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# AI LEARNS TO TALK

## THE \$47B VOICE REVOLUTION

From chatbots to human-like  
voice agents in every industry

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**\$47.5B**  
**by 2034**

**Voice AI Agents Market**  
**Growing at 35% CAGR**

From \$2.4B in 2024 → 20x in 10 years

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## THE SHIFT

# Voice-First Computing



### **60% of Smartphone Users Use Voice**

Up from 45% in 2023. Voice assistants now standard in phones, speakers, cars, and wearables. Hands-free is the new default.



### **90% of Hospitals Using AI Agents by 2025**

Healthcare leads adoption. Voice AI handles scheduling, triage, patient follow-ups, and medication reminders at scale.



### **\$290B Conversational Commerce by 2025**

Retail and e-commerce drive massive investment. Voice shopping, support bots, and AI assistants transform customer experience.

# Voice-to-Voice AI Arrives



## End-to-End Audio Models

No more text transcription. GPT-4o and EVI 2 process audio directly → audio output. Sub-500ms latency. Natural conversation finally possible.



## Emotional Intelligence

AI detects tone, emotion, and intent from voice patterns. Responds with appropriate inflection. Empathic interfaces emerging.



## Multilingual by Default

30+ languages supported. Real-time translation. Voice AI learns languages organically from training data.

# Call Centers Go AI



## **87% Frustrated with Human Transfers**

AI agents eliminate hold times and transfers. 24/7 availability. Consistent quality. Customers actually prefer it for simple tasks.



## **BFSI Leads with 32.9% Market Share**

Banking, insurance, and finance deploy voice AI for fraud alerts, account inquiries, claims processing, and compliance calls.



## **\$0.07/min vs \$1+/min Human Agents**

10-15x cost reduction. Voice AI platforms like Retell and Vapi handle thousands of concurrent calls. ROI in weeks.



*Voice-to-voice models bring to fruition what Siri and Alexa had long promised — natural conversation with AI.*

— Hume AI Research

**Key Insight:** OpenAI dropped Realtime API pricing 60-87% in Dec 2024. Cost barrier evaporating. Every app can now have a voice interface — the question is who builds the best experience.

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# When did you last use a voice assistant?

 Siri, Alexa, ChatGPT Voice, or something else?

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## KEY NUMBERS

**\$3.3B**

ElevenLabs valuation — voice synthesis leader

**1,000**

Years of AI audio generated annually on ElevenLabs

**75ms**

ElevenLabs Flash model latency — faster than thought





# ElevenLabs

VOICE SYNTHESIS LEADER

**\$3.3B**

VALUATION

**\$90M+**

ARR (2024)

**\$281M**

TOTAL RAISED

**60%**

OF FORTUNE 500

Polish-founded voice AI powerhouse. Ultra-realistic text-to-speech in 30+ languages. Voice cloning from short samples. The "OpenAI for audio."

🔥 **Jan 2025:** \$180M Series C led by a16z. Voice Library marketplace pays creators \$2M+ in royalties. Disney Accelerator alum. ElevenLabs Reader app launched.



# OpenAI Voice

CHATGPT ADVANCED VOICE MODE

**GPT-4o**

MODEL

**9**

VOICE OPTIONS

**Realtime**

API (OCT 2024)

**60-87%**

PRICE DROP DEC '24

Native multimodal voice in ChatGPT. End-to-end audio-to-audio processing. Memory and custom instructions supported. The mainstream benchmark.

🔥 **Dec 2024:** Realtime API pricing slashed — now accessible to all developers. Screen sharing and video coming. Free users get GPT-4o-mini voice daily.



# Hume AI

EMPATHIC VOICE INTERFACE

**\$50M**

SERIES B (2024)

**EVI 2**

LATEST MODEL

**\$4.32/hr**

API COST

**Emotion**

DETECTION

Founded by ex-Google DeepMind scientist Alan Cowen. Trained on cross-cultural emotional data. Detects and responds to user emotions from voice patterns.

🔥 **EVI 2:** First truly empathic voice AI. End-to-end audio model. 2x cheaper than OpenAI Realtime. Optimized for human well-being and mental health applications.



# Deepgram

SPEECH RECOGNITION LEADER

**\$86M+**  
TOTAL RAISED

**Nova-3**  
LATEST MODEL

**200K+**  
DEVELOPERS

**54%**  
LOWER WER

Enterprise-grade speech-to-text. 40x faster than competitors. Processes 50,000+ years of audio annually. Sub-300ms latency for real-time transcription.

🔥 **Nova-3:** Trained on 47B tokens from 6M+ sources. Best-in-class accuracy for call centers, meetings, and voice analytics. Aura TTS for real-time conversations.



# Retell AI

## ENTERPRISE VOICE AGENTS

**\$0.07**

PER MINUTE

**31+**

LANGUAGES

**HIPAA**

SOC2 / GDPR

**<800ms**

LATENCY

Developer-first platform for production voice agents. Full control over conversation logic. Built for healthcare, finance, and compliance-heavy industries.

🔥 **Enterprise Ready:** Automatic PII redaction. Verified phone numbers reduce spam flags. Knowledge base integration for accurate answers. Cal.com scheduling built-in.



# Vapi

OPEN SOURCE VOICE SDK

**\$0.05**

PER MINUTE BASE

**<500ms**

LATENCY

**Open**

SOURCE

**Multi**

LLM SUPPORT

Open-source voice agent SDK for developers who want maximum customization. Supports GPT-4o, Claude, and custom models. Self-host or use their cloud.

🔥 **Developer Favorite:** WebSocket streaming. Bring your own LLM. Thousands of configurations possible. Popular for rapid prototyping and custom telephony.



# Bland AI

## ENTERPRISE PHONE AGENTS

**End-to**

END INFRA

**No-Code**

BUILDER

**Voice**

CLONING

**Enterprise**

SCALE

Full-stack AI phone agent platform. Owns entire infrastructure for lowest latency. No-code builder plus API for developers. Built for enterprise scale.

🔥 **Differentiated:** Context memory across calls. Built-in summarization and confidence scoring. Manages all CRM and telephony integrations. Enterprise privacy controls.



# Alexa + Google

## CONSUMER VOICE GIANTS

**500M+**

ALEXA DEVICES

**1B+**

GOOGLE ASSISTANTS

**Gemini**

LIVE (GOOGLE)

**LLM**

ALEXA UPGRADE

The incumbents with massive installed bases. Both racing to integrate LLMs. Google launched Gemini Live. Amazon reportedly partnering with Anthropic for new Alexa.

🔥 **Playing Catch-up:** Legacy assistants struggled vs ChatGPT. Now investing heavily. Samsung Bixby also upgraded in 2024. Smart home dominance at stake.





# PlayAI + SoundHound

## VOICE INFRASTRUCTURE

**Meta**

ACQUIRED PLAYAI

**\$177M**

SOUNDHOUND '25 REV

**\$1.2B**

SH BOOKINGS

**\$140B**

TAM

PlayAI acquired by Meta to power voice for Meta AI and future products. SoundHound (public) sees massive automotive and restaurant demand.

🔥 **Consolidation:** Big tech buying voice infrastructure. CB Insights flags ElevenLabs and Cartesia as top M&A targets. Voice is strategic, not commodity.



# AssemblyAI + Cartesia

NEXT-GEN VOICE TECH

**\$115M+**

ASSEMBLYAI RAISED

**Ultra**

LOW LATENCY

**Sonic**

CARTESIA TTS

**5-10x**

FASTER TTS

AssemblyAI: Universal speech transcription and audio intelligence.  
Cartesia: Ultra-low latency TTS optimized for real-time voice agents. Both strategic acquisition targets.

🔥 **Speed Race:** Cartesia's Sonic model 5-10x faster than competitors. AssemblyAI's Universal-1 handles any audio. Racing to sub-50ms response times.

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## FINAL THOUGHTS

# The Voice-First Future



### Every App Gets a Voice

APIs now affordable. Voice interfaces becoming table stakes. Expect voice-first experiences in banking, healthcare, retail, and productivity apps.



### AI + Human Hybrid Models

Voice AI handles 80%+ of routine queries. Humans focus on complex, high-value interactions. Smith.ai and others blend both for best experience.



### Emotional AI Emerges

Beyond words — understanding tone, sentiment, intent. Mental health, eldercare, and companionship apps on the rise. Voice as empathic interface.

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**JJ Shay**

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