

XRPL COMMUNITY MAGAZINE

2024 Issue #3

Intellectual Property



Foreword

[By David Bchiri, CEO]

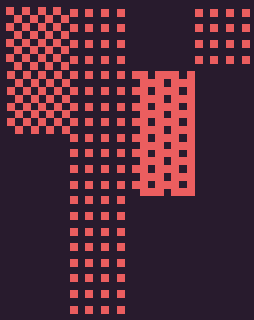


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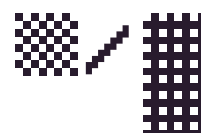
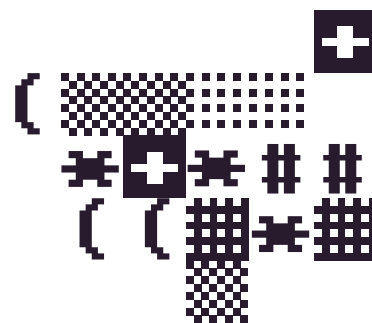
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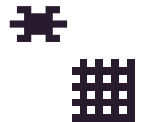
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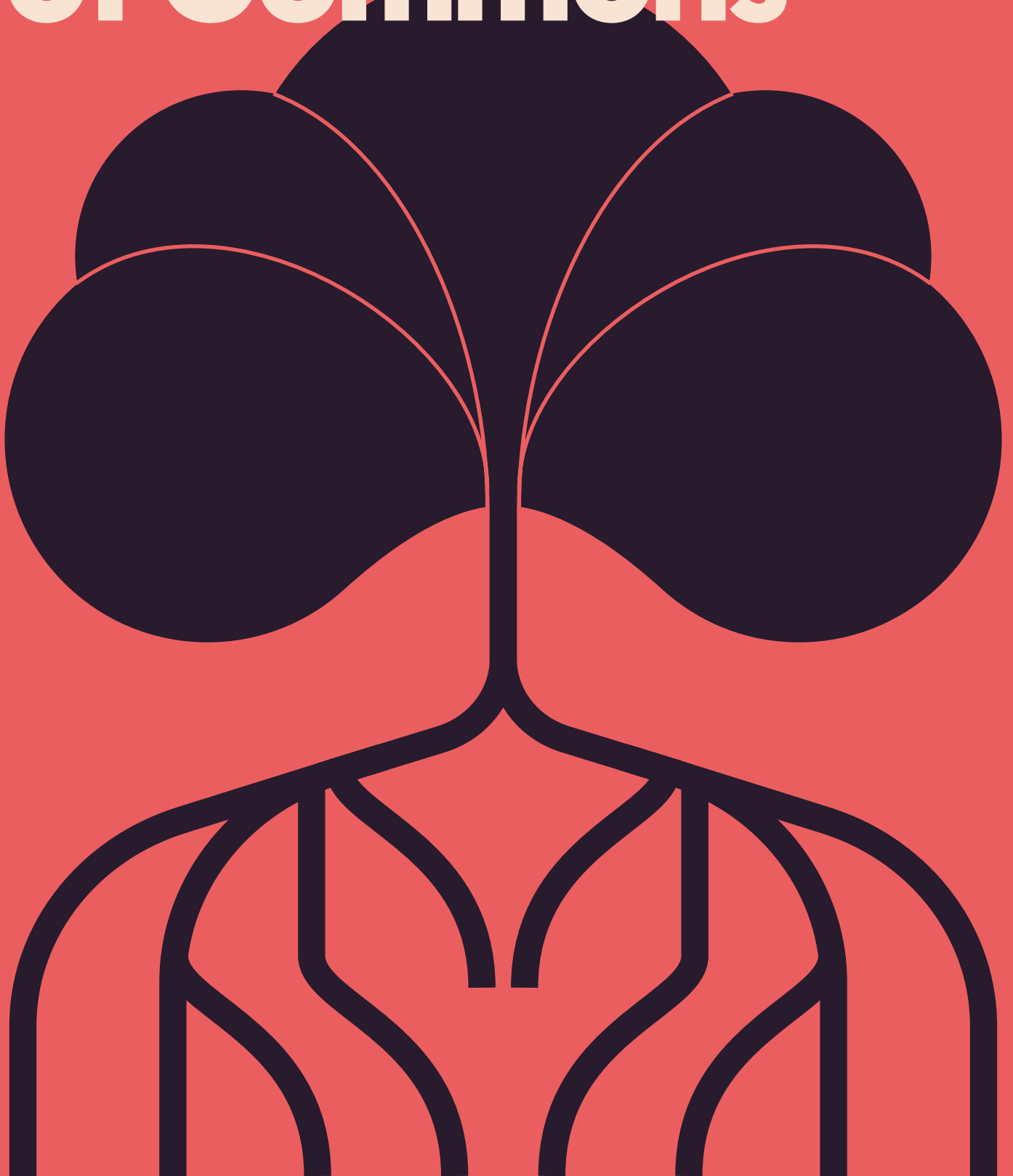
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In the World of Commons



Paris Blockchain Week, A Marathon Week for the XRPL Community

An uncommon week in the life of Commons
[CB]



// April marked the first anniversary for XRPL Commons and what better way to celebrate than gathering our community during Paris Blockchain Week? This event is the largest in Europe dedicated to blockchain. It brought together entrepreneurs, developers, industry leaders, regulators, and thought leaders from around the world building a decentralized future. Every day of the conference, our team offered opportunities for the XRPL community to come to Paris to connect at the main event and during several side events we hosted. Let's delve into this marathon week!

Building on the XPP Ledger in 48 Hours

To kick off the festivities, XRPL Commons sponsored the Paris Blockchain Week hackathon on April 5th–6th. During 48 hours, 16 teams built projects on the XRP Ledger on several themes linked to DeFi, Gamification, Digital Identity, and Tokenization. The winner? A bill of lading shipping digitalization project called KAYP (read more about them on p. 11).

Amongst the participants, the Aquarium Residency was well represented by Eric Pilat, from digital car passport solution Cara7 (Cohort 1–Regeneration), and Amir Awan from digital storage startup Filedgr (Cohort 2–Intellectual Property). We also recruited two talented developers for Cohort 3 focused on Decentralized Identity: Amaury Denny, who built Plentifi, and Yue Wang, who won the Solana track of the hackathon with Cr3dential. Luc Bocahut, our Product Director & Solutions Architect, was impressed with the creativity and enthusiasm shown by the participants: "I can't help but imagine what these projects could have been with just a few days more!"

Bringing Together our Community

After this intense weekend, it was time for us to host our largest XRPL Community Party (yet) on Monday at our House of Commons. More than 200 people—Developers, researchers, builders, enthusiasts—from the global and diverse XRPL community gathered to kick off Paris Blockchain Week (and the

second edition of our XRPL Community Mag!). It was an opportunity to connect with key partners in the community, such as xrp.cafe, FriiPay, Peersyst, Phi Wallet, or Sologenic. In a keynote, Enej Pungerčar from Gatehub shared his roadmap for the upcoming months, including a debit card allowing customers to spend assets on the XRP ledger and an XRPL Data API.

A panel discussion of climate initiatives on the XRPL Ledger followed his talk. Meghan Edge shared Ripple's strategy to maintain its commitment to carbon neutrality, Mélanie Damour discussed Commons' work with CCRI to measure the chain's emissions, and Simon Luling (Ekonavi) and Esteban Van Goor (Xange) highlighted the projects they built. These discussions contributed to the launch of the Sustainability Members Club, bringing together players focused on decarbonizing the XRPL Protocol (More about this initiative on pp. 20-21!).



***_
An uncommon week in the life
of Commons

Showcasing the Strength of the XRPL Ecosystem

On Tuesday, the main event started at the Carrousel du Louvre where 10,000+ attendees came together to connect with 300+ sponsors and hear from 500+ speakers. Amongst them, Jeremy Allaire (Circle), Richard Teng (Binance), Tim Draper, and Marina Ferrari (French Secretary of State for Digital Affairs). In a conversation with David Bchiri (President XRPL Commons) on the main stage, Brad Garlinghouse (CEO Ripple) discussed the launch of a USD-backed stablecoin by Ripple and more broadly the convergence of traditional finance with DeFi. They underlined the challenge to convert 20 million developers to switch to Web3. Ripple and XRPL Commons shared their initiatives to broad-

en and strengthen a diverse XRPL community of developers, builders, validators, and other contributors. One of those is the Aquarium Residency program which was well represented at the Carrousel du Louvre. Nine residents had a presence at our dedicated booth to present their solutions. Amongst them: Fillgood (social sporting platform), Ekonomia (building renovation financing), Evermore (circular fashion platform), Kudos (frictionless retroactive funding), and Flan Fun (mini-game to teach blockchain).

In the evening, it was time to head back to the House of Commons for our second side event focused on Empowering Women in Web3. Natacha Bami from Sistafund—a French VC firm dedicated to supporting female founders and gender-balanced teams—shared insider tips with entrepreneurs, followed by a panel discussion led by Zsofi Borsi, our Head of Community Engagement, highlighting four successful women in Web3. Kitty Horlick (Director, Rarify Labs) shared about building Freedom Tool which can be used to organize trustless elections recently picked up by the Russian opposition; Taja Kaker (Gatehub) offered an insight into the busy life of a COO; Bianca Trovò (researcher, DeSci movement initiator, and former Aquarium Resident) walked us through her experience as a researcher struggling to find finances, and Amy Waliszewska (Developer Relations, Concordium) discussed onboarding developers on blockchain.

Onboarding New Talents

After six days of attending Paris Blockchain Week and hosting side events, on this final day of the marathon, the XRPL Commons team gathered at the Kryptosphere Summit. This event is led by a European student organization promoting blockchain in universities we proudly support. It was an opportunity for us to welcome a new generation of developers to the XRPL Community. In a panel dedicated to financing and supporting Web3 startups, Aurélien Burget, Aquarium Director, discussed our unique format of Residency giving the time and space to develop projects.

This intense but fruitful week was the pinnacle of our work at the service of the community for the past year. For Elisa Bailly, our Senior Event Manager who joined us only 2 months prior "accompanying the team in the organization of this whole range of events was an extraordinary opportunity to dive into the XRP Ledger community and meet our partners".

From the XRPL training to the hackathon, from the Aquarium Residency to the work with key partners, we are proud of working with such a thriving community! 🍷

PBW FROM A STARTUP PERSPECTIVE

"Visiting Paris is always a good idea for enjoying a good coffee and a sweet croissant. But this time, there was something more important. It has been quite an honor to have been invited by Ripple to exhibit at the XPRL booth at Paris Blockchain Week, considered one of the most important Blockchain events in Europe.

While attending this event, we had the pleasure of exchanging ideas and chatting with the Web3 community, especially with the XPRL Commons and Ripple teams, as well as with potential partners, who have shown great interest and enthusiasm for

what we are doing at PhiWallet. Leveraging the robustness and business readiness of the XPR Ledger to tokenize physical gold helped us provide a trustable mobile app that allows everyone to buy tokenized physical gold without worrying about logistics and budgets. Such an inclusive solution protects people's wealth from inflation.

The event was a great opportunity to explore new partnerships and have insightful discussions about the future of Web3 and its impact on the global economy".

🍷 Eslam Anbar, PHIWALLET

XRPL Hackathons

Recap

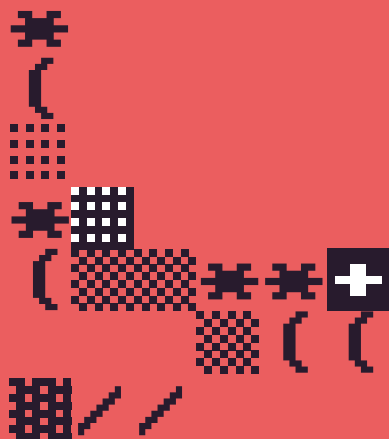
Meet the Winners Hacking Away Their Weekends [VR]

// In the past three months, XRPL Commons proudly sponsored two Hackathons: the **ParisBlockchain Week** Hackathon (5-7 April) and the second edition of the **HAKS Hackathon**, a student-driven event focused on blockchain (3-5 May). Luc Bocahut and Guillaume Evrat, technical mentors from Commons, provided the different teams with three days of continuous guidance and support. All participants received a link to an open-source GitHub repository with resources and online tutorials.

In total, more than 250 international tech specialists and developers came together to hack, build, and network while delving into diverse use cases to address real-world challenges for businesses and consumers, delivering impressive results.

In addition to the monetary rewards, the fortunate winners earned the privilege of presenting their projects on the main stage of Paris Blockchain Week and were gifted tickets to attend the entire event. Furthermore, some of the winners even decided to join a future Aquarium Residency cohort.

Bringing together numerous like-minded Web3 pioneers, each XRP challenge track (finance, real-world assets, gamification, digital identity) provided a stage for the industry's brightest talents to showcase their skills, network, and share and receive feedback and insights.



Paris Blockchain Week XRP Ledger Winner



KAYP is a bill of lading shipping project that digitizes document exchange in maritime trade, a sector representing 90% of global exchanges. Despite its \$25 trillion annual volume, most transactions still rely on outdated processes. This lack of digitization affects import-export players, banks, and other stakeholders. Although standards for digitized documents were established two years ago, adoption remains slow. KAYP enables all companies to implement these standards efficiently. The solution has garnered support from the nine largest shipping companies, committing to 100% adoption by 2030. Focused initially on the bill of lading, the KAYP team—Théo Cerdan, Valentin Gonnot, Lucas Compiegene, Jocelyn Renault, and Hugo Deiss—aims to digitize all maritime trade documents.

The HAKS Hackathon Winners

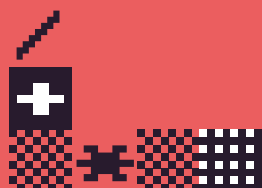


Pawesome ID aims to create decentralized passports for pets containing all essential information for hassle-free travel. Currently, the development involves creating a business plan and a professional app for veterinarians to gather feedback on the application. Only professionals will be authorized to create pet IDs to ensure the integrity of identification details. The hackathon provided valuable testing and accelerated learning through practical application to all team members: Jennifer Aristizabal, Ty Ha, Aurèle Josserand, Joela Rasamimanana, and Louis Vannobel.

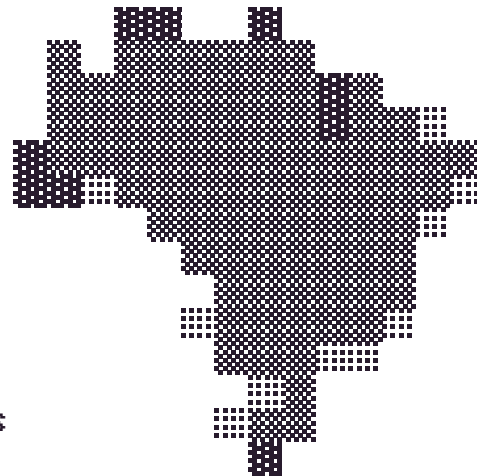
The **Cr3dential project** aims to establish a secure platform for individuals to store their credentials in a decentralized manner. Initially launched on Solana, the project evolved during the PBW hackathon, creating a non-transferable token. However, the focus shifted towards transactions without tokens on XRP, aiming at interoperability. Challenges arose, particularly concerning transactional issues. Unique DID identification methods present a potentially unique value proposition. Team members Adam Daham, Djason Gadiou, Arnaud Hippolyte, and Yue Wang work diligently to develop the platform, facilitate the importation of diverse diplomas and certificates, issue credentials, and quantify knowledge using knowledge-proof standards.

Homepass aims to create a digital passport that records all maintenance activities performed on real estate properties, streamlining interactions among stakeholders interested in a property. By documenting performance metrics through the XRP Ledger, Julien Brun, Elsy Chavez, Jehan-Gabriel Bertie, Armando Ibarra, André Iglesias, and Ran Liu aim to enhance transparency and trust in property management practices.

Three winning projects leaders, Ty, Yue, and Julien, are also taking part in the XRPL Commons Aquarium program. By the end of the residency, they plan to develop a fully functional MVP and apply for grants for further development. 🐡



Ethereum Rio24 3 Key Takeaways



Rio de Janeiro and São Paulo have emerged as dynamic innovation hubs for blockchain and FinTech, attracting global talent and driving Brazil's technological advancement.

We recently had the pleasure to visit Rio de Janeiro, for the Ethereum Rio24 Conference. Here's what we thought.

[CH]

1 Brazil's Crypto and Payment Ecosystem Maturity

Brazil's crypto and payment ecosystem is maturing rapidly. The implementation of Central Bank Digital Currency (CBDC) and the widespread use of Pix, a digital payment system allowing transactions via QR codes or phone numbers, highlight Brazil's readiness for digital money and its potential to lead in the global crypto landscape. We even saw people using Pix to donate to street musicians, showcasing its role in facilitating the adoption of cryptocurrencies and digital assets.

2 Spotlight on Tokenization and DeFi

What were the hot topics at the conference? DeFi and tokenization dominated the conversation, sparking discussions on their transformative potential across industries. Attendees focused on Web3 and empowering developers to utilize tokenization for innovative solutions. The community's palpable enthusiasm for scaling tokenization efforts and integrating them into broader economic frameworks highlighted Brazil's readiness to embrace blockchain technology.

3 A Strong Sense of Social Responsibility

Eth Rio highlighted social responsibility, with a hackathon spurring initiatives like a disaster relief solution for the Rio Grande do Sul flood that displaced 600,000 people in May, 2024. This focus on social impact aligns with XRPL Commons' Aquarium Residency, exemplified by alumni like Ekonavi, a regenerative startup from our Paris program, showcasing our commitment to nurturing sustainability-focused innovators.

It's inspiring to see XRPL thriving in that region, only underlining the ever growing global impact and adoption of blockchain technology. 🌱

Consensus

3 Key Takeaways

This year, Commons was back at Consensus this time in Austin, Texas. There were no cowboy sightings. These are our key takeaways:

1 Stablecoin Innovations

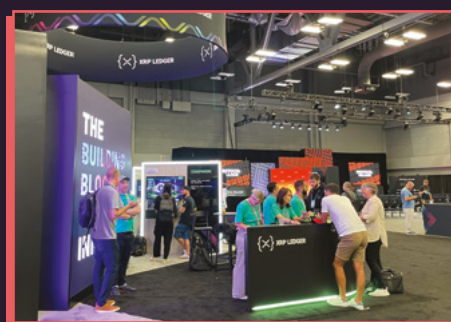
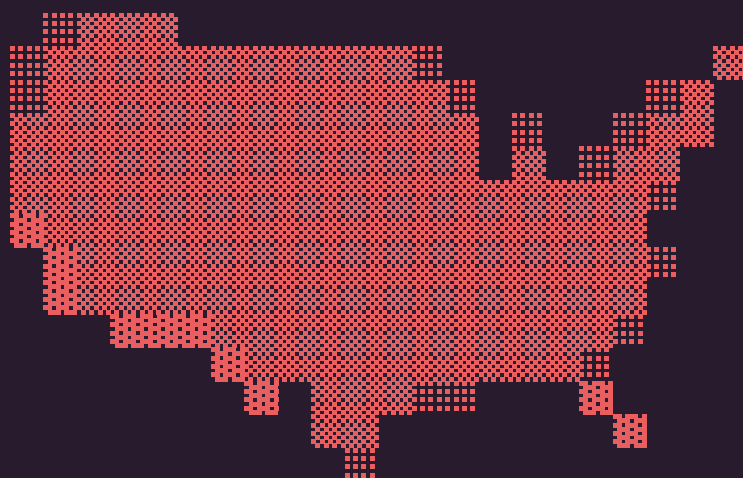
Stablecoins were a focal point of discussions, emphasizing the need for diversity in the stablecoin market to enhance enterprise payments and avoid centralization. This was an opportune space for Ripple to announce its RLUSD stablecoin. This points towards room for growth of the current market.

3 Exploring Emerging Trends

Consensus provided a platform for exploring emerging trends and fostering collaboration, including discussions on blockchain's real-world utility, decentralized GPUs reducing cloud expenses, Decentralized Identifiers (DiD) for identity verification, and the intersection of Blockchain & AI. Insights into these topics sparked discussions on potential collaborations and future directions within the industry.

2 Navigating Tech and Politics

A recurring theme throughout the conference was the intricate relationship between technology, politics, and innovation. Discussions highlighted the challenges faced by tech innovators, particularly in the US, where political factors can stifle innovation. The need for a conducive regulatory environment to foster innovation was emphasized.



MEET THE TEAM

Aurélien Burget, Director of the Aquarium Residency Program at XRPL Commons



About Aurélien

Aurélien is a multifaceted engineer, entrepreneur, and developer. Having lived several years in Brazil, he brings a wealth of experience and a unique perspective to the XRPL Commons team. As part of his journey, he gained first-hand experience in navigating the challenges of both running a startup and designing meaningful entrepreneurial mentorship programs. As a founding member of Graines d'Entrepreneurs, he has created a cutting-edge course for youth aged 10-18, sponsored by AXA and Orange, to plant the seeds of a successful entrepreneurial mindset from an early age, using game-based pitching methods.

"I believe in the transformative power of entrepreneurship. During the process, you learn how to come up with multiple solutions to your pain points, testing them, and to find the best ones. It also breaks the cycle of passivity with forward-looking ideas."

His Mission at Commons

Empowering developers and entrepreneurs with the right tools to use the XRP Ledger and harness its power for a truly meaningful impact.

In Aurélien's view, the uniqueness of the Aquarium lies in its design, inspired by art residencies. It provides individuals with the time and space needed to collaborate, create meaningful projects, and elevate them to the next level.

"The Aquarium fosters a sense of community and offers tailored individual guidance throughout the journey."

As a unique tech launchpad, it bridges the gap between short hackathons and lengthy accelerators, offering a three-month, immersive experience with daily presence, workshops, and team-building sessions."

The residency equips participants from around the world with essential Web3 skills. Each cohort includes diverse profiles, from young developers to PhD researchers and serial entrepreneurs, enabling residents to leverage collective intelligence. They focus on critical aspects like data, tokenomics, regulation, and community management to solve issues in specific verticals, providing a comprehensive understanding of the bigger picture.

What lies ahead for the Aquarium in the second half of 2024?

As the third cohort focused on Decentralized Identity concludes, Aurélien and Aquarium Program Manager Cyrille Bourdeaux are preparing to welcome new residents in September to explore DeFi. They are developing an alumni community for ongoing mentor support to ensure this network thrives in the broader ecosystem. Additionally, they are designing a new program specifically for startups and their technological needs, such as multichain integration, creating a true funnel of opportunities within the XRPL ecosystem. 🍷

**APPLICATIONS ARE NOW
OPEN ON A ROLLING
BASIS.**

Apply now:

[www.xrpl-commons.org/
build/residency](https://www.xrpl-commons.org/build/residency) ↗



LET'S GET TECHY

...❖ ❖ INTRODUCING THE COMPLETE XRP LEDGER DEVELOPER BOOTCAMP ❖ ❖...

We are thrilled to announce the launch of the Complete XRP Ledger Developer Bootcamp, a comprehensive online course created by Chris Dangerfield in collaboration with XRPL Commons. The bootcamp, available on Udemy, is your ultimate resource for diving into the world of XRPL, offering all the knowledge and skills you need to get started with building in a single resource. Combining theory with practical coding tutorials, this hands-on course delves into the core features essential for developing real-world applications on the XRPL. No prior experience with blockchain or XRPL is required; however, a basic knowledge of coding in JavaScript is recommended before getting started.

⇒⇒ What will you learn? ⇐⇐

Throughout the course, you will explore the different features of the XRP Ledger, understand why it might be a great choice for your application, and, of course, learn how to connect and build on it. The curriculum also covers XRPL infrastructure, including setting up and running your own node, and offers insights into the XRPL community and its platforms. You'll also learn about how to apply for grants, prepare for hackathons, and find real-life events to connect with other devs. By the end of the course, you will have built a fully functioning wallet in ReactJS. It will also offer you pathways for further development and engagement in the community beyond the completion of the course.

"It's essentially the course that I wish had existed when I started my journey into XRP Ledger development back in 2016," says Chris Dangerfield.

Chris, a software engineer with over 25 years of

experience, is well-known in the XRPL community for his contributions, such as the TX Exporter dApp on Xaman that helps users download their past transactions for tax purposes or the Rarity Sniper Clone to help NFT issuers, who want to be able to see rarities in advance of minting.

⇒⇒ Meet Chris Dangerfield ⇐⇐

Chris has a passion for education and a deep interest in XRPL and blockchain technology. He started coding at the age of 8, launched his first business at 19, and has had a diverse career ranging from web development to creating apps for major corporations. In recent years, he has focused on blockchain as a developer and CTO. "I wholeheartedly believe that the Bitcoin whitepaper marked another important milestone for technology, similar to the significance of the desktop PC, smartphones, or the World Wide Web," he explains. 📧

Get a special discount on the course by signing up before July 31st:

⇒ tinyurl.com/xrpl-July24 ↗

If you miss the deadline, no worries! You can still join at the regular rate here:

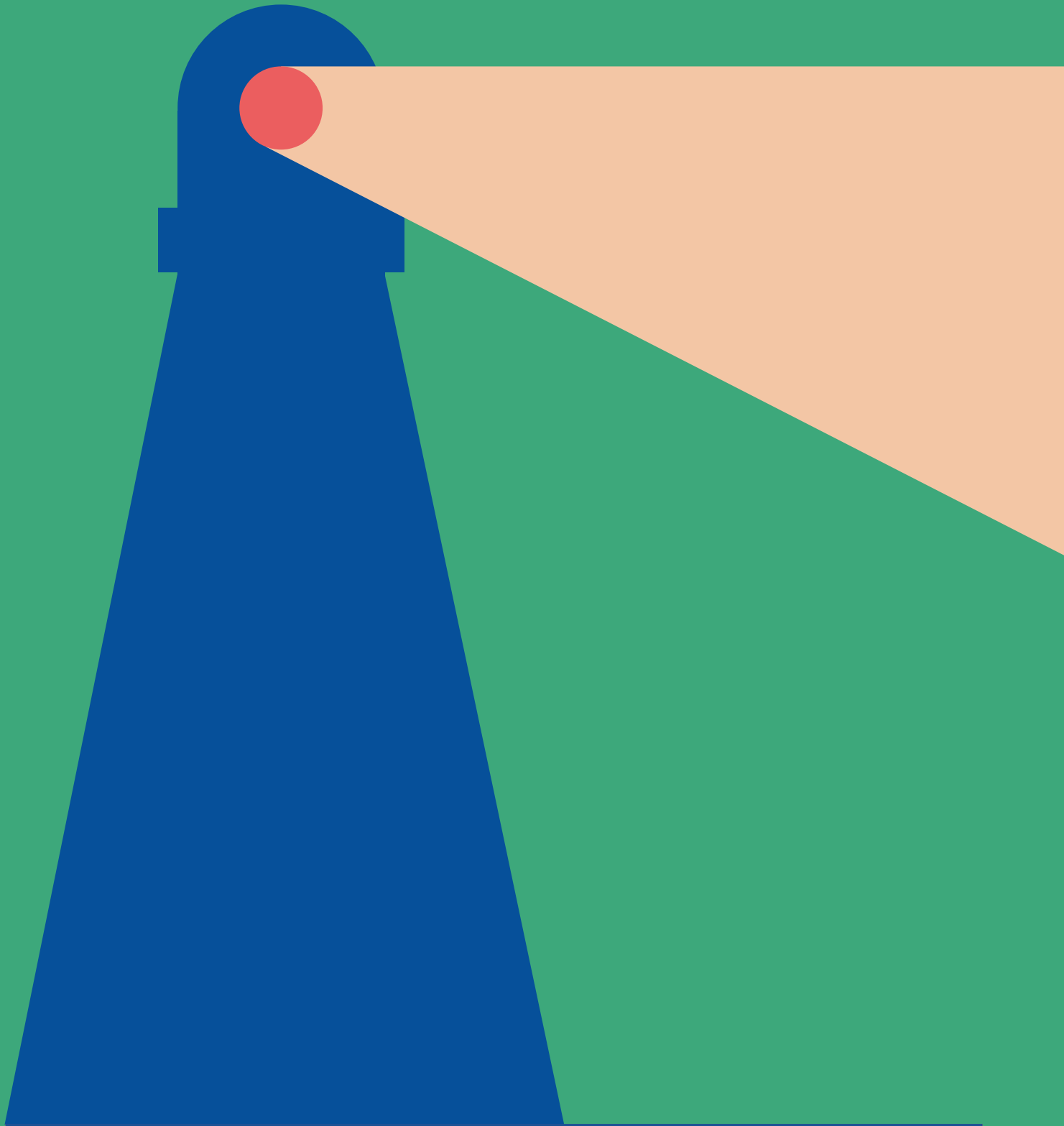
⇒ tinyurl.com/XRPL-Dev-Bootcamp ↗



Note: XRPL Commons does not receive any revenue from course fees.

//Chapter_02

XRPL Insider



In The Know: Recent Developments on the XRPL

Let's take
a look at the
amendments
currently
underway.
[GE]

Price Oracle (Pending):

The XLS-0047d price oracle proposal adds an on-chain PriceOracle object to the XRP Ledger. A blockchain oracle is a system or service that acts as a bridge between a blockchain network and the external world, providing off-chain data or information to decentralized applications on the blockchain. Oracles are used to bring real-world data, for instance market prices, exchange rates, interest rates, or weather conditions onto the blockchain. This amendment is needed to eventually bring native lending and borrowing to the Ledger.

Decentralized Identifiers (Pending):

The XLS-0040d proposal for the XRP Ledger describes implementing support for decentralized identifiers (DIDs) based on W3C standards. It defines a new DID method for the XRP Ledger, specifying how DIDs are created, read, updated, and deleted (CRUD operations). This implementation aims to provide self-sovereign, verifiable digital identities without relying on a central authority, enabling secure and interoperable identity management across different applications and services on the XRP Ledger.

At the time of writing, this amendment was just released under rippled 2.2.0 and will shortly be up for voting. It is currently running on the devnet where upcoming features are tested in a realistic environment.

Atomic Batch Transactions (Proposal):

The XLS-56d proposal on the XRP Ledger introduces a method for executing multiple transactions as a single atomic unit, ensuring that either all included transactions succeed or none do. This allows for complex operations, such as minting NFTs and creating offers, to be bundled together, reducing the risk of incomplete or inconsistent states. The proposal includes support for various batch processing modes and aims to enhance the reliability and predictability of multi-step transactions on the XRP Ledger.

JOIN THE CONVERSATION,
AND CHECK OUT ALL THE
PROPOSALS CURRENTLY BEING
DISCUSSED BY THE COMMUNITY
[github.com/XRPLF/XRPL-
Standards/discussions/
categories/standard-proposals](https://github.com/XRPLF/XRPL-Standards/discussions/categories/standard-proposals)[↗]

How Amendments Work:

The amendment process is how new features are added to the XRPL. Its 3 main steps are:

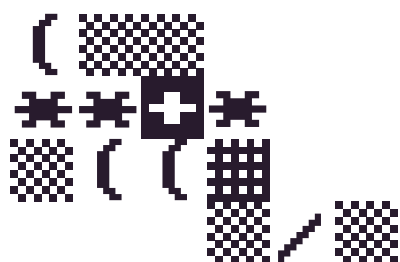
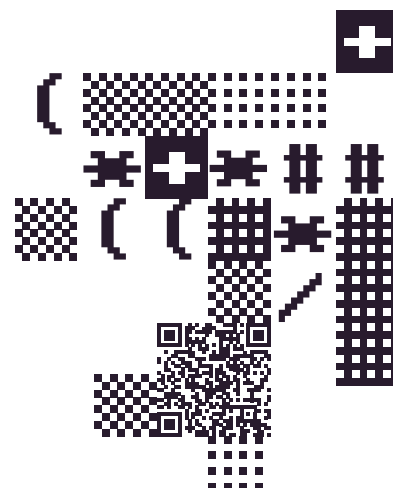
- 1. Proposal:** First, a specification of the feature is proposed and discussed by the open-source community.
- 2. Amendment:** When the spec is agreed on, code is written and integrated into rippled, the main software that runs the XRPL.
- 3. Live Feature:** UNL validators can then vote on the amendment, and if over 80% approval is reached for 15 days, the feature goes live.

Sponsored Fees and Reserves (Proposal):

The XLS-68d proposal for the XRP Ledger introduces "Sponsored Fees and Reserves," allowing one account (the sponsor) to cover transaction fees or reserves for another account (the sponsee). This facilitates user onboarding and transaction handling without requiring users to manage fees directly. The proposal includes modifications to ledger objects and transactions to support these sponsored relationships, aiming to simplify user experience and reduce entry barriers for new users.

XLS-66d: XRP Ledger-Native Lending Protocol Amendment (Proposal):

This proposal introduces fundamental primitives for an XRP Ledger-native Lending Protocol. The protocol would offer straightforward on-chain fixed-term loans, utilizing pooled funds with pre-set terms for interest-accruing loans. Read more about it on p. 26 of this Magazine! 📰



In Other News...

- ⇒ **Ripple and Axelar Foundation have partnered to enhance XRP Ledger's interoperability** across over 50 blockchains, including Ethereum, Polygon, Cosmos, and Polkadot. Axelar, a decentralized network, enables seamless cross-chain communication without custom integrations. This collaboration aims to expand XRPL's DeFi ecosystem, boost liquidity for stablecoins and large-cap assets, and facilitate advanced cross-chain dApp functionality, ensuring secure and scalable connectivity.
- ⇒ During APEX, **Peersyst also announced that they will use Axelar** to connect the XRPL EVM Sidechain to the XRP Ledger.

XRPL: Sustainability in Numbers

Insights from Assessing the Carbon Footprint of the XRP Ledger



21.469 tCO₂e

Carbon Footprint Emissions¹

equals **12 Paris to New York flights**



0.00104 mgCO₂e

Emissions per 1 XRP

equals **186 Google searches**

At XRPL Commons, we are convinced that blockchain technology holds the promise to underpin and amplify a lasting positive influence on the world. Understanding and assessing sustainability metrics² is crucial for various stakeholders, including corporates, developers, and investors, for several reasons:

- ⇒ **Differentiator:** Energy efficiency is key for decision-making by corporates, developers, and investors.
- ⇒ **Mitigation:** Proper data drives climate goals achievement via energy reduction/offsetting.
- ⇒ **Transparency:** Climate disclosure informs users, regulators, and the public about XRPL's environmental impact.
- ⇒ **Regulation:** Compliance with regulations like EU MiCA mandates climate impact disclosure.

1. Carbon Footprint Emissions annualized of XRPL as of 18/07/2024

2. Assessment by Crypto Carbon Ratings Institute: carbon-ratings.com

To read more about XRPL and Sustainability, check out the XRPL Community Mag 2:



⇒ www.xrpl-commons.org/community-magazine/sustainability-innovation

For more information on MiCA Indicators:



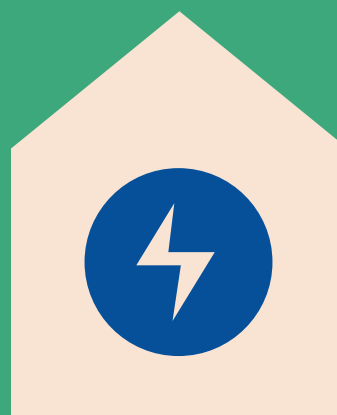
⇒ www.xrpl-commons.org/engage/explore-xrp-ledgers-sustainability



0.87351 mgCO₂e

Emissions per 1 transaction

equals **the delivery of 123 emails**



54838 kWh

Electricity Consumption¹

equals **that of 20k average UK households**

Want to contribute to making the XRPL more sustainable?

At XRPL Commons, we are coordinating the community-led process to make the XRPL protocol more sustainable.

If you are a validator or project owner interested in becoming a sustainability champion, building awareness around climate change, getting access to key

blockchain/sustainability events, and participating in bi-annual working groups to discuss the XRP Ledger's decarbonization strategy, join the XRPL Sustainability Members Club!

Please contact us at:

⇒ melanie@xrpl-commons.org

Blockchain & AI: Building Trust in the Digital Realm

A Short Summary of Our First In-Depth
Topical Deep-Dive
[MD, FB]

// Blockchain can be understood as a natural counterweight to AI: whilst AI is mainly led by incumbents and focuses on sustaining innovation and improving existing business models, blockchain is led mainly by the fringes and represents a disruptive innovation at odds with Web2 and central entities. Therefore, while AI is centralized, blockchain is, in essence, decentralized.

Furthermore, the combined integration of blockchain and AI can lead to innovative applications across industries and users. Three domains with synergies worth highlighting:

- ⇒ Enhancing data trust & privacy
- ⇒ Optimizing secure transactions
- ⇒ Enabling decentralized collaboration

Enhancing Data Trust & Privacy

AI thrives on high-quality data, while blockchain can provide a reliable data source by ensuring authenticity and accuracy on the chain. Moreover, blockchain cryptography combined with AI's advanced data processing capabilities can significantly enhance data security. AI algorithms can identify and respond to security threats in real-time, while the blockchain ensures that data and processes remain tamper-proof and secure.

For instance, Zero Knowledge for Machine Learning (ZKML), which started with blockchain applications, can help prove that a model was trained correctly and that a specific type of model was used. This setup could particularly make sense for high-impact decisions, such as grants and loans, to prove that the same model is being used for everyone and that bias is therefore limited.

Optimizing Secure Transactions

The combination of blockchain and machine learning can help secure transactions by filtering the suspicious ones. For example, machine learning is used to identify malicious transactions sent to a wallet and flag them to the user before they are submitted to the

Go Further...

Scan the QR Code to read our full report on the synergies between AI and Blockchain!

⇒ www.xrpl-commons.org/newsroom/blockchain-and-ai-building-trust-in-the-digital-realm ↗



blockchain. In finance, AI can analyze market trends and provide insights, while blockchain can secure transactions and reduce fraud.

In some cases, blockchain and zero-knowledge proofs (ZKP) can also help prove that transactions are initiated by humans and not bots.

Blockchain's transparency can also address one of the major challenges in AI: the "black box" problem, where the decision-making process of AI systems is often opaque. Therefore, recording AI processes and decisions on a blockchain can make AI systems more transparent and accountable, provided it does not facilitate adversarial machine learning.

Enabling Decentralized Collaboration

AI thrives on data centers, machine-learning models, and a talent pool that is usually within the control of a small number of companies. However, combining blockchain and AI fosters new avenues for decentralized development and democratizes access to AI capabilities. Moreover, it promotes a more inclusive and collaborative approach to AI innovation.

Blockchain can indeed provide protocols that redistribute the value created by AI across contributors of computational power, data, ML models, etc. These platforms can enable secure transactions and fair compensation for AI services. For example, a relevant solution could be on-chain DAOs that govern the quality of training data, submission of training data, and queries. These DAOs could use MPC to encrypt the

entire pipeline of creating and running AI from each individual user's training input all the way to the final output of each query.

Towards a Collective Approach

The synergies between blockchain and AI have the potential to create more secure, transparent, and efficient systems across various industries.

However, challenges exist, such as the computational demands of blockchain, concerns over data privacy, adversarial machine learning attacks, and the need for standardization in data formats and protocols. Addressing these challenges requires collaborative efforts from technologists, academics, regulators, and industry stakeholders.

XRPL Commons is at the forefront of these considerations, aiming to push blockchain development and solve for better interactions with AI. We explore this theme and more in our Residency program, executive briefings, and multiple events. Get in touch or follow us for information on our upcoming initiatives. 📄

DeFi: XRPL's Pioneering Role

By Panos Mekras, Anodos

// In the world of Web3, Decentralized Finance (DeFi) has emerged as one of the core use cases and a prominent value proposition. It's a vibrant use case that moves the crypto world forward, tracing its origins back to the visionary Satoshi Nakamoto and, later, the creators of the XRP Ledger (XRPL), who built what can be considered the original DeFi chain. With the introduction of the first Decentralized Exchange (DEX), tokenization features, and more, XRPL has been at the forefront of DeFi innovation, enabling peer-to-peer value exchange and financial autonomy.

At its core, DeFi is about peer-to-peer transactions, eliminating intermediaries, and fostering a trustless environment where users can exchange value directly. It's centered around an open financial ecosystem of applications that operate on blockchain technology, aiming to automate and replace the traditional middlemen in financial systems. As the DeFi landscape matures, Automated Market Makers (AMMs) are emerging as the standard-bearers, revolutionizing liquidity provision and decentralized trading.

Regarding regulation, I believe we should stand for the core values of self-custody and DeFi and that the role of regulators should be educating and advising, providing the public with the knowledge and tools needed to navigate the DeFi ecosystem safely. By empowering individuals with information and the ability to make informed decisions, heavy-handed regulation will no longer be needed.

The XRP Ledger: A Leader in the DeFi Space

Since its inception in 2012, XRP Ledger has been at the forefront of the DeFi movement, albeit unrecognized by many.

With its native currency, XRP, the Ledger was designed to be a faster, more cost-effective, and sustainable alternative to Bitcoin, focusing on peer-to-peer transactions. While it has been predominantly recognized for payments, XRPL's capabilities extend far beyond. It has provided ample opportunities for developers to innovate and create tokenization solutions for over a decade.

Yet, despite its many contributions and robust infrastructure, the XRPL has encountered hurdles in gaining widespread recognition for its full spectrum of functionalities.. Nonetheless, the potential for XRPL's growth and adoption within the DeFi landscape is substantial. In 2024, XRPL is undergoing transformational changes, expanding its focus from payments to a comprehensive ecosystem equipped with NFTs, AMMs, DIDs, an EVM sidechain, and beyond.

AMMs redefine decentralized exchanges by providing 24/7 liquidity, lowering entry barriers, ensuring decentralization, offering rewards for liquidity provision, and maintaining predictable fee structures. These advantages are crucial for DeFi's continuous growth and accessibility. With its unique features, such as two-way AMM-CLOB interoperability and the continuous auction mechanism, XRPL's AMM distinguishes itself in the crowded space of automated market-making.

Why Anodos?

Anodos came to life in the summer of 2023 because we saw a clear opportunity in the industry, especially the XRPL ecosystem, for tools and apps that could simplify the crypto experience and lower the Web3 entry barrier. All these years, I have had friends and family members tell me they were

interested in joining the crypto space but find it too complex and time-consuming to understand.

Our mission with Anodos is to create a suite of applications that are not only cutting-edge but also user and beginner-friendly. I'm talking about intuitive apps powered by blockchain technology that can help people onboard in crypto, manage their assets, and engage with DeFi and Web3 without needing to become experts. At the same time, to focus on education and collaboration with other great builders.

We have chosen to primarily focus on the XRPL ecosystem, recognizing its outstanding attributes that align perfectly with our startup's needs. Beyond these qualities, we perceive significant untapped potential within XRPL that we aspire to unlock. Observing a current dearth of activity and developer engagement on XRPL, a sentiment echoed by many, we feel compelled to address this gap. XRPL is an exceptional technology, currently underutilized, and we aim to showcase its remarkable capabilities to a broader audience. Our deep commitment to XRPL is rooted in our long-standing involvement as users and community members since 2016, providing us with unique insights into the network's capabilities and the requirements of its user base.

In essence, Anodos is here to bridge the gap between the complex world of crypto and the masses, making it as simple as using any other app on your phone. Because unless blockchain becomes invisible, such as the Internet, I don't think we will achieve mass adoption. We need good products and useful apps that people want to use, without the end user caring about the underlying technology, network, or asset used. That's our end goal in Anodos.

The Road Ahead for XRPL

Despite XRPL's challenges, the potential for growth is immense. We are seeing that the XRPL is finally morphing into a powerhouse of innovation, and a future-proof blockchain and ecosystem going beyond payments. With so many exciting developments, I believe that the ecosystem is finally at an inflection point. For the first time in XRPL's history, we have multiple developments going on – not just on the mainnet, but the whole ecosystem with networks and sidechains such as Xahau, the upcoming EVM sidechain, Flare, Coreum, Futureverse, and more. At the same time, on the mainnet, we have the bridge, decentralized identity, and of course the AMM which launched recently and I believe over time will have a significant impact on the liquidity, activity, and participation of the ecosystem. As we look to the future, it's clear that XRPL's commitment to DeFi remains unwavering and that the ecosystem is poised to attract a new wave of DeFi enthusiasts and capital. 📈



ABOUT THE AUTHOR

Panos Mekras is a seasoned financial professional with a deep understanding of the crypto markets. He is the author of the book "Understanding the Crypto Economy," and co-founder of Anodos, a crypto project dedicated to developing applications that make it easier for everyone to access Web3.

What You Need to Know About: The Proposal for the XRP Ledger Lending Protocol

By Vito Tumas, Ripple

XLS-66d introduces an XRP Ledger native Lending Protocol. The proposal lays the groundwork for implementing a robust, decentralized lending protocol directly on the XRP Ledger.

It introduces mechanisms for uncollateralized, fixed-term, interest-accruing loans pooled from collective funds, relying on off-chain underwriting, risk management, and a First-Loss Capital protection scheme to secure it.

How It Works

- ⇒ **Liquidity Source:** Liquidity Providers contribute XRP or fungible tokens to a Lending Pool managed by a Pool Delegate. Similar to the AMM, they receive LP Tokens in return that correspond to the share of the Lending Pool the Liquidity Providers own.
- ⇒ **Loan Issuance and Management:** Pool Delegates evaluate borrowers off-chain based on their reputation, creditworthiness, and other relevant factors. Once the Borrower and the Pool Delegate agree on the Loan terms, they post them on-chain with a multi-signature transaction, initiating the Loan. The Borrower can commence withdrawing funds and making Loan payments.
- ⇒ **Incentives:** Liquidity Providers receive any interest paid by the Borrower. Pool Delegates receive various fees for managing the Loan.
- ⇒ **Risk Management:** Pool Delegates deposit a First-Loss Capital that covers any losses in case of a Loan default. The Pool Delegate and the Borrower negotiate the Loan default off-chain.

Proposal Highlights

- ⇒ **Direct Lending:** At its core, it enables straightforward lending with terms directly agreed upon by the Borrower and a Pool Delegate.
- ⇒ **Flexible Design:** DeFi Lending is complex. Thus, the protocol is adaptable, supporting future expansion and enhancements without losing backward compatibility.
- ⇒ **Reusable Components:** The proposals introduce a multi-use, managed, single-asset tokenized Vault, unlocking future use cases beyond lending, such as yield farming, escrow, and more!
- ⇒ **Fundamentals:** The protocol focuses on the fundamentals of on-chain credit origination, enabling faster innovation in the future.

Protocol Stack

The Lending Protocol includes three specs, each building on top of each other:

- ⇒ **XLS-64d Pseudo-Account:** Allows linking an account with multiple ledger entries to track XRP and Token Balances or issue Fungible Tokens on behalf of the linked ledger entries.
- ⇒ **XLS-65d Managed Single Asset Tokenised Pool:** Introduces a new ledger entry for single asset pools and defines a standard interface for interacting with it.
- ⇒ **XLS-66d Lending Protocol:** Builds on the previous specification to introduce the foundation for lending on the XRPL.

Community Feedback

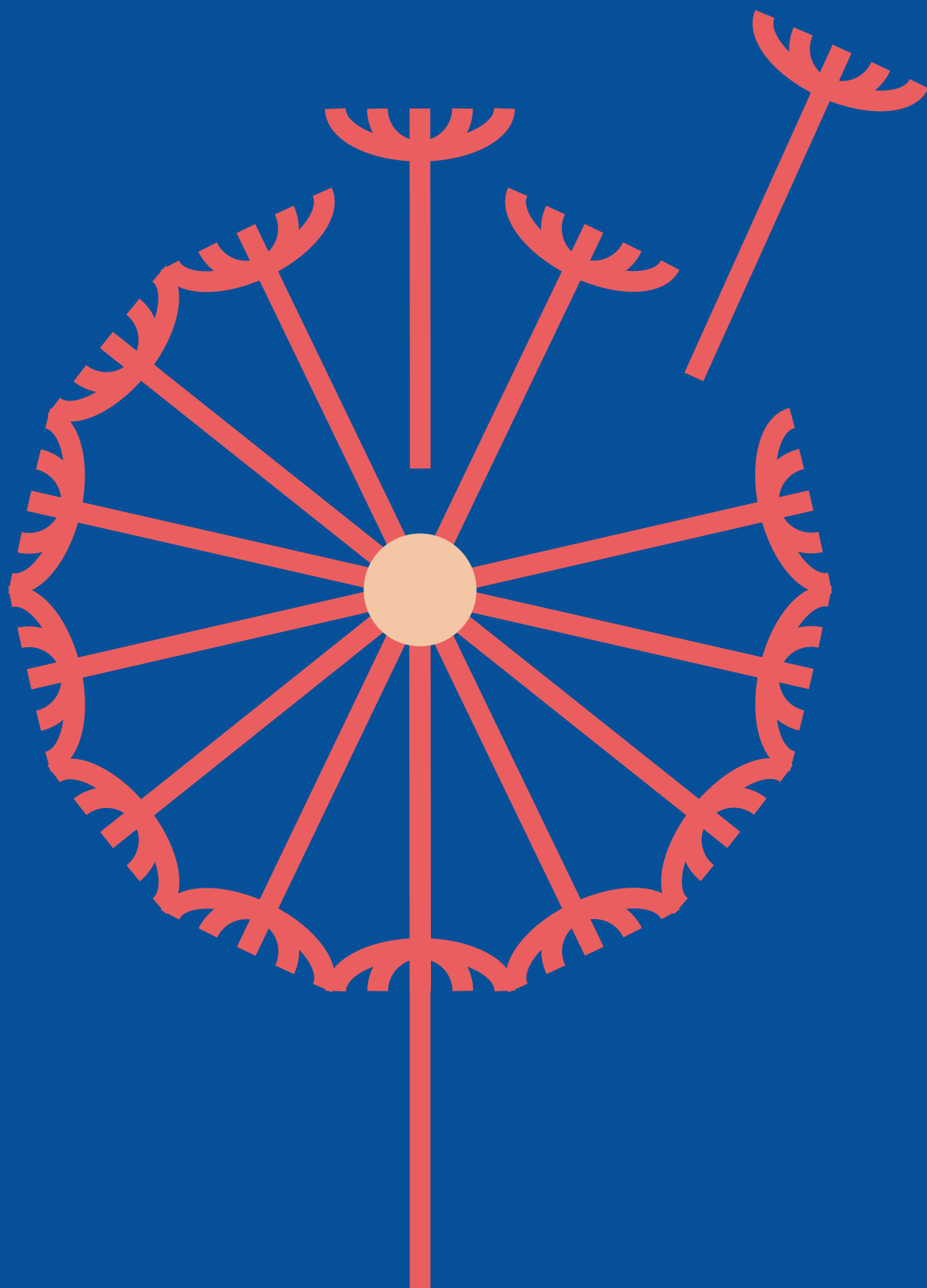
The Lending Protocol will be iterative, incorporating feedback at every step. We invite the community to engage with the Protocol Specification via GitHub specifications or the XRPL Community Channels. 

Check out the full proposal here:

github.com/XRPLF/XRPL-Standards/discussions/190 ↗

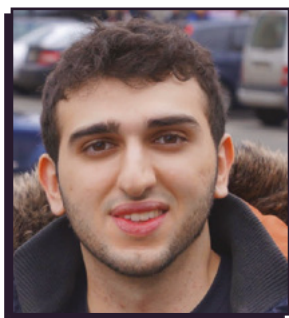
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XRPL Wizards



#Ask Me Anything with Vet

Join us for an in-depth AMA session with Vet as he answers questions collected from the community and shares his vision for the ecosystem's future.



ABOUT THE AUTHOR

Vet is a data analyst/scientist and paramedic who holds a computer science degree. Since joining the XRPL Community in 2017, he has held seminars on Bitcoin game theory and has become an active community builder, engaging through various platforms. He also runs infrastructure as a dUNL Validator and co-founded the NFT marketplace xrp.cafe.

The Plans for xrp.cafe

What is the longer-term vision for going beyond NFT art?

We plan to use XRP Cafe to tokenize goods and services on the XRP Ledger for companies. Think of gym memberships, coffee shop stamp cards, and digital goods not yet on the blockchain, like game assets.

Are you working on enterprise offerings in addition to the great tooling you have built around NFTs?

For the past two years, we have been building the NFT infrastructure on the XRPL, including the Automated Launchpad, solid user experience, on-ramps with Coinbase, and proof of attendance apps. Our next steps include serving enterprise customers with our products, focusing on market penetration, outreach, and customer/project acquisition.

What about AI-based features?

Yes! We have a test version of an AI support search function on our platform. We briefly showcased this feature last year at Apex!

The future of the XRP Ledger and NFTs

What do you say to people who claim that NFTs are a fad and "over"? What excites you about the future of NFTs?

NFTs are certainly not over! While they are not currently hyped, this should not be seen as an indicator of their capabilities. What excites me is how communities evolve through NFT projects. Large projects like Yuga Labs, which raised \$400 million at a \$4 billion valuation, prove that pictures and collectibles have fundamental value. I look forward to seeing more solutions that solve real-world problems using NFTs. What is truly exciting with NFTs is the vast range of assets it can represent and people taking it even further.

You are well-versed in other chains. Are there any features in the blockchain ecosystem at large that you are particularly excited about?

I'm excited about DeFi and NFTs on chains like ETH and Solana, as well as the work by Runes and Ordinals developers on Bitcoin. I'm intrigued by the significant TVL brought by L2s on ETH, like the Coinbase Base chain, and the onboarding flow they have established. The progress in this industry is mind-blowing. The step into the real world and financial system is not a matter of if, but when.

It's encouraging to see recent RWA-related NFT launches via xrp.cafe. What real-world use cases and utility for tokens are you anticipating will be most successful in the ecosystem in the future?

The "killer" use case for NFTs is not clear yet, unlike payments. However, the XRPL's strengths, such as transparency, low fees, easy developer onboarding, and fast settlement times, make its NFTs suitable for disrupting many industries. For example, Media and entertainment have middleman friction, and carbon markets have double spending problems that blockchain can resolve. The opportunities are plentiful!

Amendment Insights

Can you explain a little about what it takes to write and submit an amendment to the ledger?

The XRPL Foundation has detailed contribution guidelines in the rippled repository. In short, think of a proposal/standard for the XRPL, create a discussion first on GitHub and lay out as detailed as possible your idea. After the discussion, you or someone else creates a Pull Request with the actual code implementation. You then need 2 reviewers of the repository to review your PR. For large amendments or significant changes, there might be performance testing and code audits involved by third parties. This is followed by a merge into the main branch which will be released to the network to update and vote on by validators.

You proposed a standard for Dynamic NFTs. What new use cases can dNFT unlock?

XLS-46D dNFTs propose dynamic NFTs for the XRP Ledger.

They allow issuers to change the content (URI) of an NFT even after it is minted and distributed, making them ideal for gaming and dynamic assets that evolve over time.

You follow amendments closely. What is the single most important amendment coming up for the XRP Ledger?

Hooks-Smart Contracts on the XRPL!

Are there any features from other chains you would like to see XRPL implement?

Business logic on-chain-Smart Contracts and Zero-Knowledge Proofs (ZKP).

Educating a New Generation of Developers

If someone has a good project idea but little or no experience as a developer, do you have any recommendations on how to begin building on the XRP Ledger? What are some of the obstacles new builders will have to overcome?

If they are not developers or IT professionals themselves, they should team up with developers and dive into the XRP Ledger together. This approach makes the project more promising and quicker to realize. The main obstacles include finding other community members to build a project, as the dev Discord is currently the only effective place to do this. Also, the lack of smart contracts means people must limit what they can do on-chain rather than off-chain. However, the XRPL is very accessible for Web2 developers, as it's primarily API calls, with everything built into the protocol. I would also promote xrp.org more aggressively, as it's the perfect starting point but is not well-known outside the dev community.

Can you describe your experience as an XRPL trainer?

In my first workshop at the TUM Blockchain conference in Germany, I enjoyed the students' various questions, which provided a new perspective on the XRPL. I always emphasize how easy it is to develop on the XRP Ledger, and students are often surprised at its simplicity and capabilities, such as having the very first DEX.

"I stand on the shoulders of giants, deeply passionate about both the technology and the people in this ecosystem."

If you could create a training program on XRPL tomorrow, what would it focus on?

I would focus on product monetization using blockchain.

Engaging the XRPL Community

We see you have established quite a presence on X/Twitter, especially in Spaces. How has this helped with your messaging and community engagement?

I stand on the shoulders of giants, deeply passionate about both the technology and the people in this ecosystem. My role is to connect people, ignite their passion, and always be a reliable supporter. Effective communication, coupled with empathy, allows me to disseminate information widely within the community. The XRP Community has many layers, and I love interacting with and understanding all of them. Being at the center of discussions helps me quickly identify pain points and either recommend solutions or address them myself. We all share the same goal, and leveraging the community's natural alignment is key. This is also how the XRPL functions.

What can we, as a community, do to engage and onboard new projects and developers to the XRPL Ecosystem? What will incentivize them to participate?

We have an awareness problem. Few people realize they can build products and services on XRPL.

Institutions seek good solutions, while young Web2 and Web3 developers desire exciting tech stacks and a fun environment. These individuals grew up with memes and internet culture, so we must engage them in a relatable way to avoid seeming dull.

The community is supported through grant programs, which are a quick way to bring new developers and their projects to the XRP Ledger. But to retain them, there must be an alignment with the technology and the community.

We have witnessed lots of activity and expansion recently by developers in the community (including Xahau, Evernode, EVM/Evmos, and AMM amendment). Looking five years ahead, how do you see the main ledger and sidechains interacting?

Bridges and interoperability between sidechain protocols present many challenges; they are the industry's biggest exploit factor, next to smart contracts. In addition, there are UI/UX hurdles to incorporate multiple chains and wallets together. In the next five years, we will probably see a full ecosystem of sidechains develop, while the XRPL will remain the central chain for value exchange, liquidity aggregation, and final settlement.

What are the things missing from the current community landscape that would help create an even more productive environment?

We need more investment in Developer Relations, more opportunities for the community to meet and form strong teams that build interesting things, open-door policies—to allow feedback loops to form and iterate on it, and more in-person events that involve not only the XRP Community but also other ecosystems.

I trust the fact that more capital will come as projects become more mature and lucrative. Additionally, increased advocacy and awareness will establish the XRP Ledger as the platform that is truly built for business. 🧙‍♂️

Palisade: A Bespoke Solution for Web3 Asset Management

Talking Details with the Founders



// When a corporation gets deep into asset management, fund allocation, usage, and oversight, a myriad of problems can arise, ranging from internal confusion and disputes, to embezzlement. The potential headaches can be further exacerbated in a Web3 framework, where added layers of security, ownership and authentication come in. What will it take to protect, yet facilitate, digital asset transactions in this context? What measures can be adopted to accommodate businesses with large teams and many layers of responsibilities?

Enter Palisade. Founded in 2022, the company was created with a view to solving the issue of accessible custody—all pertaining to asset management, access, and cybersecurity. Coming from the UK, founders Tom Kiddle and Manthan Dave are two software engineers who met while working at Ripple and have developed a full spectrum custody offering on the XRP Ledger, providing businesses with a robust solution, yet with a user-friendly interface, to create and manage crypto-asset custody and transaction processes, at all levels of complexity.

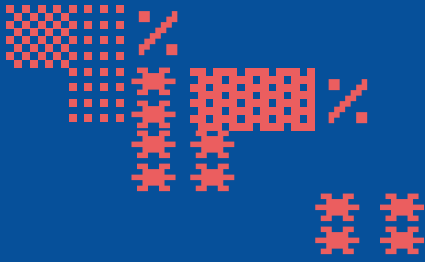
HSM and MPC: Pick your Security Setup

In our conversation at XRPL Commons, [Manthan Dave showcases how Palisade works.](#)⁷ The platform he co-built has three components: key management and custody, gov-

ernance (where funds can be allocated and with what keys), and blockchain control aspects (what actions can be taken on-chain). When setting up a key, the custodian sets up the desired factors for each component—filling out a form and following prompts, a process that takes two to five minutes. Every permission is explicitly defined on a need only basis ensuring the lowest level of risk possible. Its brilliance lies in the simplicity and clarity for custodians to set up. The tricky questions around asset and transaction management are taken care of in the span of a coffee break.

When setting up a key, two frameworks are provided for asset protection. The default setup goes through a Hardware Security Module (HSM), conceived to securely create, store and use cryptographic keys on a specialized device. Alternatively, Palisade proposes a “collective” solution for unlocking keys, computing encrypted inputs from multiple sources (called “shards”)—thus adding a layer of transparency when unlocking assets: this is known as “Multi-Party Computation” (MPC).

Tom Kiddle explains, “Multi-Party Computation is a basket of algorithms that allows you to spread the risk around keeping a private key. The key is distributed between servers, and you collect however many necessary pieces to produce a transaction signature.”



An MPC setup requires servers running cloudsign nodes for Palisade. While HSM keys are created instantly, MPC keys go through additional verification steps to provision the shards; the speed at which the XRP Ledger runs means these extra steps are completed in minutes. In either setup, one can easily add policy rules to a key, which Manthan recommends to ensure optimal control. Once a key has been created, they are, by default, triple-locked, thus ensuring fund protection on the platform, before any relevant parties use them.

Ultimately, the key setup is customized according to a company's unique needs; something reflected through Palisade's interface, and the relations developed with its clientele. "Every time we engage with a customer, we really try to understand what they're after. How they are using Web3, and what their long-term visions are for interacting with blockchain. And that truly helps us determine the best setup for key management."

Custody, Vaults, and Token Flows

All keys exist within "vaults". When a vault with multiple keys is set up, one could think of Palisade as a Web3 money management solution, with a similar display to a TradFi bank account interface. In this vein, the solution they developed has led to unforeseen positive outcomes, as pointed out by Tom. "Something we've been good at very early on is treasury management. Treasury management is almost exclusively done through our easy-to-use interface. We provide our customers with what we call a console, and from there you can manage everything from your users, your wallets, your transactions, and your policies."

The satisfaction of early adopters has informed Palisade's next endeavors. Moving forward, Tom and Manthan are more focused on building out bespoke tokenization flows protected by their framework. The target clients are companies and organizations seeking to tokenize assets on-chain, for which the Palisade technology around accessibility and custody can be precisely configured.

The two Palisade co-founders are leveraging their experience at Ripple and on the ledger to conceive and develop their innovative solution. As Tom notes, "The XRP Ledger is quite powerful because it enables our clients to use a number of its central features. For example, it has the ability to deploy escrows, to use authorized trust-lines [...] It enables governance at every level, and provides the tools that one can use to fine-tune and calibrate risk."

» **HARDWARE SECURITY MODULE:** A physical computing device that safeguards and manages private data (primarily digital keys), and undertakes encryption and decryption for digital signatures, authentication, and other cryptographic purposes.

» **MULTI-PARTY COMPUTATION:** Methodologies for multi-party groups to compute a function over their inputs while keeping those inputs private, namely in the fulfillment of cryptographic tasks.

» **TRUSTLINE:** An XRPL feature that lets users decide what tokens they are willing to hold. This helps users control what happens to their accounts. Transactions that explicitly indicate a desire to hold an asset, like an offer to buy a token, will automatically create a trustline behind the scenes.

» **WATCH MANTHAN DAVE** [↗](#), Palisade Co-Founder, explaining how to implement the Palisade Platform to develop on the XRP Ledger on our Youtube: [Using the Palisade Platform to Develop on the XRP Ledger](#)



Ensuring Security and Compliance in the XRPL Ecosystem: An AI-Driven Approach

Interview with Christian Nunez,
Head of Partnerships at AnChain.AI



1. Financial Action Task Force's Virtual Assets Contact Group

2. The FATF's Travel Rule requires VASPs, along with other financial institutions, to share relevant originator and beneficiary information from virtual asset transactions, with the aim of preventing money laundering, terrorist financing, and other fraud activity.

// As blockchain technology reshapes finance, ensuring robust security and regulatory compliance within our blockchain ecosystems is critical. We sat down with Christian Nunez, Head of Partnerships at AnChain.AI, to discuss these issues, drawing insights from his team's recent participation in the 2024 Paris FATF VACG¹ consultation.

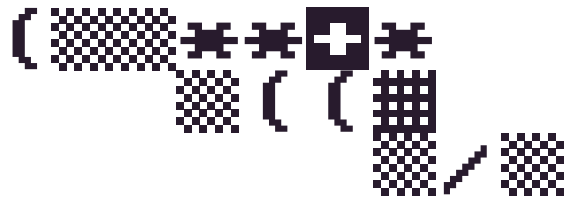
The Importance of Security in XRPL

"Security in XRPL is fundamental to its success and maintaining high-security standards is crucial as the network scales and new features are introduced. There's a common misconception that going through a smart contract security audit is enough. Time and time again, we continue to see hacks, contract manipulations, and other vulnerabilities come to light. We must continue to proactively engage in security conversations to further mature our industry," Nunez emphasizes.

Compliance with Global Standards

Compliance with global regulatory standards is another crucial area. Nunez highlighted the challenges many jurisdictions face with the FATF's Travel Rule². More than 75% of jurisdictions struggle with full compliance, complicating international efforts to combat money laundering and terrorist financing. "Global compliance is essential for ensuring that blockchain technology can be used responsibly and securely," he emphasized.

"Security is a shared responsibility, and the XRPL community is incredibly proactive in this regard"



Harnessing AI for Enhanced Security and Financial Integrity

Ensuring the stability and compliance of the XRPL ecosystem is critical for its success. Christian Nunez highlights the transformative role of AI in advancing security measures and regulatory compliance. AI technologies, through machine learning algorithms, predict and prevent security breaches by analyzing transaction patterns and detecting anomalies in seconds. This proactive approach enhances real-time monitoring, anomaly detection, and compliance enforcement, streamlining compliance reporting, workflow efficiencies and reducing human error. Community initiatives like hackathons foster a culture of continuous improvement and vigilance.

As XRPL evolves, ongoing collaboration between technology providers and regulators is essential to create a secure, compliant, and innovative environment for blockchain technology to thrive.

Community and Technological Advancements

Community engagement plays a vital role in enhancing XRPL's security. Collaborative initiatives, such as hackathons and bug bounty programs, empower the community to identify and address potential vulnerabilities. "Security is a shared responsibility, and the XRPL community is incredibly proactive in this regard," Nunez adds. These initiatives foster a culture of continuous improvement and collective vigilance.

Future Directions in Security and Compliance

Looking ahead, Nunez emphasizes the need for continuous improvement in security measures and regulatory compliance. As the ecosystem evolves, ongoing collaboration between technology providers and regulators will be essential for sustaining trust and security. "Our goal is to create a secure, compliant, and innovative environment where blockchain technology can thrive," he added.

By focusing on these strategic areas, the XRPL community can ensure a secure, compliant, and innovative future. The commitment to security and compliance, combined with the power of AI, will help the XRPL ecosystem continue to grow and prosper. 

For more detailed insights into AnChain.AI's work and their contributions to global crypto regulations, you can visit their blog post:

www.anchain.ai/blog/fatfparis



//Chapter_04

A Deep-Dive into Intellectual Property



How Blockchain is Transforming Intellectual Property

By Margaux Bassoli

ABOUT THE AUTHOR

Margaux Bassoli, a PhD candidate in private law at Grenoble Alpes University in France, specializes in blockchain-related copyright issues and has over five years of experience in the blockchain industry. In 2022, she co-founded Gokaden and has taught at law and business schools, as well as artists' collectives.

// Intellectual property is everywhere. We all interact daily with hundreds of goods and services that generate value from IP rights. IT, fashion, pharma, entertainment... most of the biggest industries—rely on IP to be sustainable business models. On its own, it is a multi-billion dollar business.

What is IP really?

A Monopoly. IP is a legal mechanism that creates value out of intangible assets. How? Thanks to the creation of a monopoly on the exploitation of the asset for a certain duration. Therefore, the entire value chain it creates involves the intervention of specialized lawyers who sustain it on a daily basis. It also means that if a breach occurs or a failure to maintain said monopoly, the asset's value drops, and competitors can (and will) use the former IP themselves.

Taking care of IP involves multiple actions. During the asset's inception, it's important to manage its proof of the existence of assets in a clear timeframe. In some cases, including industrial property, filing an IP protection application is mandatory. When expiration approaches, it implies renewing industrial property titles and managing proof of exploitation.. Finally, one must grant clients and partners licenses and collect royalties. In certain tricky scenarios, one might have to fight to enforce your monopoly and take legal action.

IP and Blockchain. IP rights emerged during the Industrial Revolution to help creators, artists, and inventors live out of their production. While industrialists, who manufacture vast quantities of goods, grow massively more prosperous, creators can remain in a precarious situation with their creations. IP rights were meant to rebalance this.

The Digital Era has brought new challenges for creators, as content duplication has become more accessible. People do not even have to buy content to access it—weakening whole economies (especially in the entertainment industry).

The digital sphere has been a nightmare for preserving monopoly over one's IP. The principles of licensing use and royalty payments have become mere concepts. Copy-paste, image download, "add to your site"... If case law solved legal stakes over time and entrenched habits in the IT sector, the digital environment remains a wild west for creators.

Where the internet brings challenges, blockchain brings solutions. Blockchain technology provides reasons for hope to create a more transparent, accountable, and fair online economy. In its white paper, the World Intellectual Property Organization (WIPO) even insists on the "numerous potential blockchain use cases within the existing IP ecosystems."

Blockchain Solutions for IP issues

Time-stamped blockchain-based proof. When it comes to safeguarding rights, the challenge often lies in the ability to provide concrete evidence. This necessity extends beyond mere proof of existence; it requires precise documentation of the exact moment an event occurred.

For example, BlockchainYourIp has used Bitcoin since 2019 to support fashion brands' legal services in their mission. Other solutions complement the time-stamping with a bailiff's report to strengthen the probative value of evidence. They might have a better chance to fight for the protection of their IP, which requires proper evidence of anteriority.

Monetization opportunities. Blockchain enables the tokenization of IP rights like patents, trademarks, and copyrights, potentially making it easier to license, sell, and commercialize them. Companies like WISeKey and Brainbase are working

on such solutions. While blockchain for IP management is still emerging, it holds promise for enhanced security, transparency, and efficiency of IP registration, authentication, transactions, and monetization compared to traditional systems. The French startup Bolero created the ability to invest in the musical rights of their favorite songs and thus collect royalties.

In that vein, many media outlets covered the historic sale of Beeple's digital artwork "Everyday: The First 5000 Days" for \$69 million. As a result, NFTs opened a new market opportunity for artists and art collectors. The fashion industry used the opportunity provided by NFTs to sell phygital items. The company RTFKT launched a sneaker collection, ultimately acquired by Nike. Finally, brands also implemented loyalty programs based on the chain to reward consumers (such as Starbucks or Dior).

Secure provenance, battle counterfeiting. The immutable and timestamped nature of blockchain ledgers allows for the authentication of IP assets and tracking their provenance, helping combat counterfeits and IP infringement. The EUIPO's Anti-Counterfeiting Blockathon Forum is developing a blockchain system to ensure product authenticity throughout supply chains. Start-ups develop digital passports for goods, in order to ensure provenance and maintain its track record.

Long story short, blockchain technology offers transformative potential for the management, protection, and monetization of IP. Its decentralized, transparent, and secure nature addresses many of the top challenges associated with traditional IP systems, making it a hot topic in the blockchain ecosystem. Explore these outstanding opportunities by taking a closer look at hot web3 sectors such as DeSci (Decentralized Science, open access to science knowledge), time-stamping solutions, and tokenization. 📄

GO FURTHER!



» [Blockchain technologies and IP ecosystems: A WIPO white paper](#) ↗

» www.euiipo.europa.eu ↗

Blockchain Technology for Open Science

By Paige Donner

How do science, IP, and blockchain technology fit together? Or perhaps the first question should be: Do they fit together at all, and to what purpose?

ABOUT THE AUTHOR

Based in France, Paige Donner is a serial entrepreneur with a 20+ year career in publishing. Her current company, IoT Logistics LLC, focuses on emerging technology integration, R&Dm and technology transfer in STEM fields. She is also a former resident in the Aquarium Residency, as the founder of Frontier Registry.

// The premise of this article is the presumption that there is merit to the claim that major bottlenecks to information sharing exist today in the world of scientific research. STEM (science, technology, engineering, math) are highly specialized fields of human endeavor that also have extraordinary impacts on humankind.

Let's reflect for a brief moment on where STEM research and its researchers have gotten us: clean water; efficient air, land, and sea transportation; electricity production and distribution; efficient agricultural practices able to feed billions; pharmacology and medicines that cure diseases and virus outbreaks; lunar exploration... the list goes on and on. It is, therefore, no wonder that some of these engineering and scientific breakthroughs have been maintained as closely guarded Intellectual Property. Not just companies, but arguably whole countries, have been built on being the frontrunners to scientific and technological innovations and advances.

Today, however, we are witnessing a wave of sentiment that supports open knowledge sharing. This is what Open Science refers to. France, the United States, and many countries from the global south and north are championing open science. France's Minister for Higher Education, Innovation and Research announced on July 4th, 2018 their National Plan for Open Science. UNESCO released its Recommendations on Open Science in 2021.

According to France's CNRS (Centre National Recherche Scientifique):

"Open Science changes the way research is integrated into society by helping to restore citizens' trust in scientists which strengthens scientific integrity."

Blockchain as Utility

So what is the use case for blockchain in science? It has to do with transparency, traceability, and authentication of IP and its provenance. In brief, the policy directives issued by France, the U.S., and other governments mandating open-access publication of findings resulting from publicly funded scientific research, require a means of implementation. In other words, it is critical that there is proper research infrastructure—and guardrails—in place that support the implementation of open-access science.

Our current system of legacy publishing, digital publishing, and the widespread use of Digital Object Identifiers (DOIs) falls short of serving the needs of our researchers. These researchers must protect their Intellectual Property (IP) while still being Open Science policy compliant. With the increasingly widespread use of AI-augmented research in STEM, this necessity for traceability of IP provenance has become critical.

Blockchain is the technology solution for these use cases. It provides a means of tracing the "trustworthiness of data by creating an audit trail for data" (Luc Bocahut—Solutions Architect, XRPL Commons). It is also the technology that enables transparent sharing of data, findings, and knowledge without giving away one's ownership of IP. By consecrating data (research/findings/computational formulas, etc.) on the blockchain, the author is immutably linking that information to themselves. This on-chain ledger system is tamper-proof. With decentralized storage structures such as IPFS, ArWeave, or Filemgr, there is an added robust layer of security that mitigates risk against data loss if/when a centralized data storage system, such as are used by the DOI systems, falters or stops functioning.

In sum, blockchain technology provides the technology tools to build the research infrastructure necessary to implement Open Science policy directives. ☒

OPEN SCIENCE IS A SET OF PRINCIPLES AND PRACTICES THAT AIM TO MAKE SCIENTIFIC RESEARCH FROM ALL FIELDS ACCESSIBLE TO EVERYONE FOR THE BENEFITS OF SCIENTISTS AND SOCIETY AS A WHOLE. OPEN SCIENCE IS ABOUT MAKING SURE NOT ONLY THAT SCIENTIFIC KNOWLEDGE IS ACCESSIBLE BUT ALSO THAT THE PRODUCTION OF THAT KNOWLEDGE ITSELF IS INCLUSIVE, EQUITABLE AND SUSTAINABLE.

Source: [UNESCO Recommendation on Open Science, 2023](#) ☒

XRPL and IP: Aquarium Highlights

FLORIANE LE FLOCH



Evermore

⇒ Tell us about your project in 3 sentences.

Evermore is a community-driven “re-commerce” platform that helps fashion brands increase revenue and reduce environmental impact. We enable brands and independent merchants to tokenize and track resales of fashion items, reducing waste and favoring sustainable and circular business models in the sector.

⇒ What problem/pain points is it trying to solve?

We are addressing the problem of waste in the fashion industry—figuring out how to align incentives to be financially viable and ecologically sound. It’s an incentive problem, whereby the faster a fashion item wears out, the faster a customer returns to buy more. In addition to the massive production of low-quality, unecological fast fashion, we also see huge proportions of non-purchased clothes ending up in landfills.

⇒ How are you using blockchain technology in your project?

We tokenize fashion items by minting their respective NFT, a “Digital Product Passport” on the XRP Ledger. As an item is resold, an immutable track record grows, with updates on the item’s condition for all to see. Finally, the brands that added the item earn royalties on the resale. We’re trying to create a new business model using Web3 that’s best for creating incentives and spreading value.

⇒ Why did you join the residency and what were your main learnings during the program?

I thought it would be a good boost for my project, which I had already started working on before in a Web3 framework, as I believe that using blockchain brings a critical edge to Evermore’s tracking chain. At the residency, I gained a deep understanding of the XRP Ledger that was beyond my expectations. The sessions with Standard Deviation were also fantastic, addressing the issues of sustainability and regeneration.

⇒ What’s the future of your industry?

More consumers of second-hand and vintage fashion. Hopefully the end of fast fashion!

⇒ What’s next for Evermore?

We have started working with designer clothes, at a relatively high price point. Ultimately, we want to diversify our range of clothing to include more affordable items as well. We were accepted into the XRPL Accelerator program, which will take us to the next level on the XRP Ledger and its ecosystem!

Meet our IP cohort residents driving innovation with their projects, leveraging blockchain technology to protect intellectual property.

Frontier Registry

PAIGE DONNER



⇒ Tell us about your project in 3 sentences.

It's a Web3, scientific publishing platform primarily dedicated to research and development. So, it professes support for Open Science—accessible knowledge and proper crediting of researchers at all levels—and provides the infrastructure to make it a reality.

⇒ What problem/pain points is it trying to solve?

With 20 years of experience in publishing, I saw that, primarily out of financially motivated considerations, so many people simply could not get access to being published, and when they did, the many rounds of revisions and considerations for publication diluted the paper's essence. Not to mention the exceedingly high cost of accessing published papers. As such, we're trying to usher in much higher levels of participation and collaboration.

⇒ How are you using blockchain technology in your project?

Blockchain technology leverages what amounts to a community effort. Open access and transparency help determine what data is correct and what is worth sharing. Traceability and ownership ensure due credit to the originators of ideas and research. Our Frontier Registry IP certification on the XRPL blockchain provides the right balance between open science and protecting authors and contributing scientists' IP.

⇒ Why did you join the residency and what were your main learnings during the program?

Coming from the Ethereum DeSci ecosystem, where I had already released Frontier Registry as a functioning dApp, I joined the residency to discover the XRPL, its community, and its architecture. This is important, given the growing need for interoperability between chains. Beyond that, one highlight was an improv session at XRPL Commons, a team-building exercise—it got us interacting in a more people-centric way, not just as one-dimensional blockchain builders.

⇒ What's the future of your industry?

The DeSci (decentralized science) movement will gain its due traction. The state and non-state discourse favorable to open science will actually be implemented. Science will be on the blockchain—it's a matter of 'when,' not 'if.'

⇒ What's next for Evermore?

The dApp's adaptation to the XRPL blockchain proof of concept is there. We are currently applying for grants and actively seeking investors and advisors to continue building and fostering the right partnerships and growing the team. We were shortlisted for a DARPA (Defense Advanced Research Projects Agency) challenge, so we'll see where that goes. It's all about rapid and continuous iteration to adapt our product users' needs.

ArtStamp

LIN HUANG



⇒ Tell us about your project in 3 sentences.

ArtStamp is an innovative browser extension designed to protect AI-generated visual content. It allows users to save and timestamp their interactions with AI models, ensuring that every prompt and image can be immutably preserved thanks to its hash sent to the XRP Ledger. This provides a verifiable and secure method for businesses and artists to preserve their creative process and IP.

⇒ What pain points is it trying to solve?

Protecting the IP of AI-generated art is a critical issue. Currently, creators of generative art face significant challenges in proving the originality and ownership of their work, compounded by the legal ambiguity surrounding AI-generated content. ArtStamp's solution ensures that artists and companies have proof of their process and helps to avoid disputes.

⇒ How are you using blockchain technology in your project?

The extension captures the entire interaction between the user and the AI model, converts it into a PDF, and then hashes this document. The hash is then sent to the XRP Ledger, where it is stored immutably, and an NFT is minted with this hash in its metadata. This ensures that the content cannot be altered.

⇒ Why did you join the residency and what were your main learnings during the program?

To bridge my passion for IP law and the potential of Web3. The residency offered an opportunity to develop ArtStamp within a supportive and resource-rich environment. My main

learnings included the importance of a solid business model and the value of community and collaboration in the industry. The workshops on business planning, IP law, and sustainable development were particularly invaluable, providing me with both practical knowledge and strategic insights.

⇒ What's the future of your industry?

As AI tools become more sophisticated, the market for AI-generated art is expected to expand rapidly. This growth will bring about new challenges in terms of IP protection and ownership, making solutions like ArtStamp increasingly essential. The integration of blockchain for immutable records will likely become a standard practice, ensuring transparency and trust in the creative process.

⇒ What's next for ArtStamp?

ArtStamp will solidify its presence in the market by targeting businesses, marketing agencies, and companies that rely heavily on AI-generated content. Our immediate next steps include refining the prototype, implementing cutting-edge Web3 technologies, enhancing user experience, and expanding our team to include more developers and business strategists. We plan to explore partnerships with IP law firms and tech companies to broaden our reach and impact. Additionally, we aim to stay actively involved in the XRPL community, leveraging the network and resources available to continuously improve and adapt our solution to the evolving needs of the industry.

"I just wrapped up an incredible 12-week adventure with the Aquarium program at XRPL Commons, exploring Intellectual Property on the XRPL blockchain. Initially, my goal was to delve into blockchain's potential in the fashion industry, and Paris seemed like the perfect place. However, I quickly realized my true passion lay elsewhere. Within the first whirlwind week, I shifted my focus to gamified education, aligning with my involvement in The Phoenix Guild, a startup dedicated to educating builders.

Early on, I collaborated on two standout projects. The first, DeCode, a gamified learning platform for blockchain builders, developed with Alexis and Caroline, where we blended business acumen with product development expertise. The second, ArtStamp, deepened my understanding of IP issues.

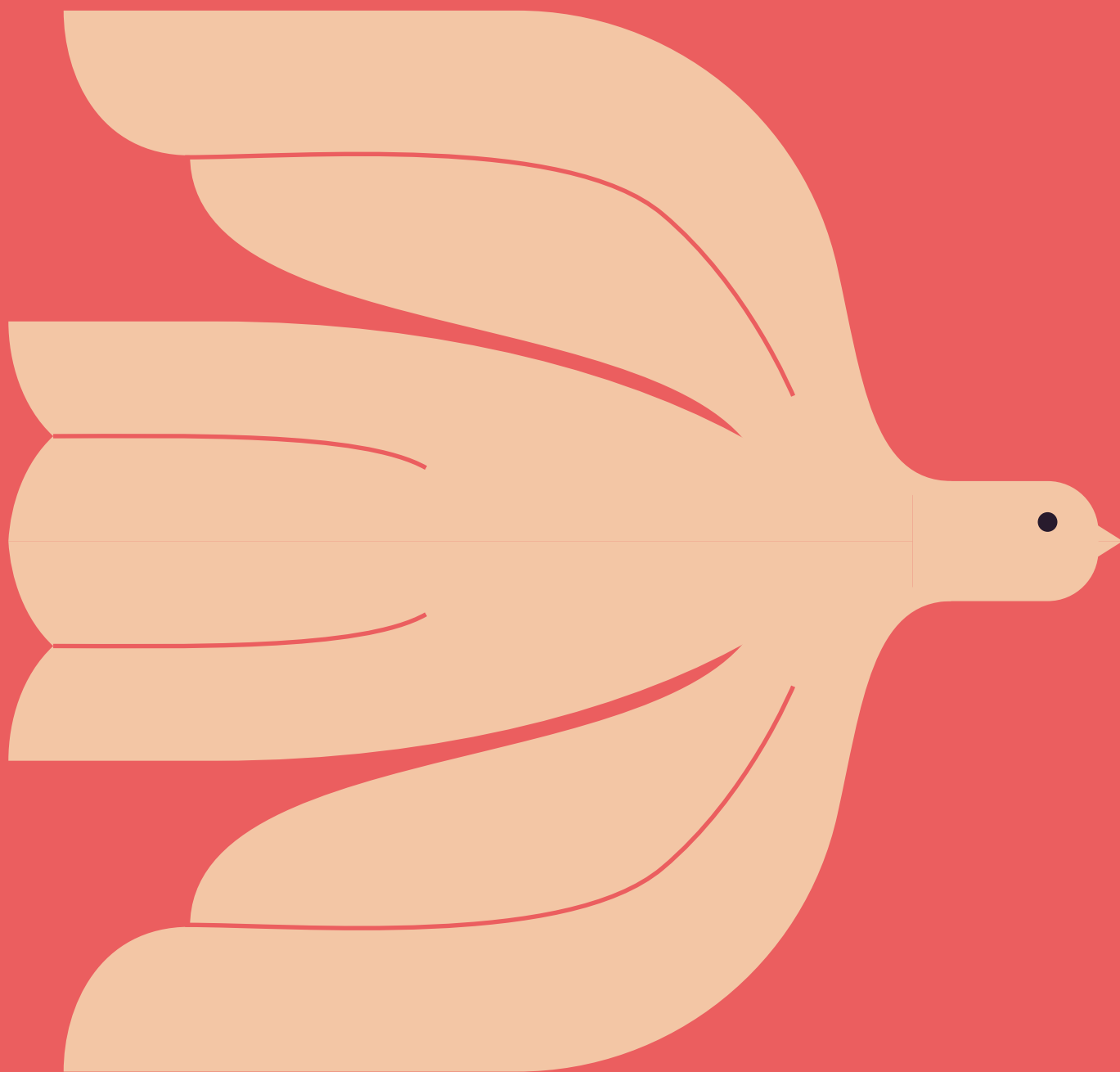
Throughout the residency, I achieved almost all my initial goals: learning to code, gaining insights into XRPL, and meeting fascinating people. This transformative journey bolstered my confidence and revealed my leadership potential. Working with brilliant minds, bonding over projects and discussions enriched my experience.

The business and gaming workshops were particularly engaging, catering to our diverse project needs. Given the chance, I would eagerly relive this experience, and I am profoundly grateful to the XRPL Commons team and my fellow residents for making these three months unforgettable."



SRILAKSHMI BARATHI

XRPL Events and Opportunities



Opportunities in the XRPL Ecosystem

Whether just starting out or an advanced XRPL dev, some of these opportunities might be waiting for you!

Getting Started

The Aquarium is a 12-week residency program hosted by XRPL Commons in the heart of Paris. It offers the space and time for builders and developers to get inspired, engage in meaningful dialogue, connect with like-minded peers, and kick off their next big thing.

Our next cohort, starting in the fall of 2024 and focusing on DeFi, is accepting applications until September 1! For further cohorts, applications are also open on a rolling basis.

⇒ Learn more about it at xrpl-commons.org/build/residency ↗

Launching Into the Sea

Applications are now open on a rolling basis for **XRPL Grants!** This means that projects will now be evaluated and awarded on a continuous basis in 2024. The XRPL Grants Program funds software development projects and ventures that leverage the open-source XRP Ledger (XRPL) and help grow and benefit the XRPL community. Funding opportunities range from \$10,000 to \$200,000 for projects with a timeline of up to one year.

The XRPL Grants program is open to any technical development projects and ventures leveraging the XRP Ledger.

⇒ Learn more and apply at xrplgrants.org ↗

Finding Your Edge

The XRPL Accelerator is a 12-week program to support entrepreneurs seeking to scale up their XRPL projects. The new "Launch" phase of the Accelerator is an optional "primer" program preceding the "Scale" program, empowering Advanced Start-Ups to Scale on the XRP Ledger and including a \$100K grant (non-equity) with emphasis on securing further funding. Applications for the Scale program are currently open.

⇒ Check out the details at xrplaccelerator.org ↗

Navigating the Blockchain Startup Landscape: Practical Tips from Peerkat

By Greg Hannam

ABOUT THE AUTHOR

Greg Hannam is the Cofounder of Peerkat, a Techstars backed company that has been working in the XRPL Community since 2019. Secured \$500k+ in funding and built multiple well loved products & open source code repos in different ecosystems. Previously worked with a number of startups to help streamline operations, build GTM plans, and raise further funding.

If anyone wants to dive deeper on any topic in this article, feel free to reach out to greg@peerkat.com. Also while we ourselves figure out our next move we are open to helping teams build products, commercialise or tackle any specific problems.

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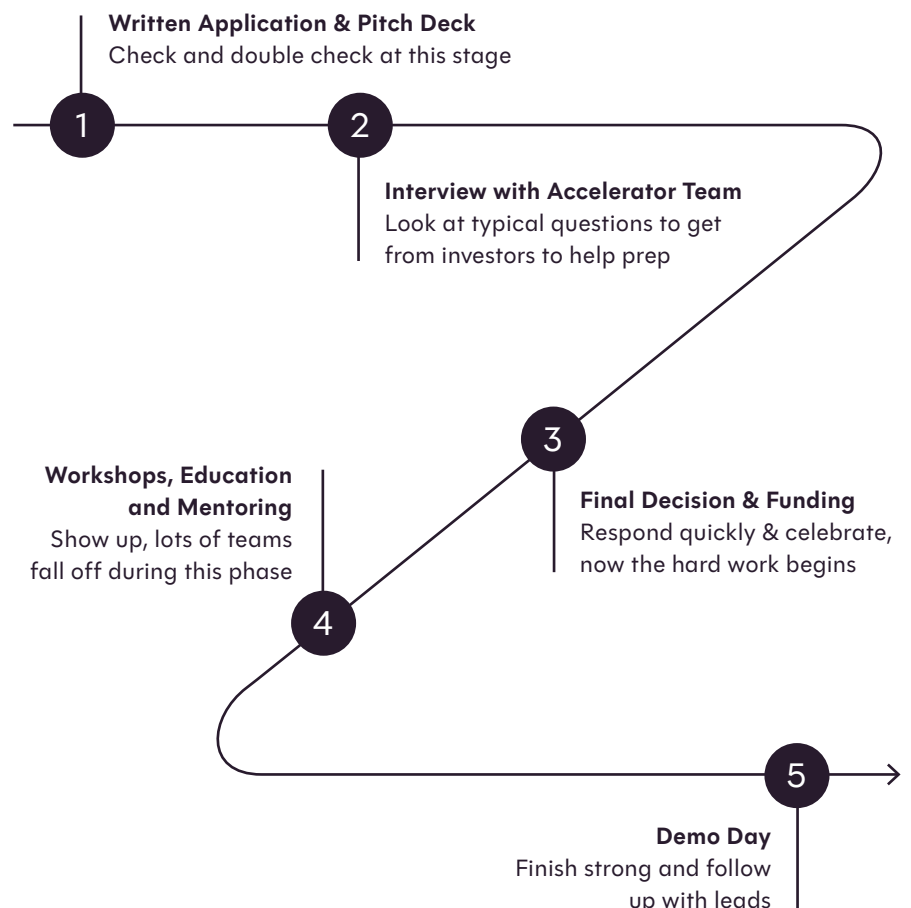
x.com/PeerkatOfficial

www.peerkat.com

www.vividdeeptech.com

Navigating the startup ecosystem can be as challenging as it is rewarding. In this article, we share insights into what strategies propelled Peerkat's success, the obstacles we encountered, and the invaluable lessons these experiences taught us.

The Accelerator Process



What Worked for Us

Hackathons: A Crucial Launchpad

Hackathons are not just competitions; they are our innovation laboratories to rapidly test ideas, pitch the commercials and iterate. At the beginning (Block-Sprint 2019 at UCL), for instance, we pivoted our project overnight based on real-time feedback, leading to us winning the competition with a proof of concept for an on demand live streaming app that facilitated micropayments.

These events provided us with early exposure to different networks, and the chance to refine our ideas alongside peers and experts, all whilst building momentum for the project.

Grants: Strategic Growth without Giving Up Equity

Our first grant was received from Interledger Foundation to produce revenue sharing and video advertising modules for Web Monetization. Through XRPL Grants, we were fortunate to be recipients in two of the early grant rounds where we built out a token issuance platform and data infrastructure.

Accelerators: Networking and Knowledge Hubs

Accelerators were invaluable for connecting with mentors and investors. A standout moment was during our time at top-tier accelerator Techstars, where a casual dinner with potential investors turned into a fruitful partnership, highlighting the unexpected opportunities these programs can offer.

Industry Events: Gateway to Opportunities

Choosing the right events to attend was crucial. For example, our participation at Apex directly led to a partnership that expanded our market reach & traction. While conferences can be prohibitively expensive, the growing number of side events & meetups around conferences provide more focused and cost effective methods of getting value from these events.

Affiliations with Credible Organisations

Our affiliation with reputable entities like UCL and Ripple provided us with a stamp of legitimacy and opened up avenues for collaboration that were otherwise difficult to access. Be careful with signing up for partnerships or aligning with less reputable entities even if they are offering a lot of money. Reputation is everything.

The Pitfalls We Encountered & If We Did It Again

Obscurity is the Biggest Obstacle: Distribution is Crucial

In crowded markets it can be difficult to get people to notice a new project or gain any real traction, let alone download an app or spend time to seek out a website without a real incentive, therefore careful planning around the strategy for product distribution should be a top priority.

Apps in crypto wallets (such as xApps in Xaman wallet) help teams to gain direct access and target specific user bases. Other methods could include bundling your product with another project or utilising marketplaces such as AWS or Shopify.

Navigating Hackathon Challenges

The competitive nature of hackathons has significantly increased (due to higher quality and quantity of hackathon teams per event), necessitating more preparation and a strategic approach to stand out. Building a team with diverse skills and experiences is crucial to capture the attention of judges and participants alike.

Starting over, we would place even greater emphasis on leveraging hackathons not just for awards, but for networking and building a reputation across different ecosystems.

Maximising Returns from Accelerators

While accelerators offer tremendous benefits, they can also lead to distractions (similar to grants). We recommend to focus on tailored advice and direct engagement with mentors in the process, rather than solely on the general sessions.

Reflecting on our journey, we would also focus on achieving revenue milestones via the powerful networks within accelerators earlier in the startup's lifecycle rather than prioritising external funding rounds.

In conclusion, every startup journey in the blockchain space is unique, but common threads of resilience, adaptability, and strategic foresight run through all successful ventures. By sharing our story, we hope to inspire and guide new entrepreneurs through the complexities of the blockchain landscape, paving the way for innovation and success. 🍷

The Dos and Don't of Fundraising

Advice from a VC Investor

By **Natacha Bami**

What We Are Looking For:

Preparation is Key

- ⇒ Treat fundraising like a job interview.
- ⇒ Research your potential investors thoroughly to understand their investment strategy and whether they align with your startup's goals.
- ⇒ Practice your pitch with mentors or advisors to anticipate questions and refine your presentation.
- ⇒ Strategize your approach by starting with Tier 3 investors, then moving to Tier 1, and finally Tier 2 to perfect your pitch.

Maintain Momentum

- ⇒ Keep the fundraising process active and engaging.
- ⇒ VCs are often attracted to momentum and progress; if the process stalls, their interest may wane.

Know Your Market and Competition

- ⇒ Demonstrating deep knowledge of your market and competitors is crucial.
- ⇒ Be prepared to answer detailed questions about your industry to show your expertise and the potential of your startup.

Transparency

- ⇒ While it's natural to be cautious with your ideas, don't overly withhold information.

ABOUT THE AUTHOR

Natacha Bami is a VC Associate at SISTAFUND, Europe's largest investment fund for startups founded by women and gender-balanced teams. She also contributes to the fund's communication strategy and ESG initiatives. Previously, she worked in venture capital in Paris and Berlin and developed a healthcare startup in San Francisco, while actively promoting access to venture capital since 2017.

Founded in 2018, **SISTA** is a Paris-based NGO focusing on data, community, and education, on a mission to nurture a new generation of leaders to reduce the gaps in funding. "Count women to make them count" is their mantra - here at Commons, we couldn't agree more.

Fundraising can be one of the most challenging aspects of building a startup. Knowing what investors are looking for and how to approach them can significantly improve your chances of securing funding. Here are some practical tips from a seasoned VC investor.

What You Should Know:

Choose Investors Wisely:

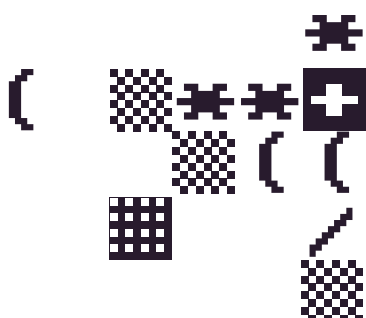
- ⇒ Vision Alignment: Ensure potential investors share a similar vision for the company's future. Avoid those looking for a quick exit, especially in volatile sectors like cryptocurrency.
- ⇒ Specialization: Identify investors who offer expertise relevant to your startup's current stage—be it product development, market entry, or monetization.
- ⇒ Personal Fit: The relationship with your investor should be strong enough that you feel comfortable reaching out during tough times, much like with a trusted advisor or psychologist.

Conduct Reference Checks:

- ⇒ Perform reference checks on potential investors by talking to other startups they've funded.
- ⇒ Don't just seek feedback from successful companies; also speak with those that faced challenges to understand how the investor handled difficult situations.

Understand the VC's Lifecycle:

- ⇒ Know where the VC is in their fund deployment cycle. This will impact their investment horizon and exit strategy.
- ⇒ If a fund is nearing the end of its deployment period, the investor might pressure for a quicker exit, which may not align with your long-term vision.



By keeping these insights in mind, you can navigate the fundraising landscape more effectively and align yourself with investors who not only provide capital but also support and enhance your startup's journey. The right preparation and strategic approach can make all the difference in securing the funding needed to grow and succeed.

XRPL Grants Wave 7 Awardees Unveiled

After rigorous evaluation by the judging committee, seven outstanding projects have been selected to receive funding and support.



// The influx of applications to the Wave 7 cohort was impressive, with 132 submissions from across the globe. After a comprehensive review process, seven outstanding projects from seven countries and four continents, resulting in a total funding amount of more than \$700,000.

These awardees cover an array of financial use cases, underlining the diverse applications of the XRP Ledger in the realm of decentralized finance (DeFi), payments, real world asset (RWA) tokenization, NFTs and authentication.

Judging Process Overview

Throughout the evaluation process, the [judging committee](#) ↗ meticulously assessed each project against a rigorous framework:

- ⇒ **Code Review:** Ensuring clarity, sufficiency, and originality of the project's code-base.
- ⇒ **Project Goals and Timelines:** Assessing clarity and thoughtfulness in defining project objectives and timelines.
- ⇒ **Use Cases:** Validating relevance and sustainability of building the project on the XRP Ledger.
- ⇒ **Team Expertise:** Identifying expert developers capable of executing the project confidently.
- ⇒ **Sustainability:** Evaluating the team's long-term plan for project maintenance.
- ⇒ **Legal and Regulatory Considerations:** Addressing the potential legal or regulatory considerations associated with the project.

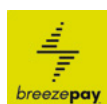
The projects chosen not only excelled in the abovementioned criteria but also exemplified the spirit of creativity, technical prowess, and real-world applicability that the Grants program is aiming to foster within the XRP Ledger ecosystem:

Bitbob



Bitbob is an iOS application designed to simplify bill splitting and payment requests for users worldwide. Bitbob will be made available at launch in 110 languages with support for multiple fiat currencies. Empowered by integration with the XRP Ledger and Flare Network for decentralized price feeds, Bitbob ensures a seamless payment experience for all users. A key differentiator for Bitbob is that users can interact with the XRP Ledger (XRPL) through WhatsApp's known and trusted interface, prompting and receiving payments and capturing and verifying the XRPL in real-time.

Breezepay



Breezepay integrates with both online stores and Point-of-Sale systems, allowing users to seamlessly pay for goods and services with their cryptocurrency at the click of a button. Using the XRP Ledger, customers can unlock the value of their XRP-based assets by simply connecting their wallet to Breezepay and paying for everyday goods, similar to a card transaction.

Kodelab



The Kodelab HELOC offers instant access to flexible credit/liquidity secured against properties or other illiquid assets via public and private blockchains, in the form of CBDC or stablecoin. Users can draw down and repay funds up to a certain Loan-to-Value (LTV), empowering and providing users with flexible credit options. The accompanying tokenization stack, formed from some 'world-first' legal engineering developed in conjunction with DLA Piper and Truva Corp, allows for the on-chain (NFT) collateral to be composed of actual property ownership rights or mortgage rights, boosting security for lenders, whilst borrowers are left with simplified and enhanced accessibility to revolving credit compared to traditional fixed-term loans.

Moai Finance



Moai Finance is developing a multi-chain decentralized exchange (DEX) and cross-chain DEX aggregator to improve asset liquidity and utility within the XRP Ledger (XRPL) ecosystem. Their flagship product is an automated market maker (AMM)-based decentralized protocol that enables seamless swapping between assets on different blockchains. They want to expand their product to support XRPL Mainnet and XRPL EVM sidechain to simplify the liquidity provision and asset swap mechanisms for users.

Propto



Propto, a decentralized exchange and tokenization platform, enables commercial property owners to fractionalize and list their assets on-chain. The product allows investors with a small amount of capital to participate in the commercial real estate market. Propto's tokenization and trading functionalities utilize the XRPL's native features, such as trustlines and the DEX, to facilitate real estate token transactions.

Tender Merchant



Tender Merchant is a point-of-sale terminal that allows merchants to accept digital asset payments easily, effectively, and safely. Tender Merchant is utilizing the XRPL to accept payments in XRP, issue points on the Loyalty app, and aid movement of funds by merchants. By integrating with the XRPL, customers gain the convenience of purchasing goods and services using XRP at any Tender-enabled store, further enhancing the adoption and utility of digital assets in everyday transactions.

VWBL

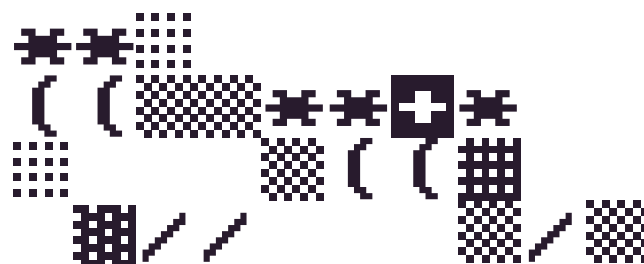


The 'Viewable' Protocol, VWBL, focuses on utilizing NFTs to encapsulate encrypted data to authenticate real-world scenarios, such as medical exams. VWBL is an on-chain condition-based access control protocol and key management network that operates across multiple blockchains. Its core features include enabling NFTs to securely carry encrypted external data, granting access to this data to users who meet specific conditions, and a decentralized and trustless architecture.

Begin Your Journey on the XRP Ledger

The XRPL Grants Wave 7 awardees represent the forefront of innovation within the XRPL ecosystem. We extend our congratulations to each project team and look forward to forthcoming [applications](#) for XRPL Grants which are now open. Projects will be reviewed and awarded on a rolling basis. Apply now via the [XRPL Grants website](#), and subscribe to the [XRPL Newsletter](#) to receive the very latest updates! Stay tuned for updates on these groundbreaking projects as they embark on their journey to redefine possibilities within the XRPL community.

For more information about XRPL Grants and future opportunities, visit xrplgrants.org.



Introducing Ripple's New Brazil Fund

Ripple also introduces its local support strategy in Brazil, aiming to foster innovation on the XRP Ledger. With the Brazilian government's keen interest in blockchain, initiatives like the Banco Central do Brasil's Regulatory Sandbox, and Ripple's XRPL Grants Program supporting pioneering projects, the stage is set for growth.

Brazil's advanced developer ecosystem, digital payments infrastructure, and forward-thinking public policy make it the ideal launchpad for Ripple's initiative. The XRPL Grants Brazil Pilot Program supports blockchain startups ready to scale, such as goAssets and Cointimes.

Developers and entrepreneurs in Brazil are encouraged to apply for grants via the XRPL Grants website. Engage with the XRPL Developers Discord, the XRP Ledger Learning Portal, and participate in community events to join Ripple in creating a more inclusive financial future.

Events

Connect with
the XRPL Community
#IRL!

July-Aug.

2 JULY

XRPL Meetup

@Luxembourg,
Registration open

8-11 JULY

ETH CC

@Brussels, Belgium

31 AUGUST – 1 SEPTEMBER

XRPL Hackathon

@Seoul, Korea

Sept.

10-11 SEPTEMBER

UBRI Connect

@Zürich, Switzerland

12-13 SEPTEMBER

**TUM Munich & XRPL
Meetup**

@Münich, Germany

25-26 SEPTEMBER

Developer Training

@XRPL Commons HQ, Paris,
France

October

OCTOBER 9-11

Permissionless III

@Salt Lake City, UT USA

Nov.

20 NOVEMBER

XRPL Meetup

@Rome, Italy

21-23 NOVEMBER

XRPL Hackathon

@University of Roma Tre,
Rome, Italy



//Chapter_06

Closing Notes



XRPL Glossary

AI (Artificial Intelligence): Machine intelligence demonstrated by computers, enabling them to mimic human cognitive functions and perform tasks autonomously.

Amendments: Changes or updates made to the XRPL protocol for improvements or new features.

Consensus (conference): Annual conference in the US, focused on blockchain, cryptocurrency, and fintech, gathering industry leaders to discuss regulation and innovations.

DeFi (Decentralized Finance): A blockchain-based financial ecosystem that aims to provide traditional financial services in a decentralized manner.

Decentralization: The process of distributing control and decision-making across a network of nodes, reducing central authority.

Evernode: A proposed platform for launching smart contracts and dApps on the XRP Ledger.

Hardware Security Module: A physical computing device that safeguards and manages private data (primarily digital keys), and undertakes encryption and decryption for digital signatures, authentication, and other cryptographic purposes.

Hooks: Customizable scripts that execute specific actions on the XRPL, enhancing its functionality.

Intellectual Property: Creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images, legally protected from unauthorized use by others.

Interoperability: The ability of blockchain networks to communicate with each other, sending and receiving messages, data, and tokens.

Mainnet: The live and production-ready version of a blockchain network where real transactions occur.

MiCA (Markets in Crypto-Assets Regulation): Proposed EU regulations for governing cryptocurrencies and related activities, aiming to balance innovation with consumer protection, sustainability, and financial stability.

Multi-Party Computation: Methodologies for multi-party groups to compute a function over their inputs while keeping those inputs private, namely in the fulfillment of cryptographic tasks.

Specifications: The detailed technical requirements and descriptions that outline the changes, features, or improvements to be implemented in the protocol.

Tokenization: The process of converting rights to an asset into a digital token on a blockchain, allowing the asset to be easily transferred, traded, or managed electronically.

Trustline: An XRPL feature that lets users decide what tokens they are willing to hold. This helps users control what happens to their accounts. Transactions that explicitly indicate a desire to hold an asset, like an offer to buy a token, will automatically create a trustline behind the scenes.

UNL (Unique Node Lists): A list of trusted validators on the XRPL,

used to achieve consensus and maintain network security.

XLS-0038d: The cross-chain bridge proposal for the XRPL describes a method for transferring assets between two independent blockchains by locking assets on one chain and issuing wrapped assets on another.

XLS-40d: An amendment that proposes to integrate Decentralized Identity (DID) directly into the XRP Ledger.

XLS-56d: This proposal introduces a method for executing multiple transactions as a single atomic unit on the XRPL, ensuring that either all included transactions succeed or none do.

XLS-66d: A proposal introducing fundamental primitives for an XRP Ledger-native Lending Protocol.

XLS-68d: A proposal introducing "Sponsored Fees and Reserves," allowing one account (the sponsor) to cover transaction fees or reserves for another account (the sponsee).

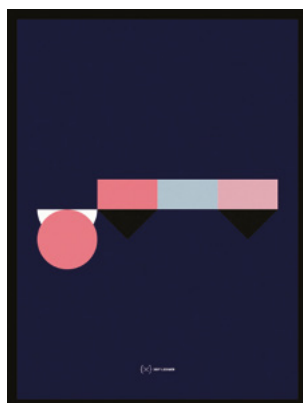
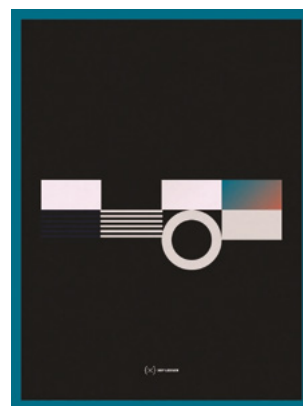
XRPL Ecosystem: The collective network and applications built around the XRP Ledger, including its various components and participants.

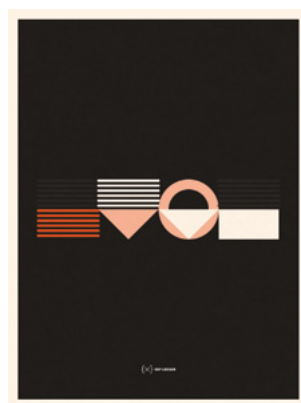
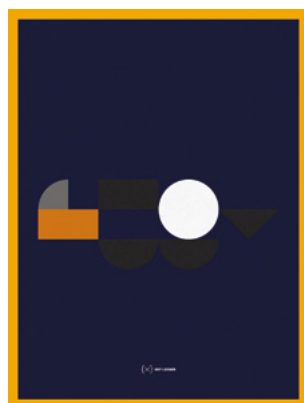
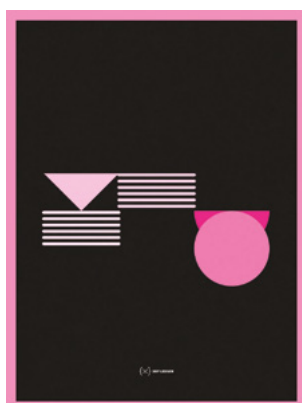
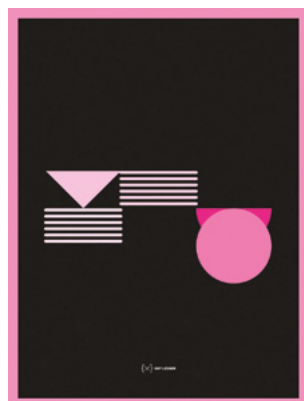
Zero Knowledge for Machine Learning (ZKML): The techniques enabling the verification of machine learning model predictions without revealing the underlying data or model details.

XRPL Quest: Join the Circle of Legends

In Community Mag #2, those who successfully solved our XRPL Crossword and found the secret code, got a special reward: a unique, Albers-inspired, generative art NFT.

Not a fan of crosswords? No worries! You can still become a winner by taking on a new challenge. Simply find the hidden QR code within this magazine, which will lead you to our XRPL Quest page!





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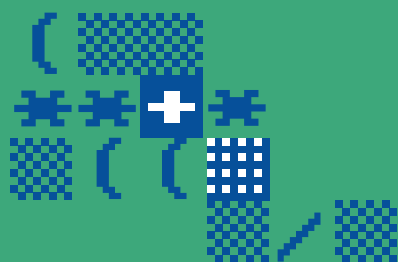
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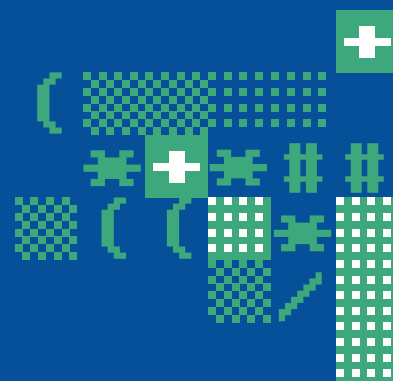


Become an XRPL Ecosystem Curator!

Calling all passionate community members! We're seeking dedicated volunteers to help shape our online Ecosystem Map and join our Editorial Board for the XRPL Community Magazine. By joining, you will participate in online discussions and brainstorming sessions, mapping updates, and other feedback opportunities.

➔ Are you in? Drop us a line at mag@xrpl-commons.org

Thank You!



Your Voice Matters!

Thank you for reading our XRPL Community Magazine. Your feedback is invaluable as we strive to make this publication a collaborative and vibrant hub for all. We're committed to embracing diverse perspectives and want to hear from YOU!

What topics ignite your curiosity for our next issue? Who do you want to see featured in our interviews? Are you eager to share your insights and ideas in the upcoming edition?

Your input fuels our enthusiasm. Reach out to us at mag@xrpl-commons.org, and let's shape the future of our community magazine together!

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