers, AI lacks emotional intelligence and cannot provide the same level of encouragement, empathy, and personalized support.



PART 2

Unveiling Your AI Language Learning Toolkit

- Toolbox Spotlight: ChatGPT, Gemini, Meta AI
- Hands-on Activities: Putting AI Tools into Practice



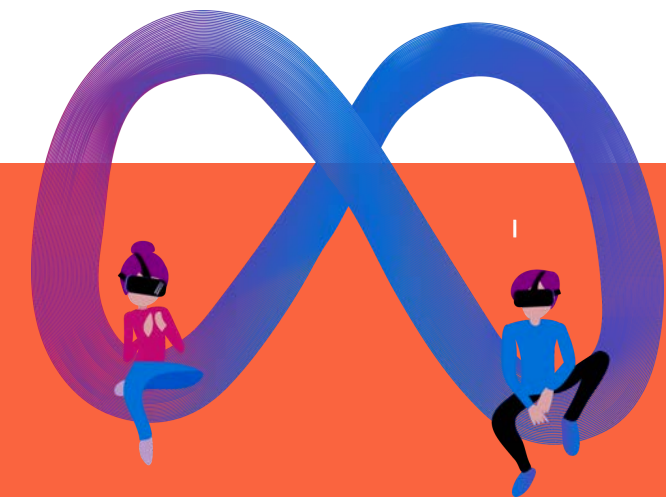
AI Language Toolkit



ChatGPT
(Open AI)



Gemini
(Google AI)



Meta AI
(Meta)

n t e
n p a e
1 y
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e m
p i a
h
o o o n r i
d i c t
u a

Strengths of ChatGPT



Conversational Ability:
ChatGPT excels in generating human-like responses, making it suitable for interactive conversations and dialogue-based learning



Extensive Knowledge Base: It has been trained on a vast amount of text data, enabling it to provide information on a wide range of topics.



Adaptability: Can be fine-tuned for specific applications or contexts, enhancing its relevance in different educational scenarios.

Limitations of ChatGPT



Factual Accuracy:
Sometimes provides incorrect or nonsensical answers, as it generates responses based on patterns in data rather than verified facts.



Lack of Deep Understanding: While it can mimic understanding, it doesn't possess true comprehension or awareness.



Contextual Errors: May struggle with maintaining context over long conversations or understanding complex language nuances.

Strengths of Gemini

Gemini is part of Google's AI initiatives, incorporating advanced natural language processing (NLP) capabilities. It integrates seamlessly with Google's suite of tools and services.



Integration with Google Ecosystem: Easily integrates with other Google services like Google Search, Translate, and Workspace, providing a comprehensive learning environment.



Advanced NLP Capabilities: Uses state-of-the-art NLP techniques to understand and generate text, supporting a wide array of languages.



Multilingual Support: Robust support for multiple languages, aiding in the creation of multilingual educational content.

Limitations of Gemini



Privacy Concerns:
Given Google's extensive data collection practices, there are ongoing concerns about user privacy and data handling



- **Data Handling Practices:** Potential issues with how user data is stored and used, which can be a concern for educational institutions.

Strengths of Meta AI

Meta AI, developed by Meta (formerly Facebook), focuses on creating AI technologies that enhance social interactions and engagement, often through integration with Meta's social media platforms.



Social Media Integration: Can be integrated with social media platforms, facilitating real-time engagement and immersive learning experiences.



Real-Time Interaction: Capable of providing real-time feedback and interaction, useful for dynamic learning environments.



Immersive Experiences: Supports virtual and augmented reality applications, offering innovative ways to engage learners.

Limitations of Meta AI



Data Privacy Issues:
Similar to Google, Meta has faced scrutiny over data privacy and how user information is used and shared.



Potential for Misuse:
The integration with social media can lead to distractions and potential misuse in non-educational contexts.

Hands-on Activity: ChatGPT, Gemini, Meta AI



1. Generating Language Learning Materials:

- **Examples:** Create quizzes and flashcards for topics such as eating, travel, shopping, and visiting the hospital in your second language.
- **Instructions:** Ask ChatGPT, Gemini, and Meta AI to generate questions and answers or vocabulary lists related to these topics.

2. Asking Questions About Grammar Rules and Usage:

- **Examples:** Ask ChatGPT, Gemini and Meta AI to explain the differences and proper usage of Korean grammar concepts, such as:
 - (1) 어서/아서 vs. 때문에
 - (2) 바람에 vs. 느라고
- **Instructions:** Formulate specific questions about these grammar points and analyze the responses provided by ChatGPT, Gemini and Meta AI.



Flashcard 1

- Front: Appetizer
- Back: A small dish served before the main meal.



Flashcard 2

- Front: Dessert
- Back: A sweet course eaten at the end of a meal.



Flashcard 3

- Front: Recipe
- Back: A set of instructions for preparing a particular dish.

바람에 vs. 느라고 (Gemini)

Both "바람에" and "~느라고" are used to express a negative result caused by something, but they have some key differences:

1. Subject:

- **느라고:** The subject of the clause with "~느라고" must be the same as the subject of **the following clause with the negative result.**
- **바람에:** **The subjects of the two clauses can be different.**

Examples:

- 느라고 (Same Subject):
 - **공부 너무 열심히 하느라고 늦게 잤어요.** (Because I studied too hard, I slept late.) (Both clauses talk about "I")
- 바람에 (Different Subject):
 - **비가 너무 많이 오는 바람에 운동회가 연기되었습니다.** (Because it rained too much, the sports day was postponed.) (The rain caused the postponement, different subjects)

2. Emphasis:

- **느라고**: Focuses on the action itself being the cause of the negative result.
- **바람에**: Focuses on the unintended consequence of the situation.

Examples:

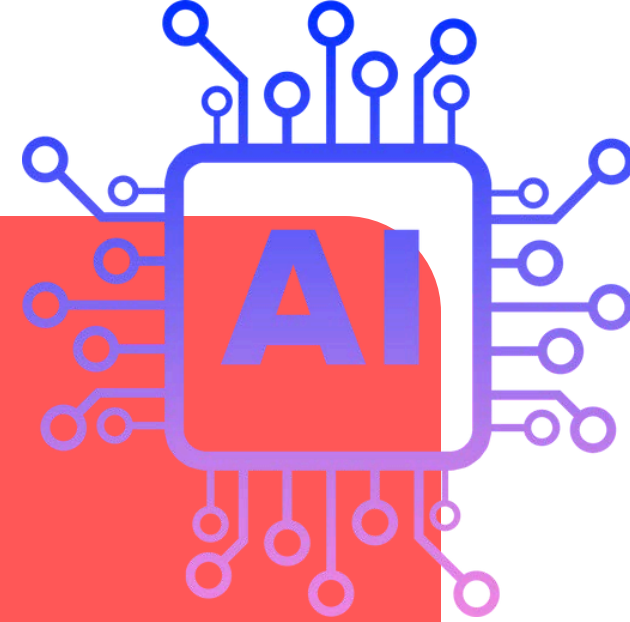
- **느라고 (Action as Cause):**
 - 게임 너무 재미있게 하느라고 시간 가는 줄 몰랐어요.
- **바람에 (Unintended Consequence):**
 - 길을 잘못 가는 바람에 집에 너무 늦게 왔어요. (Going the wrong way wasn't the intention, but it led to being late)

3. Nuance:

- **느라고**: Conveys a sense of regret or disappointment about the negative result.
- **바람에**: More neutral in tone, simply stating the cause-and-effect relationship.

Examples:

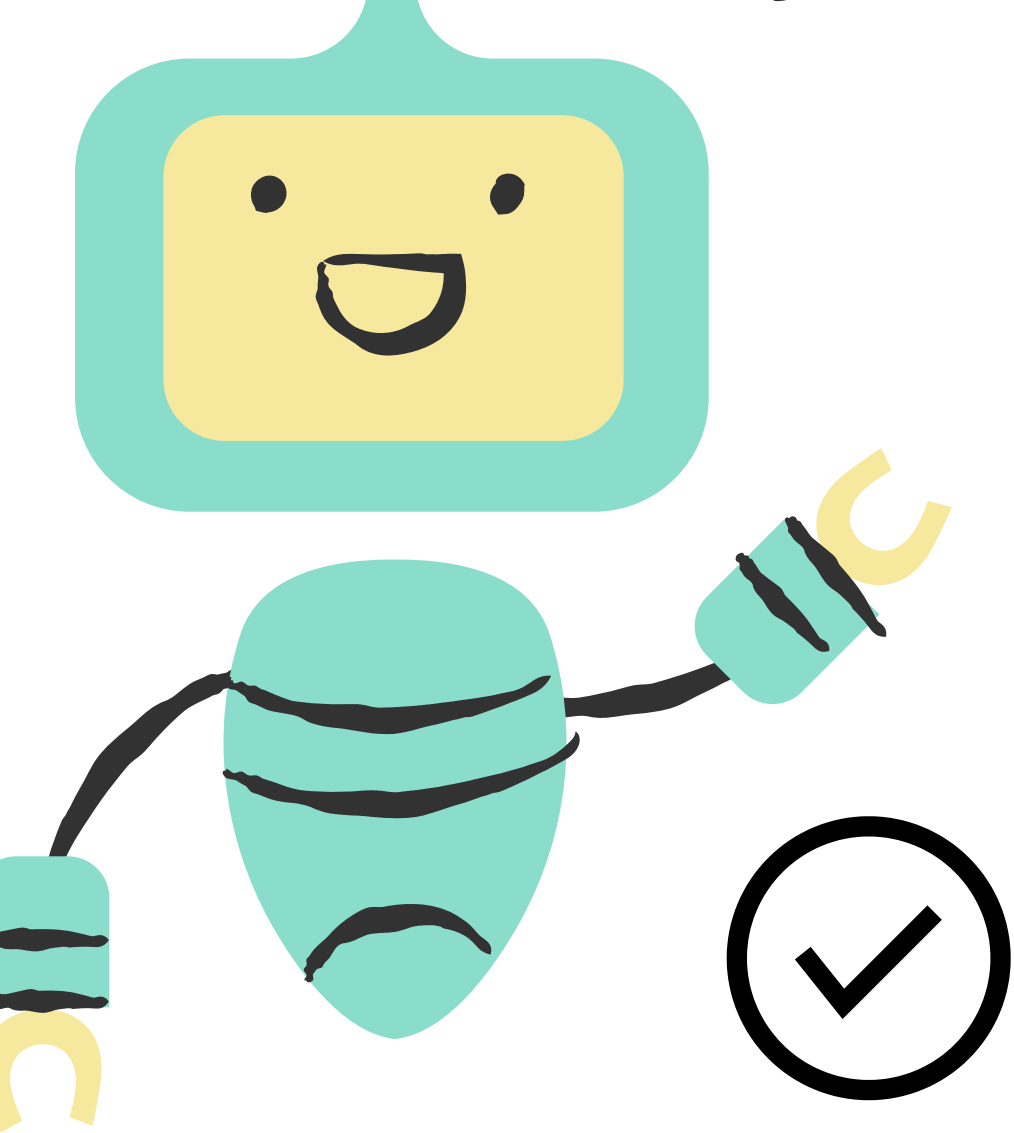
- **느라고 (Regret):**
 - 친구와 너무 오래 이야기 하느라고 숙제를 못 했어요. (Implies regret for talking too long)
- **바람에 (Neutral):**
 - 지하철이 지연되는 바람에 회의에 늦었습니다. (Simply states the fact of being late)



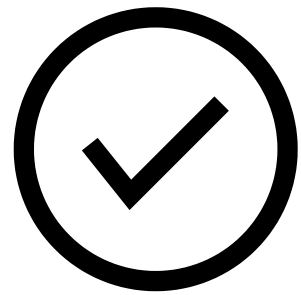
PART 3

The Emergence of AI Chatbots: Your Language Partner

- Characteristics of AI Chatbots
- Enhancing Speaking Skills with AI Chatbots: Benefits and Best Practices
- Limitations and Examples: Understanding the Boundaries of AI Chatbots

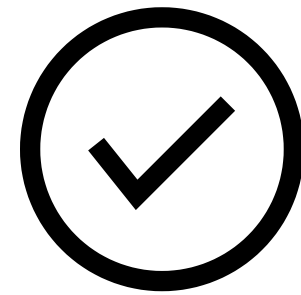


Characteristics of Chatbots



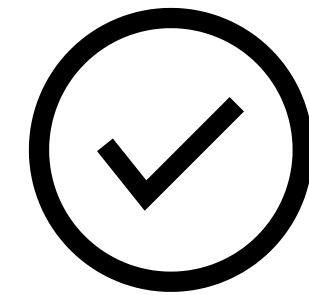
Conversational Ability

Chatbots are designed to engage in natural language conversations with users, responding to their queries and inputs in a human-like manner.



Speech Recognition and Synthesis

Many AI chatbots are equipped with speech recognition technology, allowing them to understand spoken language.

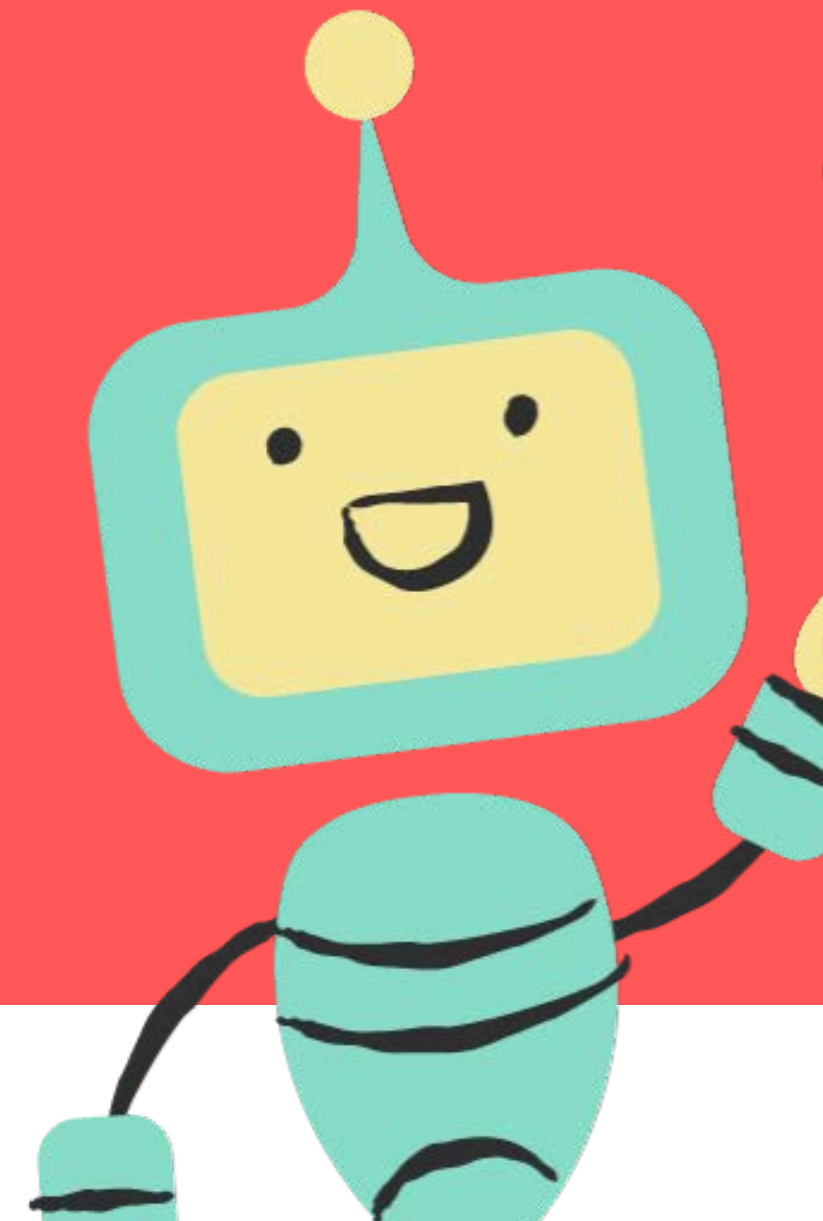


Real-Time Feedback

AI chatbots can provide users with immediate feedback on their responses, helping them track their progress and learn more efficiently..

Challenges of AI chatbots in language learning

- **Limited Understanding of Context:** AI chatbots may struggle to understand the full context of a conversation, leading to responses that are irrelevant or inappropriate.
- **Factual Accuracy and Reliability:** Chatbots might occasionally provide incorrect or outdated information.
- **Limited Conversational Depth:** Many AI chatbots can handle only simple, straightforward interactions and might struggle with more complex or abstract topics.

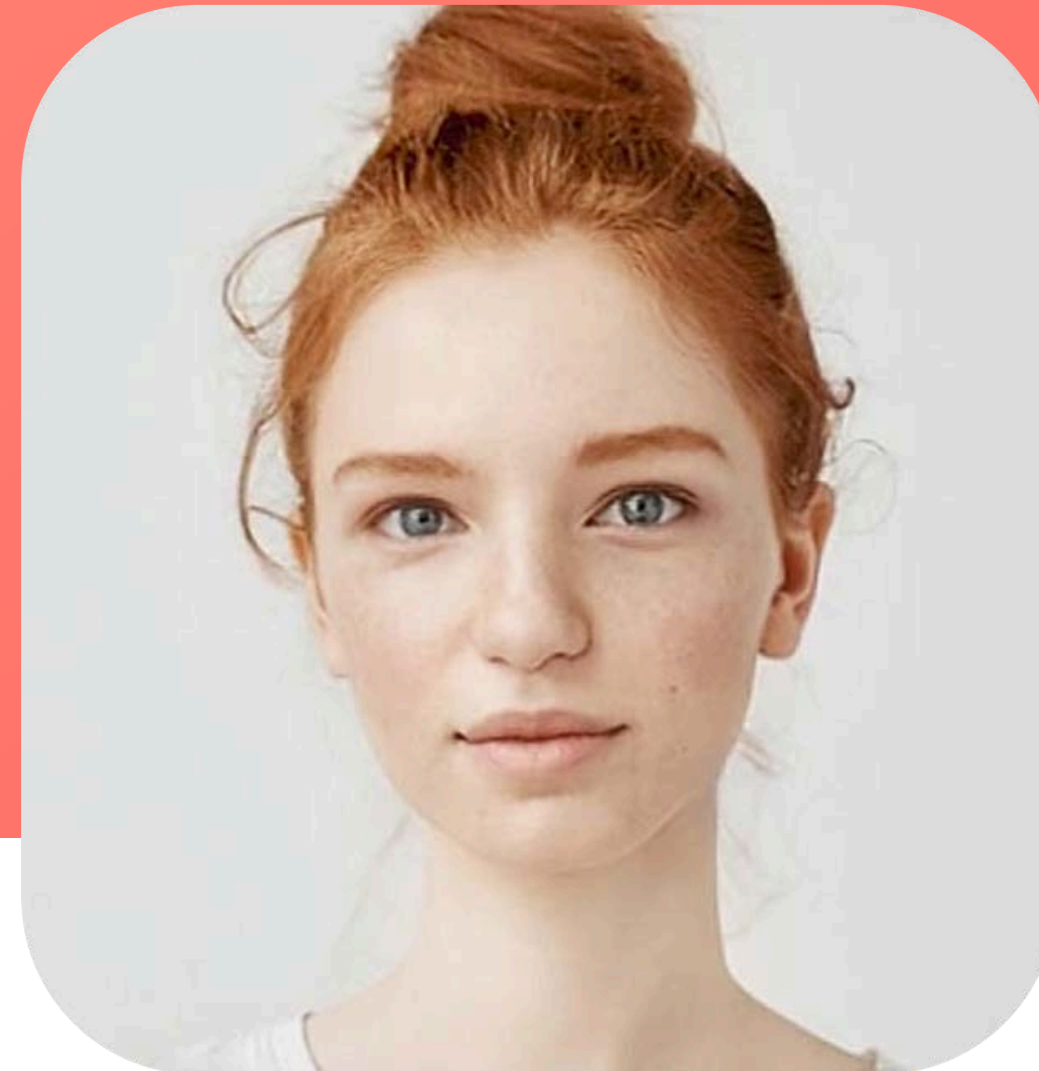


AI CHABOTS FOR FOREIGN LANGUAGE LEARNING



King Sejoing Institute AI teacher

Choose a conversation topic and practice various Korean conversations based on different situations



chat.d-id.com

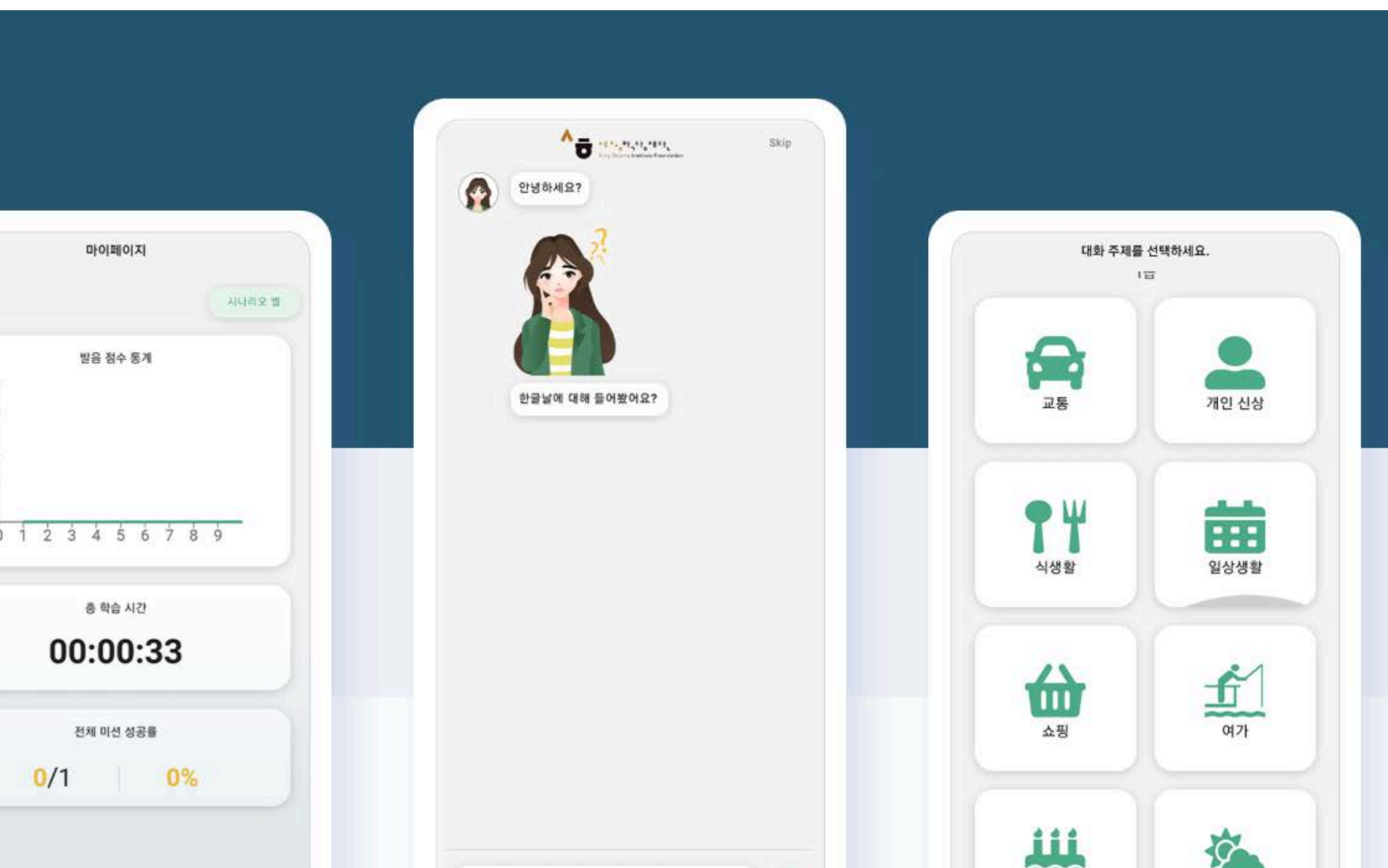
Face-to Face conversational AI chatbot
Choose your avatar and voice
Powered by ChatGPT



www.langotalk.org

Support 19+ different languages
Speak just like you would with a friend or a teacher
Powered by GPT-4

Example: Using the Sejoing AI tutor chatbot for Korean speaking practice



Example: Using the Langotalk chatbot for Korean speaking practice

Starter Chats

Free tier: 5 messages left

[Upgrade](#)



Langa

Learn about Langotalk

[Start Here](#)

Introduction



Sophie

Just a friendly chat

Friend



Noah

Get travel tips

Travel Guide



Emily

Ready for our date?

Date

Categories



Your Chats
5 Chats



Friendly
8 Chats



Beginner Friendly
5 Chats



Roleplay
8 Chats



Professional
4 Chats



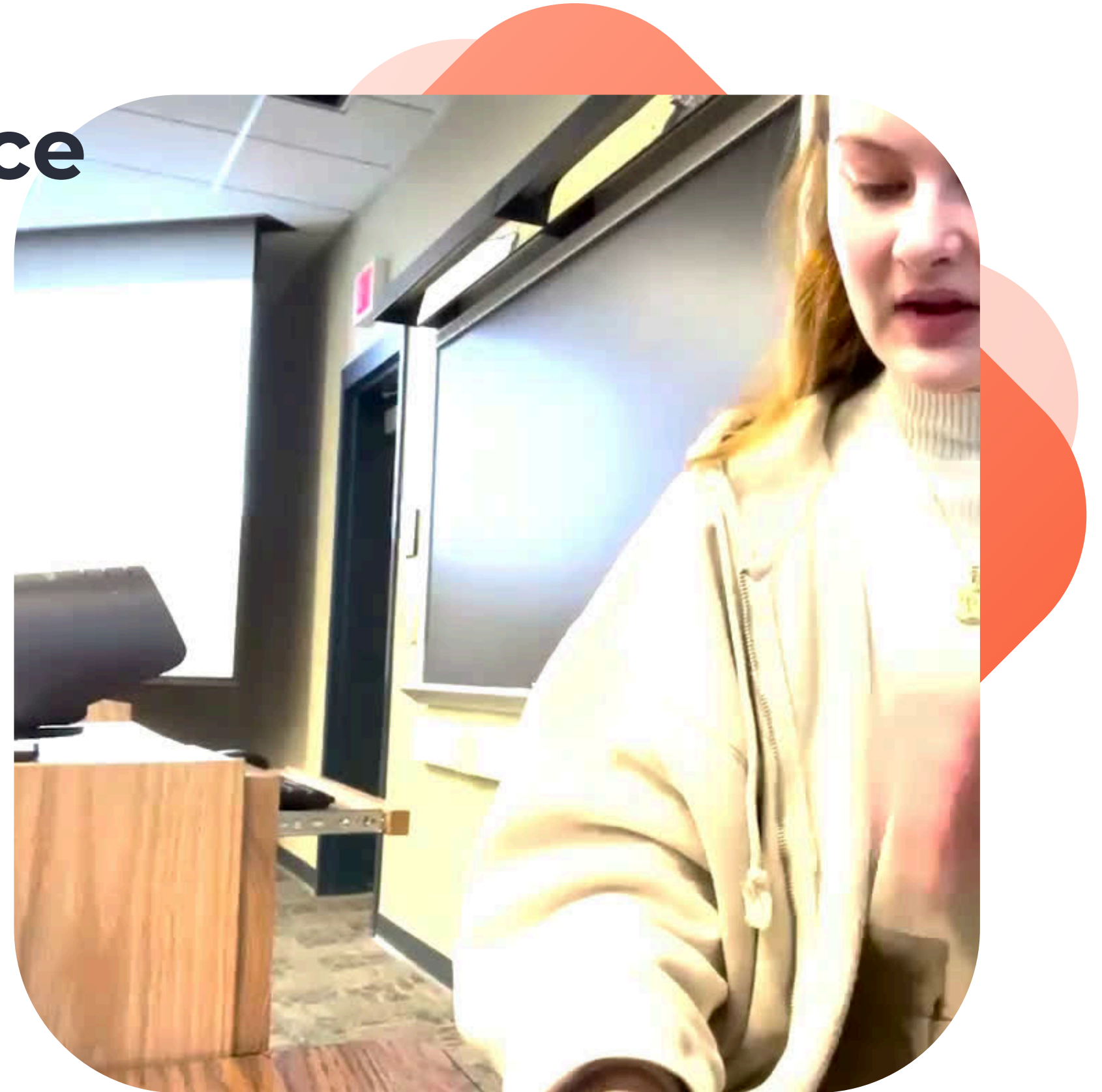
Fun
5 Chats

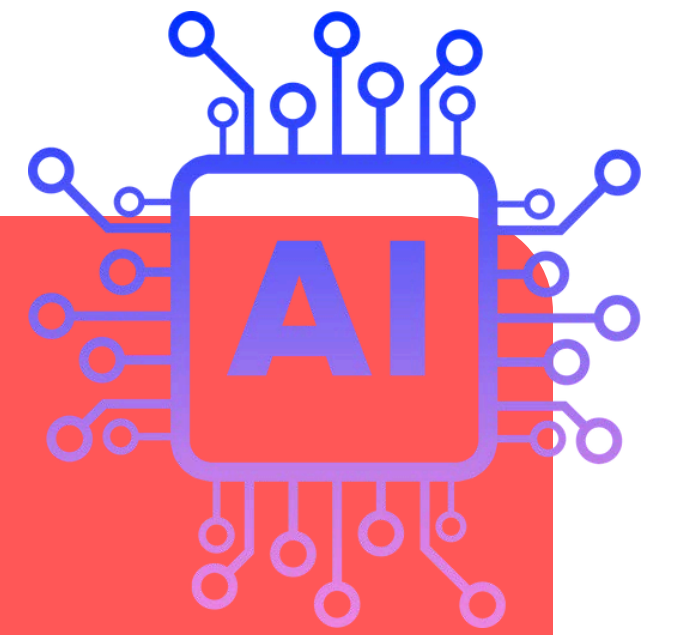


Practice Tools



Created





PART4.

Mastering Pronunciation with Text-to-Speech

- The Power of Text-to-Speech: Overview and Importance
- Research Insights: Perception of AI-Generated Korean Sounds (Native vs. Non-Native)

TEXT-TO-SPEECH TECHNOLOGY

Text-to-speech (TTS) technology converts written text into natural-sounding spoken language. It enables people to access information and communicate more easily, and has applications in areas like assistive technology, audiobooks, and virtual assistants.



Benefits of TTS technology in language learning

Improved Pronunciation:

By hearing native speakers or near-native speakers pronounce words and phrases, learners can improve their own pronunciation and fluency. TTS can be especially helpful for practicing challenging sounds or unfamiliar words.

Enhanced Listening Comprehension

Repeated exposure to spoken language through TTS helps learners get accustomed to the natural flow and rhythm of a language. This can improve their listening comprehension skills and make it easier to understand native speakers in conversations.

Increased Practice Opportunities

Learners can use TTS to practice speaking exercises or read along with audiobooks or other spoken materials. This provides additional opportunities to practice pronunciation, fluency, and comprehension.

RECOMMENDED AI VOICE GENERATORS FOR LANGUAGE LEARNING

11-LABS

www.elevenlab.io

offers realistic and captivating speech in 29 languages

LOVO

www.lovo.ai

offers hyper realistic AI voices
500+ voices in 100 languages

MURF

www.murf.ai

offers over 100 AI voices in 20 languages
modifies tone, pitch and speed
Add pause
Adjust the emphasis

POPULAR AI VOICE GENERATORS

GOOGLE TEXT-TO SPEECH

provides natural sounding voices in multiple languages

AMAZON POLLY

offers lifelike voices and supports multiple languages

IBM WATSON TEXT TO SPEECH

offers natural-sounding audiotapes and supports multiple languages

Find Your Perfect Voice

120+ voices, 20+ languages

Search by voice name

Apply voice to entire project

English - US & Can...

Male Female Non-Binary

All age groups

Hide Pro Voices

[Reset Filters](#)

Choose a voice style

Promo Conversational

Calm Narration




































Storytelling [+ more](#)

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E-Learning & Presentations

Podcasts/ Audio Blogs

Advertisements [+ more](#)

 Natalie (F) Young Adult PRO	 Terrell (M) Middle-Aged PRO	 Clint (M) Middle-Aged PRO	 Carter (M) Middle-Aged PRO	 Miles (M) Young Adult	 Delliah (F) Young Adult PRO NEW	 Jayden (M) Middle-Aged PRO NEW
 Amara (F) Young Adult PRO NEW	 Charles (M) Middle-Aged PRO	 Molly (F) Young Adult PRO NEW	 Julia (F) Young Adult PRO	 Caleb (M) Middle-Aged PRO NEW	 Alicia (F) Young Adult PRO	 Josie (F) Middle-Aged PRO NEW
 Finn (M) Middle-Aged PRO	 Brianna (F) Young Adult PRO	 Ronnie (M) Young Adult PRO	 Marcus (M) Young Adult PRO	 Daniel (M) Young Adult PRO	 June (F) Middle-Aged PRO NEW	 Clara (F) Middle-Aged PRO NEW
 Samantha (F) Young Adult PRO	 River (NB) Young Adult PRO NEW	 Wayne (M) Middle-Aged PRO	 Daisy (F) Young Adult PRO	 Ken (M) Middle-Aged PRO	 Michelle (F) Young Adult PRO	 Dylan (M) Middle-Aged PRO
 Evander (M) Middle-Aged PRO NEW	 Cooper (M) Young Adult PRO	 Naomi (F) Middle-Aged	 Claire (F) Middle-Aged	 Iris (F) Young Adult	 Lucas (M) Middle-Aged	 Julie (F) Middle-Aged

EXAMPLE (11 LAB)

Speech Synthesis

Unleash the power of our cutting-edge technology to generate realistic, captivating speech in a wide range of languages.

Settings

Bella + Add voice

Voice Settings

Eleven Multilingual v2

Text

I prioritize fostering an enthusiastic learning environment in my classroom. It's not just about fulfilling my role as an educator; it's about my deep passion for the subject matter. I firmly believe that if I'm genuinely excited about what I'm teaching, it will naturally transfer to my students. So, to create this excitement, I incorporate multimedia resources such as K-pop, K-drama, and movies that connect the subject matter to real-life experiences. I also provide interactive and collaborative pair and group activities, such as role-plays, problem-solving tasks, and peer correction, to make Korean language learning more enjoyable and engaging.

654 / 2500 Total quota remaining: 2313

Generate



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654 / 2500 Total quota remaining: 2313

Generate



Bella, 10.17.23, 16:58



8:00 / 9:45



EXPERIMENT

USERS' PERCEPTION OF AI-GENERATED VOICE

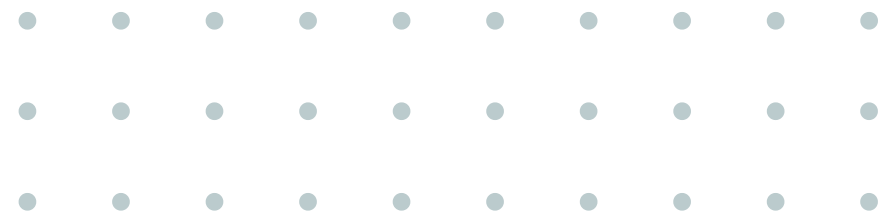
Participants: 19 native Koreans in their 20s participated in the speech perception task.

Procedure: They were asked to listen to 40 sentences in Korean in random order and determine whether the sound is (1) Korean native sound, (2) machine sound, or (3) the sound of a foreigner



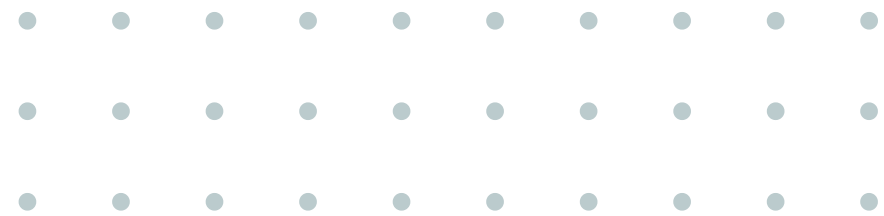
USERS' ASSESSMENTS OF AI VOICE QUALITY

Voice 1 (Female)



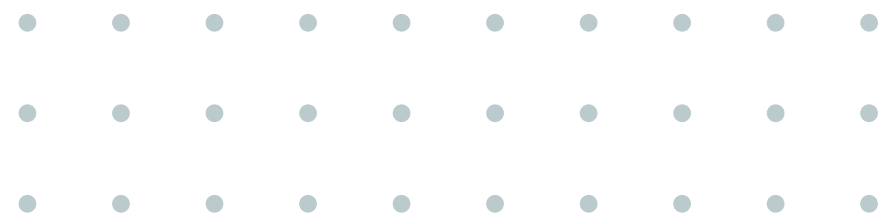
USERS' ASSESSMENTS OF AI VOICE QUALITY

Voice 2 (Female)



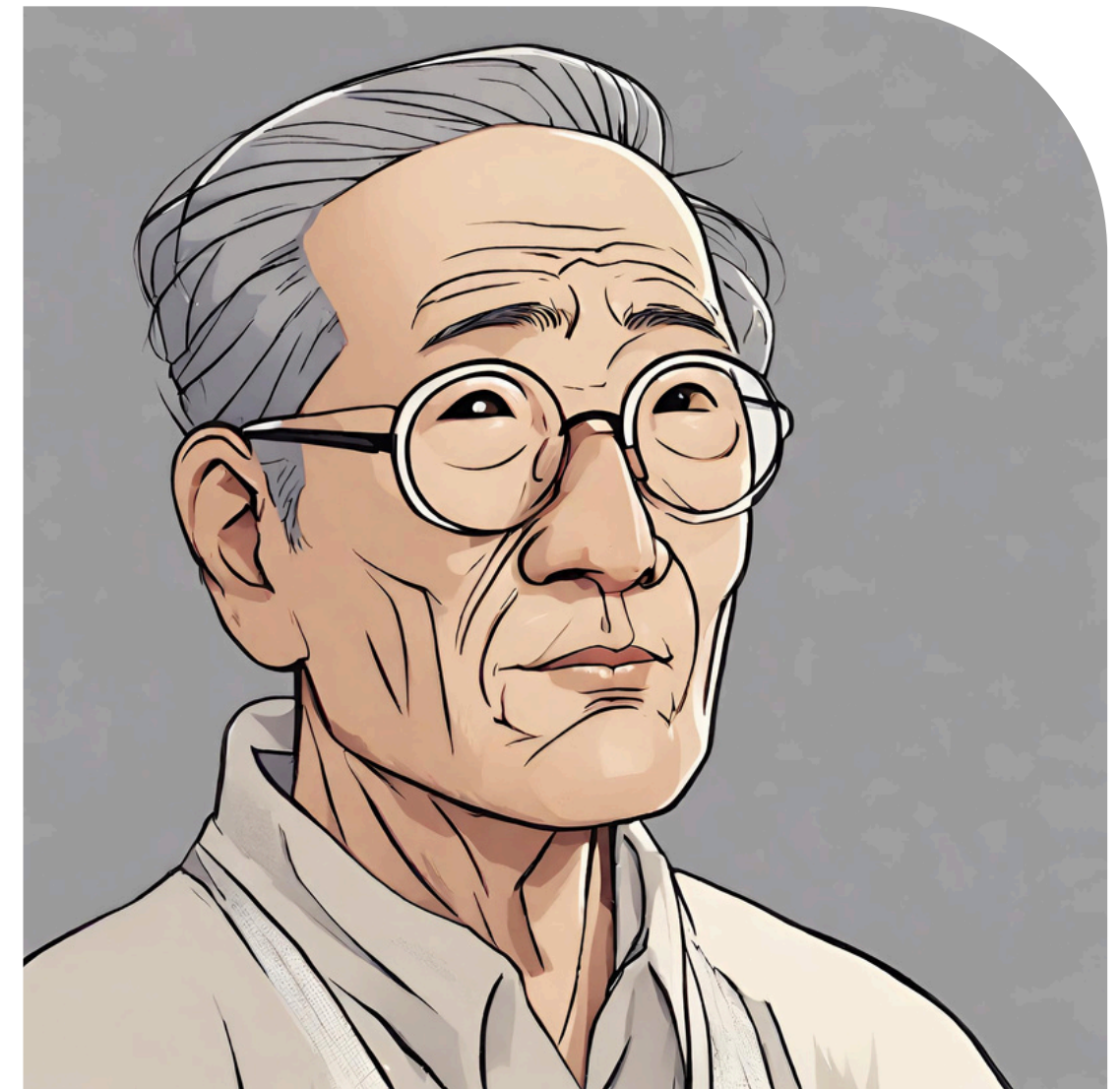
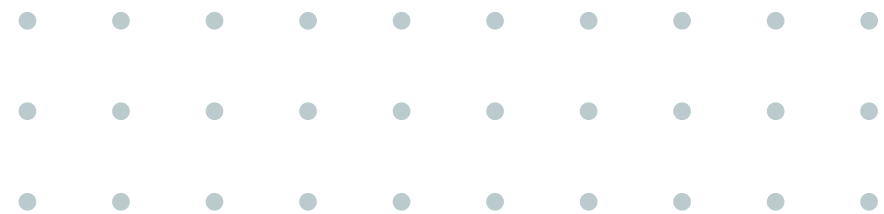
USERS' ASSESSMENTS OF AI VOICE QUALITY

Voice 1 (male)



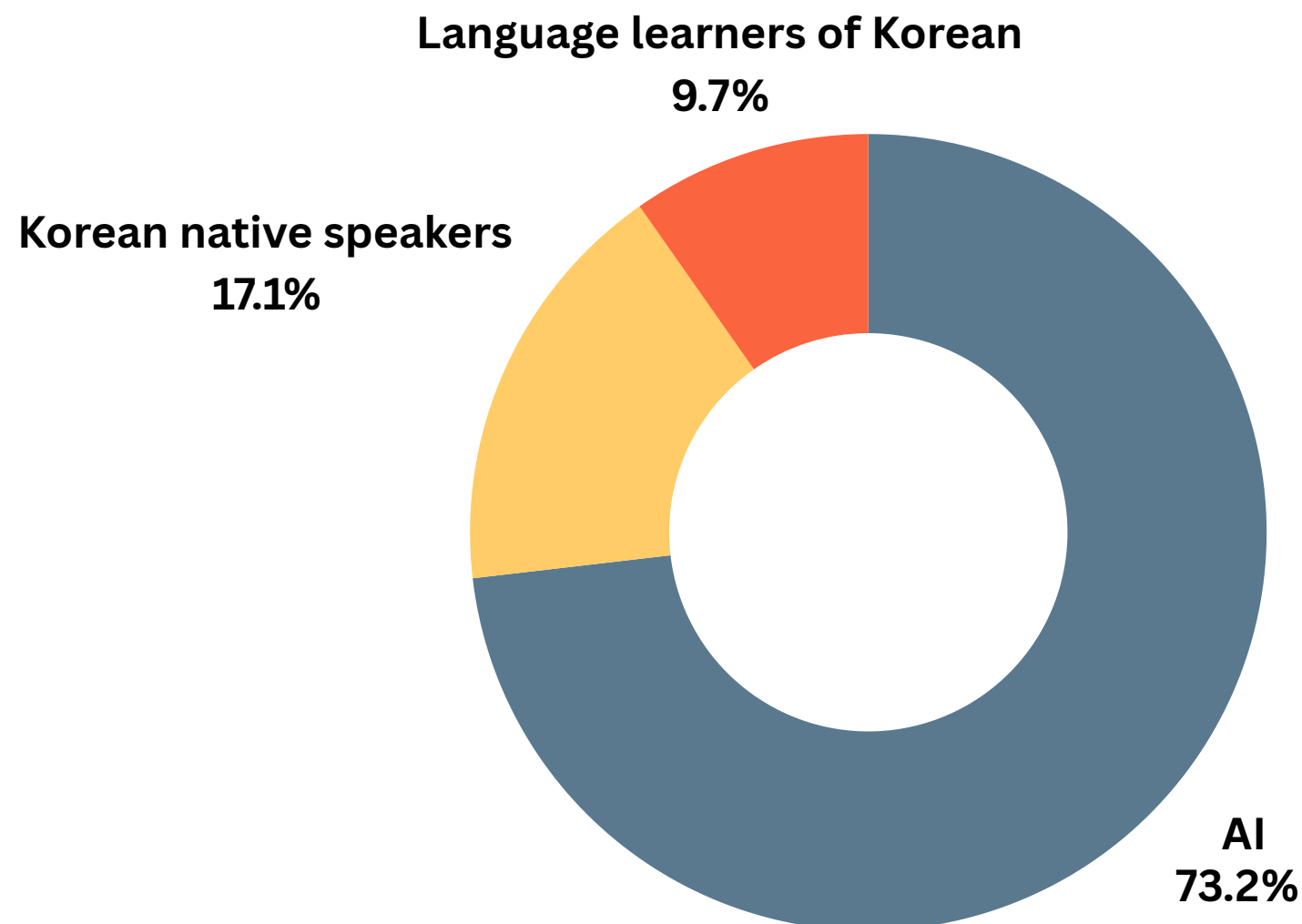
USERS' ASSESSMENTS OF AI VOICE QUALITY

Voice 2 (Female)



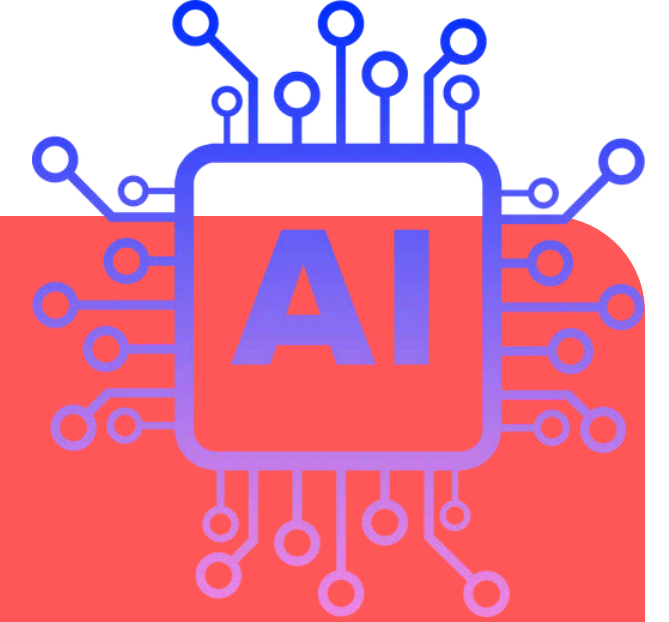
Results

How do participants recognize an AI-generated voice when they listen to it?



Finding 1: Around 17.1 % of participants chose Korean NS when listening to AI voice.

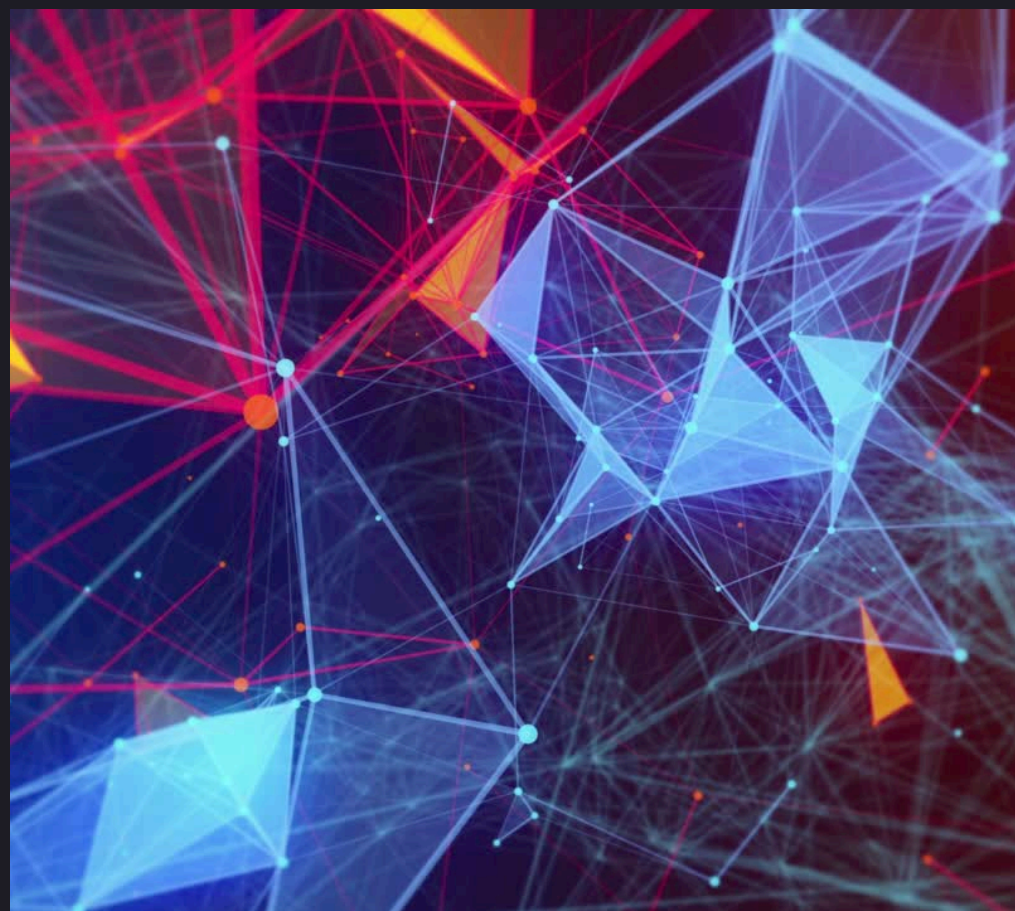
Finding 2: Female AI voices are more likely to be heard as Korean NSs than Male AI voices.



PART 5

Navigating the Future of Language Learning with AI

- Transformative Potential: How AI Will Revolutionize Language Education
- Preparing for the Future: Embracing the Opportunities and Challenges of AI



How AI will revolutionize language education?

Personalized Learning Paths:

- **AI-powered assessments:** AI can analyze a learner's strengths, weaknesses, and learning style to create a personalized curriculum. This ensures they focus on the areas that need the most improvement and learn at their own pace.
- **Adaptive learning:** AI algorithms can adjust the difficulty and content of learning materials based on the learner's progress. This keeps them challenged and motivated.

Immersive Learning Experiences:

- **Virtual Reality (VR) and Augmented Reality (AR):** Imagine practicing conversations in a virtual cafe in France or ordering food in a bustling Japanese market. VR and AR powered by AI can create immersive environments for language practice, making learning more engaging and interactive.
- **Chatbots and Virtual Tutors:** AI-powered chatbots can simulate real-life conversations, allowing learners to practice speaking and listening skills in a safe and controlled environment. Virtual tutors can provide personalized feedback and guidance on pronunciation, grammar, and vocabulary.

Enhanced Feedback and Support:

- **Real-time feedback:** AI can analyze spoken or written language and provide immediate feedback on pronunciation, grammar, and vocabulary usage. This allows learners to identify mistakes and correct them in real-time, accelerating their progress.
- **Automated grading and error correction:** AI can automate tedious tasks like grading written work and identifying common errors. This frees up teachers' time to focus on more personalized instruction and interaction with students.

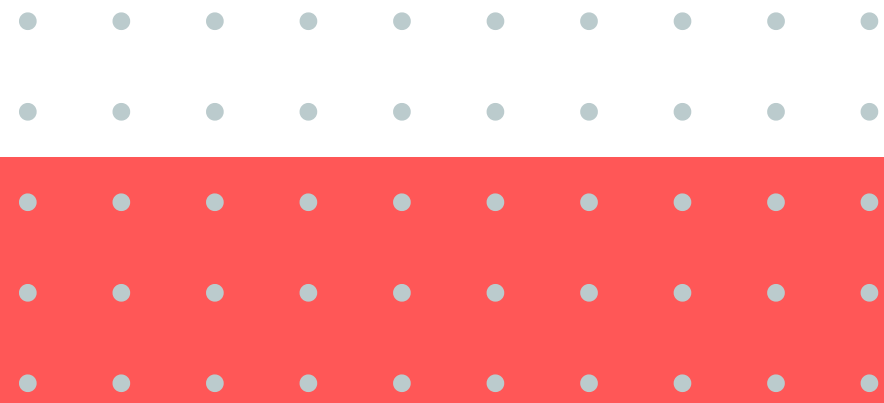
OPPORTUNITIES & CHALLENGES

Opportunities:

- **Enhanced problem-solving:** AI can tackle complex problems that are beyond human capabilities. This can lead to advancements in healthcare, education, and scientific research.
- **Increased efficiency and productivity:** AI can automate repetitive tasks, freeing up human time and resources for more creative and strategic endeavors.
- **Improved decision-making:** AI can analyze vast amounts of data to identify patterns and trends that humans might miss, leading to better-informed decisions.
- **Personalized experiences:** AI can tailor experiences to individual needs and preferences, as seen in language learning.

Challenges:

- **Job displacement:** Some jobs will likely be automated by AI, leading to unemployment and the need for workforce retraining.
- **Ethical considerations:** Issues like bias in AI algorithms, data privacy, and the potential misuse of AI for malicious purposes need to be addressed.
- **The "black box" problem:** Understanding how complex AI systems reach their conclusions can be challenging, making it difficult to ensure fairness and transparency.



THANK YOU

Have any question?

nmr5569@psu.edu
Na-Young Ryu