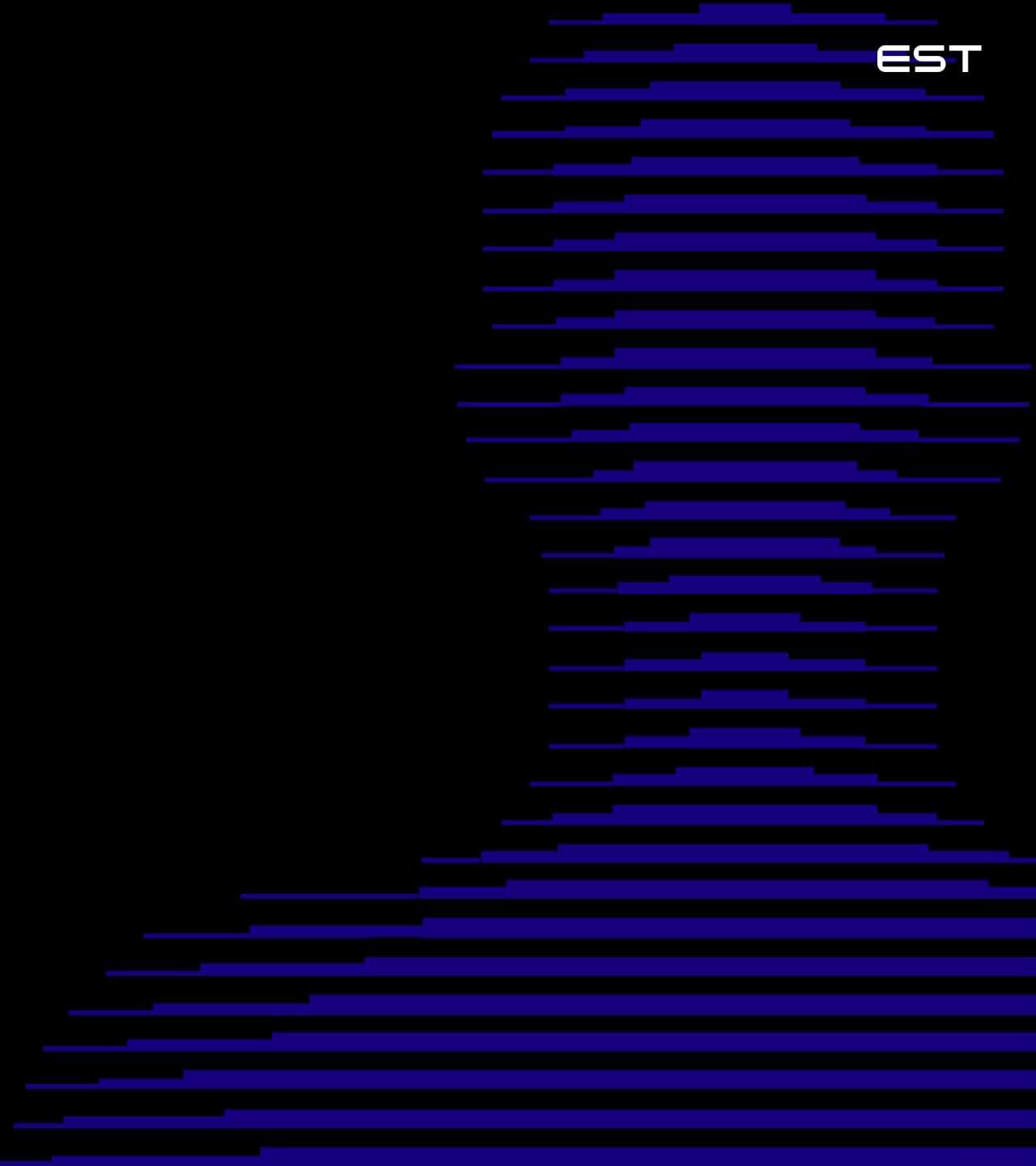


EST AI



1. COMPANY

OVERVIEW	3
BUSINESS AREA	4
AI TECH Competitiveness	6

2. AI TECHNOLOGY

EST AI HUMAN (AI CLONE, AI PERSONA)	9
AI STUDIO PERSO	25
AI PERSO LIVE	33

3. AI BUSINESS USECASE

AI BUSINESS	49
PARTNERSHIP	62

4. WHY ESTSOFT

EST'S UNIQUE FEATURES	64
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5. MEDIA

MEDIA / NEWS	76
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01

COMPANY

OVERVIEW

KEY BUSINESS

AI TECHNOLOGY

OVERVIEW

31 Years

Career

631 Staffs

No. of Employees

156 Times

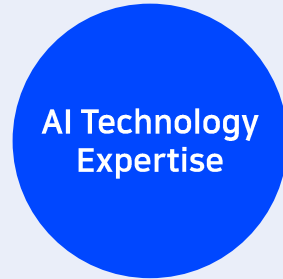
Awards / Licenses /
Nominations

30million+ Users

SW Users

**Annually removed
over 200million Malware**

Global Level Cyber Security Technology



Professionals dedicated to AI research and dataset setting up, etc.



The best security competencies encompassing data protection, endpoint security, deep learning security based on AI technology



Successfully provided SW service for 30 million users such as ALTools, TeamUp, ROUNZ, etc.

Company	ESTsoft Corp.
CEO	Sangwon Jeong
Foundation Date	October 2, 1993
Listing Date	July 1, 2008 (Listed on KOSDAQ)
HQ Location	Banpo-daero 3, Seocho-gu, Seoul, Korea
Homepage	estsoft.ai

BUSINESS AREA – 3billion users secured in Korea

AI



AI HUMAN

AI Clone: Replication of a real person's appearance, voice, and own identity
 AI Persona: Creation of a completely new persona that fits the purpose and concept
 AI STUDIO PERSONO: Video production studio where AI speaks only with text/audio input



ROUNZ

Real-time virtual fitting eyewear commerce implemented with EST's own augmented reality (AR) technology

S/W

ALTools

14 million users
 Korea's leading utility software

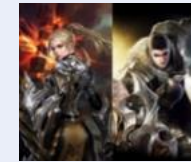


ALYAC

16 million users
 Korea's No.1 security software



Others



CABAL

1st gen PC MMORPG in Korea expanding global market



ZUM

Korea's No.3 comprehensive portal service focused on financial information & platform



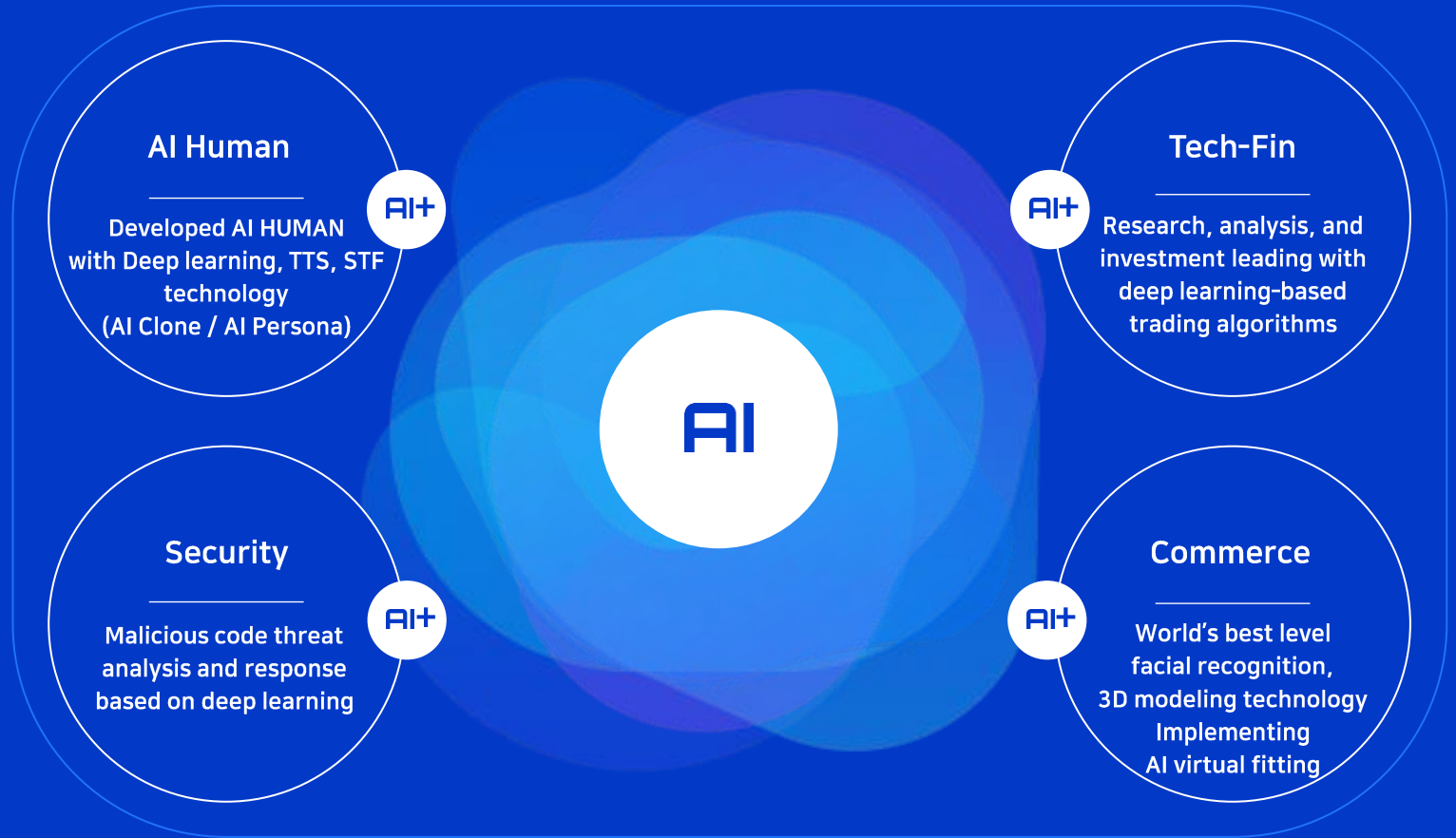
EXPONEN.

Uses deep learning-based investment algorithms, managing 150 billion KRW funds

BUSINESS AREA

AI PLUS +

ESTsoft offers AI solutions in the areas of HUMAN, SECURITY, COMMERCE, and TECH-FIN, all of which are powered by their unique AI research and development competencies through AI technology PLUS+.



ALTOOLS 30,000,000 Users

AI TECH Competitiveness

- **Minister of Science and ICT Award in the 4th '2022 Artificial Intelligence Grand Challenge' competition (3 consecutive years)**

AI technical competence

2020 AI Grand Challenge

1st place

Multi-angle facial recognition and lookup model

1st place

Awareness and inquiry model for accessory wearer)

2020

2021 AI Online Competition

1st place : Preemptive Response and Failure Prediction Model Using Power Quality Prediction

2nd place : Driver Careless Behavior Detection Model for Driver Accident Prevention

2nd place: Numerical analysis field comprehensive

2021

2022 AI Grand Challenge

Hosted by Ministry of Science and ICT

- Ministerial awards at the 4th Challenge
- Awards at 3rd Director of Information and Communication Planning and Evaluation

2022

2023 Korea AI Awards

Hosted by Artificial Intelligence Industry Association
Sponsored by Ministry of Science and ICT

Minister of Science and ICT Award

2023

2020 AI Grand Challenge

Hosted by Ministry of Science and ICT

- 1st place in Visual AI (Faint recognition)
- 1st place in Visual AI II (Recycle recognition)
- 2nd place in Awareness cognitive areas
- 2nd place in Auditory AI (Violent voice)
- 2nd place in Complex AI (AI model optimal compression)

2021 AI Grand Challenge

Hosted by Ministry of Science and ICT

- 1st place in Complex AI (AI model optimal compression)
- 2nd place in Visual AI (Faint recognition)
- 2nd place in Auditory AI (Violent voice)
- 2nd place in Auditory AI (Violent voice)

2022 Government Funded AI Project

Hosted by Information and Communication Industry Promotion Agency

Awarded as Excellent Level

WEB 3D 2022

An International Conference sponsored by the International Computer Society

The best paper award

AI TECH Competitiveness

Awards 80

WEB 3D 2022 The best paper award

2022 AI Grand Challenge Ministerial awards (1st Prize Most awarded record)

2021 AI Grand Challenge Ministerial awards (1st Prize Most awarded record)

2021 '20th K-ICT Information Protection Grand Prize' Minister of Science and ICT Award

2021 2021 AI Online Competition Information and Communication Industry Promotion Agency Award

2020 AI Grand Challenge Ministerial awards & Top 5 in all tracks (4 total)

TeamUp, 2020 Brand of the Year Grand Prize IT Services(Collaboration Tools)

ALYac, 2020 Brand of the Year Selected by Consumers IT Services(Security)

ROUNZ, 2021 Web Award Korea Grand prize in the field of service of shopping

Sangwon Chung, CEO of ESTsoft, 2019 Venture Startup Award Promotion Merit Awards

Industrial Packaging Awards (Ministry of SMEs and Startups)

Deep Eye, 24th Korea Distribution Awards (Minister of Trade) Industry and Energy Award

ESTsecurity, 2019 Information Protection Industry Night Commendation (Minister of Science and ICT)

ALTools Integrated Pack v13.0, The 6th Korea SW Product Quality Awards

Grand prize (Ministry of Science and ICT)

ESTsecurity, 2019 Security Awards Korea' Grand prize in EDR solutions

PATENTS 52

'Apparatus for providing an integrated diagnostic information for control response, a method therefor, and a computer recordable medium storing program to perform the method' (10-2259884, 2021. 5. 27)

'Apparatus for high-speed decompression based on flexible use of memory, method therefor, and computer recordable medium storing program to perform the method' (10-2216841, 2021. 2. 10)

'System for analysing malicious code using independent device' (10-2204222, 2021. 1. 12)

'Apparatus for selecting a representative token from the detection names of multiple vaccines, a method therefor, and a computer recordable medium storing program to perform the method' (10-2199704, 2020. 12. 31)

'Apparatus for detecting context anomalies in documents, a method thereof and computer recordable medium storing program to perform the method' (10-2179025, 2020. 11. 10)

'Apparatus for detecting and preventing ransom-ware behavior using camouflage process, a method thereof and computer recordable medium storing program to perform the method' (10-2149711, 2020. 8. 25)

'Apparatus for processing compressed files suspected of infection, method thereof and computer recordable medium storing program to perform the method' (10-2099291, 2020. 4. 3)

AI TECHNOLOGY

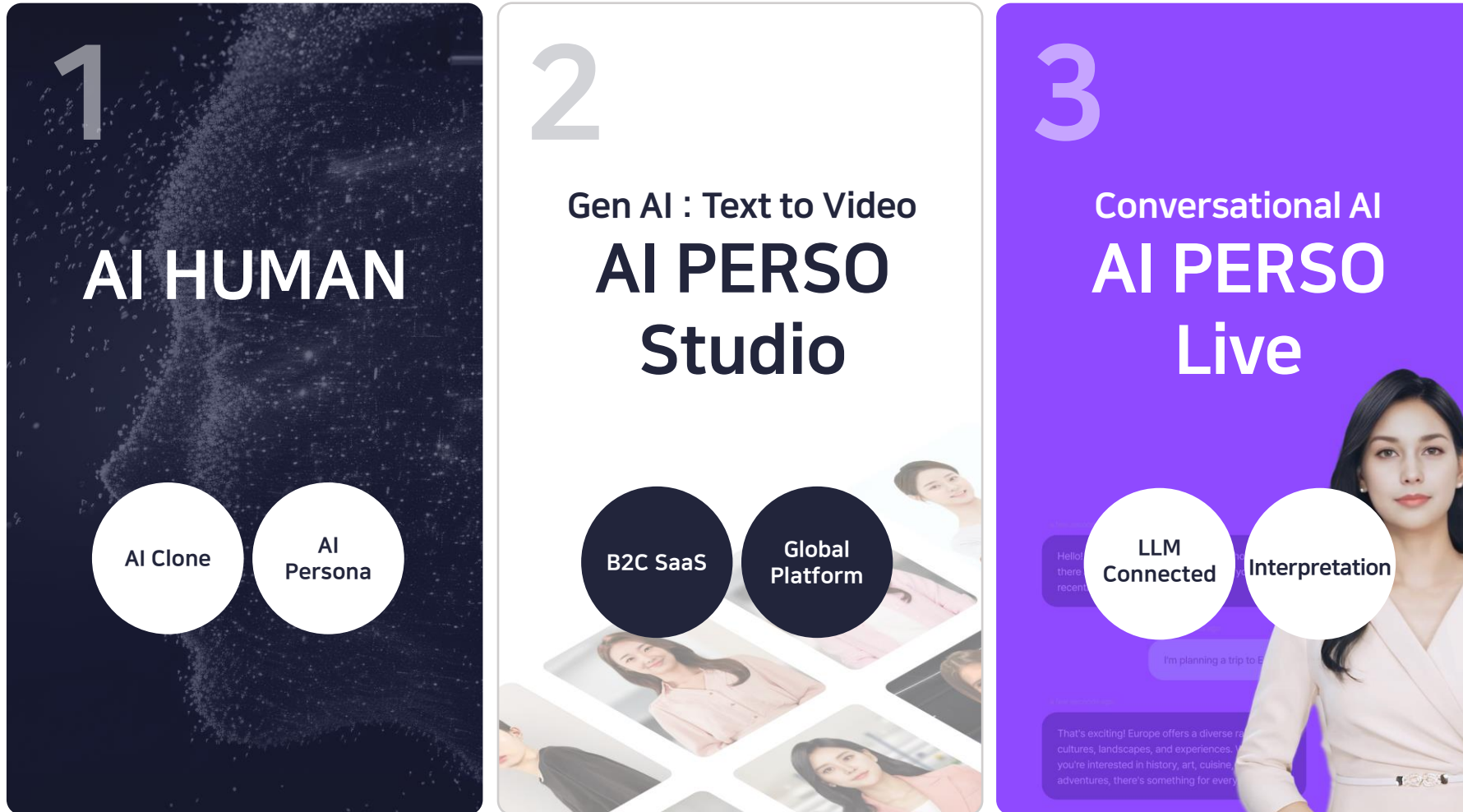
EST AI HUMAN

- AI CLONE
- AI PERSONA

AI STUDIO PERSO

ESTSOFT AI Solution

ESTsoft provides AI Human creation services that meet client needs based on its AI technology, AI Human video production solutions that enable the creation of content spoken by AI Humans, and AI PERSONA Live solutions that enable interactive conversations with AI Humans.



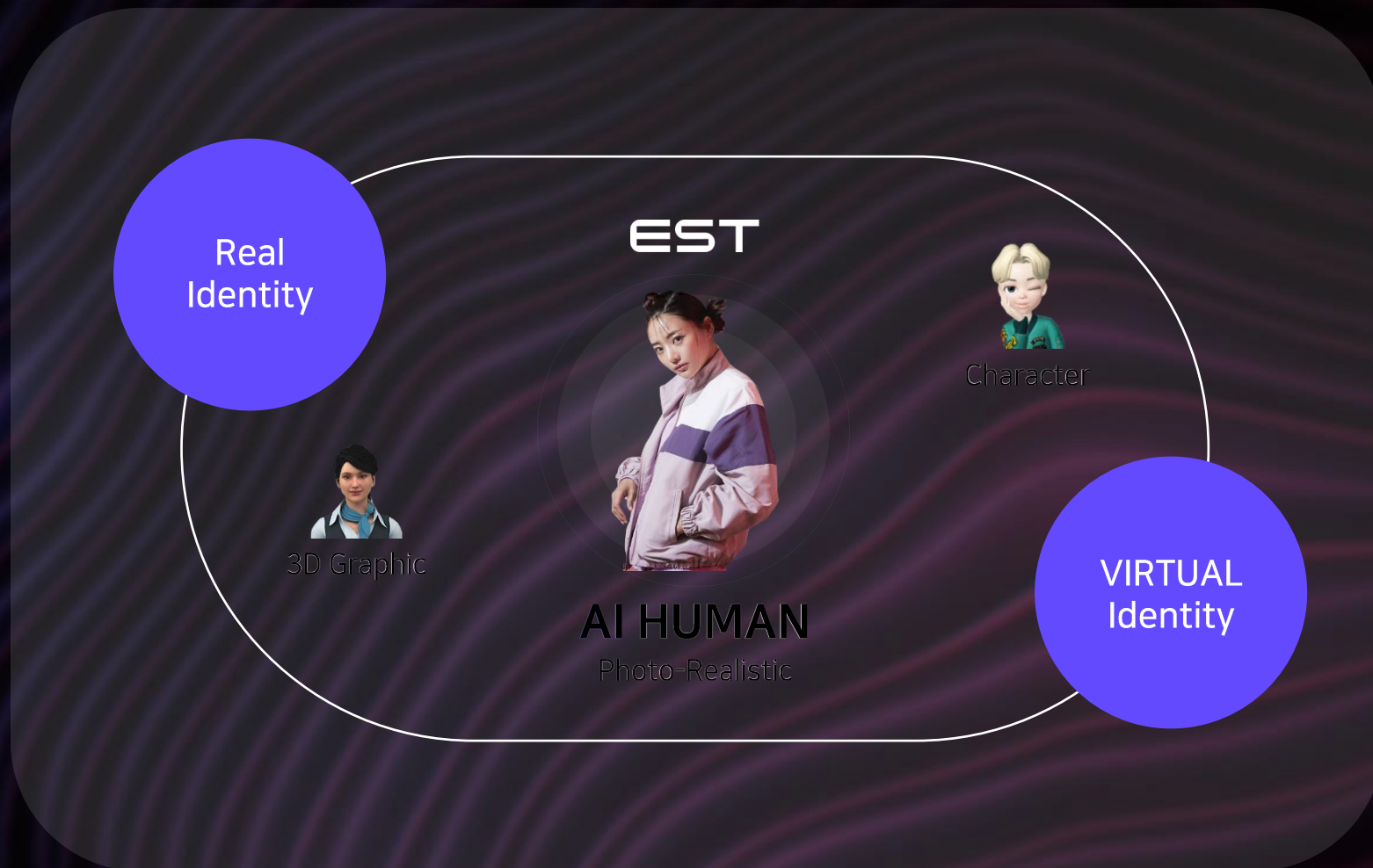
AI HUMAN

AI HUMAN technology that connects the real world and the metaverse with expansion of business

Implementation of our very own photo-realistic technology based on real-time rather than 3D Modeling VFX technology

With world-class AI technology
Implementing a 4K virtual human

We can change the world with you



ESTSOFT AI HUMAN

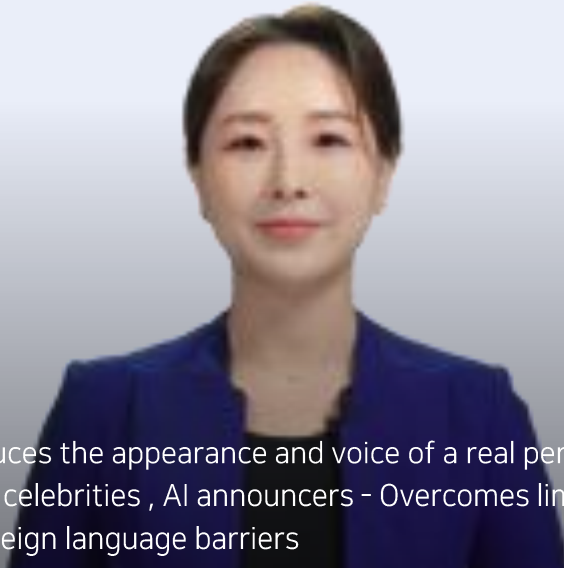
ESTsoft's AI creates a **Live-action type AI Human**.

ESTsoft possesses AI Human technology that perfectly and diversely creates characters of **virtual identities** as well as appearances with artificial intelligence.

1. Perfectly replicate **real-life figures**
2. Create **figures for which your company can permanently own the portrait rights**

AI Clone

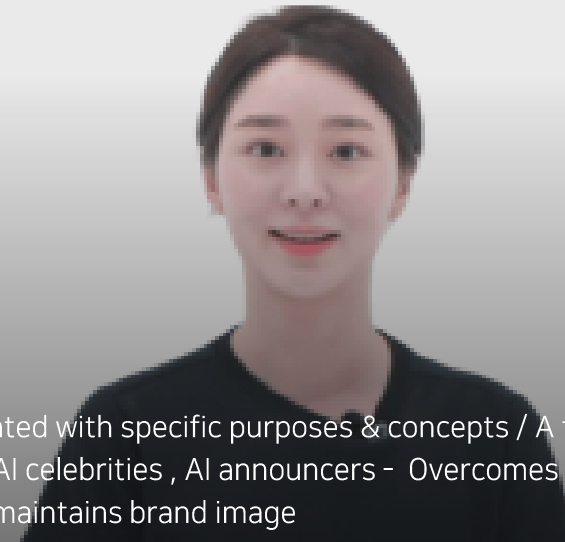
Appearance & voice of a real person



- Perfectly reproduces the appearance and voice of a real person
- AI Instructors, AI celebrities, AI announcers - Overcomes limitations of time, space, and foreign language barriers

AI Persona

AI human with specific Purposes & Concepts



- AI Persona created with specific purposes & concepts / A fictional person
- AI Instructors, AI celebrities, AI announcers - Overcomes restrictions on portrait rights / maintains brand image

ESTSOFT AI HUMAN

ESTsoft's Exclusive AI Human IP

CLASS:y

Idol (Girl group)

Exclusive AI Human IP

- CLASS:y was formed at MBC's <After-school Excitement>
- 1st place for 11 consecutive weeks
- May 22nd, official debut



Eunbo Park

Announcer

Exclusive AI Human IP

- MBC Wonju <news desk> & <evening news>
- Live news and MC experiences



Nasil Hong

Weather caster

Exclusive AI Human IP

- 2016 Miss Korea
- A professional weathercaster
- Several other broadcasting activities



Devin Whiting

Announcer

Exclusive AI Human IP

- Arirang TV News Anchor
- EBS Morning Special, Yonhap News, etc.
- Multiple other translation and editor experiences



ESTSOFT AI HUMAN

ESTsoft's Exclusive AI Human IP

Jinah Tae

Singer

Exclusive AI Human IP



Hyeonhee Hwang

Comedian · Writer · Investor

Exclusive AI Human IP

- Korea Broadcasting System Comedian
- Investment expert
- Author of 'Cowardly Money'



Nayoon Kim

Reporter · MC

Exclusive AI Human IP

- Korea Broadcasting System Reporter



Youngho Kim

Sports Announcer · MC

Exclusive AI Human IP

- KIA baseball team Announcer
- Handball Korea League Announcer
- Seoul KIXX volleyball Announcer



ESTSOFT AI HUMAN

ESTsoft's Exclusive AI Human IP

Olivia

Model

- SHINee's Key, Young Tak, Zior Park, etc. appear in MV
- Various Beauty Brand Model

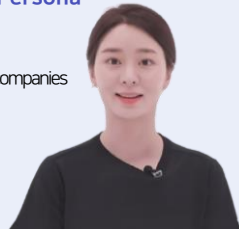


E-so Kim

AI New recruit of ESTsoft

EST Representative AI Persona

- ESTsoft New Recruit Concept
- IP Partnerships with numerous companies



Sean

AI Announcer

EST Representative AI Persona

- A white male announcer in his 30s
- Specialized in English speech
- A trustworthy and likable image



Eilee

AI Announcer

EST Representative AI Persona

- A female announcer · MC in her 20s
- Clear pronunciation, calm and stable voice
- Urban image

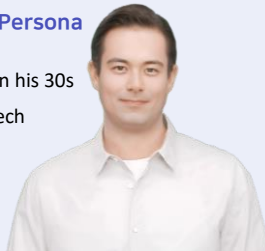


Andy

AI Announcer - Commentator

EST Representative AI Persona

- A white male announcer in his 30s
- Specialized in English speech

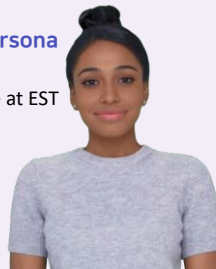


Tyla

AI New recruit of ESTsoft

EST Representative AI Persona

- Concept of a new employee at EST
- IP Partnerships with various companies

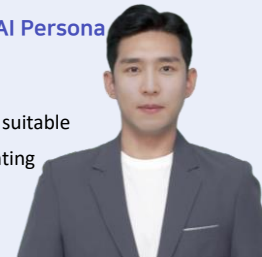


Sunho Kim

AI MC

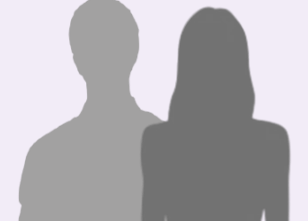
EST Representative AI Persona

- A male in his 30s
- A powerful voice tone suitable for hosting and presenting



New (upcoming)

EST Representative AI Persona



EST AI HUMAN

AI STUDIO PERSONO USE CASES

AI CLONE

YTN

AI Anchor Sangwook Byun

Synthesized YTN Bae Sang-Wook anchor as AI during <Evening with News>



CNA

AI Anchor DAWN TAN

The DAWN anchor, which was created as an AI model, was featured in a documentary broadcasted by CNA (Singapore)



Hunet

AI Lecturer Minyoung Lee

Representative lecturer of Hunet, A well-known education content provider based in Korea



ESTsoft

AI Announcer Eunbo Park

ESTsoft's exclusive AI announcer



YBM

AI Lecturer Hyewon Park

A leading English lecturer at a large educational institute



AI PERSONA

CLASS101

AI Celeb Lecturer Hana Baek

AI Persona representing Class101 Influencer activities, online classes



Korea Invest & securities

AI Analyst Jia Han

AI Persona representing Korea Investment & Securities, actively broadcasting on its YouTube channel



ESTsoft

AI Staff E-So Kim

EST's representative AI Persona A new staff concept



Shinhan Cube On

AI Pilates Instructor

EST's E-So Kim's face synthesized to model AI Pilates instructor



Others

AI Staffs

Government departments and organization representative AI Persona (Currently under work)



ESTSOFT AI HUMAN

AI Clone

AI Anchor Sangwook Byun

NEWS/MEDIA



Formal YTN Anchor

“Evening with Sangwook Byun’s News” opening live broadcast

- ▷ Talked with the other announcer and held a briefing

Implementing AI clones through deep learning of existing broadcast video data instead of filming.

The technology allows emergency disaster broadcasts and late night broadcasts

- ▷ Allow 24-hour emergency standby and cost savings



AI Anchor Dawn TAN

NEWS/MEDIA



Singapore state-run broadcast Anchor

Recreating Singapore's national broadcaster 'CNA's DAWN anchor using AI.

CNA produced a documentary program and broadcasted it to 60 countries

- ▷ Covered EST AI Technology
- ▷ AI DAWN anchor broadcasted



ESTSOFT AI HUMAN

AI Clone

AI Lecturer Minyoung Lee

EDUCATION



The **AI Clone** of the leading education institute

Utilized for producing online lecture content
(Leadership, job training, etc.)

Leading the adoption of AI humans among online education companies

- ▷ Significant increase in sales and operating profit during the COVID-19
- ▷ Expansion into the EdTech industry



AI English Lecturer Hyewon Park

EDUCATION



The **AI Clone** of the language institute's representative English lecturer

Korea's first bilingual (KOR / ENG) AI instructor

- ▷ Leads in Production and commercialization of TOEIC Speaking online lecture content
- ▷ Providing personalized Q&A videos for each student



ESTSOFT AI HUMAN

AI Clone

AI History Lecturer Taesung Choi

EDUCATION

Famous History Lecturer

AI Clone 

Generate popular online history lectures

Planning to apply on various content

- ▷ History of Korea content
- ▷ Taesung Choi's personal YouTube Channel
- ▷ History lectures Q&A
- ▷ AI History docent at museums · exhibitions
- ▷ Multilingual History Travel content



AI Finance Lecturer Hyeonhee Hwang

EDUCATION

Korea Broadcasting System's Comedian & Financial Investor

AI Clone 

Planning to apply on various content

- ▷ Investment , Economics content
- ▷ AI MC, Interviewer , Youtuber , Lecturer and more
- ▷ Professional industries - Conference speakers , Bankers, Sign language interpreter



ESTSOFT AI HUMAN

AI Clone

AI Singer · Entertainer

BROADCASTING / SENIOR CARE

Korea's Legend Singer

Jinah Tae AI Clone

Singing & dancing AI singer

Production of senior care & entertainment content

- ▷ Specialist instructor for senior singing classes
- ▷ Senior companion content
- ▷ Promotional ambassador and advertising model
- ▷ Scheduled to work as a singing class instructor at senior centers in Gimhae in December



AI Reporter

BROADCASTING / SENIOR CARE

Reporter / MC

Nayoon Kim AI Clone

For senior care & various content production

- ▷ Specialist instructor for senior singing classes and cognitive activities
- ▷ Senior companion content
- ▷ Travel content reporter
- ▷ Introduction and promotional model for local specialties
- ▷ Live commerce and home shopping show host
- ▷ Scheduled to work as a play class instructor at senior centers in Gimhae in December



ESTSOFT AI HUMAN

AI Persona

AI Analyst Jia Han

FIANACE

Korea Investment & Securities Co., Ltd.



AI Junior Analyst generated with a newly recruited staff

▶ Used in the production of <Show Me the Report>, a YouTube channel on financial content report

▶ Produce content for basic investment guidelines and various topics for internal use.



AI Banker Arum Han

FIANACE



Daegu Bank's own virtual AI banker

Planning to apply in variety of areas

▶ Voice phishing prevention training for global customers and internal educational content at Daegu Bank

▶ Customer service AI Banker, Kiosk desk & ATM, Embed AI human to the queue number machines

▶ AI Human with innovative movements such as greeting, pointing and more



ESTSOFT AI HUMAN

AI Persona

AI Celebrity Lecturer Hana Baek EDUCATION

CLASS101

The AI Persona representing a modern trend lecturer

- ▷ Various Influencer activities
- ▷ Produced video lectures as a influencer lecturer
- # [Becoming an NFT Writer](#)
- # [Personal Branding](#)

ESTsoft is planning to develop her into a brand. (EST is her management agency.)



AI English Teachers Michelle·James EDUCATION



James – KOR/ENG Bilingual Teacher
Michelle – KOR/ENG Bilingual Teacher

Elementary school English classes
Teacher [specializing in basic English pronunciation classes](#) and etc.

Produce supplementary content for YBM English classes



ESTSOFT AI HUMAN

AI Persona

AI Lecturer Woori Bae

EDUCATION



Representative education instructor with a name that symbolizes 'Learning'.

Generates various educational content including education for corporates



ESTSOFT AI HUMAN

AI Persona

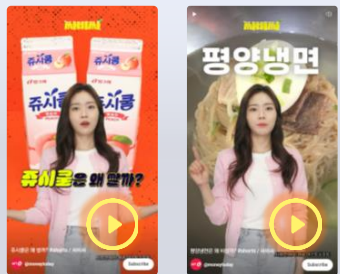
AI MC Curi Lee

NEWS/MEDIA



MONEYTODAY's AI MC/ Entertainer

Produce various content for Moneytoday's YouTube Channel (Mainly on food, snacks and etc)



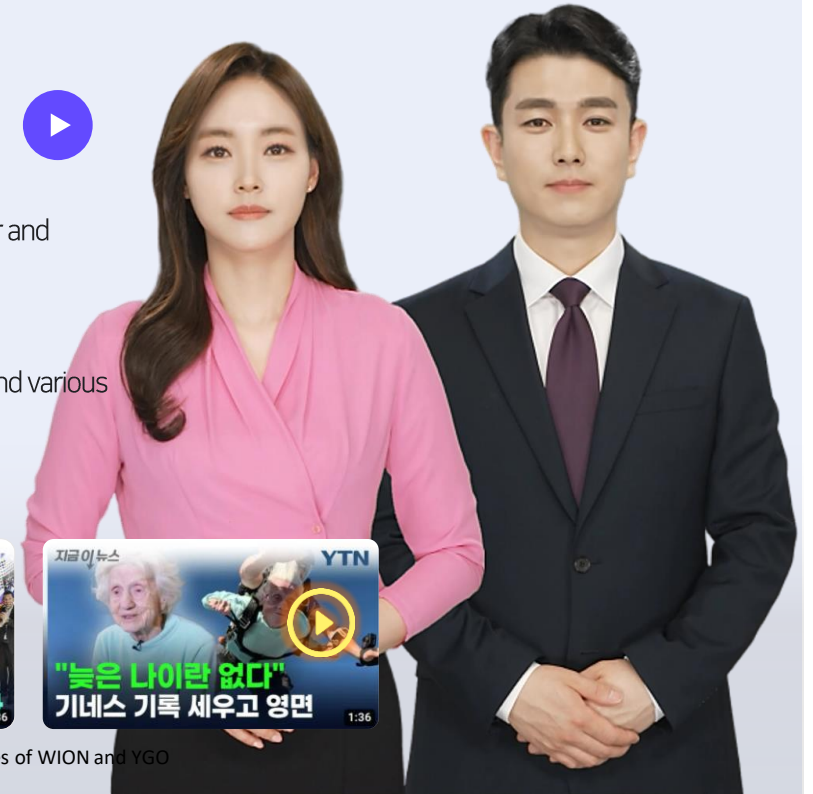
AI Anchor Y-go·Y-on

NEWS/MEDIA



YTN's representative Anchor and reporter

Planned to generate news and various information delivery content



※ Sketch News using only the voices of WION and YGO

ESTSOFT AI HUMAN

AI Persona

AI Pilates Instructor E-so Kim

HEALTHCARE



Used AI Persona + Face Swap combined technology
 Utilized EST's E-so Kim Persona IP license
 Advanced technology that can capture various angles
 Can deliver long-term AI content and high-quality resolution (4K)



AI Anchor / Staff

Government

CONFIDENTIAL

One of the government assessment agencies in Korea created various AI persona

On-premised(built-in) type
Purpose to use securely in in-house content creation





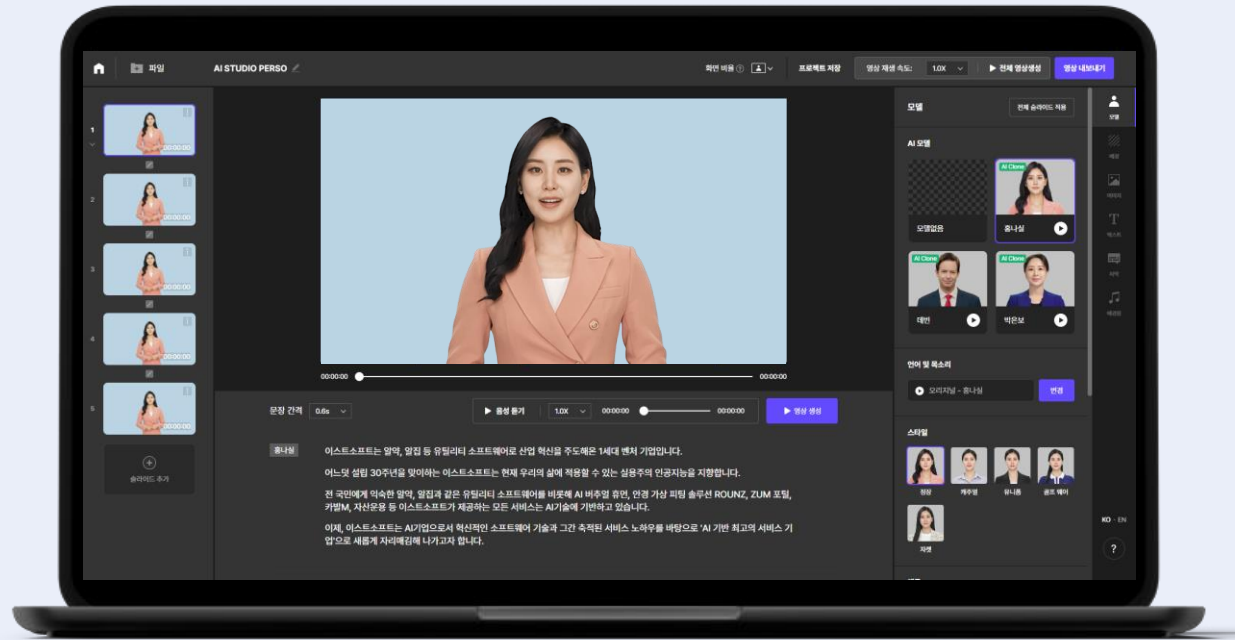
ESTsoft's AI STUDIO PERSO is an "AI Video production solution" that can produce video content spoken by real-life AI Humans just by just entering text or uploading voice files.

The screenshot displays the AI STUDIO PERSO interface with several key features highlighted by callouts:

- AI Model:** Located at the top of the control panel, it shows two AI avatars (a woman and a man) with their respective names and play buttons.
- Language / Voice:** A section below the AI Model, featuring a dropdown menu for language and a play button for voice selection.
- AI Model Style:** A section with a '스타일' (Style) dropdown and several small avatars representing different visual styles.
- Angle:** A section with a '방향' (Direction) dropdown and two circular icons for '앞면' (Front) and '측면' (Side).
- Pose:** A section with a '포즈' (Pose) dropdown and three icons for '자연스러움' (Natural), '손동작' (Hand movement), and '한자형' (Formal).
- Preview:** A large central video player showing a woman in a blue blazer speaking.
- Automatic Subtitles:** A panel on the right side of the interface showing a list of video segments with their durations and a '자동 생성' (Auto-generate) button.



Estsoft's AI STUDIO PERSONO is an "AI Video Production Solution" that allows you to create video content featuring a realistic AI Humans simply by entering text or uploading audio files.



Deep Learning-Based AI Human Video Production Solution

- Easy video production with a simple interface that requires no additional training
- Provides a stable and comfortable platform environment without the need for additional program installation

Create a 1-minute video in just 40 seconds

- Video production speed is 0.4 times the original video length, significantly faster than competitors
- Features include voice preview and video preview for quick verification of result

Create the world's most natural custom exclusive AI Human

- Customized exclusive AI Human tailored to the brand identity and usage purpose of each client, or pre-produced AI Human

Create videos with AI Human speaking using only an audio file

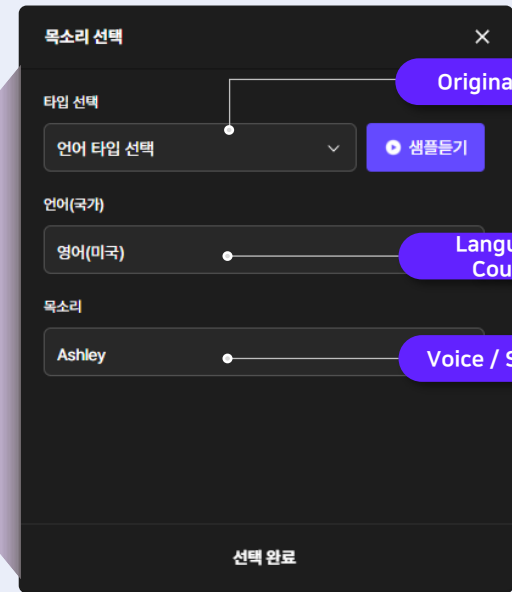
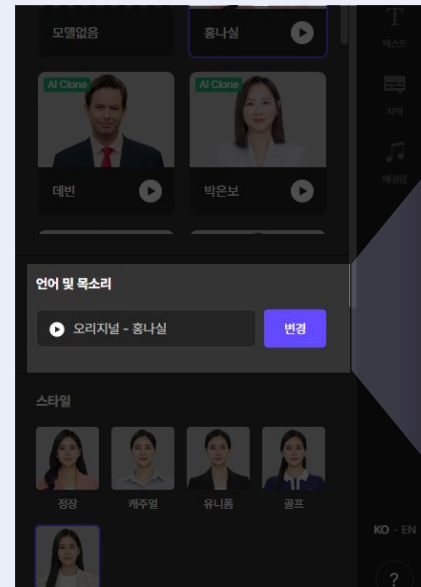
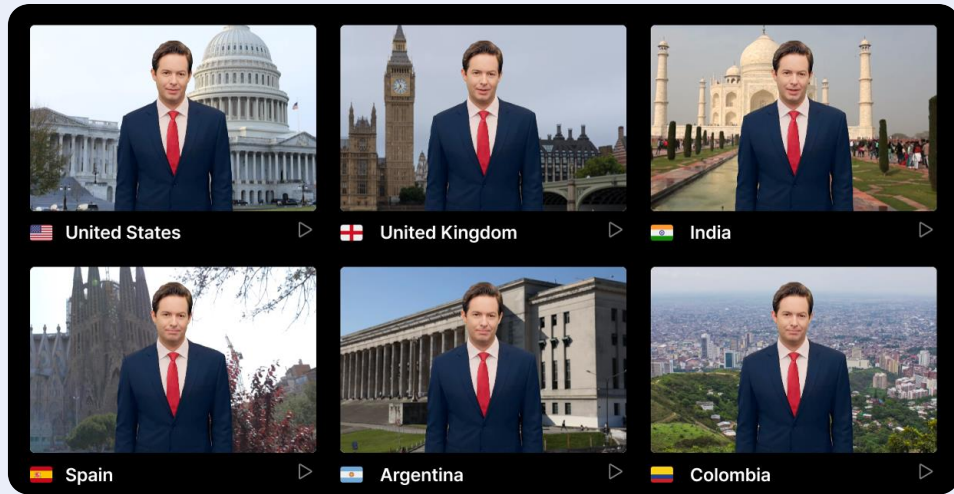
- Videos can be produced by uploading an audio file without a separate script, applying the original speaker's voice and speaking style to the AI Human



ESTsoft's AI STUDIO PERSO is an "AI Video production solution" that can produce video content spoken by real-life AI Humans just by just entering text or uploading voice files.

Multilingual content production with MS TTS

Creates video that can speak 75 different languages used in over 110 countries with the voices of over 450 people with an AI Human speaking 1 language only

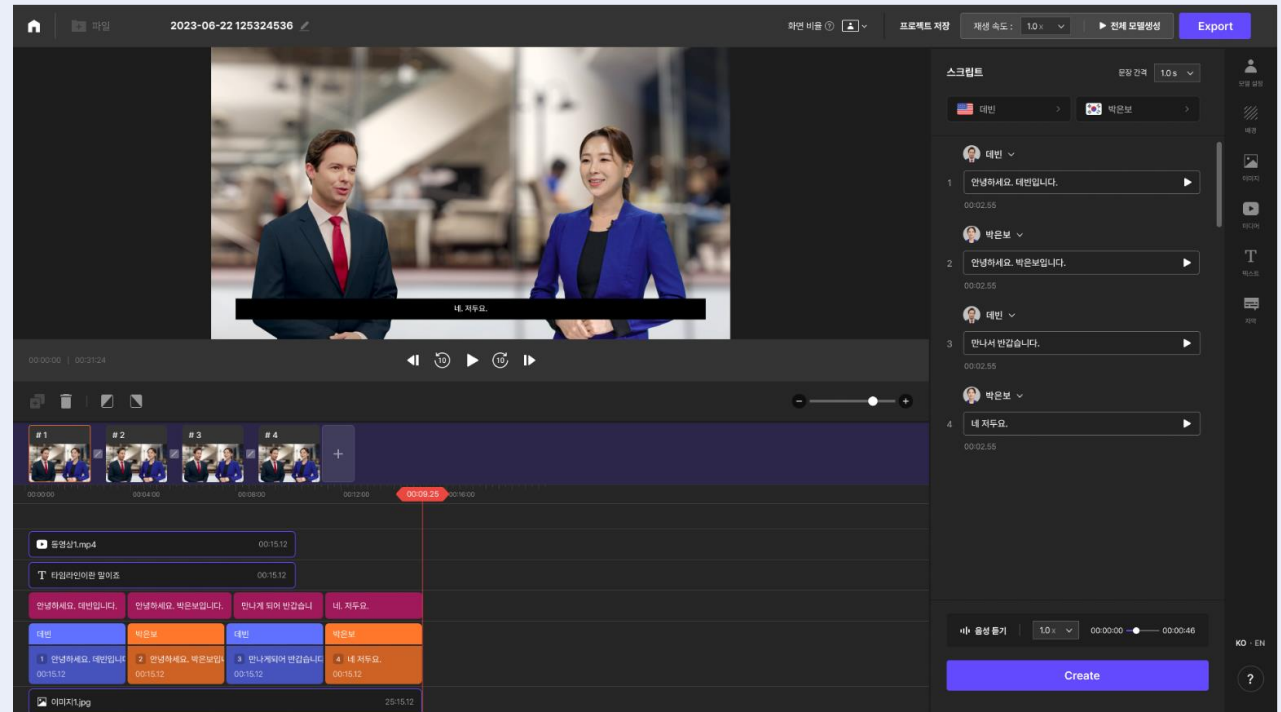




ESTsoft's AI STUDIO PERSO is an "AI Video production solution" that can produce video content spoken by real-life AI Humans just by just entering text or uploading voice files.

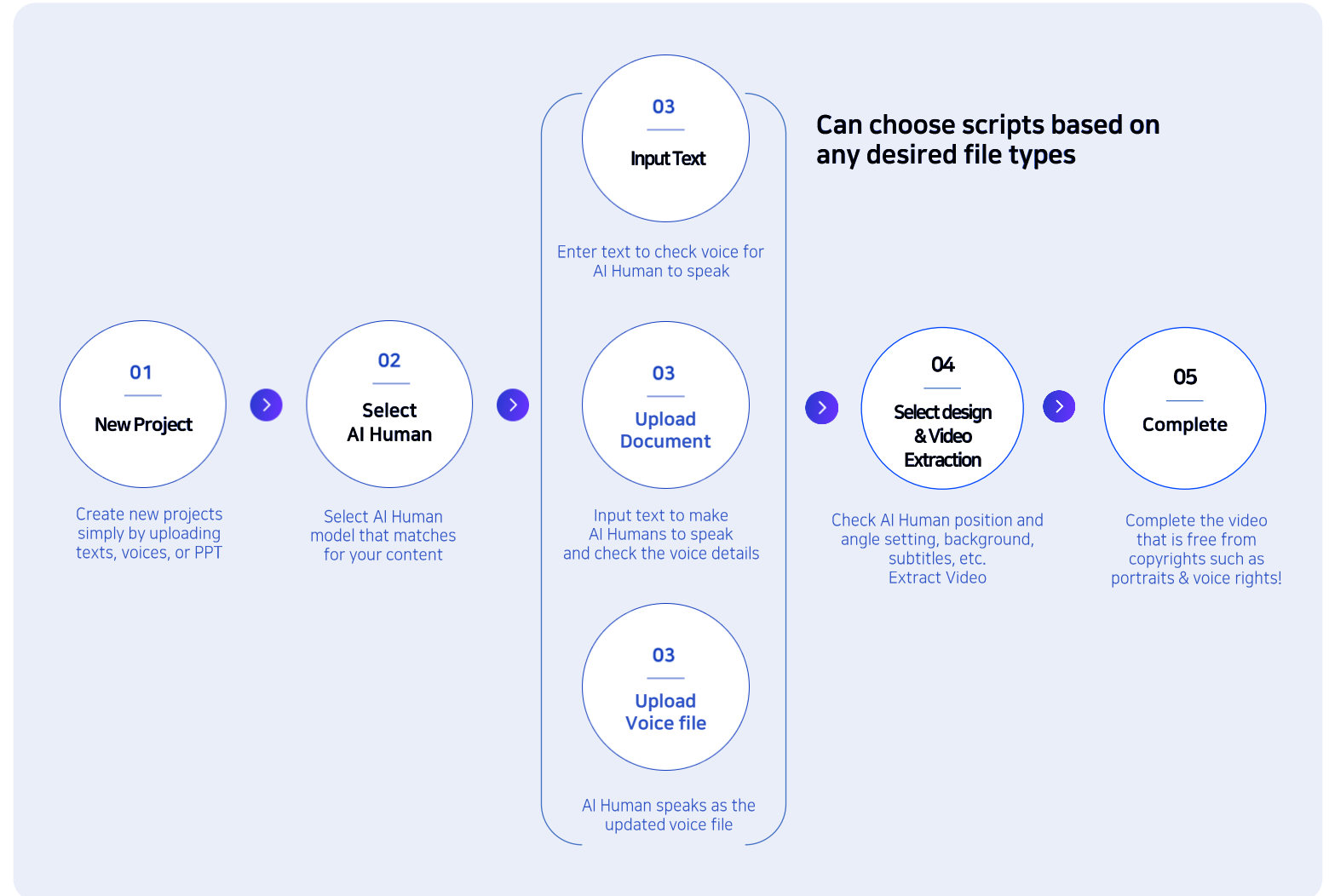
Enhanced solution UI using Timeline method

Embedded with **two communicating AI Humans in one screen**





ESTsoft's AI STUDIO PERSO is an "AI Video production solution" that can produce video content spoken by real-life AI Humans just by just entering text or uploading voice files.



AI STUDIO PERSO MAIN FUNCTIONS

Upload Word • HWP • TXT
Text in document files is automatically converted into scripts spoken by AI humans for convenient video production

Upload MS Power Point
When uploading a ppt file, each slide is automatically inserted into the background image of each paragraph, And the text in the slide note is automatically inserted into the script for convenient video production

Upload Voice File
When uploading a voice file, AI humans communicate as a voice in the file, and video can be generated conveniently without writing a separate script or entering text

Text to Speech
When text is entered, the AI model immediately generates a voice that speaks

Insert Image / Change Background
Choose or upload the background image you want, or change the background color freely. You can put the image you want and change the size, location, etc.

Insert Intro • BGM
Insert background sound/intro music by inserting basic background sound and uploading sound source, and adjust the volume

Select AI Model
Select the AI model you want for each slide and create an image

Insert Subtitles
Automatically insert the entered script as a caption, Can change to any subtitle style

Insert Screen Transition Effect
Select and insert the desired transition effect for a natural screen transition in the image

Speed / Sentence gap Adjustment
Allows AI models to adjust the speed and sentence gap of text entered

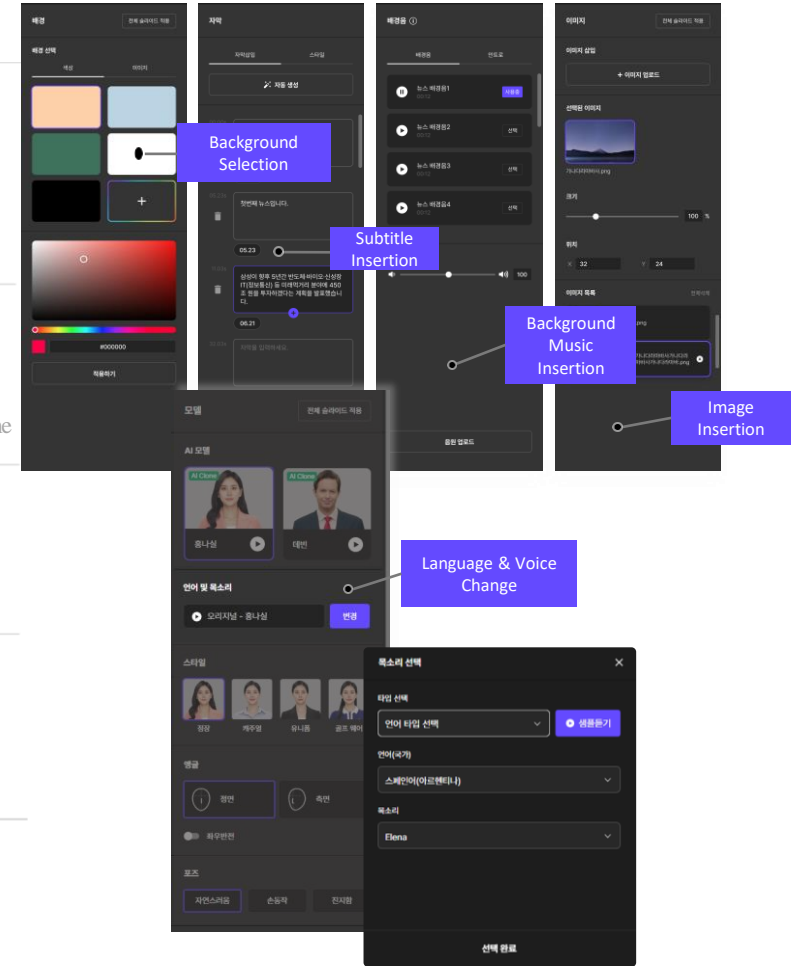
Select Pose
Choose pose templates such as natural posture, floating posture, and hand gestures

FHD • 4K Chromakey Download
MP4 video files with FHD and 4K quality. Downloadable as Chroma Key background image

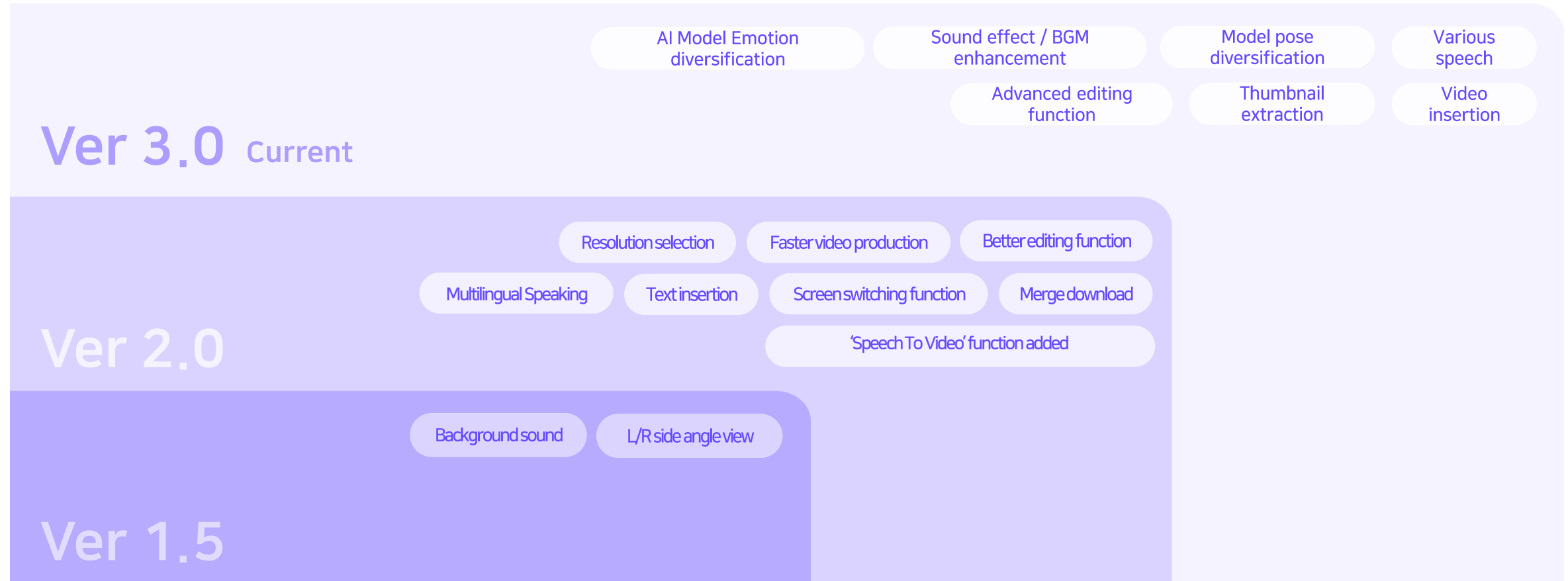
Select Angle
You can select the angles of AI models such as front, left and right sides for each slide

Select Aspect Ratio
Offers basic 16:9 widescreen. Can choose a mobile-optimized 9:16 screen ratio

Multilingual
Mounted MS TTS, AI Model can speak more than 60 languages



AI STUDIO
PERSO DEVELOPMENT ROADMAP



AI STUDIO
PERSO ADVANTAGES

AI STUDIO PERSO helps to reduce the time and cost associated with repetitive tasks.



Cost Efficiency

Consistent quality of content without studios, professional equipment and crew



Convenience

Easy-to-use User Interface for operation by simply text input



Promptness

Near real-time video production advantageous in content creation that needs promptness, such as disasters broadcasting or breaking news



Mass Production

Production of a large amount of content with consistent quality based on convenience and promptness



Effectiveness

Better conveyance of information using AI human than plain text or video

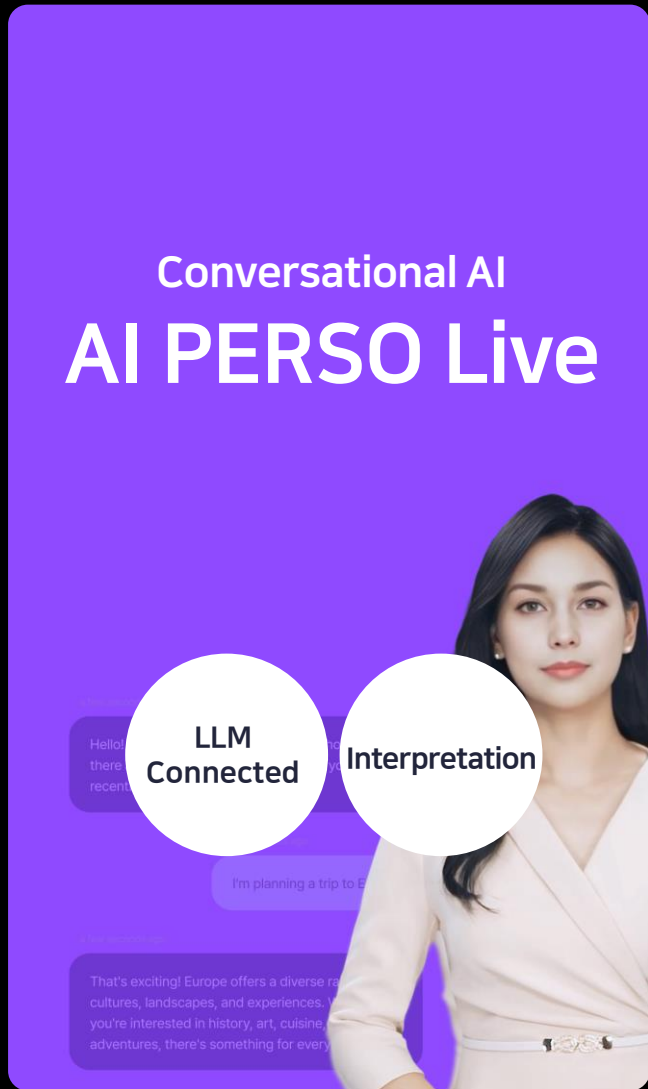


Scalability

Easy creation of multi-language content and quick global distribution

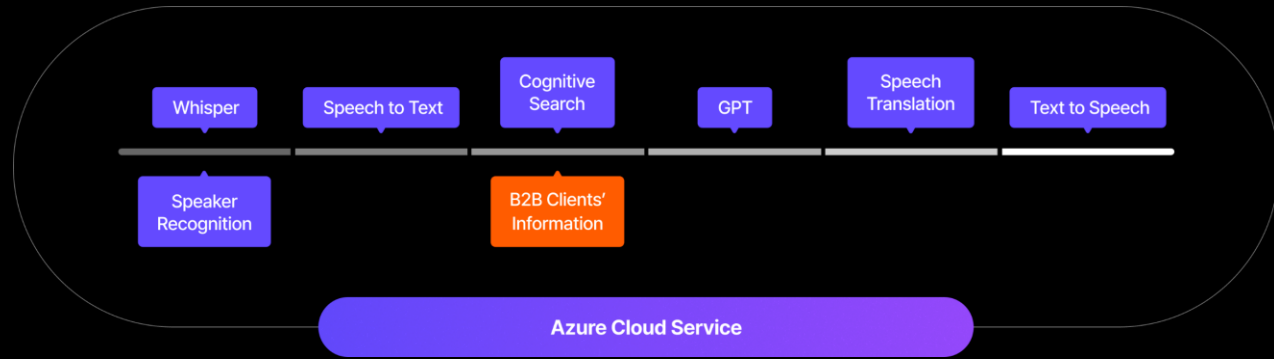
AI PERSO LIVE

Conversational AI
AI PERSO Live



LLM Connected

Interpretation



Near Real-Time GPT Integration
Conversational AI Human

The most human-like in the world

110 Languages

SDK ready on Cloud

PERSO LIVE

AI PERSO Live Try Now →

AI HUMAN

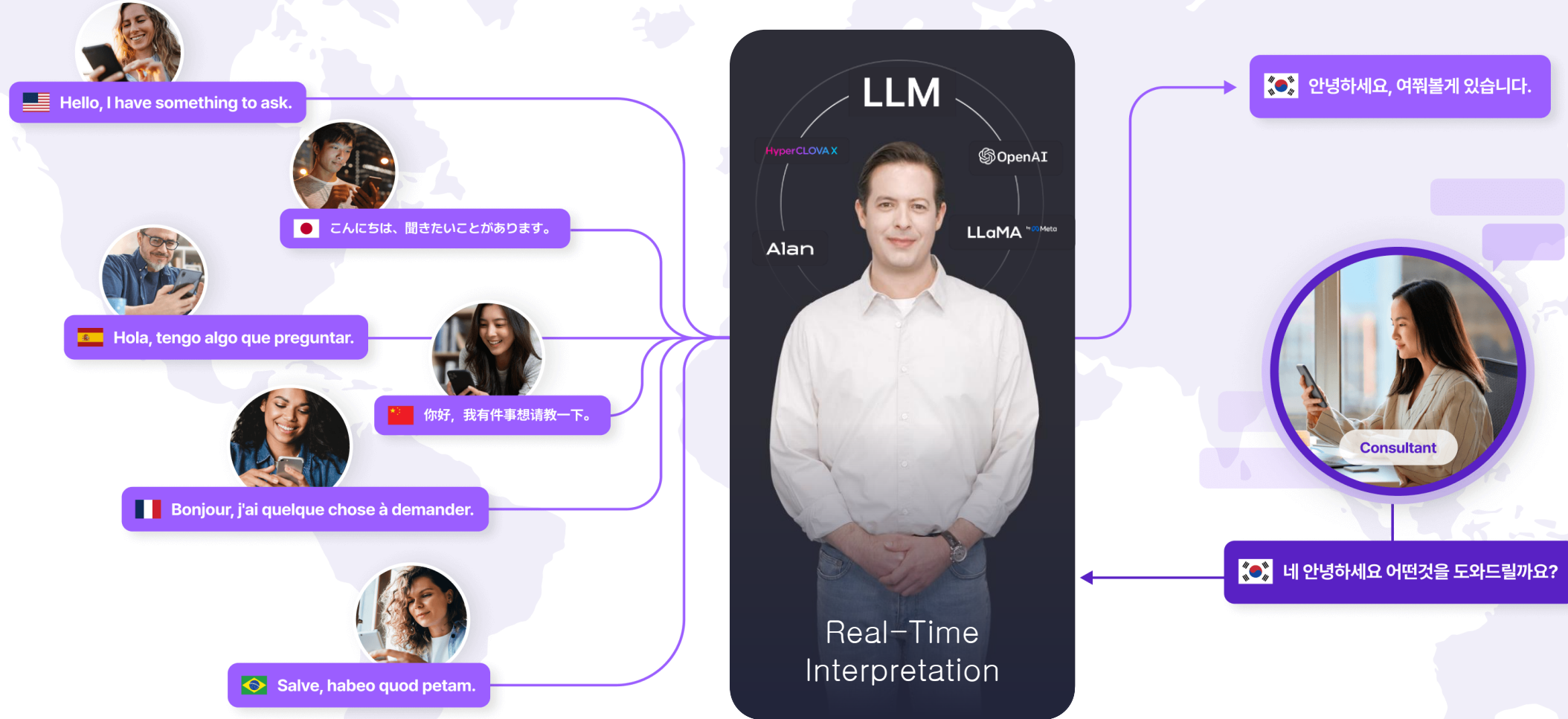
a few seconds ago

Hello! Today, let's talk about travel and hobbies. Is there a travel destination or hobby that you have recently been interested in?

Type a message

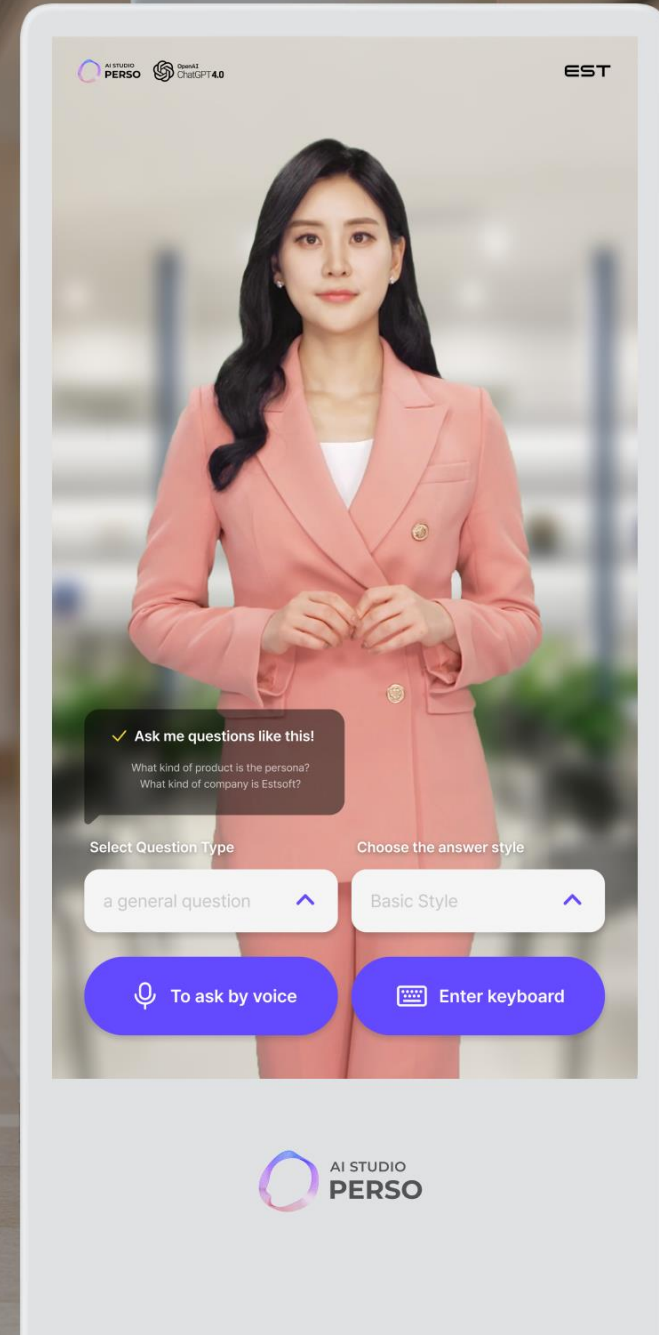
AI PERSONA LIVE

Conversational AI Human



ESTSOFT AI PERSONA LIVE

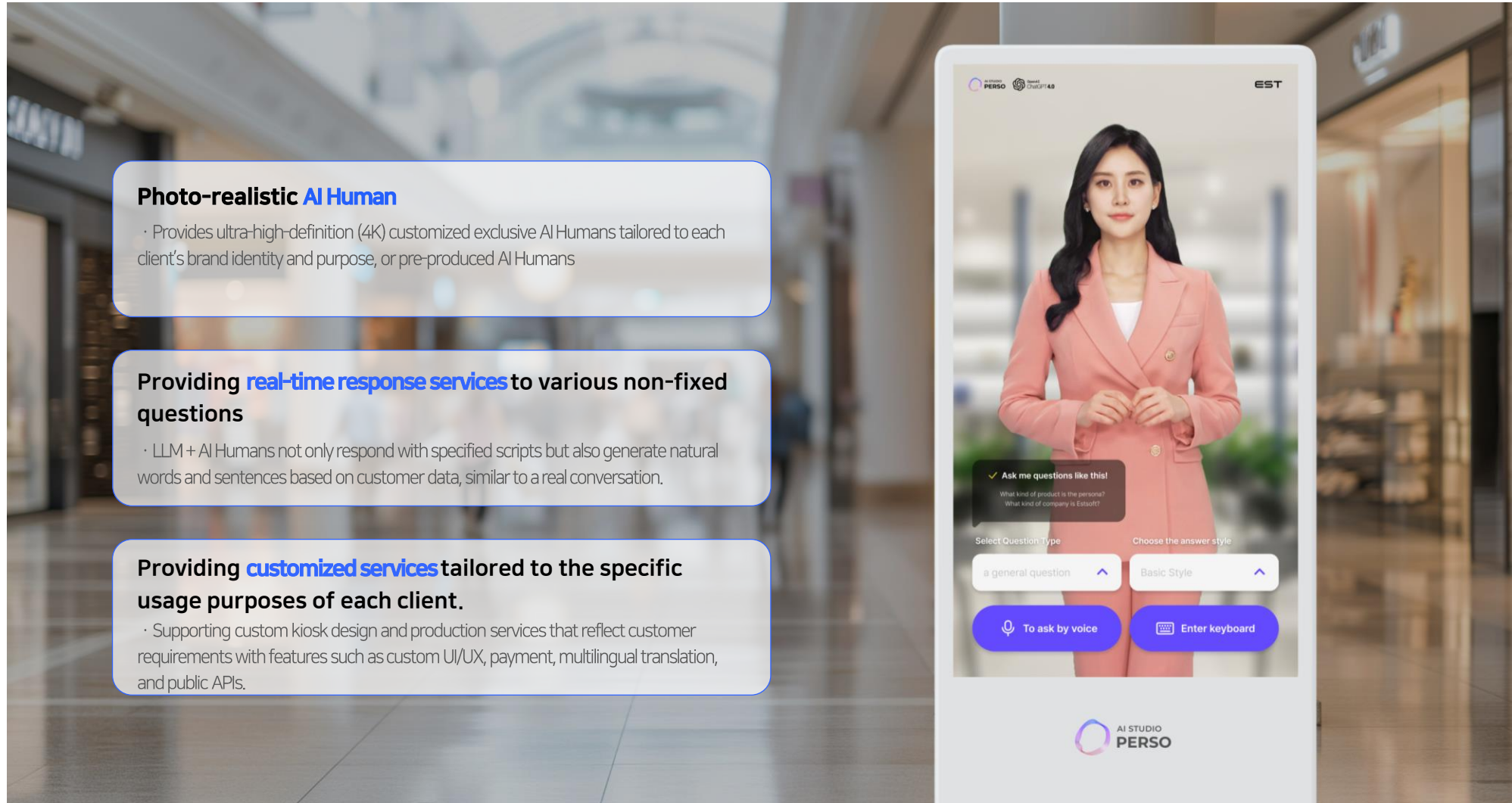
Interactive AI Kiosk



ESTSOFT AI Human Kiosk

Interactive AI Human Kiosk

Provide customer support based on 'accurate answers' through a real-time conversational AI human.



ESTSOFT AI Human Kiosk

We aim for a world where both people with and without disabilities can coexist by introducing barrier-free kiosks for the socially disadvantaged.

The **Barrier-free Kiosk** breaks down barriers for the disadvantaged

Removing **physical barriers**, **psychological barriers**, and **institutional barriers** that impede **socially disadvantaged groups**, including people with disabilities, the elderly, and pregnant women.



Non-disabled adult



Pregnant woman



Physical disability



Non-disabled child



Hearing impairment (Deaf person)



Non-disabled elderly person



Visual impairment (Blind person)



※ Based on the National Standard for Public Kiosk Accessibility (KS X 9211), the Act on the Promotion of Convenience for Persons with Disabilities, and the Standard Specifications for Automated Civil Service Information Processing Machines (KIOSK).

ESTSOFT AI Human Kiosk

Kiosks with various functions can be manufactured according to customer requirements

main function (Customize)

<p>AI Human</p> <p>Provides natural, real-time AI Human speech, high-quality video(4K), various Gesture functions</p>	<p>Braille Display</p> <p>Real-time Braille output for the visually impaired</p>	<p>Voice guidance mode</p> <p>Voice guidance function for the visually impaired Simultaneous provision of a dedicated screen for people with low vision</p>	<p>Height adjustment</p> <p>Automatically adjusts kiosk height by recognizing user height Provides button-type manual height adjustment function</p>	<p>Screen enlargement</p> <p>Provides high-contrast screen for people with low vision and the elderly</p>
<p>Sign language</p> <p>Provides sign language guidance using 3D characters Expressing words and sentences in sign language</p>	<p>Motion recognition</p> <p>User motion recognition through Kinect sensing Provides guidance switching function according to specific actions</p>	<p>Voice/Touch recognition</p> <p>Provides voice-based kiosk function using STT Kiosk screen touch guidance function provided</p>	<p>User recognition</p> <p>When the user approaches the kiosk, Automatic screen switching function from standby screen to home screen</p>	<p>Braille keypad</p> <p>Braille keypad provided for the visually impaired</p>
<p>Multilingual service</p> <p>Multilingual service support for foreigners residing in Korea Supports languages from over 110 countries, including English</p>	<p>Electronic map/directions</p> <p>Provides electronic maps created with digital twins Directions to a specific location from your current location</p>	<p>Call function</p> <p>Service support through voice/video connection with representative Provides a call button to call the relevant person in charge</p>	<p>Printing function</p> <p>Provides various printing functions such as receipts, certificates, tickets, etc.</p>	<p>Credit card payment</p> <p>Provides various payment functions such as NFC/IC/MST</p>
<p>Face recognition</p> <p>Provides user recognition function through camera</p>	<p>Remote support</p> <p>Kiosk operation is remotely supported by a person in charge.</p>	<p>QR code scanner</p> <p>Provides QR code recognition function Utilize functions such as ticketing confirmation, route finding, and user recognition</p>	<p>Mobile web</p> <p>Mobile support for functions such as electronic maps and directions</p>	<p>UV disinfection</p> <p>Disinfect the display using a UV lamp when not in use</p>

AI PERSO Live SDK

Customized services for various business situations through multiple LLM models and prompt engineering



EST AI Business

- GPT-3.5
- GPT-4
- Llama 2
- Claude 2.1



삼성이 향후 5년간 반도체·바이오·신성장 IT(정보통신) 등 미래먹거리 분야에 450조 원을 투자하겠다는 계획을 발표했습니다. 이와 함께

- English
- German
- Portuguese
- French
- Italian

Language
Korean

AI Human 설정
Natalie

Role (Customizable)
Interpreter Information staff

Response (Customizable)
30 characters Reply 2-3 minutes

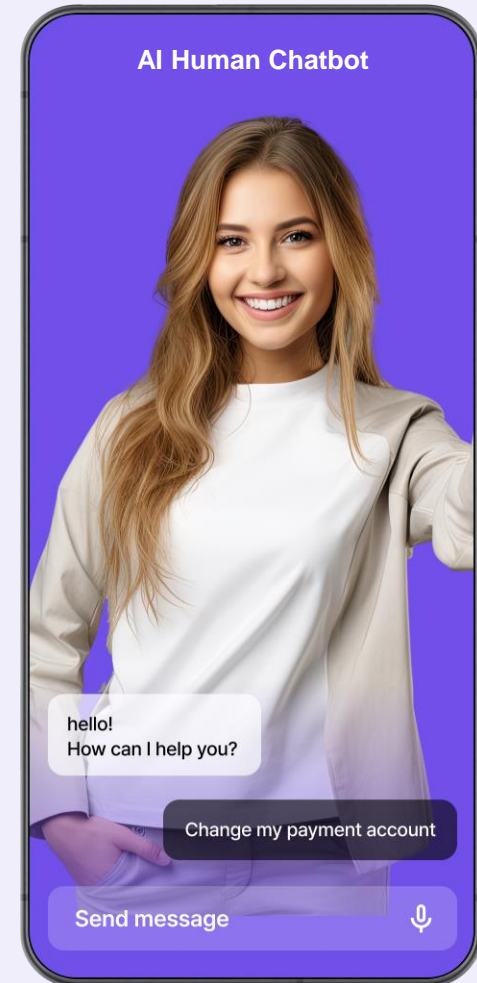
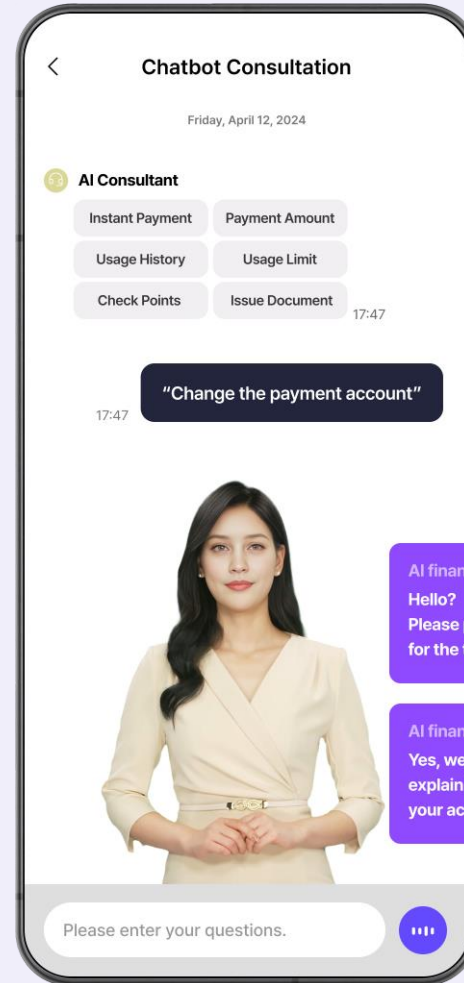
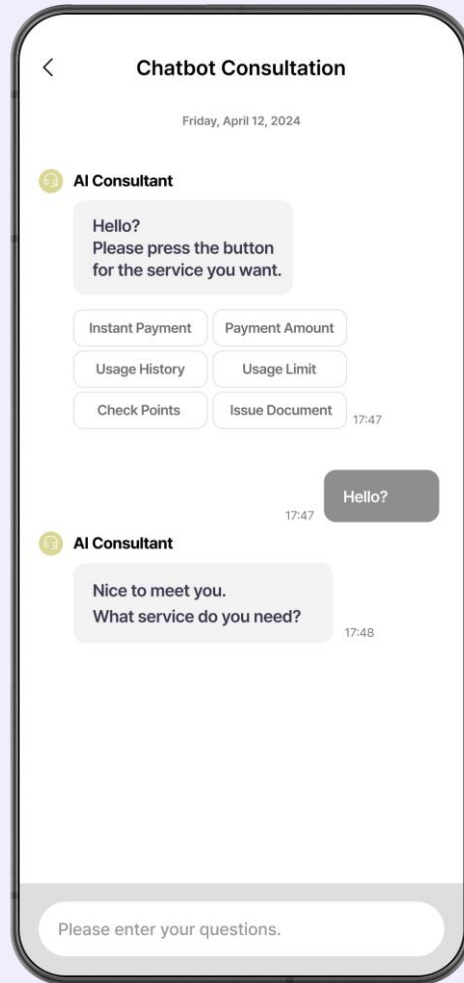
Apply

- Tim
- Selly
- Devin
- Natalie
- Sandy
- Kim
- Hong Na Sil

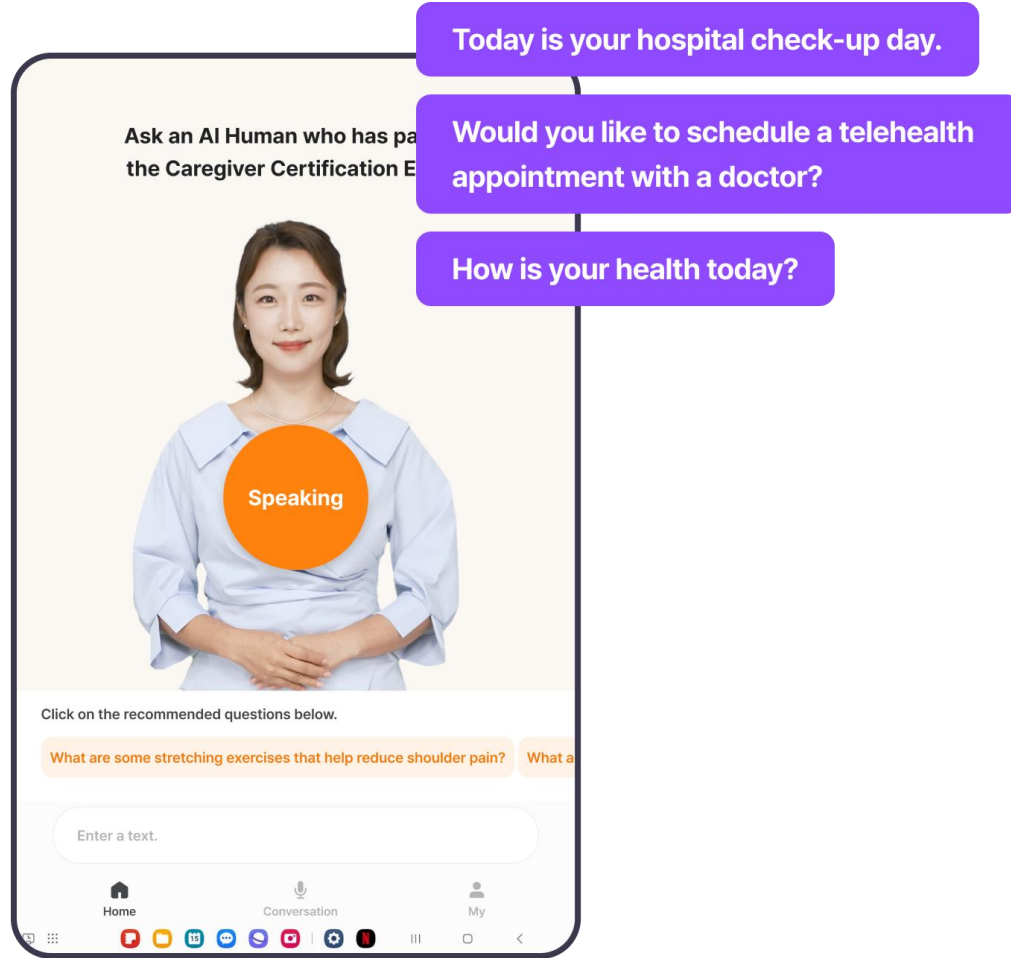
Real-time conversation 🕒
Human Interface 👤 **Innovative** ✨
Customer communication 💬 **service**
24 hours 🔄²⁴ **In all languages**
of the world 🌐

AI PERSO Live

AI PERSO Live - Finance



AI PERSO Live - Healthcare



Building patient-centered emotional experiences

Providing immersive and realistic conversations as a companion for patients

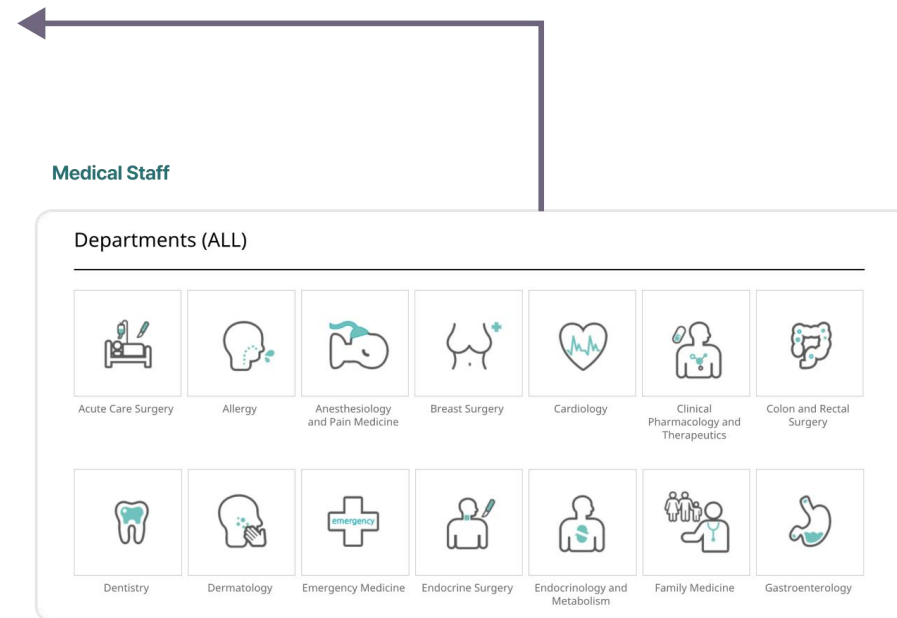
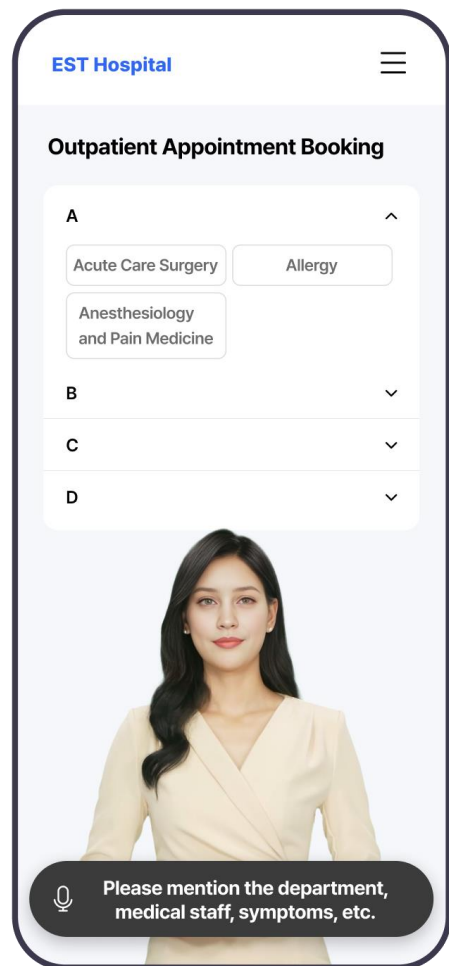
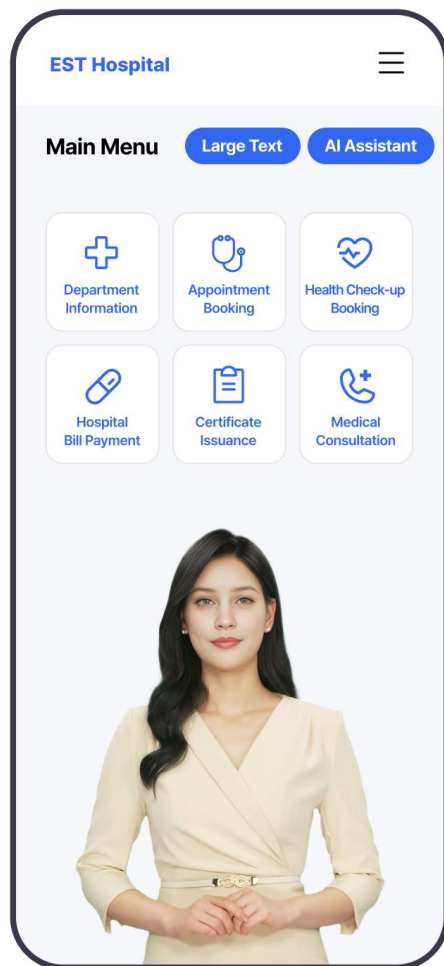
Enhancing engagement for both medical staff and patients

Recreating the appearance, voice, and identity of real individuals such as celebrities, grandchildren, and more.

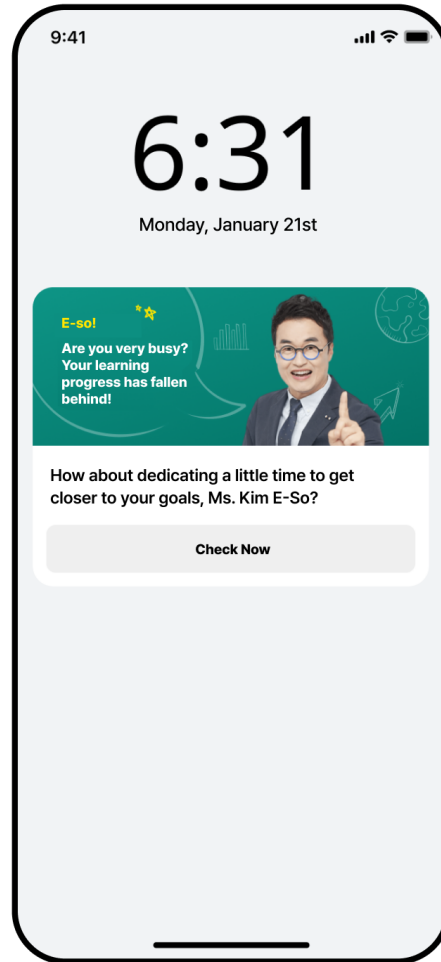
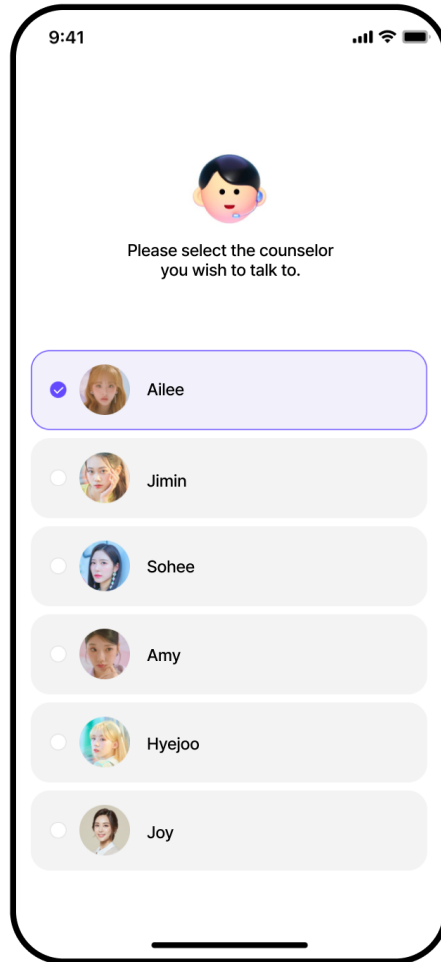
AI PERSO Live - Healthcare

Consultation and appointment booking before visiting the hospital

Basic health check-up and consultation before visiting the hospital



AI PERSO Live - Education



"The student selects the desired instructor"
Anyone can easily learn a language with native speakers of various genders/nationalities and study with star instructors.

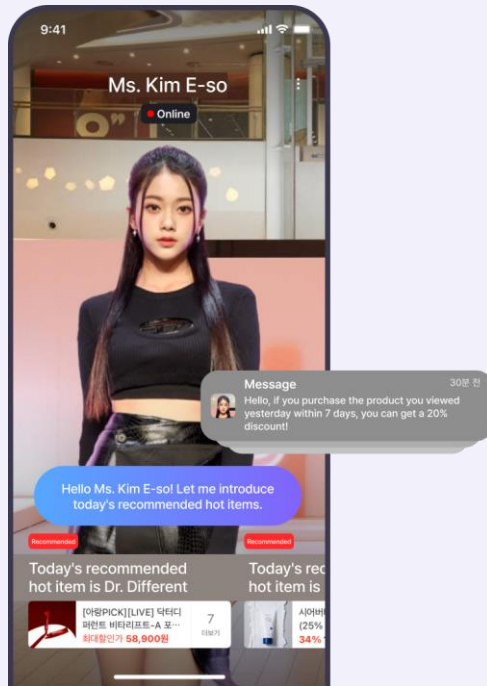
"Customers do not want to talk to robots".
Provides an immersive learning experience.

"Customers value interaction"
Personalized in-app messages from pre-configured AI Humans.

AI PERSO Live - Retail

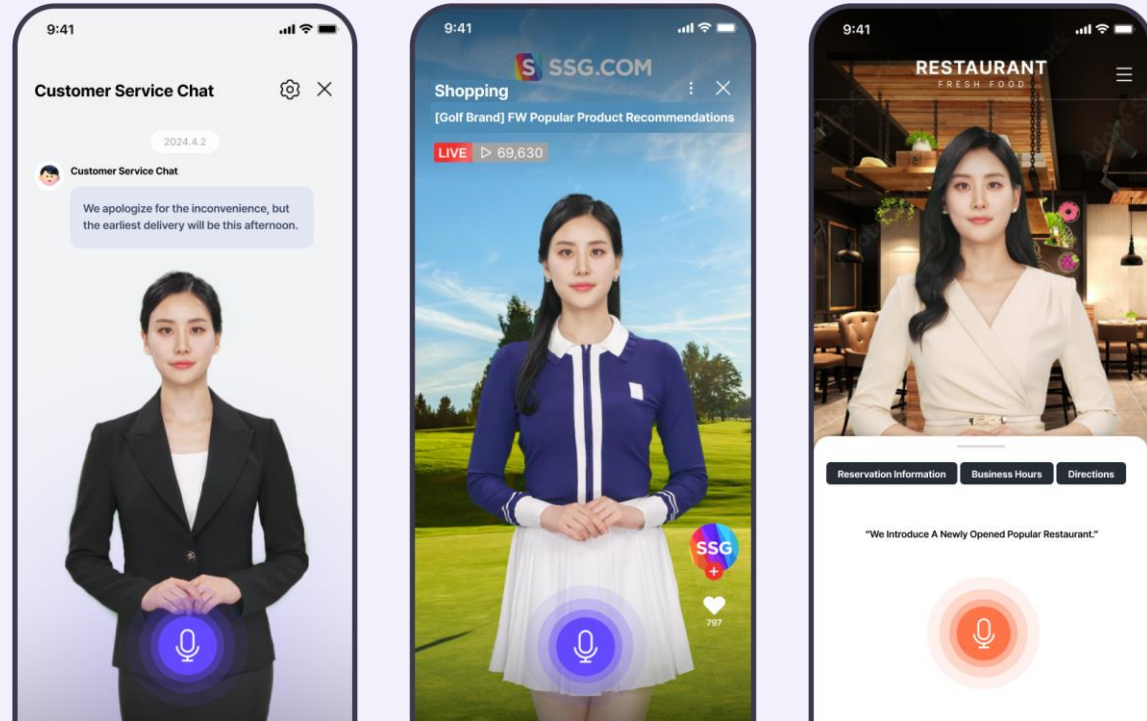
Celebrity AI humans such as celebrities, actors, and athletes provide customer service

Celebrity-recommended hot items increase purchase conversion rates.



Enhance user engagement through personalized responses from AI Humans.

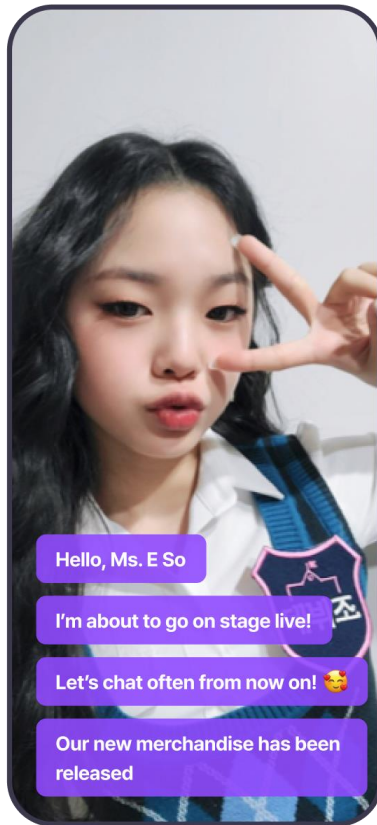
Recommend products that match customer preferences through AI Merchandisers.
Deliver messages that convey the authenticity of face-to-face interactions.



AI PERSO Live – Social Community

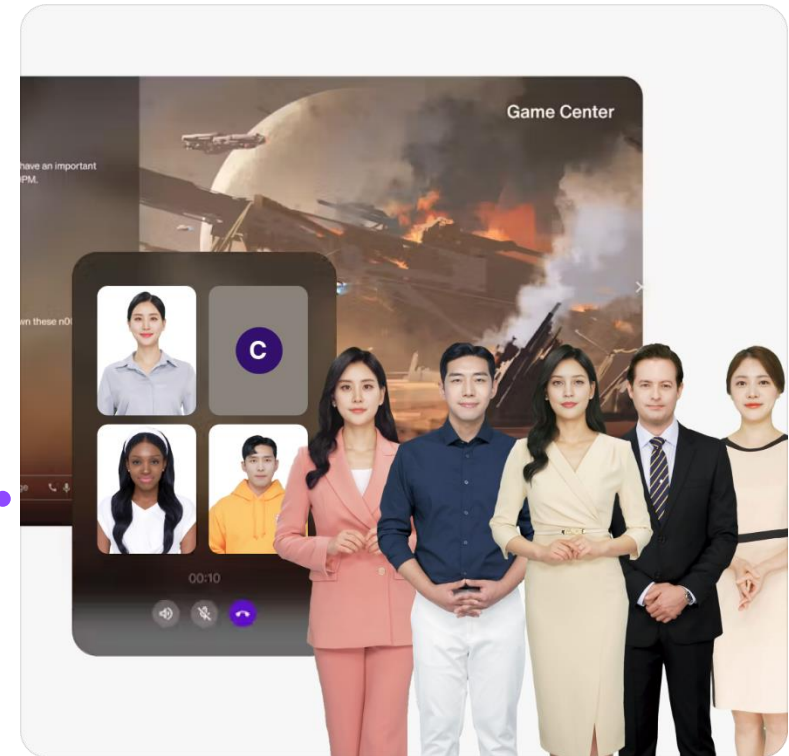
AI Human Chat

that increases user engagement and retention



Real-time interaction with celebrity AI Humans and fans
Personalized message generation and fan community provision

Provide free and vibrant 'video chat' through your own AI Human avatar



03

AI BUSINESS USECASE

AI BUSINESS
PARTNERSHIP

ESTSOFT AI BUSINESS

Drawing on our 30 years of IT expertise, advanced AI technology, core talent capabilities, strategic partnerships, and business experience, ESTsoft brings AI solutions to our customers' daily lives and operations. Our team of top experts is dedicated to enhancing business competitiveness and creating value through continuous innovation.



ESTSOFT AI PERSO LIVE

Conversational AI Human

AI Human Chatbot

Equipped with AI Human capable of real-time conversation

▶ Video

PERSO LIVE

- Integrating LLM with ESTsoft's AI Human
- Providing *immersive conversation experience* with high-quality AI Human through voice/text
- Implementing *real-time conversation* with AI Human through voice/text
- Customizable speech (response) style
- **Multilingual support**
- Usable across *various devices and environments* such as web, kiosks, and mobile
- Applicable for *query response, promotion, and guide pages*

[Examples]

- AI Human chatbot for onboarding new employees' Q&A
- AI Human chatbot for new product launch promotion and Q&A



Easy and quick to use by anyone with an interactive kiosk



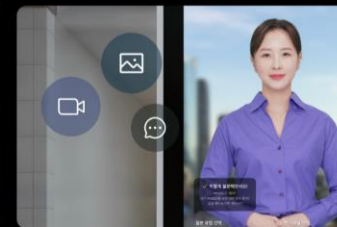
Available 24/7 to assist customers anytime, anywhere



Natural interaction with a lifelike AI Human



Includes a scenario chatbot that can answer any question



Provides various visual effects such as videos, images, and text



Saves time and costs for both companies and customers

ESTSOFT AI HUMAN with ChatGPT

Conversational AI Human

JTBC <Newsroom>



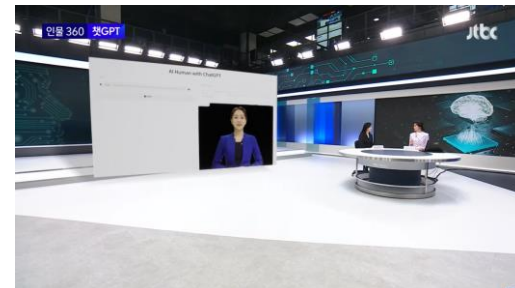
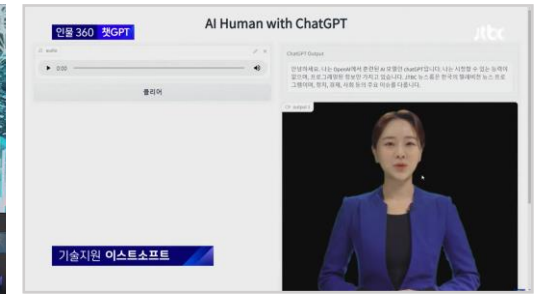
Public Technology Demonstration

ChatGPT + AI Human Integration → AI Human answers questions with voice

- Integrating OpenAI's ChatGPT-3, provided as text-based, with ESTsoft's AI Human
- Implementing **real-time conversation** through voice between AI Human and ChatGPT
- **First in the country, technology demonstration broadcasted live**



Live technology demonstration on JTBC Newsroom



ESTsoft's AI Human answering the anchor's questions

AI BUSINESS

SHINHAN CubeOn **FACE SWAP (AI PILATES INSTRUCTOR)**



- Collaborated to create **AI Pilates instructors** for smartphone apps.
- Convergence of '**AI Persona**' and '**Face Swap**' technology
- Applied ESTsoft's **own AI Persona** "Kim E-so (IP Contracted for partnerships)
- Successfully implemented technology that is associated with '**side angles**' and '**large gestures**'
- Provides long hours of videos in **high quality up to 4K**



AI BUSINESS

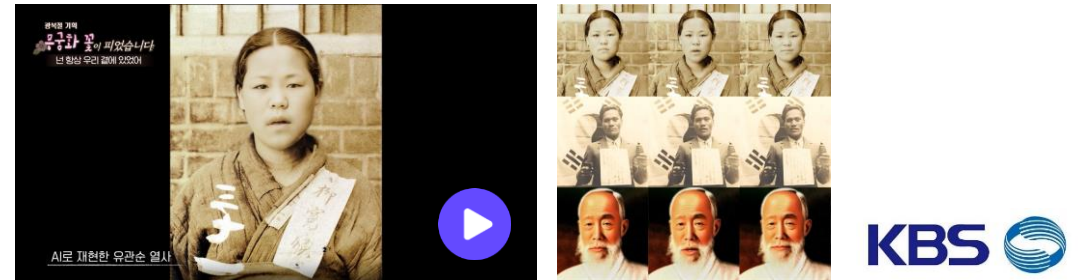
AI Exhibition with GETTY IMAGE

Signed a memorandum of understanding (MOU) with gettyimagesKorea to create and sell images using AI technology and promote new businesses (the largest image distributor in Korea)

AI image exhibition and content business

Recreating Celebrities and Historical Figures Using AI Technology

- Developing Exhibition Business Using AI Technology
- "Frida Kahlo Photo Exhibition' Successfully Concludes (March 2023)"
- Recreating 'Moving Frida Kahlo' Using AI Technology
- Preparing Exhibitions for Other Western Painters Besides Frida Kahlo
- AI Technology Support for KBS Liberation Day Special Documentary 'The Rose of Sharon Has Blossomed' (Aired on August 15, 2023)
- Photos of Korean independence activists Yu Gwan-sun, Yun Bong-gil, and Nam Gung-eok were converted into talking and moving videos using AI technology.



AI BUSINESS

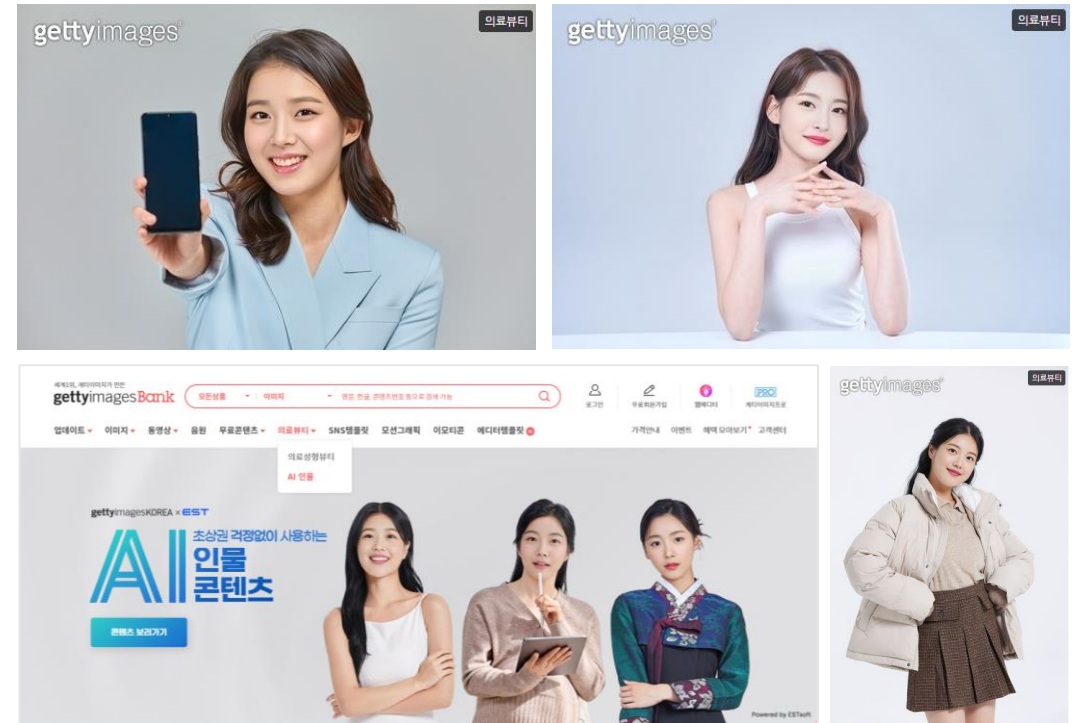
AI IMAGE / VIDEO CREATION with GETTY IMAGE

Signed a memorandum of understanding (MOU) with gettyimagesKorea to create and sell images using AI technology and promote new businesses (the largest image distributor in Korea)

AI Image Stock Business AI Human Content Sales Page

with **gettyimages** KOREA®

- Image stock platform 'gettyimages Bank'
- Creating and selling portrait images using AI technology
- ESTsoft creates 'AI Persona,' AI humans **without portrait rights restrictions**
- Implementation of transformed images based on commands through deep learning
 - 'Face change, makeup application, clothing creation' and more
- Launch of AI Human generated images in the [Medical Beauty] category (Q1 2023)
- Expected to be used for promoting **procedures and treatments, hospital marketing, and beauty promotions** that general models are reluctant to use their likeness for



AI BUSINESS

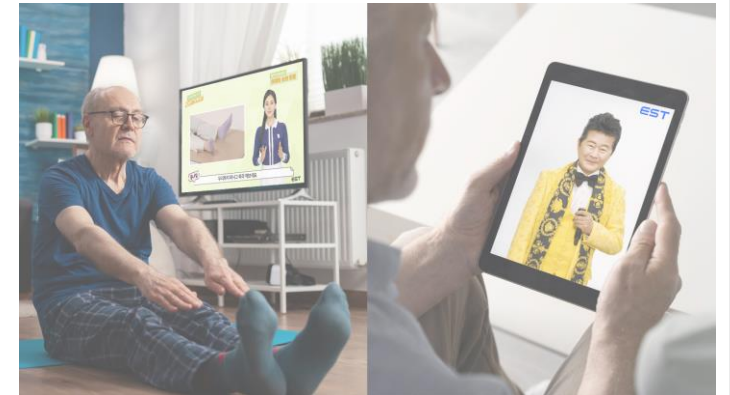
AI Senior Care Platform

ESTSOFT Senior Care Business

MTN News



EST AI Senior Care



One-way

AI Senior content production

- AI Human Happy Singing Class
- Senior Health Play Classroom
- Entertainment Content

Two-way

AI Senior care service

- A Companion Service for Seniors' Leisure Time
- Celebrity/Grandchild AI Humans

AI BUSINESS

AI Senior Care Platform



In January 2024, ESTsoft opened a senior care center in Gimhae city (36 centers).

By 2026, We plan to expand by an additional 136 centers.

Development of personalized services at each center using PERSO

Take Responsibility for Senior Lifestyle

24/7 AI Human care for senior

- Creation and distribution of senior care content using AI humans:
 - Famous trot singer Tae Jin-ah's singing class content.
 - Co-Creating content with Yonsei University Lifelong Sports Research Lab.



연세대학교 평생스포츠 연구실
Yonsei University Lifetime Sports Lab.

- Expected Benefits:
 - Enhanced senior leisure activities with expert singing classes and cognitive content.
 - Improved self-examination utility for the elderly with 24/7 accessible AI humans.
 - Easier health management and disease prevention through personalized health Check services.



[AI Human Health Check]

Authentification via Face > Health check > Data > Warning / Care service

AI BUSINESS

AI Senior Care Platform



보건복지부

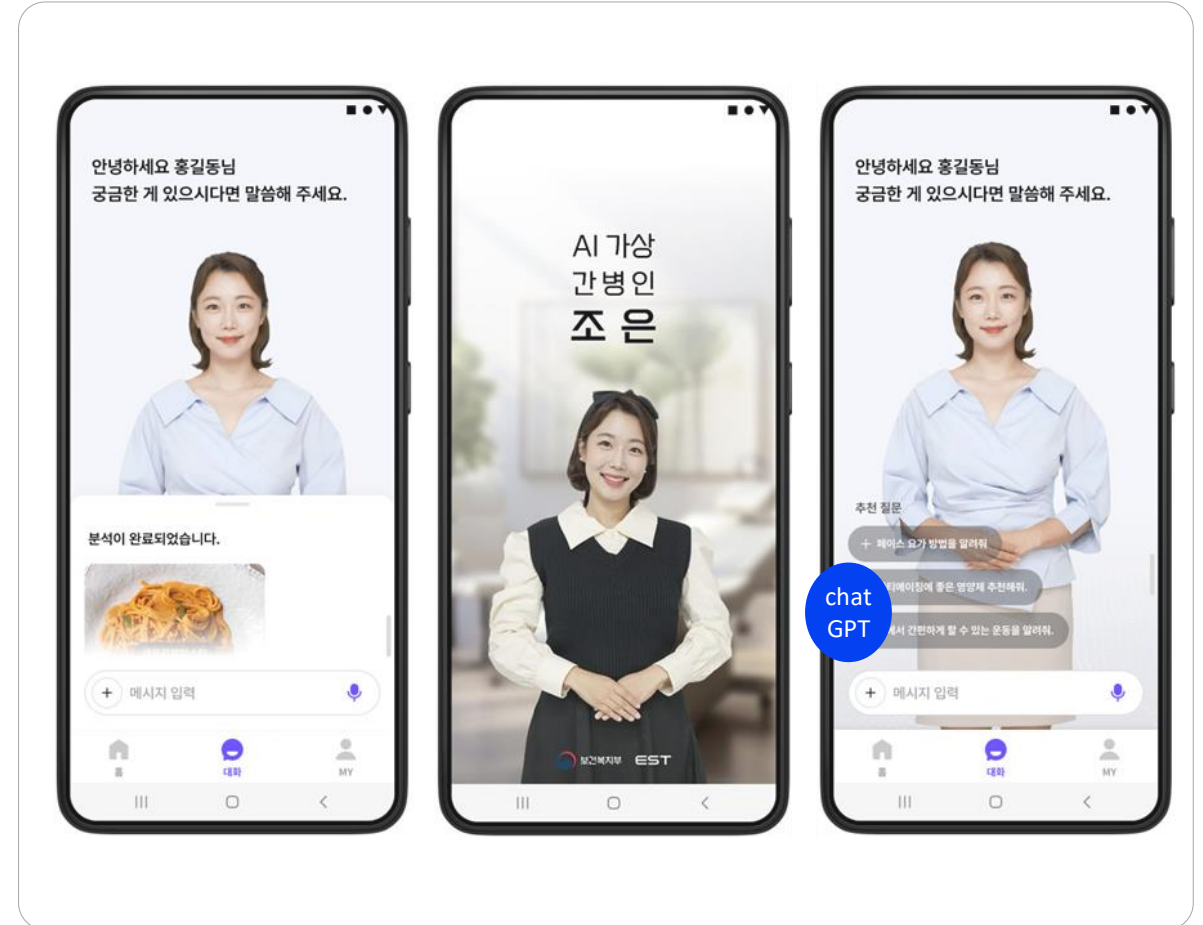
Ministry of Health and Welfare

A real-time, emotionally interactive AI human service
 User-friendly AI human for emotional stability, health management, and coaching
 Signed a project with the Ministry of Health and Welfare's National Rehabilitation Center,
 with plans to distribute a senior-specific AI human service in 2024

Taking responsibility for the emotions of seniors!

An interactive AI human service that provides emotional stability.

- 1. AI human chatbot solution integrating AI human technology and LLM models:**
 - Acts as a companion for seniors, providing emotional stability through immersive and realistic conversations.
 - Delivers practical information, health management, and coaching.
 - Offers a senior-friendly UX tailored to different situations.
- 2. AI Clone and Persona Human-based Chatbot:**
 - Implements AI humans using a variety of personas.
 - Creates AI clones that replicate the appearance, voice, and identity of real individuals, such as celebrities or grandchildren.
 - Produces AI personas with unique appearances and identities never seen before.
- 3. Signed with of Health and Welfare**
 - Building an intMinistryeractive AI human chatbot platform to assist with senior health management.
 - Anticipating the advancement of AI human technology and the development of senior-specific AI services.



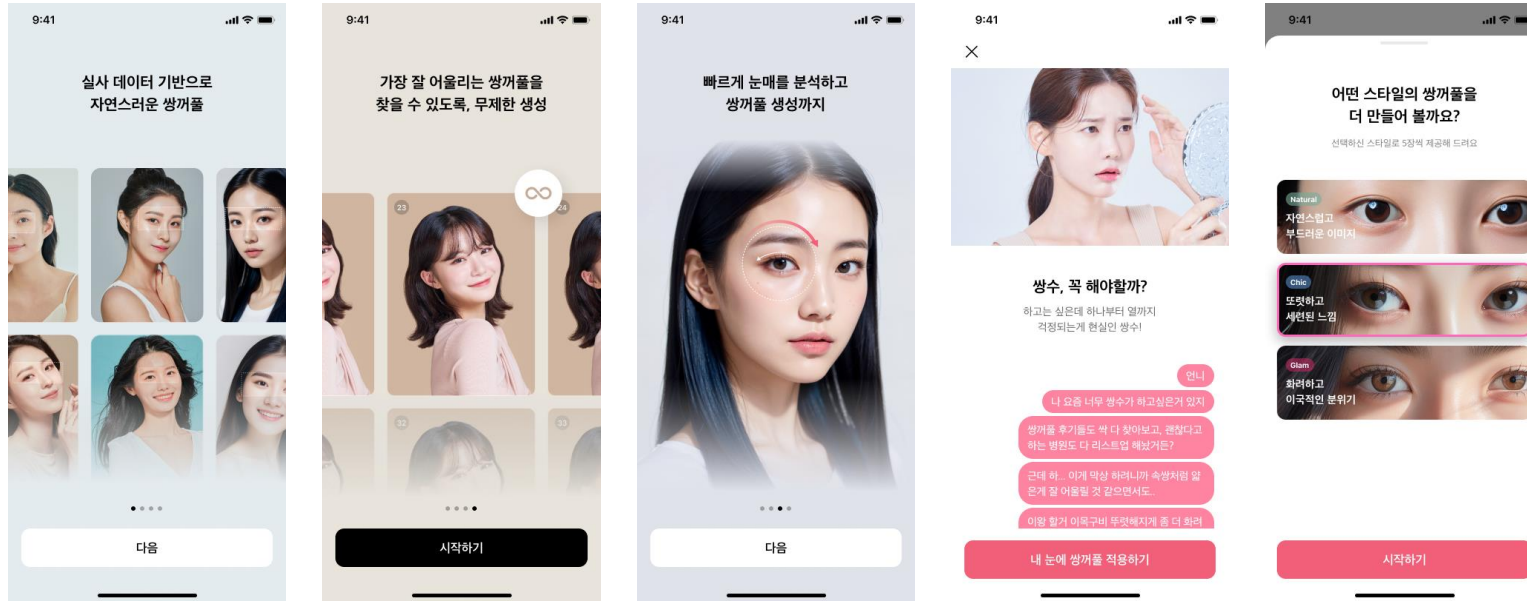
AI BUSINESS

A 'personal branding app' that helps users to find the style and self-awareness

AI Personal Branding App beMe

Virtual Cosmetic surgery

Create a variety of double eyelids with one single photo



Style recommendations

AI recommended fashion style -
Hair style, Hair color and Clothing



Example of Using EST AI Technology

1

In any content, any appearance of your choice

Generate AI clone/ AI persona of your choice

Face Swap with the preferred appearance on pre-recorded video and images of people

- AI Human suitable for brand identity with no restrictions on use of portrait and voice rights



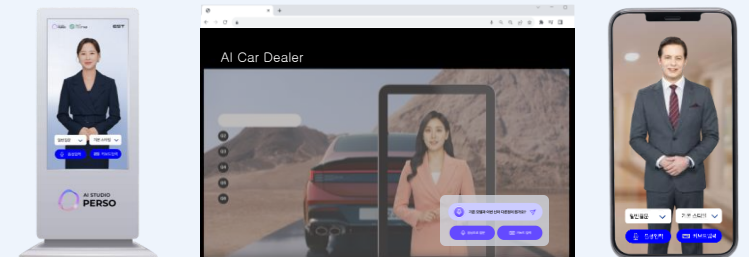
2

Conversational AI Human

Provide unique customer experience with AI Human embedded APP/WEB

- Use as online KIOSK where users can interact with conversational AI human just by accessing the App/Web page.
- Provides a personalized customer experience (CX) similar to face-to-face service by using AI human customer consultation, campaigns, and promotions.

ex) AI new car launching information dealers, department store VIP lounge customer service kiosks



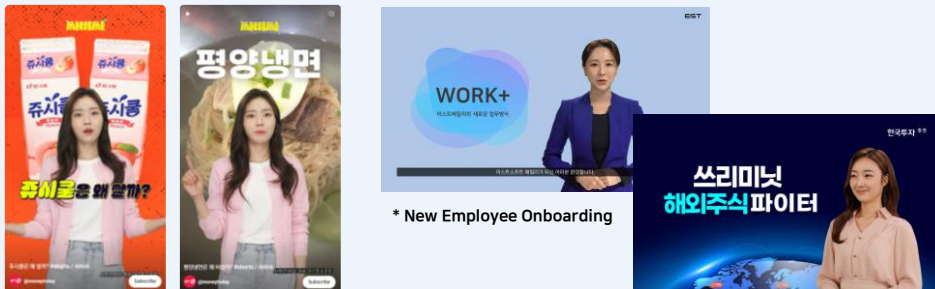
Example of Using EST AI Technology

3

Internal/external communication content

Highly effective & informative video with AI Human

- Internal : New recruits on-boarding, employees training/ education/ communication
- External : YouTube Channel content, Promotions &Event information



4

Multilingual content

Produce video with language of 110 countries with MS TTS

- By offering training materials for local employees needed by overseas branches in their language, saves costs and increase immersion in training.
- Produce promotional videos in the language of each target market.



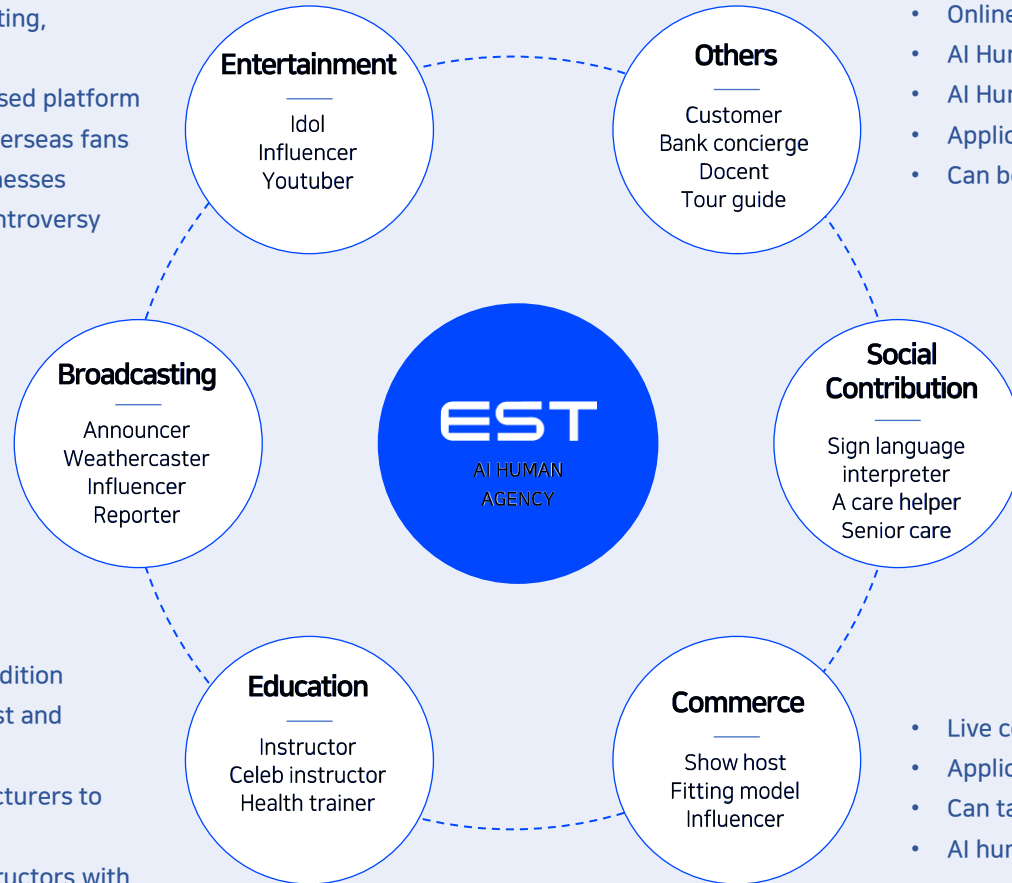
AI HUMAN BUSINESS EXPANSION

ESTsoft is leveraging its branded AI technology to penetrate various industries. Through the diversification of profitable business models, we are taking a big leap forward as a leader in the METaverse space.

- Metaverse activities such as broadcasting, advertising, etc.
- Fandom communication on an app-based platform
- Creation of multilingual content for overseas fans
- No change in appearance and No sicknesses
- Prevention of risks such as privacy controversy

- Can produce videos in consistent conditions
- Easily create videos that require repetitive productions
- Fast production that requires urgent work such as breaking news (24hours)
- Applicable to global media through various foreign languages

- Regardless of the lecturer's schedule or condition
- Create repeatable lecture content at low cost and efficiency
- Can produce celebrities or influencers as lecturers to improve learning and concentration
- Can target the global market by having instructors with various languages



- Online & offline customer centers
- AI Human counselor in kiosk
- AI Human video counseling (advisory service)
- Applicable to repetitive customer guidance services
- Can be explained in multilingual voice and video

- Applicable to content and platforms that can be used by the deaf
- Can be used as helper or friend for underprivileged
- Can address the mental gap experienced by the underprivileged by facing the same AI Human as the real person

- Live commerce, product planning, promotion, etc.
- Applicable as a sales platform dedicated to AI influencers
- Can target the global market through the use of various language
- AI human model's product wear (PPL) and advertisement

Partnerships with Leading Companies

Broadcast									
Content Entertainment									
Education									<small>The Korean Association for the Study of the Liver</small>
Manufacture									
Finance									
Commerce Healthcare									
Government Agency									

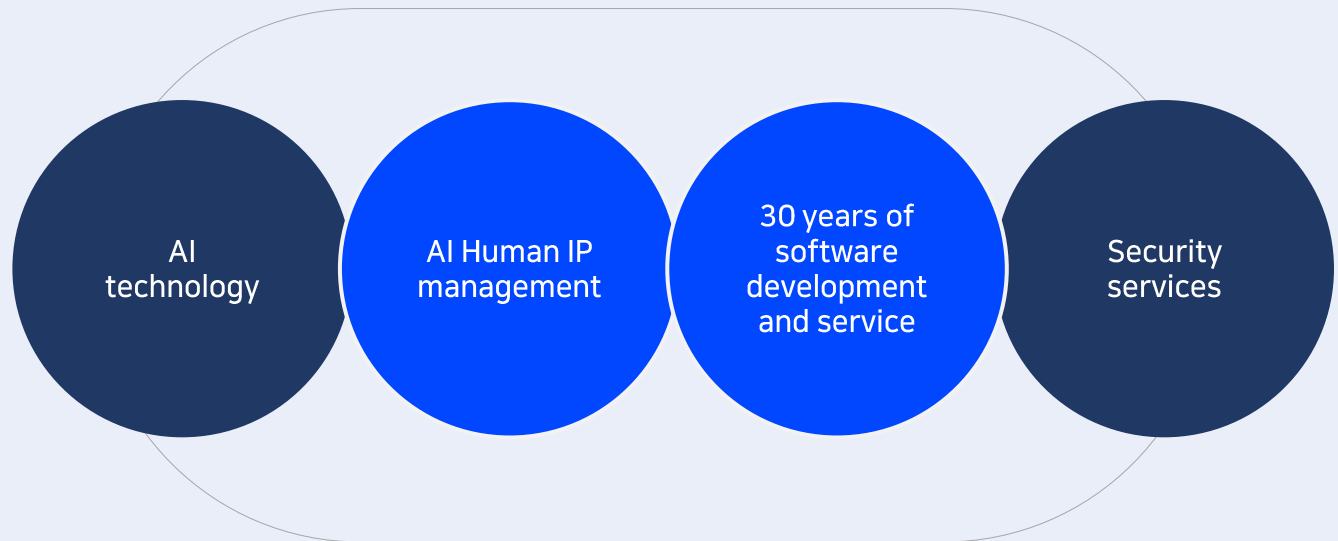
04

WHY EST SOFT

Key Strengths

EST AI HUMAN

ESTsoft leads the innovative change in content creation with AI Human and offers opportunities for business growth in a variety of industries. With 30 years of software development & service providing experiences, we are now focusing on AI business having IP & content management experts.



EST AI HUMAN

Unique Features of ESTsoft's AI Human



- Creates faces does not exist in the world.
- Successfully commercialized
- Creates both "Real" and "Virtual" human
- Can customize based on the user's needs



- High-quality & natural AI Human
- Side angle (First & only in Korea)
- Faster videos production speed
- Supports high resolution up to 4K



- Has specialized experts in IP management
- Maintains a high understanding of IP and its content



- Reliable and sophisticated SW solutions and full security competences
- Easy to use
- Provides a wide range of editing functions and continuous enhancements
- Provides unlimited videos



- Recruited professional directors in-house and owned studios for AI Human services
- Can create AI Human-related creative content fast and reliably



- Highly focuses on our partners as a running mate
- Possesses leading manpower with agile communication skills etc.

Natural & High Quality

AI Human will be a “Brand” of our clients.

ESTsoft’s goal is to offer AI humans a high level of quality that closely resembles real humans, creating a natural and realistic experience.

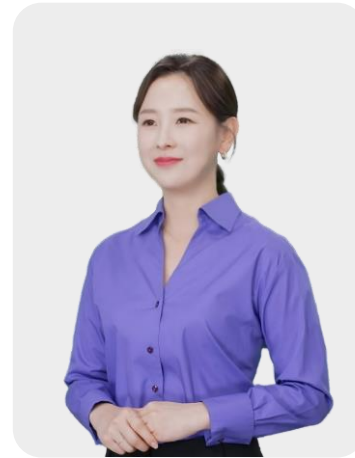
- Natural movements and facial expressions
- Lips as sharp as the face
- Mouth shape that synchronizes perfectly with text when speaking



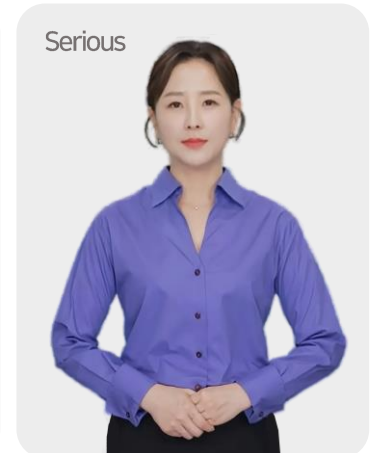
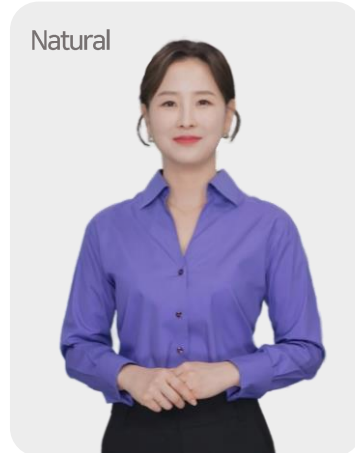
Only ESTsoft in Korea

“Side angle” & Gestures

- Through our long-term research in AI, we have successfully developed a pioneering technology in Korea known as the “side angle” view.
- The left and right “Conversion” functions can be utilized to show both angles
- Different speech poses are applicable depending on the mood of the content
- Able to provide various visual effects when creating content



Side angle available for use



Speech utterance options provided
(More functions & options under development)

Professional IP Management

Countless AI humans, differentiated and meticulous content IP capabilities are important.

- Specialized professionals in IP management
- Understanding of IP and content
- Creating customized AI Humans with sophisticated visuals for each client
- Providing legally reliable and safe-to-use AI Humans (Free from IP licenses)

EST AI Human stands out both **TECHNICALLY** and **VISUALLY**.



Sophisticated EST concept AI Human

Robust AI SOLUTIONS & Continuous TECH advancement

AI R&D with Competent Experts

20+ AI data professional labelers

- Recruited In-house Data intelligence team
- Many experiences in data establishment for R&D & Projects
- Has experience in successfully completing government projects
- Uses self-developed annotation tools for data processing
- Recruited in-house Quality control specialists and conduct weekly quality inspections and analyses to improve the output and other issues

50+ AI Tech Researchers & SW Development Experts

- Graduate-level researchers in Tech Center, AI professionals, SW developers
- Researchers with advanced deep-learning research papers
- 30 years of commercial SW development system and know-how
- Software flagship with more than 30 million clients; individuals, government, and, educational institutions etc.
- Proven cyber-security software technology and management skills
- Successfully commercialized "ROUNZ Mirror," a virtual fitting solution

Proven AI technology



3 consecutive years of ministerial awards at "AI Grand Challenger" hosted by the Korean Ministry of Science and Technology.



Ministerial Awards (Grand prize) at "Korea's Artificial Intelligence Awards 2022"

Robust AI SOLUTIONS & Continuous TECH advancement

Multilingual TTS (Text-To-Speech)

Multilingual TTS

By learning only one language, It can speak multilanguage



STV (Speech-To-Video)

Convert **speech** to video

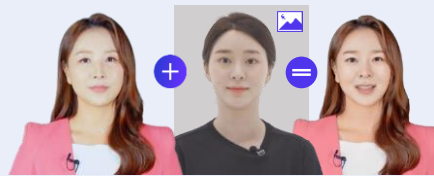
It is possible to produce videos that AI humans speak using simple voice recording



PTV (Picture-To-Video)

Convert **image** to video

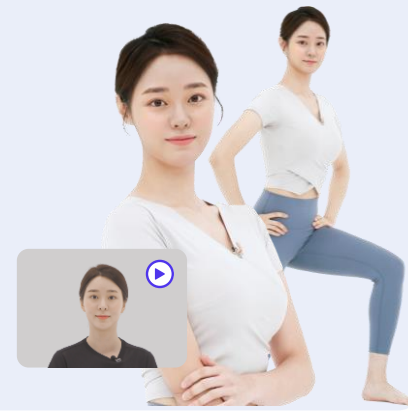
You can produce an AI human with the face of the person you want with just one image of the person you want



VTV (Video-To-Video)

Convert **video** to video

Face swap with another person in the video



Stable Diffusion

Convert a specific part of the image to text input only

You can change the makeup, outfit, and hairstyle in the image in a simple way

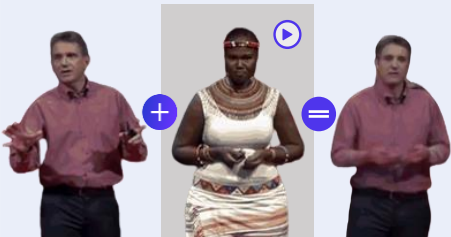


Robust AI SOLUTIONS & Continuous TECH advancement

Motion Retargeting

Replicate the movement of a particular image in an image

Enables images to replicate certain movements to move along



SimSwap

Replicate the appearance of a specific person as the original image properties

Face Swap with the appearance of a particular person/object while retaining the unique attributes of the original image (Special makeup can be produced, etc)



Real-time Chatbot

Real-time chatbot linked to ChatGPT

Real-time interaction AI Human Chatbot



Voice Conversion

Voice Conversion

Convert target voice to desired voice and tone



Top quality STUDIO & AI Professional Director



· **In-house AI Human production studio** with world's highest specification, which can be produced with the highest image quality (8K)

· **Built our own internal network** that allows the captured data to be sent directly to relevant department

· Strengthened the competitiveness of **high-quality AI Humans** by utilizing high-quality video and voice data

· **AI AI Human specialist (in-house): Strategy/filming/production**
ESTsoft's specialists enable the most natural and diverse styles of AI Human

Thorough Security Services & Sophisticated SW Solution provider

We are the leading cyber-security company with over 20 million downloads and around 200 million cases of eradication per year. We prioritize the protection of our AI technology, from data security to endpoint security and deep learning security, with reliable security competences.

By providing dedicated servers for our clients, we maintain more security and produce content that is sensitive to security for each customer with confidence.

We provide a more stable environment for services through 30 years of SW development career.

As a leading AI company, we have established and complied with the Code of Ethics and provide services that customers can use with confidence.

ESTsoft's AI Human envisions the next 10 years.

As we prepare for a future where we coexist with AI humans, we prioritize respecting their personalities and ensuring the ethical use of AI humans.

We create AI humans with the best AI technology and protect AI humans with the best security technology.

ESTsoft's AI code of ethics

Respect for human

We place the highest value on human dignity and respect the unique personalities of both human and AI individuals.

Social Contribution

Our AI technology strives to benefit society and make positive contributions, integrating our AI human beings as members of the community.

Fairness

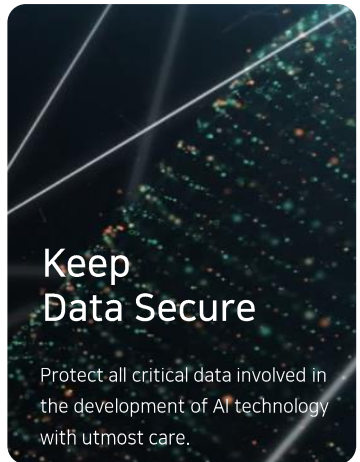
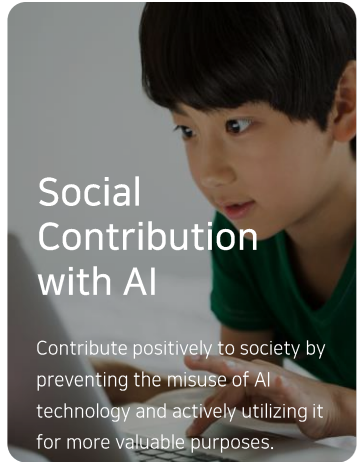
We are committed to preventing discrimination and bias and embracing diversity in all aspects of our practices and outcomes.

Ethical value

We comply with our society's ethics in the data collection, management, and algorithm development processes.

Safety

With top-notch security technology and extensive experience, we guard against cyber threats and take rigorous measures to safeguard personal information and all data involved in AI development.



Technological Strength

Realization of Both 'Real' and 'Virtual'

- "Real" or "Virtual" human according to the user's needs
 - AI Clone is an avatar representing a real person
 - AI Persona is a creation of a new identity
- Customizable to client's requirements

Fast production speed

- Video production speed is 0.4 times faster than the original video length, which is much faster than other companies' solutions
- Voice & video preview functions allow the users to check results faster

High resolution up to 4K

- Download high-resolution video from FHD to 4K Video
- Applicable to transmit to large screens

Various features and continuous development

- Pose / angle selection, PPT & Text file loading, video preview, etc.
- Continuous product advancement provides upgraded functions

Unlimited content creation

- "Whenever you need and as much as you want"

MEDIA

Media / News

MEDIA / NEWS

Media / News Reporting

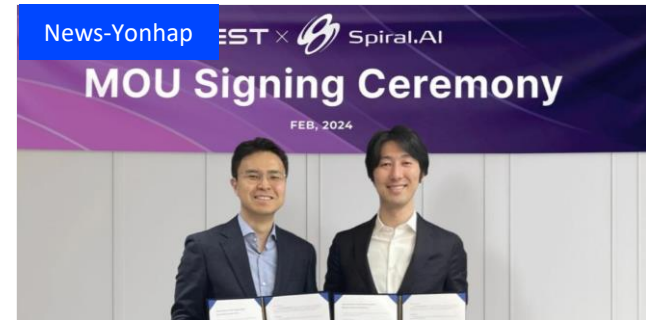


ESTsoft to Integrate AI Human into MS Teams



ESTsoft and MS Partner for Global AI Human Collaboration

ESTsoft Visits MS Headquarters for Business Expansion Talks



ESTSOFT

MOU with Spirai AI Japan targeting Japan Senior care market



JTBC <Hidden Heroes> episode 4



For the first time in Korea, ESTsoft's AI Human-ChatGPT synchronization was broadcasted live



Korea's first bilingual YBM AI English speaking Instructor

MEDIA / NEWS

Media / News Reporting



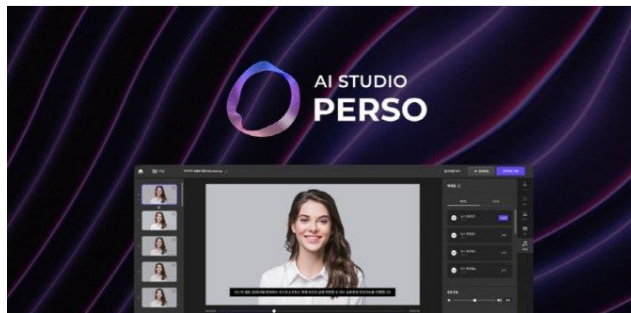
ESTsoft Wins MSIT Minister's Award in AI



ESTsoft's AI Innovation



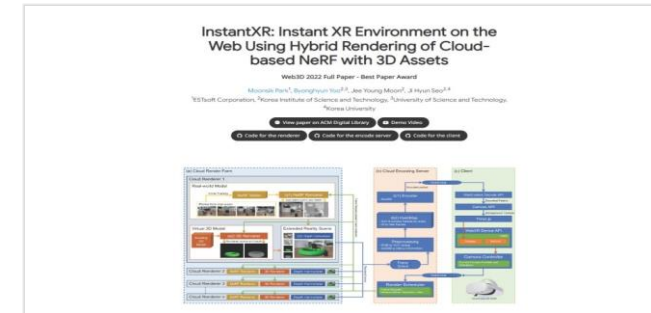
[AI Grand Challenge Season 1 : Grand awards - 3 consecutive years of ministerial awards]



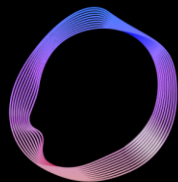
[ESTsoft launched AI Human Video service: AI Studio Perso



[2022 KOREAN AI AWARDS Grand prize "We will strengthen pragmatic AI services"]



'Web 3D 2022' Best Paper Award - Sharing Virtual Space Using AI Technology



AI STUDIO
PERSO

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