SPARROW AI
"Never Wing a Call Again"

Complete Project Summary

AI Partner Catalyst Hackathon - ElevenLabs Challenge

Live Demo: https://sprrw.app
Repository: https://github.com/hausorlabs/sparrow-ai
License: MIT (Open Source)

1   What is Sparrow AI?

Sparrow AI is a **voice-first sales training platform** that lets users practice cold calls, discovery conversations, and objection handling with realistic AI prospects powered by **ElevenLabs Conversational AI** and **Google Gemini**.

> **User speaks → ElevenLabs processes → AI responds with voice → Gemini analyzes → Instant feedback**

2   The Problem

> **91% of sales teams missed quota in 2024**

- **3-6 months** average ramp time for new sales reps

- **$97,690** cost to replace one failed sales rep

- **67%** of reps miss their individual quota

- **No safe place to practice** — reps learn on real prospects

Sales is a performance skill. You get better by *doing*, not reading. But every practice opportunity today costs real money.

3   Our Solution

3.1   Three Practice Modes

3.2   Key Features

1. **AI Prospect Generation**: Gemini creates unique, realistic buyers with backstories

2. **Voice Conversations**: ElevenLabs enables natural speech interaction

Mode	Goal	Skills Practiced
Cold Call Simulator	Book a meeting	Openers, attention, value props
Discovery Call	Uncover pain	Questions, listening, qualification
Objection Gauntlet	Handle pushback	Reframing, persistence, closing

3. **Real-time Scoring**: Instant feedback during and after calls

4. **Detailed Coaching**: Timestamped moments with specific suggestions

5. **Progress Tracking**: Skill development visualization over time

4 Technological Implementation

4.1 Core Integration

Technology	Provider	Use Case
Conversational AI	ElevenLabs	Real-time voice conversations
LLM Intelligence	Google Gemini 2.0	Persona generation, call analysis
Fast Inference	Groq (Llama 3.1)	Real-time scoring
Database	Supabase	Data persistence
Authentication	Clerk	User management
Hosting	Vercel	Edge deployment

4.2 ElevenLabs Features Used

- **Conversational AI Agents**: Core voice interaction engine

- **Dynamic Variables**: 15+ variables per session for persona customization

- **Voice Library**: Multiple voices for different prospect personalities

- **React SDK**: Seamless frontend integration (`@elevenlabs/react`)

- **Client Overrides**: Gender-appropriate voice selection

4.3 Google Cloud / Gemini Usage

- **Model**: `gemini-2.0-flash-exp`

- **Persona Generation**: Creates detailed prospect profiles from parameters

- **Call Analysis**: Deep analysis of transcripts with structured JSON output

- **Coaching**: Generates actionable feedback with specific suggestions

4.4 Code Quality

- 100% TypeScript for type safety

- Next.js 15 with App Router

- Modular component architecture

- RESTful API design with proper error handling

- Environment-based configuration

5 Design & User Experience

5.1 User Journey

1. **Sign Up**: Quick authentication via Clerk

2. **Dashboard**: View stats, recent calls, improvement areas

3. **Select Mode**: Choose Cold Call, Discovery, or Objection Gauntlet

4. **Configure**: Pick industry, role, personality, difficulty

5. **Briefing**: Review AI-generated prospect details

6. **Call**: Natural voice conversation with real-time transcript

7. **Debrief**: Score card, key moments, full transcript

8. **Progress**: Track improvement over time

5.2 Design Principles

- **Voice-first**: Designed around natural conversation

- **Clean UI**: Minimal distractions during calls

- **Instant feedback**: No waiting for analysis

- **Mobile-friendly**: Practice from anywhere

6 Potential Impact

6.1 Market Opportunity

Metric	Value	Calculation
TAM	$5.7B	5.7M B2B salespeople × $1,000/year
SAM	$1.5B	2.6M inside sales reps × $600/year
SOM	$45M	75K users at 10% penetration (Year 5)

6.2 Who Benefits

- **SDRs**: 800,000+ in US need cold calling practice

- **Inside AEs**: 1.2M+ need discovery and objection skills

- **Sales Teams**: Reduce ramp time, lower turnover

- **Career Changers**: Access quality training without expensive coaches

6.3 Quantified Impact (at 75K users)

- 750,000+ practice calls per month

- $75M+ saved in reduced turnover costs

- 15,000+ reps reaching quota who otherwise wouldn't

7 Quality of the Idea

7.1 What Makes Sparrow Unique

1. **Voice-first**: Not a chatbot — real voice conversations

2. **Dynamic personas**: Every practice session is unique

3. **Objective scoring**: AI removes manager bias

4. **Adaptive difficulty**: Adjusts to user skill level

5. **Instant availability**: Practice 24/7, unlimited sessions

7.2 Why Now

- **Voice AI maturity**: ElevenLabs reached human-quality in 2024

- **LLM capabilities**: Gemini can roleplay convincingly

- **Real-time inference**: Groq enables instant feedback

- **Market pain**: 91% quota miss rate demands new solutions

8 Findings & Learnings

8.1 Technical Learnings

1. **ElevenLabs Dynamic Variables** are powerful for persona injection

2. **Voice override** requires enabling in Security settings

3. **Signed URLs** provide secure, temporary session access

4. **Gemini structured output** ensures consistent JSON responses

5. **Groq's speed** enables real-time scoring without latency

8.2 Product Learnings

1. Sales reps want *realistic* pushback, not easy wins

2. Timestamped feedback is more valuable than overall scores

3. Voice quality directly impacts immersion and learning

4. Pre-call briefing increases engagement and roleplay commitment

9   Conclusion

Sparrow AI demonstrates the power of combining ElevenLabs Conversational AI with Google Gemini to create a transformative voice-first application. The project:

Deeply integrates both partner technologies

Solves a real, quantifiable market problem

Shows quality software development practices

Delivers thoughtful user experience design

Has significant potential impact on millions of sales professionals

sprrw.app

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