XRPL Guru

The Challenge

The **XRPL ecosystem** is **rich in resources**: docs, blogs, grants, hackathons, accelerators…

But developers often feel lost:

- Where do I **start**?
- What should I do **next**?
- How do I **connect** my work with opportunities?

Resulting: slow adoption, drop-off, wasted potential…

The Need

Developers don't need just **another guide** or **documentation hub**.

They need a proactive copilot that:

- Takes each developer **by the hand**.
- Builds a living, **adaptive journey**.
- **Provides** rhythm, direction, and motivation.

Drives toward one clear goal: developer success

Introducing XRPL Guru: a proactive copilot that transforms the XRPL developer ecosystem's scattered resources into a living, guided journey — from onboarding to market impact.

XRPL Guru is an Orchestrator of the XRPL Developer Journey

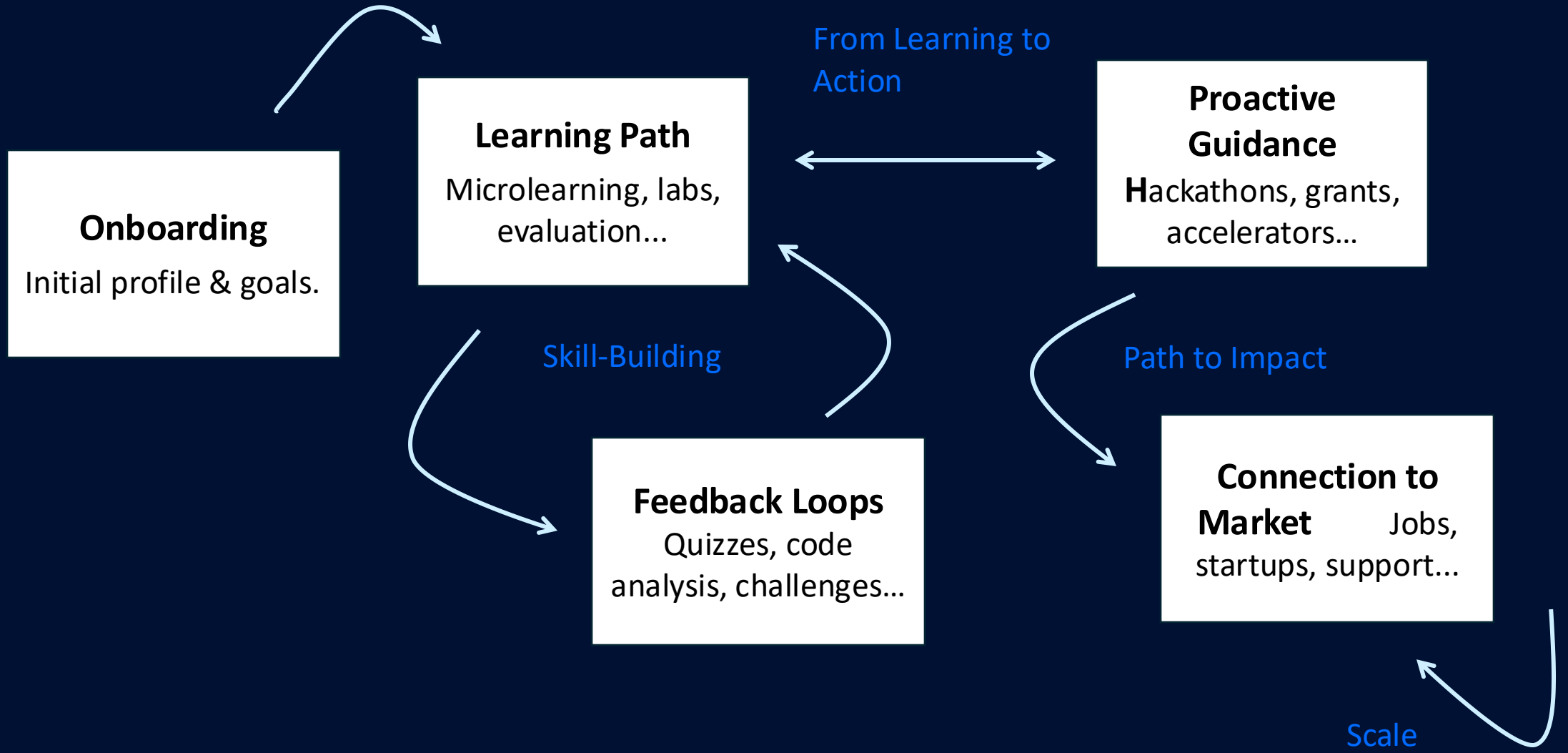
Continuously monitors the ecosystem in real time — from new grants and events to updated documentation — dynamically adapting each developer's pathway and acting as a trainer/buddy that keeps them always moving forward.

Core Concepts

XRPL Guru **is not reactive**. **It makes things happen**.

- **Suggests** next steps before the developer asks.
- **Creates** challenges to maintain momentum.
- **Connects** developers with mentors, funding, and events at the right time.
- **Acts** as a success engine, not just a knowledge base.

How the Guidance Works



Example of a Guided Path to Developer Success

- ✓ Paulo joins via the **Ambassadors program** → he has the **XRPL Guru assigned as his copilot.**
- ✓ He **learns** basics, **builds** **first XRPL token**.
- ✓ **Joins** a **hackathon** with personalized **prep** pack.
- ✓ Paulo **submits** a **Grant**.
- ✓ Enters **XRPL Accelerator** with **MVP ready**.
- ✓ **Works** in a **fintech** or **launches** XRPL-based **startup**.

Outcome for Developers

- Clear, adaptive path → no one gets lost
- Faster learning → stronger retention
- Fast-Track to Value

Outcome for Ripple & XRPL

- Higher conversion: devs → projects → companies.
- More mature proposals for Grants/Accelerators
- Global talent pipeline with live metrics

Long-Term Impact

Human Capital → Skilled XRPL developers worldwide

Innovation → New startups, apps, and financial products

Adoption → stronger demand for XRP, stablecoins, RWAs

Differentiation → XRPL as the only ecosystem with a proactive copilot for dev success

One Guru, Two Contexts: Personal Journey or Corporate Training

Value for Individuals

- Automatically assigned when a developer joins the XRPL ecosystem.
- Becomes their personal AI Copilot, guiding the journey, learning path, and opportunities.

Value for Companies/Startups

- Organizations can assign the XRPL Guru directly to their developers.
- Serves as a corporate training and upskilling platform, aligned with XRPL use cases.
- Accelerates onboarding and supports individual growth within teams.

How the XRPL Guru Is Delivered

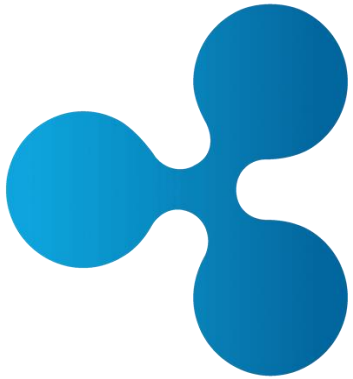
For Individuals

Slack, Discord, WhatsApp, Telegram…

For Companies

Microsoft Teams, Slack, Google Workspace, Jira/Confluence ...

As a conversational agent



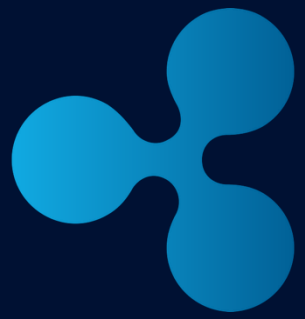
Integrated to the Ecosystem

Documentation

Guru embedded in XRPL.org Docs,

Hackathons

Guru acts as a live copilot during events



XRPL Guru

UBRI RESEARCH

From Research to Scalable Product

A research project was conducted under **Ripple's UBRI program at USP** by Dr. Etienne Cartolano, under the supervision of Dr. Marcos Simplicio, exploring **how AI copilots could support blockchain developers** — this work laid the foundation for what is now evolving into the XRPL Guru product

Exploring AI copilots for blockchain developers

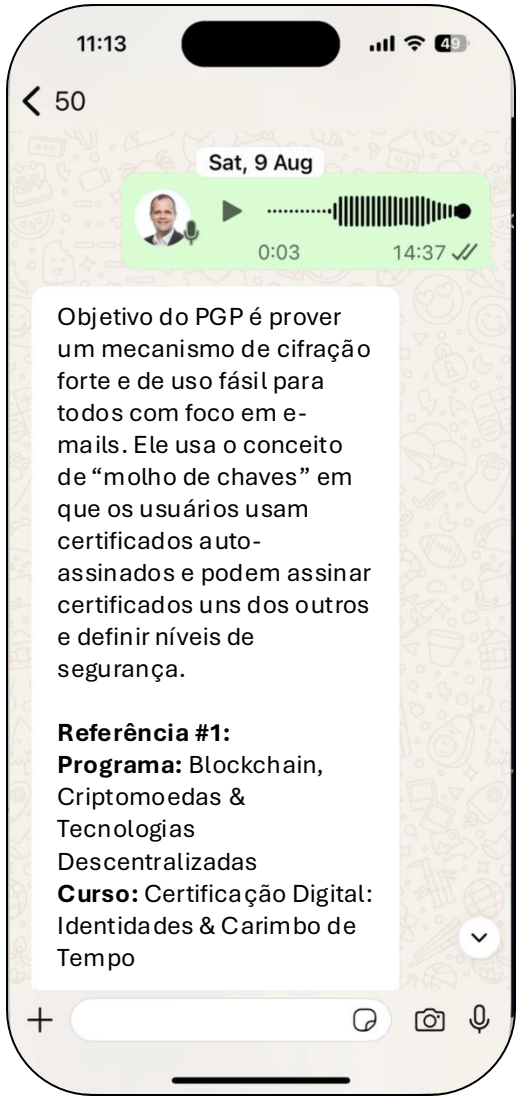
Key research lines:

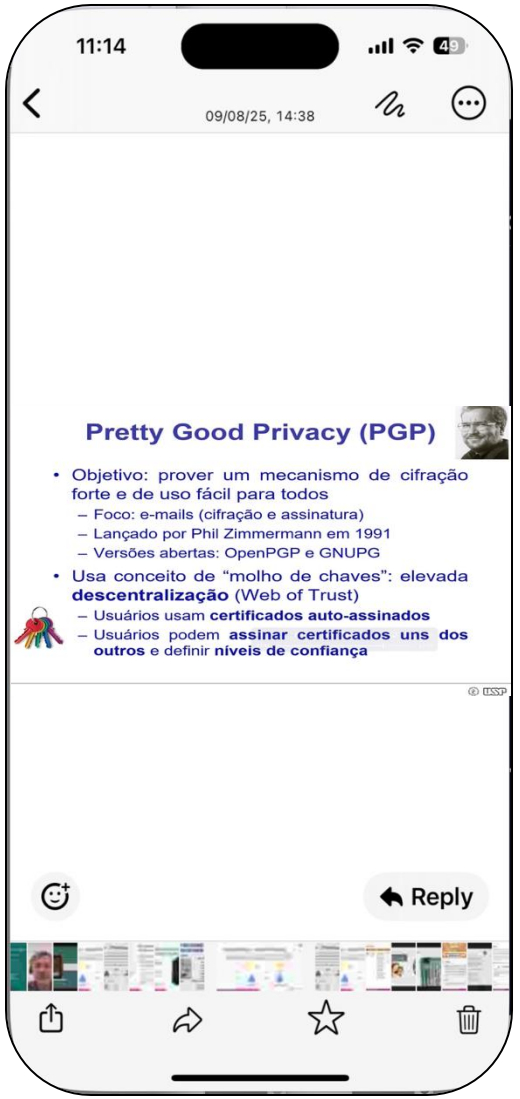
1. **Comparative study** of AI assistant architectures
2. Development of a RAG **pipeline** for XRPL docs
3. Design of **UX/UI mockups**
4. First **prototype tested**

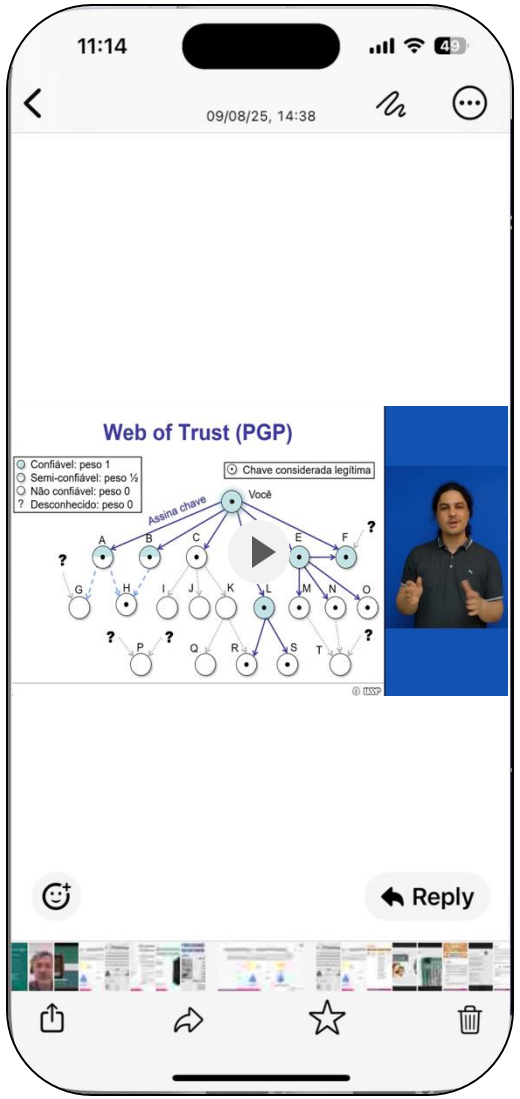
Achievements During Research

- ✓ **Validated the concept** of an **AI-powered copilot** for blockchain developers
- ✓ Produced **technical documentation** & architecture
- ✓ Delivered **RAG-based prototype** capable of retrieving **Ripple/USP knowledge** for developers
- ✓ Established an **interdisciplinary research line** between **blockchain, AI, and software** engineering at USP

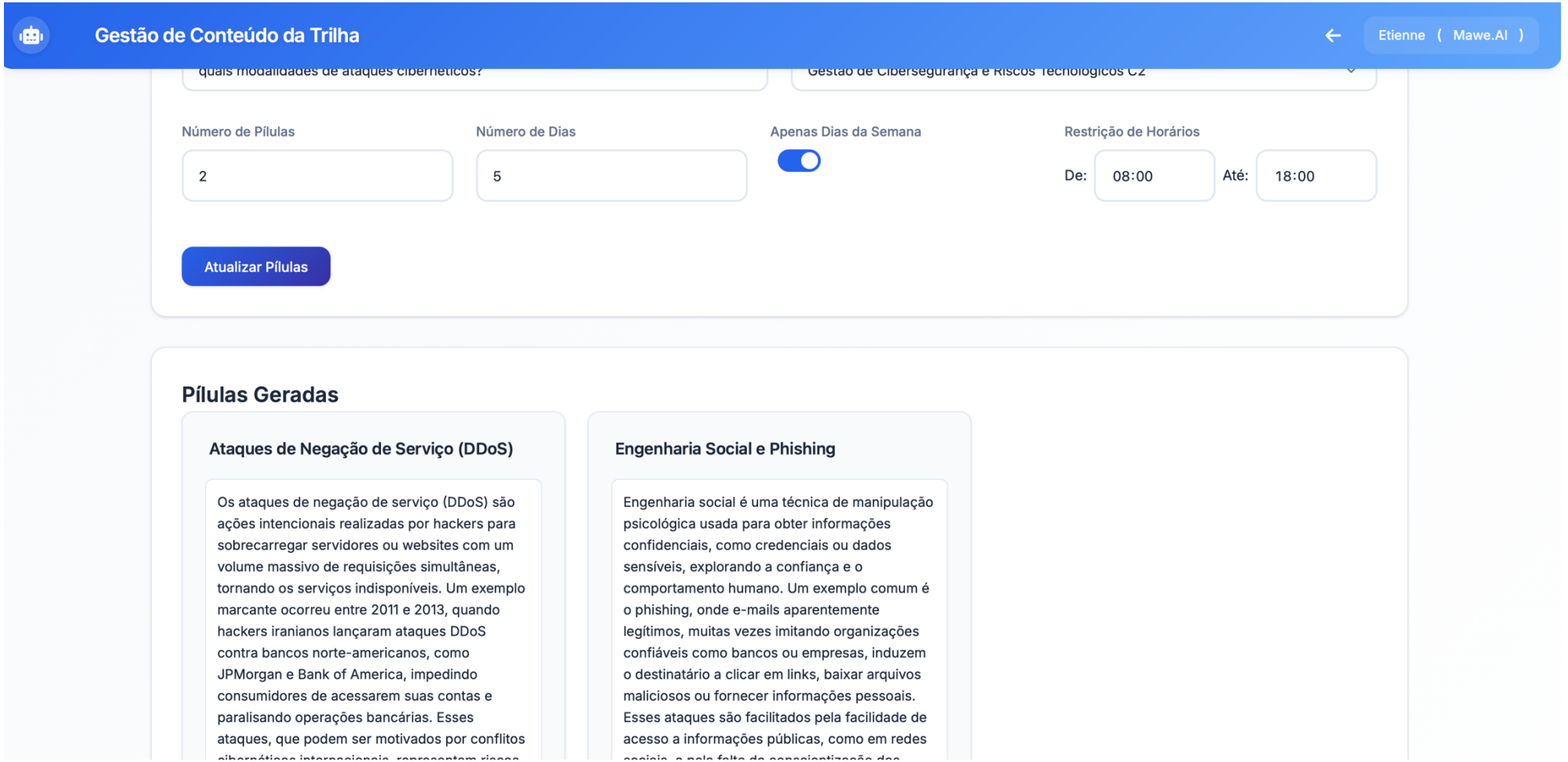
WhatsApp prototype





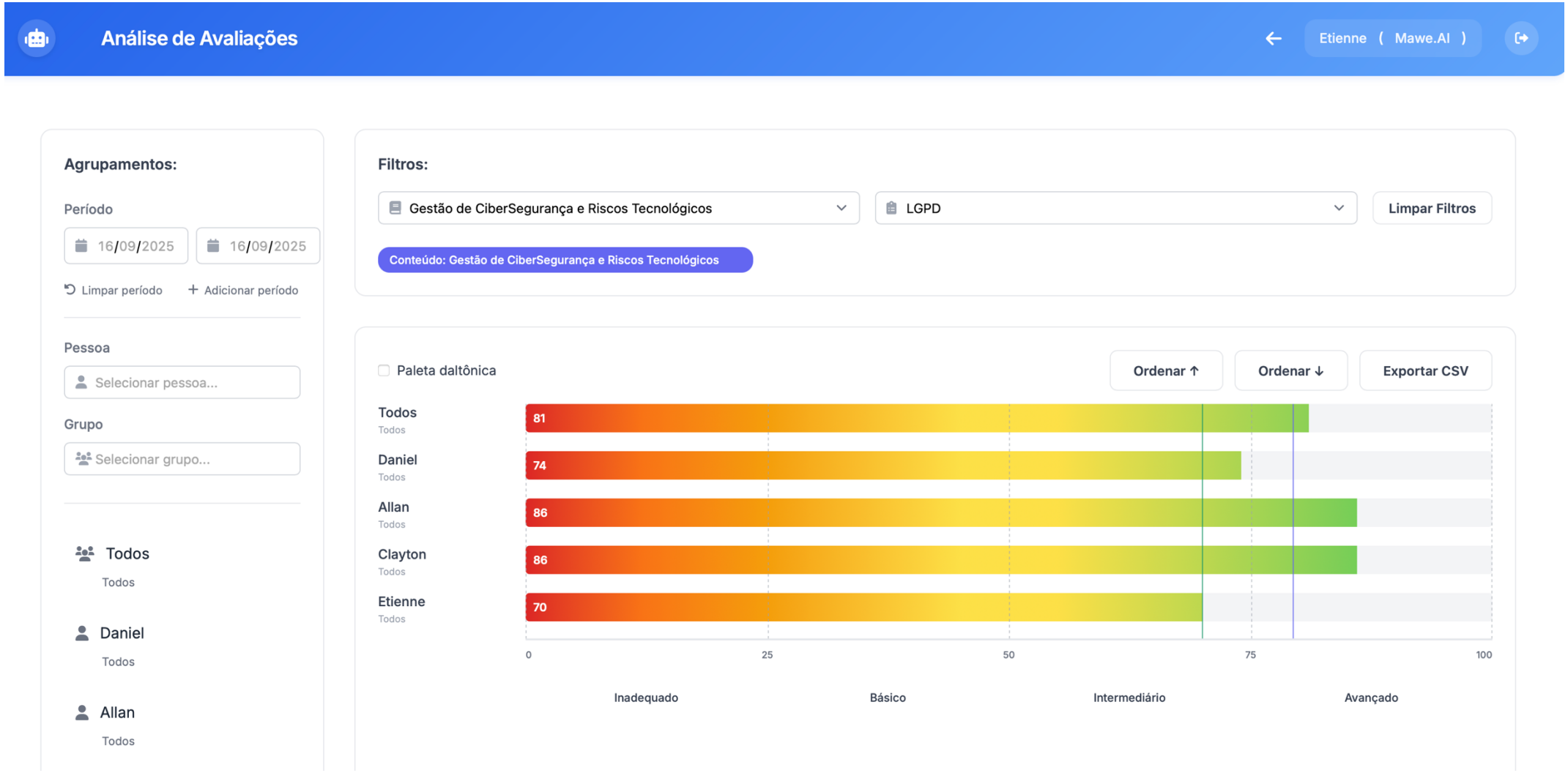


AI-generated personalized roadmaps prototype



See video at https://youtu.be/wlcn2HSdl1s

AI-based assessment prototype



XRPL Guru

SERVICES

XRPL Guru's Services

Smart Onboarding → profile & goals assessment

Adaptive Path → living learning journey that evolves with XRPL updates

Empower Loop → continuous cycle of practice, feedback, and reinforcement

Proactive Guidance → suggests hackathons, grants, and accelerator entry points

Code Partner → support for coding, troubleshooting, and contextual tips

Market Bridge → connects to jobs, mentors, and startup opportunities

Impact Dashboard → tracks progress and measures ecosystem value

Smart Onboarding

Assigns the Guru at the entry point, capturing profile and goals to personalize the journey

How It Works

- **Integrated** at XRPL.org, Ambassadors, or hackathon signup.
- **Collects** developer background, skills, and objectives.
- Immediately **pairs** the developer with their AI copilot.

Value Delivered

- **Personalized** starting point for each developer.
- Reduces early **drop-off**.
- Creates a sense of **belonging** from day one.

Adaptive Path

A living learning journey that evolves with XRPL updates and the developer's progress

How It Works

- Agent delivers **dynamic** learning steps.
- Updates when **new features**, docs, or events are released.
- **Evolves** from tutorials → labs → advanced projects.

Value Delivered

- Keeps developers **always aligned** with the latest XRPL.
- Ensures **continuous growth**.
- Transforms scattered content into a **clear journey**.

Empower Loop

Continuous cycle of practice, feedback, and reinforcement to strengthen skills

How It Works

- Agent **delivers** quizzes, coding challenges, and code reviews.
- Real-time **feedback** integrated into the learning path.
- Progressively **increases** difficulty.

Value Delivered

- Reinforces **knowledge retention**.
- Builds developer **confidence**.
- Identifies **skill gaps** early.

Proactive Guidance

Actively pushes opportunities instead of waiting for developers to search

How It Works

- Agent monitors XRPL ecosystem in **real time**.
- Pushes **contextual alerts** directly to dev channels.
- Suggests the “next best step” for **each profile**.

Value Delivered

- Developers never **feel lost**.
- **Maximizes** participation in community programs.
- **Increases** adoption of XRPL opportunities.

Code Partner

An AI copilot specialized in XRPL coding and troubleshooting

How It Works

- Agent **embedded** in dev channels and IDEs
- **Provides** snippets, error explanations, and best practices.
- **Contextualized** with XRPL standards and ecosystem libraries.

Value Delivered

- **Speeds up coding and debugging.**
- **Reduces frustration and wasted time.**
- **Ensures higher quality XRPL applications.**

Market Bridge

Connects developers to jobs, mentors, and startup opportunities

How It Works

- Agent **recommends** openings, mentors, or startup calls.
- Uses developer profile + activity data to **suggest matches**.
- Evolves from "job alerts" to **networking introductions**.

Value Delivered

- **Clear career pathway for XRPL developers.**
- **Stronger talent pipeline for Ripple ecosystem.**
- **Encourages startups to emerge from within the community.**

Impact Dashboard

Tracks developer progress and ecosystem value creation

How It Works

- Collects anonymized **metrics**.
- Presents **insights** to Ripple, XRPLF, and partners..

Value Delivered

- **Visibility of XRPL developer growth.**
- **Evidence of ROI for grants and accelerator.**
- **Supports strategic decision-making for ecosystem expansion.**

XRPL Guru

ROADMAP

Roadmap Overview

- **Versioned Delivery** → Each service **evolves incrementally** (v1, v2, v3).
- **Dual Delivery** → Always delivered as **Agent** (copilot in channels) or **Integrated**.
- **Progressive Scope** → **Start with** individual developer success → expand to ecosystem → **finalize with** corporate & academia.

Roadmap Overview

- **Time Horizon** → **24 months**, split into Year 1: Foundations and Year 2: Scale.
- **Year 1 (Months 1–12)** → **Build core services**: onboarding, guidance, learning path, empower loop, code partner.
- **Year 2 (Months 13–24)** → **Scale ecosystem impact**: market bridge, accelerator, predictive guidance, impact dashboard, corporate/academia.

Roadmap Months 1–4 (v1.0)

Quick Wins & Foundations

- **Multilingual Guru** v1 → support from day one (**Agent**).
- **Proactive Guidance** v1 → basic alerts (**Agent**).
- **Adaptive Path** v1 → initial guided journey (**Agent**).

Outcome: First developers onboard smoothly, with multilingual support and initial copilot guidance.

Roadmap Months 5–8 (v2.0)

Onboarding & First Feedback Loops

- **Smart Onboarding** v1 → entry point assignment & profile.
- **Docs Copilot** v1 → contextual support embedded in XRPL.org.
- **Empower Loop** v1 → quizzes & simple feedback (**Agent**).

Outcome: Developers now have personalized entry, doc integration, and first feedback loops.

Roadmap Months 9–12 (v3.0)

Adaptive Journeys

- **Adaptive Path v2 → journey adapting to progress (Agent).**
- **Proactive Guidance v2 → contextual recommend. (Agent).**
- **Docs Copilot v2 → deeper contextual support (Agent).**
- **Empower Loop v2 → adaptive reinforcement (Agent).**

Outcome: Guru evolves into a proactive, adaptive copilot, with IDE-level coding support.

Roadmap Months 13–16 (v4.0)

Adaptive Journeys

- **Code Partner v1 → snippets & basic troubleshooting (Agent).**
- **Accelerator Support v1 → milestone tracking.**
- **Market Bridge v1 → first connections to jobs (Agent).**

Outcome: Developers start linking skills with real-world opportunities.

Roadmap Months 17–20 (v5.0)

Adaptive Journeys

- **Predictive Guidance** v1 → anticipates opportunities & next steps (**Agent**).
- **Code Partner** v2 → contextual support in IDEs (**Agent**).

Outcome: Developers test advanced use cases and get predictive support.

Roadmap Months 21–24 (v6.0)

Scale & Impact

- **Market Bridge v2 → networking with startups, investors, partners (Agent).**
- **Impact Dashboard v1 → ecosystem metrics & progress.**
- **Corporate Mode v1 → Guru as corporate training tool.**
- **Code Partner v3 → advanced debugging in IDEs (Agent).**

Outcome: Developers test advanced use cases and get predictive support.

Services Roadmap 1/3

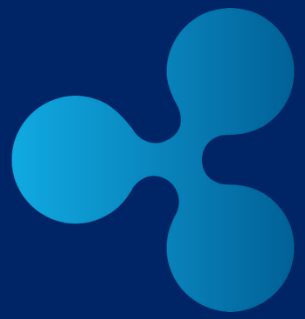
Service	Year 1 (Months 1–12)	Year 2 (Months 13–24)
Multilingual Guru	v1 → Basic multilingual support from the start (**Agent**)	v2 → Expanded multilingual, context-aware (**Agent**)
Proactive Guidance	v1 → Basic alerts for hackathons and grants (**Agent**) v2 → Personalized contextual recommendations (**Agent**)	v3 → Predictive guidance anticipating opportunities (**Agent**)
Adaptive Path	v1 → Initial guided journey (**Agent**) v2 → Dynamic journey adapting to progress (**Agent**)	v3 → Fully personalized, ecosystem-aware journey (**Agent**)
Smart Onboarding	v1 → Guru assignment at entry point, profile capture (**Integrated**)	v2 → Refined onboarding, personalized by goals (**Integrated**)

Services Roadmap 2/3

Service	Year 1 (Months 1–12)	Year 2 (Months 13–24)
Docs Copilot	v1 → Basic support embedded in XRPL.org (**Integrated**) v2 → Advanced contextual responses (**Integrated**)	v3 → Deep integration with examples, labs, and API refs (**Integrated**)
Empower Loop	v1 → Quizzes and simple feedback (**Agent**) v2 → Adaptive reinforcement and continuous practice (**Agent**)	v3 → Full practice-feedback cycle with individual metrics (**Agent**)
Code Partner	v1 → Snippets and basic troubleshooting (**Agent**) v2 → Contextual support integrated into IDEs (**Agent**)	v3 → Advanced debugging and co-coding (**Agent**)
Market Bridge	–	v1 → First connections to jobs and mentors (**Agent**) v2 → Active networking with startups and investors (**Agent**)

Services Roadmap 3/3

Service	Year 1 (Months 1–12)	Year 2 (Months 13–24)
Impact Dashboard	–	v1 → Individual and ecosystem-wide progress metrics (**Integrated**)
Corporate/Academia Mode	–	v1 → Guru applied in enterprises (training tool) and universities (**Agent + Integrated**)



XRPL Guru

RESOURCES

Team Structure

Role	Year 1 Responsibility	Estimated Annual Cost
AI/ML Engineer 1	Build Guru core: LLM tuning	~$20,000 - $40,000
AI/ML Engineer 2	Multilingual, adaptive learning	~$20,000 - $40,000
Full-Stack Developer	Web/mobile development, XRPL.org integration	~$15,000 - $35,000
Cloud Engineer	Infra setup, deployment, scalability	~$20,000 - $35,000
Content Curator	Structure XRPL docs, adapt content for Guru	~$10,000 - $25,000
Product Manager	Define roadmap, priorities, ecosystem alignment	~$25,000 - $45,000
		~$110,000 - $220,000

Team Structure 2/2

Role	Funding	Estimated Annual Cost
AI/ML Engineer 1	Contractor? Ripple?	~$20,000 - $40,000
AI/ML Engineer 2	Contractor? Ripple?	~$20,000 - $40,000
Full-Stack Developer	Contractor? Ripple?	~$15,000 - $35,000
Cloud Engineer	Ripple?	~$20,000 - $35,000
Content Curator	UBRI-USP? Ripple?	~$10,000 - $25,000
Product Manager	UBRI-USP? Ripple?	~$25,000 - $45,000
		~$110,000 - $220,000

Infrastructure (Azure) 1/3

- The XRPL Guru prototype is currently being developed and deployed on **Microsoft Azure**.
- The solution is **cloud-agnostic** and can be migrated or deployed in the Ripple-provided infrastructure.
- Therefore, the **cost estimates** presented here are based on Azure services.
- Costs are meant to serve as a **reference benchmark**, not a fixed budget.

Infrastructure (Azure) 2/3

Component	Function	Estimated Monthly Cost
Azure OpenAI Service	LLM inference for chat, copilot functions, multilingual	$4,000 – $5,000
Azure Kubernetes Service (AKS)	Container orchestration for Guru services (Agent + Integrated)	$750 – $1,000
Azure Cosmos DB	Store developer profiles, learning paths, feedback loops	$600 – $1,500
Azure App Service + API Management	API gateway for XRPL Docs, Grants, Slack, Teams integration	~$500

Infrastructure (Azure) 3/2

Component	Function	Estimated Monthly Cost
Azure App Service + API Management	API gateway for XRPL Docs, Grants, Slack, Teams integration	~$500
Azure Monitor + Application Insights	Observability, logging, performance tracking	~$250
Azure Storage (Blob + Files)	Logs, datasets, training material, multimedia	~$200
Azure Cognitive Services (Translator, Speech)	Multilingual onboarding & docs support	$500 – $800
	Total	$6,800 – $9,250

XRPL Guru

From first line of code to market impact.
Your proactive copilot for the XRPL journey.