# Project Design Reference (PDR) — Polylogue

**Version:** 0.1
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## 1. Vision

Polylogue is a multilingual, context-rich, and neurodivergent-friendly dictionary and language assistant designed as a Progressive Web App (PWA). Its purpose is to offer expressive, non-linear, and customizable word exploration for those who think, feel, and speak across languages. It is built to empower users who need more than translation — they need *connection, nuance, and access*.

## 2. Mission

To create an open, evolving, and joyful tool that:

- Supports trilingual/multilingual expression.

- Encourages neurodivergent language journeys.

- Aggregates open dictionaries and context engines.

- Offers dynamic word relationships and user-defined connections.

- Lives as a digital commons — shareable, forkable, modifiable.

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## 3. Target Users

### Primary Persona

**Name:** Bayo
 **Profile:** Multilingual (Spanish, French, English); undiagnosed dyslexia; loves symbolic meaning, expressive clarity, contextual examples; thinks across cultures and needs non-linear understanding.

**Other Users**

- Polyglots, translators, poets, and language lovers.

- Neurodivergent learners (dyslexia, ADHD, etc.).

- Students of any age looking for deeper, intuitive word understanding.

- Anyone living or thinking between languages.

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# 4. Core Features (MVP)

- Language pairing selector (e.g., EN–FR–ES)

- Word lookup from multiple sources:

    - Wiktionary (definitions, etymology)

    - Glosbe (translations + examples)

    - Reverso (contextual usage)

    - WordReference or user forums (optional add-ons)

- Example sentences in multiple languages

- Audio pronunciation (TTS)

- Save words to personal vault

- Add personal notes, tags (emotion, tone, register)

- Search and cross-reference from within app

- Works offline after initial cache

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# 5. Future Features (Dream Zone)

- Semantic maps (word relationship graphs)

- Cultural filters (formal/informal, literary/slang, etc.)

- Crowd-submitted usage examples

- "Word playlists" (by mood, theme, feeling)

- SRS (spaced repetition system) sync (e.g., with Anki)

- Shareable vocab decks and personal dictionaries

- Voice input and OCR

- Community annotation mode

- AI-assisted multilingual definition generation

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# 6. Tech Stack Proposal

**Frontend:** React (PWA-ready) + Tailwind CSS
**Backend (if needed):** Node.js + Firebase or Supabase
**Data Sources:**

- Wiktionary (free and open)

- Glosbe (API access)

- DeepL/Google Translate (user API keys, optional)

- WordReference (link-only or embedded if permitted)

**Offline Functionality:** Service Workers + IndexedDB for local word caching

**Open Source License:** MIT or GPLv3 — to be discussed

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# 7. Legal & Ethical Considerations

- Use only open/publicly available APIs for core content.

- Provide attribution to all sources.

- Avoid monetizing third-party data.

- Make it easy for users to plug in their own API keys for premium services.

- Maintain transparent code and content structure.

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# 8. Launch & Evolution Plan

- **Phase 1:** PDR + UI wireframe + MVP data prototype (Q2 2025)

- **Phase 2:** Community feedback + beta testers (Q3 2025)

- **Phase 3:** Open-source release + documentation (Q4 2025)

- **Ongoing:** Community-driven feature expansion

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# 9. Guiding Principle

**"Polylogue is not just a tool — it's a living language garden, grown with care, shared in trust, and evolving with every speaker who enters."**