## **Phase 1: Immersive Language Teacher**

### **TL;DR**

There are two types of language learning applications in the market, one is using studying materials made by real people (videos, audios, texts, slides, etc), the other is to chat with AI in a pseudo scenario. However, they all require learners to devote a specific time and practice using materials that are not 100% suitable for them.

We are building software that records your daily dialogue, and provides feedback on your real life dialogue. Based on the real chat, users will enjoy a 10x efficiency boost compared to any other solutions. We integrate seamlessly into users' daily lives without requiring dedicated study time.

### **Market Research**

* As of February 22, 2024, there are no similar tools in the market.
* As of February 22, 2024, Duolingo valued at $7 billion
* Target Market
  + International students trying to learn English
    - 1,057,188 in USA
    - 679,970 in UK
    - ~ 2m international students in English speaking Countries
  + Non-English country students in their homeland trying to learn English
    - 200 million in China
    - Overall ~1b students trying to learn English
  + Students trying to learn other languages
  + Common people trying to learn a new dialect / language
    - American trying to learn Cockney dialect
    - East-coasters trying to learn California dialect
    - People speaking Mandarin trying to learn Cantonese
    - People speaking Mandarin trying to learn Tianjin dialect
    - Indian people wants to learn different languages
  + Entreprise Version for schools

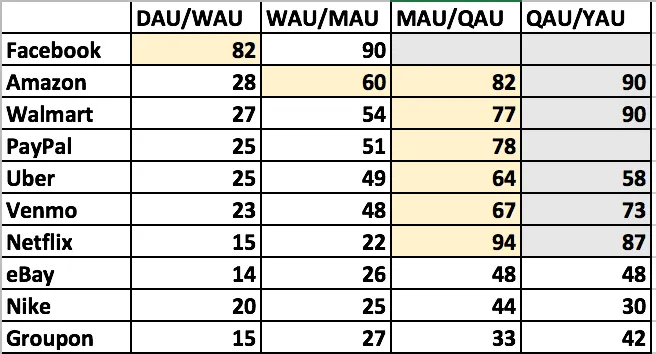
### **Product Description**

* Core Functionality:
  + Background audio recording to capture daily conversations.
  + Audio-to-text conversion to get the dialogue text
  + NLP to refine conversation text by removing fillers and pauses.
  + Speech separation to recognize the user’s speech
  + <https://lmstudio.ai/>
  + LLM to correct the mis-recognition of the dialogue
  + LLM to generate correct expression, contextual learning recommendations and feedback.
  + Text-to-audio generate audio
  + A user-friendly interface to interact
  + Touch on any word or sentence to get a translation or explanation, it’s an advantage of LLM to be able to dive into any details at any time. We should leverage this
  + Offer hundreds of different templates we’ve tested, to offer fine-tuned personalized feedback style
* Additional Features:
  + Semantic understanding in case the user never had a chance to express his own idea, then we need to guess from the context what he is trying to say, and give different versions of suggestions.
    - The matching ratio might be low, but there is still value in it
  + Read user’s calendar and choose automatically when to start recording to save energy
  + Manual activation option for conversation recording to respect privacy. Record doesn’t leave user’s device before permission is granted
  + Only give recommendations when the screen is lit up, otherwise it’s too annoying, but it should be configurable to users.
  + Weekly study plan on different focus
  + Regular review plan
  + Any other features that is on a mainstream language learning platform
  + Analyzing only when charging

### **Business Model**

* Free version allows usage of 30 mins in a day, which is a perfect balance between peoples’ willingness to learn a language and mobile phone energy consumption.
  + Free users cannot use auto audio recording?
* Pro users can use the software 24 hours a day, since the willingness to pay shows their determination to learn a new language. Pro users would be willing to tackle the energy consumption problem. $20 per month
  + Need to prevent people accessing service from a lower-price region using VPNs
    - Geo-IP Filtering / Payment Method Verification / DNS Filtering
    - Analyzing Traffic Patterns

### **Annual Minimum Goal**

* End of 2024
  + Covers: 20% of the international students in the U.S.
  + Annual revenue of $100k
  + Market value = Annual revenue \* PS ratio(100) = $10m
  + Paid annual user = Annual revenue/$20/12 month = 416
  + YAU = Paid annual user \* 100 = 40k
  + DAU = YAU / 4 = 10k
  + [link](https://medium.com/sequoia-capital/selecting-the-right-user-metric-de95015aa38)
* End of 2025
  + Covers: all of the international students around the world
  + Annual revenue of $1m,
  + Market value = Annual revenue \* PS ratio(100) = $100m
  + Paid annual user = Annual revenue/$20/12 month = 4166
  + YAU = Paid annual user \* 100 = 400k
  + DAU = YAU / 4 = 100k
* End of 2026
  + Covers: all of the homeland students around the world
  + Annual revenue of $10m = startup visas
  + Market value = Annual revenue \* PS ratio(100) = $1b
  + Paid annual user = Annual revenue/$20/12 month = 41666
  + YAU = Paid annual user \* 100 = 4m
  + DAU = YAU /4 = 1m
* End of 2027
  + Covers: all common people around the world
  + Annual revenue of $100m
  + Market value = Annual revenue \* PS ratio(50) = $5b
  + Market value close to Duolingo
* End of 2028
  + Covers: all common people around the world
  + Annual revenue of $500m
  + Market value = Annual revenue \* PS ratio(14) = $7b
  + Market value equals to Duolingo

### **Goal in 2024**

* 3/10
  + 50 users, 1 paid user
* 3/31
  + Official company registration
  + Product hunt
  + AWS CMU startup credit
  + Productloft.app
  + [limin@productloft.app](mailto:limin@productloft.app)
* 5/15(Summer Semester Start)
  + 500 users, 10 paid user
  + Market value = 10 paid user \* $20 \* 12 months \* PS ratio(500) = $1.2m
  + Ability to scale up
  + Tax, law, accounting resources
  + Angel Investment
    - Enough for 18 months
    - Operation: 10k DAU \* 18 months
    - Marketing:
    - Emergency Money for OPT visa application:
    - Overall: ~$120K ?
      * Private Investment: 50%
      * Public Investment: 50%
* 6/15(Summer Semester)
  + Ad Campaign ready to launch
  + Go beyond CMU
  + Social media advertising, using generated materials
* 7/15(Summer Semester)
* 8/15(Summer Semester End)
* 9/30(Chill Semester)
* 10/30(Chill Semester)
* 11/30(Chill Semester)
  + Sprint Campaign before new round of investment
* 12/30(Chill Semester)
  + A-Round investment
    - Need to be done before the financial crisis and the number need to be large enough to cover 3 years of spending
    - Labor: $200k salary \* 10 people \* 2 year = $6m
    - Marketing:
    - Operation:
    - Overall: ~$15m
    - The amount of the overall investment means the market value should be around $50m, which is 5x than the minimum goal
  + Multi-Intelligent Agent Project Start
  + Paid annual user = 416
  + YAU = Paid annual user \* 100 = 40k
  + DAU = YAU / 4 = 10k

### **User Journey**

* Record daily conversation in English and give feedback
  + User record his voiceprint for us to recognize him(If this is achieved, we don’t need to let user choose in the next steps
  + User opens the app and choose one of the recording methods
    - Stream record, keeps recording in the background (leave it for now)
    - Start recording for a determined time, e.g. 1 hour for a meeting
  + At any time, user opens the app again and choose to see feedback
    - He sees a list of naturally separated list of records and click one
    - Record is shown as a conversation separated by speakers
    - User need to choose which speaker is him (for now, if there is a way to recognize the speaker, this could be more smooth)
    - Conversation is then being processed
    - After some wait, under each dialogue there is the text and the audio of the improved version, there is also a brief explanation of why this is a good improvement
    - Different expressions from the original record are highlighted, click on it and there will be more extended explanation

### **Development Roadmap**

* Milestones:
  + Feb 23: poc for voice separation/identification and transcription
  + Feb 25: complete poc for core functionality.
  + Feb 26: Setting up server, Push to main
  + Feb 27: Basic user story fully implemented.
  + March 3: Functional user end interface finished; Different solution tested
  + March 6: Demo release.
  + March 10: Collect user feedback with an initial user base of 50, including at least one paid user.
  + March 31: Official company registration.
  + Initial focus on native application development, prioritizing desktop platforms to leverage users' productive time without the constraints of mobile energy consumption.
  + Local data processing to ensure privacy and security, with optional cloud synchronization for enhanced learning insights.

### **Integrated Marketing Campaign**

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## **Phase 2: Multi-Intelligent Agent**

* As of February 22, 2024, OpenAI market value: $80B
* ⁠Provide different agents like language teachers, financial advisors, wisdom friends like Plato or Buffett, life coach, workplace coach, relationship guidance
* ⁠Analyze consumption habits to offer personalized advice
* Help Singers, playwright to improve
* Daily ideas collector
* Auto designate suitable intelligent agent
* Release hardware? To solve the problem of privacy, energy consumption, localized models, etc.

### **Unclassified Ideas**

* It is unrelated, but can we translate books with little effort which are urgently needed by real people around me? It’s a substitute for homeschool teachers in East Asia, which is a huge market. Also I need tools to auto choose and download great video resources from e.g. youtube and generate subtitles, or <https://algorithm-visualizer.org/greedy/job-scheduling-problem>