
XRP LEDGER
October 2023
community
#1
report

# Welcome letter

From David Bchiri

How can we leverage blockchain technology for global positive impact? This question prompted the creation of XRPL Commons, a non-profit organization dedicated to empowering impactful projects and amplifying the voices of the XRP Ledger community.

**AS AN ENGINEER AND ENTREPRENEUR** deeply captivated by technology's potential to improve the world, my journey in blockchain began in 2019 when I worked at a leading consultancy in San Francisco, specializing in digital transformation and tech adoption. One of my clients, a prominent French insurance company, sought to comprehend the impact of AI and blockchain on their industry, which sparked my interest in studying the significance of these technologies. While AI intrigued them, grasping the complexities of blockchain proved to be more challenging, leaving me pondering the unique qualities that set it apart.

Two years later, I found myself back in France, contemplating my next endeavor, and my curiosity about blockchain continued to grow. So, I immersed myself in learning the underlying technologies of decentralized ledgers and took part in a generative art DAO. The more I explored, the more I became fascinated by blockchain's potential to create and enforce trust, especially in payment systems, intellectual property, and identity. Its core attributes, such as transparency, traceability, and immutability, further piqued my interest.

During this period, 2021 unfolded with its share of turbulence, witnessing a decline in trust in institutions and contestation of factual events alongside a global health crisis. Amidst these challenges, I wondered if blockchain could be part of the solution without creating additional complexities.

During this quest for answers, I discovered the XRP Ledger, one of the most mature and scalable blockchains. What instantly appealed to me was its potential for innovation and its unique value proposition, particularly in terms of its consensus mechanism. Its steadfast performance over the past 11 years showcased its reliability for large organizations and businesses.

This revelation led to the birth of XRPL Commons, an independent non-profit organization, to create the conditions of success for builders and startups within the XRPL ecosystem.

Headquartered in Paris, France, a thriving crypto ecosystem, we remain active on a global scale. Our team is a blend of diverse backgrounds and nationalities, each contributing a unique sense of openness and expertise to the project. Deep down, we are all contrarians driven by the desire to explore alternative solutions and go against the tide.

We hold the values of openness and intentionality close to our hearts. By embracing open-source principles, open doors, and an open mind, we foster collaboration and innovation within the community. Our intentionality stems from the belief that the XRPL community can contribute to a more equitable world, starting with financial inclusion, a fairer distribution of value, and a more balanced society. We contribute to this vision by developing high-level educational material, facilitating partnerships, and through our in-house residency program.

With this quarterly report, we aim to provide a platform for the collective knowledge of the XRPL community, showcasing timely updates and projects that highlight our community's progress.

**We went from "0 to 1" with this first edition. Join us on this journey to make the XRPL community live and thrive!**

# Table of contents


## Founded in early 2023, XRPL Commons is an independent, non-profit association focused on empowering the global XRP Ledger community.

**HEADQUARTERED IN THE HEART OF PARIS,** France, XRPL Commons is a hub for innovators, researchers, startups, corporations, non-profits, investors, and all game changers globally who believe in the utility of Web3 for contributing to a fairer society.

Through providing education, guidance, partnerships, and resources for the entire XRP Ledger community, our mission is to create the conditions of success for startups and developers to thrive in the ecosystem.

We aim to bridge the gap between research and industry. Our focus encompasses regenerative finance, financial inclusion, and intellectual property, leveraging all the building blocks of Web3.

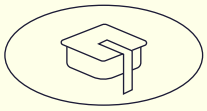
**Our vision for XRPL Commons is to act as a collider, where we listen to the community's needs, empower its members, facilitate smart connections, and leverage radical innovation.**

We are called Commons because we believe in the power of XRPL to contribute to the common good. By providing a space for different individuals from the ecosystem to come together and bounce ideas, we can collectively shape a common history for XRPL.

# Our Programs

Besides supporting already existing community-led initiatives, XRPL Commons takes an active role in putting the “Commons” into XRPL.

OUR PROGRAMS ARE BUILT ON THE FOLLOWING PILLARS:



## Education

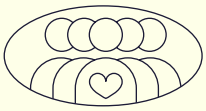
We produce open-source knowledge about blockchain for a wide range of audiences. We design courses on blockchain for universities and academic institutions and support research in Web3 and XRPL.

## Partnerships

We foster partnerships between developers, project owners, and researchers to work together on meaningful initiatives fostering solutions for real-world issues.

## Residency

We guide and coach developers and product owners during a 12-week in-house residency program where they can collaborate to build impactful blockchain projects using XRPL.



## Community

We bring together and elevate the people of the XRPL ecosystem. We provide opportunities and a physical hub for knowledge-sharing and profound conversations.

# Meet **Mathilde Morineaux (PhD),** Education Director


## "To truly understand the potential of blockchain, we must learn about the ways in which people use technology"

**As Education Director at XRPL Commons, Mathilde creates innovative learning programs within academic and research ecosystems. She holds a PhD in Social Science from Paris Lumières, where she researched the topic of Internet History and Governance. Mathilde has also taught at various universities, such as the Sorbonne and École Normale Superieure. In her free time, she loves reading, doing yoga, or enjoying the sun in outdoor cafes (Paris is a café paradise!).**

### My blockchain calling

I first heard about blockchain in 2012 while researching the Pirate Party and its communication strategies. I became interested in this new technology, a new paradigm of managing data and sharing value. I'm convinced that in 10 years, we will be talking about the mass adoption of blockchain, making it an exhilarating time to work in this field. When I learned about XRPL Commons, I was excited to join an organization that focuses on fostering a community and democratizing knowledge around technological innovation in real-time. This is still somewhat rare in the blockchain ecosystem and even in the broader tech world.

### My role at XRPL Commons

My mission as Education Director is to form partnerships with institutional and academic bodies and democratize education about blockchain. Besides developing partnerships, I am in charge of defining and implementing our educational strategy, designing open-source courses, teaching, developing our Research Department, and strategically monitoring new use cases of XRPL.

### Goals for the year

Starting this fall, we will teach about blockchain and XRP Ledger in several French universities, including Sorbonne Paris Nord, Epitech, and EPITA. We will bring content about blockchain to developers, engineers, and students in a completely different field, such as the cultural industry.

The challenge is to develop a course that's exciting and useful for all kinds of students, and make them see the bigger picture of how our society engages with technology as a whole.

Apart from that, I'm also coordinating the launch of a series of YouTube videos in which developers and researchers explain concepts related to blockchain and XRPL clearly, making this precious first-hand knowledge accessible to everyone.


XRPL
Insider

# The Brief History of the XRP Ledger

### The Birth of Blockchain Technology

In 2008, Satoshi Nakamoto unveiled Bitcoin's whitepaper, followed by its software release in January 2009. This marked the inception of decentralized digital currencies and blockchain technology, ensuring secure and transparent transaction records.

**2008**
**2009**

### The Rise of XRPL

David Schwartz, Arthur Britto, and Jed McCaleb developed the XRP Ledger in 2012, a decentralized, open-source blockchain platform. The XRPL utilized a unique consensus algorithm, the Ripple Protocol Consensus Algorithm (RPCA), providing faster transaction confirmation times and higher throughput than proof-of-work-based systems, enabling fast, secure, and low-cost international money transfers using a digital asset (XRP) as a bridge currency.

**2012**
**2013**

### The Advent of Smart Contracts and dApps

While Ethereum pioneered smart contracts and decentralized applications, XRPL focused on efficiency, becoming a key player in cross-border payments during this period.

**2014**
**2016**

## Why "XRP"? The Mysterious Name

The exact origins of "XRP" remain undefined by Ripple. In traditional currency codes, like ISO 4217, "X" often denotes assets unlinked to specific nations, suggesting "XRP" might indicate a global currency, with "RP" possibly alluding to "Ripple". However, these interpretations remain speculative.

XRP Ledger (XRPL) holds a crucial place in the history of blockchain as one of the earliest and most innovative blockchain platforms. But how did it emerge and evolve over the years? To understand, let's take a closer look at the history of blockchain and grasp the vital role played by XRPL.

**2017**
**2021**

### DeFi and NFT Emergence

Between 2017 and 2021, the blockchain landscape saw rapid developments with the rise of decentralized finance (DeFi) and non-fungible tokens (NFTs). XRPL didn't stay idle and started discussions around the addition of new features.

**2021 -**

### XRPL and the Multichain Future

XRPL's community has enabled the development of various new functionalities that enhance the chain's interoperability. As we look ahead, XRPL's role continues to evolve, and it's our collective responsibility to steer its future toward sustainable growth and mass adoption.

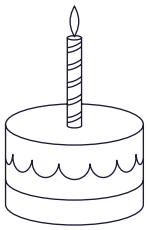
## XRP, XRPL, Ripple: What's the Difference?

**XRP Ledger** (or XRPL) is a Layer 1 open source blockchain. It's a piece of technology that is sometimes called "the protocol", "the network", "the nodes''. It's a common good and belongs to no one. Many contributors help maintain it and participate in its evolution.

**XRP** is the native digital asset or token that is used to transact on the XRPL. It is a digital asset - or cryptocurrency - that also serves to protect the ledger from spam and to bridge currencies in the XRP Ledger's native DEX.

**Ripple** is a technology company that builds crypto solutions for businesses. Ripple is one of many developers building on and contributing to the XRP Ledger. It is also a holder of XRP. Ripple has built a suite of software (SaaS) tailored for financial institutions and charges for their use.

# XRPL IN NUMBERS

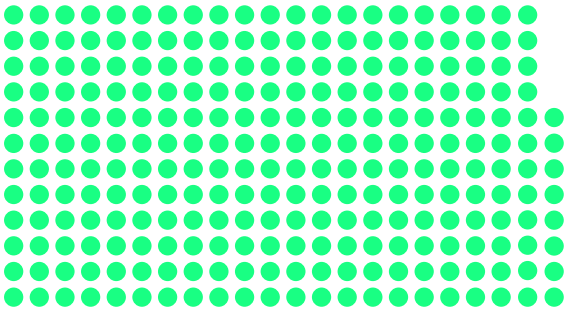


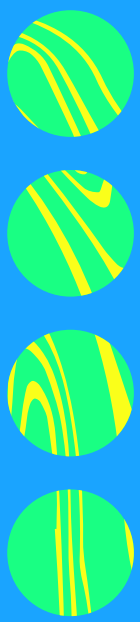
**10+**

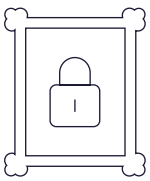
years of uninterrupted operations

**2,6B+**

successful transactions





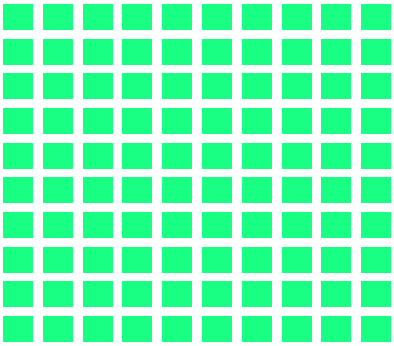


**2M+**

NFTs minted since the vote of XLS-20

**1000+**

apps and exchanges



**6500+**

users on the XRPL Discord server

**4,7M**

wallets

**30+**

independent entities represented on the main UNL

**50+**

community-approved amendments

# Introduction to amendments

Full text available on Ripple Engineering

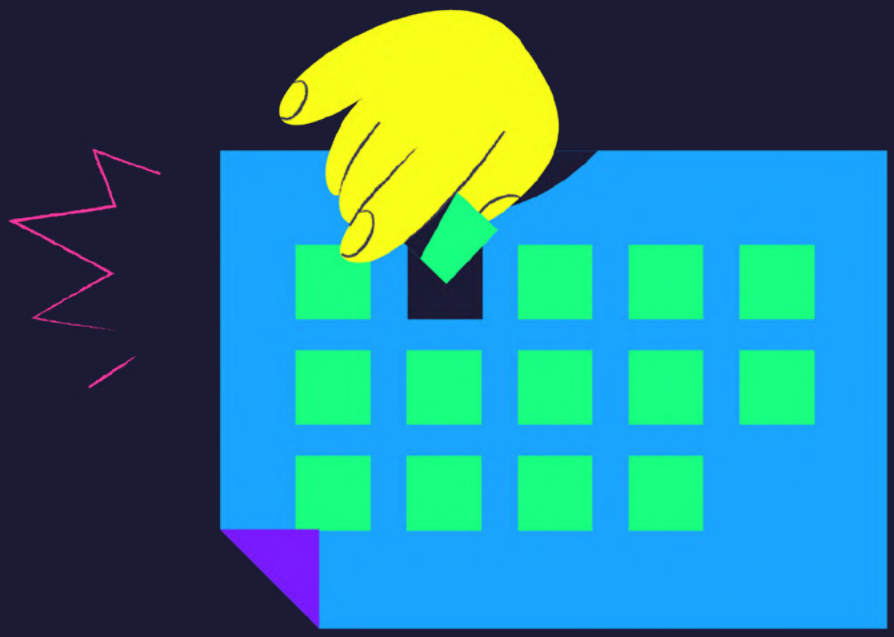
By Elliot Lee, Ripple

DECENTRALIZED BLOCKCHAINS such as the XRP Ledger (XRPL) rely on the collective decision-making of their participants in order to coordinate changes to the protocol. Amendments are the primary mechanism for initiating changes to the XRPL, which track changes to transaction processing. This includes new features, enhancements to existing functionality, and bug fixes. Validator operators vote on these amendments. If more than 80% of support is maintained for two consecutive weeks, the amendment activates, enabling the associated behavior.

The XRP Ledger software (rippled) generally defaults to voting against new amendments in order to reduce the odds that older servers become "amendment blocked". It's expected that some amendments may default to "yes" in a future release of the software—after the code to understand them has been included in a stable rippled release for some time. For example, an important fix might be given a default "yes" vote. In most cases, bug fix amendments are expected to move from default "no" to default "yes" after being in stable release for about two release cycles.

**Amendment Blocking:** Amendment blocking is a safety feature that protects the XRPL. When an amendment is enabled, servers running earlier versions of the rippled software are designed to detect that they don't have the source code required to understand the amendment. Therefore, they can't reliably process transactions correctly, according to the current protocol rules. Instead of potentially misinterpreting transactions or ledgers, these servers automatically become amendment blocked, effectively ceasing to function. They don't submit or process transactions, and they don't participate in consensus.

**How Ripple Votes:** Ripple does not control the XRP Ledger Mainnet and runs only 1 of the 30+ validators on the most commonly-used UNL. At the protocol level, Ripple's amendment votes have the same amount of influence as the votes of any other validator. Each node operator chooses the UNL they wish to use, which may include configuring their own UNL.



With the help of different contributors from the community, we dig deeper into three much-discussed amendments: decentralized identifiers, hooks and AMM.

XRPL Commons aims to provide a platform for discussion and showcasing informative op-eds related to recent developments. Therefore, if you'd like to **share your views** in the next report on a current hot topic in the ecosystem, don't hesitate to reach out!

# XLS-40d Is Coming

## Here's What You Need to Know.

By Nick Dazé and Julian Vergel de Dios, co-founders of Heirloom

**DEPENDING ON WHERE YOU LIVE,** if you transfer a moderate sum of cryptocurrency or convert crypto to fiat, you have to go through a regulatory workflow known as KYC ("know your customer"). And while you're probably already familiar with KYC, for the uninitiated, you must reveal a ton of personally identifiable information (PII) to your bank, your exchange, or your government (or all three). While these counterparties may have legitimate reasons to ask for this information, virtually none perform KYC independently. They use intermediaries and third parties to perform KYC checks on their behalf, which leads to the privacy equivalent of a tornado, with sensitive data about you strewn all over the countryside.

There are many workflows in our so-called "decentralized," "trustless" ecosystem where trust is required, and the workflows are desperately centralized. And they all come down to proving your identity because **your identity is not on-chain.**

Soon, that will change.

A watershed amendment is coming to the XRP Ledger that will change everything: **XLS-40d**. XLS-40d is a comprehensive proposal for integrating Decentralized Identity (DID) directly into the XRP Ledger. It aims to offer a robust, self-sovereign identity system that's cryptographically secure and doesn't rely on centralized authorities. It's fully aligned with W3C's DID standards, making it interoperable with other DID solutions. Security considerations are also well-addressed, emphasizing the need for secure private key management. This proposal extends XRPL's functionality and opens the door for a wide range of decentralized identity applications, from authentication to data sharing, all while giving users complete control over their identity data.

It's also important to underscore that when adopted, the XRP Ledger will be the largest, most mature blockchain in the world to support DID as a ledger object, paving the way for the XRPL to become an indispensable identity registry for workflows across the economy.

At Heirloom, we've been at the forefront of decentralized identity management, building best-in-class tools that empower both individuals and businesses to establish on-chain identities. Our solutions are designed to seamlessly integrate decentralized identities into various workflows, making the process not just secure but also efficient. And where our platform really shines is in making all of this extremely user-friendly.

We've been working closely with Ripple's development team on the XLS-40d amendment and are

following its progress with excitement. The amendment's primary author, Aanchal Malhotra, is a genuine thought leader in the decentralized identity field. The fact that she leads research at RippleX lends intellectual weight to the effort of introducing decentralized identifiers to the XRP Ledger.

**The potential applications of XLS-40d are vast and transformative:**

1. **Privacy-First KYC** Traditional KYC processes are not just cumbersome but also fraught with privacy risks. XLS-40d can revolutionize this by enabling a KYC process where you control what information you share, with whom, and for how long.

2. **Verifying Education and Employment** Imagine a world where your academic and professional credentials are securely and permanently recorded on the blockchain. No more chasing down transcripts or employment verification letters.

3. **Reducing Fraud in the Insurance Industry** Insurance fraud is a multi-billion dollar problem. With XLS-40d, claims and policies can be tied to a decentralized identity, significantly reducing the scope for fraudulent activities.

4. **Reducing Counterfeit in NFTs** The NFT market is booming but is also plagued by counterfeits and unauthorized reproductions. XLS-40d can add an additional layer of verification to NFTs, linking them to a creator's decentralized identity and thereby ensuring authenticity.

5. **Transparent Labeling of Human and AI-Generated Works** As generative AI technologies become increasingly sophisticated, distinguishing between human-authored and AI-generated content becomes crucial. XLS-40d can facilitate transparent labeling, allowing consumers to know the origin of the content they're interacting with, be it an article, artwork, or even code.

**"As we stand on the cusp of this transformative change, the question isn't just how XLS-40d will reshape our digital lives but how quickly we can adapt and innovate to unlock its full potential."**

The introduction of XLS-40d to the XRP Ledger marks a pivotal moment not just for blockchain technology but for digital identity as a whole. With its robust, W3C-aligned framework, XLS-40d promises to revolutionize a myriad of industries, from streamlining KYC processes to combating insurance fraud and even ensuring the authenticity of NFTs. Our collaboration with Ripple aims to make this vision a reality, setting the stage for a more secure, transparent, and user-centric digital landscape. As we stand on the cusp of this transformative change, the question isn't just how XLS-40d will reshape our digital lives but how quickly we can adapt and innovate to unlock its full potential.

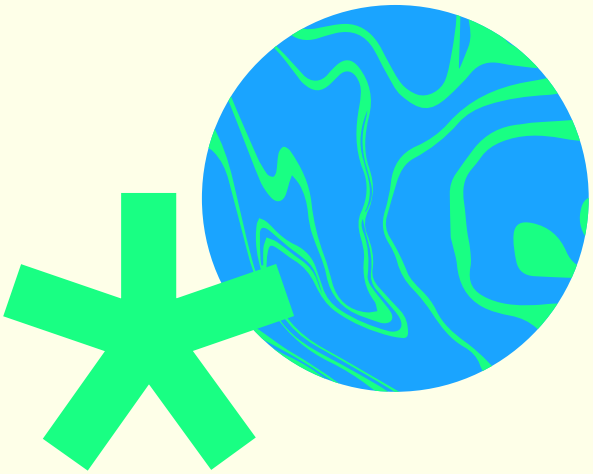
To learn more about these topics, we recommend reading *Self-Sovereign Identity* by Alex Preukschat and Drummond Reed. The W3C's *Use Cases and Requirements for Decentralized Identifiers* is eminently readable and is required reading on the Heirloom team. If you'd like to learn more about Heirloom, our website is www.heirloom.io.

# What You Need to Know about Hooks

By Denis Angell, XRPL Labs

| | FOR BUSINESSES | FOR THE DEVELOPER |
|---|---|---|
| **What Are Hooks?** | Hooks are a new feature in the XRPL ecosystem that allows businesses to execute their own custom logic as part of the on-chain transactional process. This means you can enforce business rules directly on the blockchain, paving the way for innovative applications of the XRPL. | Hooks can be seen as smart contracts but designed specifically for the XRPL ecosystem. They allow developers to write code that interacts and potentially modifies transaction processing. |
| **How Do Hooks Work?** | Hooks work by allowing businesses to trigger and guide custom logic tied to certain transactions. This can be before the intended transaction is executed or even after consensus is reached. This opens up the possibility for routing, blocking, and additional transactional activities based on your business' specifications. | Hooks work by compiling code (for now primarily in C language) into WebAssembly (WASM). This binary is then mounted onto an XRPL account and allowed to interact with transaction processing flow. Hooks can not only block or emit new transactions but also read and write state data. |
| **What Can Hooks Do?** | Hooks can empower businesses with the ability to set thresholds and criteria for transactions, like setting daily spending limits or requiring multi-signature approval for transactions beyond a certain value. Consumer protection, compliance requirements, business logic can to some degree be enforced on-chain as part of the transaction flow. Furthermore, you can capitalize on hooks' capability to issue new transactions, enabling auto-generated receipts for payments or follow-up transactions based on previous ones. | The functionalities of Hooks from a developer's perspective are diverse. They can control transactions, either stopping or allowing their execution. Developers can also use Hooks to emit new transactions, potentially leading to chain reactions of activity based on original transaction triggers. Hooks also have the capacity to read and write to the state, opening up avenues for storing and retrieving custom data. |

Enhancing the XRPL ecosystem and encouraging creativity, hooks provide businesses and developers with the tools to build unique solutions and real-world use cases for the XRP Ledger. They serve as the bridge between on-chain activities and off-chain business needs and solutions.



## To Learn More About Hooks

**Visit the Builder**

→hooks.xrpl.org

If you want to know more

**Further Resources on Hooks**

→Xahau Whitepaper on GitHub

→Hooks Amendment Security Audit on xrpl-labs.com

→The XRPL Foundation's Community Call with Scott Chamberlain, Wietse Wind, Wo Jake, Denis Angell and Richard Holland on Youtube

→Denis Angell's 2023 APEX presentation on Youtube

# XLS-30 AMM

## A DeFi Innovation

By Aanchal Malhotra, Ripple X.

**IN THE CURRENT LANDSCAPE** of XRPL decentralized exchange (DEX), liquidity is primarily provided through manual market making and order books. XLS-30 brings a groundbreaking change by introducing a non-custodial automated market maker (AMM) as a native feature of the XRPL DEX. With XRPL's inherent advantages of low transaction fees, fast transaction finality, and canonical transaction ordering, it is well-positioned to support a robust and profitable AMM system. This innovative addition aims to enhance returns for liquidity providers while minimizing the exposure to volatility-related losses and offering more liquidity at competitive prices to traders and application developers. AMMs act as liquidity aggregators, making funds available based on predefined algorithms. XLS-30 is a geometric mean market maker (GM3) that operates by algorithmically determining a fair exchange value, bolstered by arbitrage mechanisms, to automatically generate liquidity for a wide array of both highly correlated and uncorrelated asset pairs. On XRPL, this translates into liquidity pools for various assets, including XRP and other issued assets, as well as among different issued assets.

## Key Features of XRPL AMM

### Trading on AMM Instances

XLS-30 AMM users can deposit and withdraw liquidity, thus earning and redeeming the share of AMM pools, respectively, in the form of liquidity provider (LP) tokens. These tokens can be traded or used for payments like other XRPL tokens. This proposal supports both equal-asset and single-sided deposits and withdrawals for convenience and a better experience for users. Traders can also swap one token of an AMM instance for another using Payments transaction.

### Two-way Interoperability with AMM and LOB-based DeXs

XRPL's AMM-based DEX interacts seamlessly with the limit order book (LOB) based DEX, allowing users of AMM pools access to all order flow and liquidity on the LOB DeX, and vice versa. Transactions automatically determine the better price, whether within a liquidity pool or through the order book, optimizing the exchange rate.

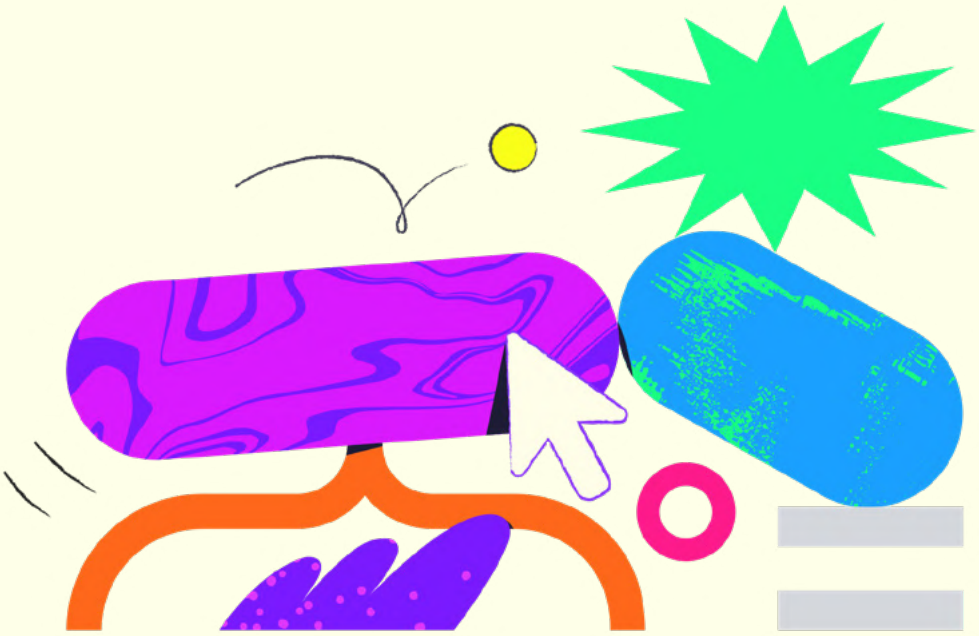
### Votable Trading Fee

AMM instances impose a trading fee on transactions that alter the token ratio within the AMM. This fee is added to the AMM instance's pools and distributed proportionally to LP Token holders when they redeem their tokens. The largest LP Token holders also gain governance rights, enabling them to vote on the trading fee.

### Continuous Auction Mechanism

A unique feature of XLS-30 is its continuous auction mechanism, where trading advantages are auctioned to arbitrageurs. This mechanism charges arbitrageurs and shares the earnings with LPs, effectively reducing the impact of impermanent loss – an issue often encountered in AMMs. Moreover, it enables enhanced volatility harvesting, resulting in rapid and close synchronization of AMM markets with external markets.

XLS-30 is a significant step towards enhancing liquidity and market efficiency within the XRPL ecosystem.



## To Know More About XLS-30 AMM

**XLS-30 Specification**

→ Scan the QR Code

XLS-30 AMM specs

**Further Resources on XLS-30 AMM**

→ Web3 Deep Dive Interview with Aanchal Malhotra at APEX 2023 about AMM on Youtube

→ The AMM Amendment on XRPL.org under "Known Amendments"

# An Overview of the XRPL Ecosystem

# Mapping Key Players

**In the dynamic landscape of XRPL, understanding its complex network of participants is crucial for fostering growth and a sense of community. Today, we present the initial glimpse of our ambitious open-source project: "Mapping the XRPL Ecosystem", which aims to provide a comprehensive overview of XRPL, showcasing its key stakeholders and their domains.**

WE BEGAN BY ASKING A FUNDAMENTAL QUESTION: "Who are the driving forces within the XRPL ecosystem?" To answer this, we took on the mission to identify and categorize the essential components that make up XRPL's ever-growing landscape. The outcome is a website-in-progress where you can explore all of the mapped projects and learn more about each of them. We also created a visual representation of our thought process behind the mapping, which you can check out on the following page.

### A Work in Progress, a Collective Effort

It's essential to emphasize that this is just the beginning. Mapping the XRPL Ecosystem is an ongoing initiative, a testament to our commitment to the community. We invite you to be part of this effort, sharing your insights, projects, and knowledge to help us grow together.
By scanning the adjacent QR code, you can actively contribute to this open-source database, ensuring it reflects the ever-evolving XRPL community.

**To simplify our exploration, we've grouped projects into three major categories:**

**Content**

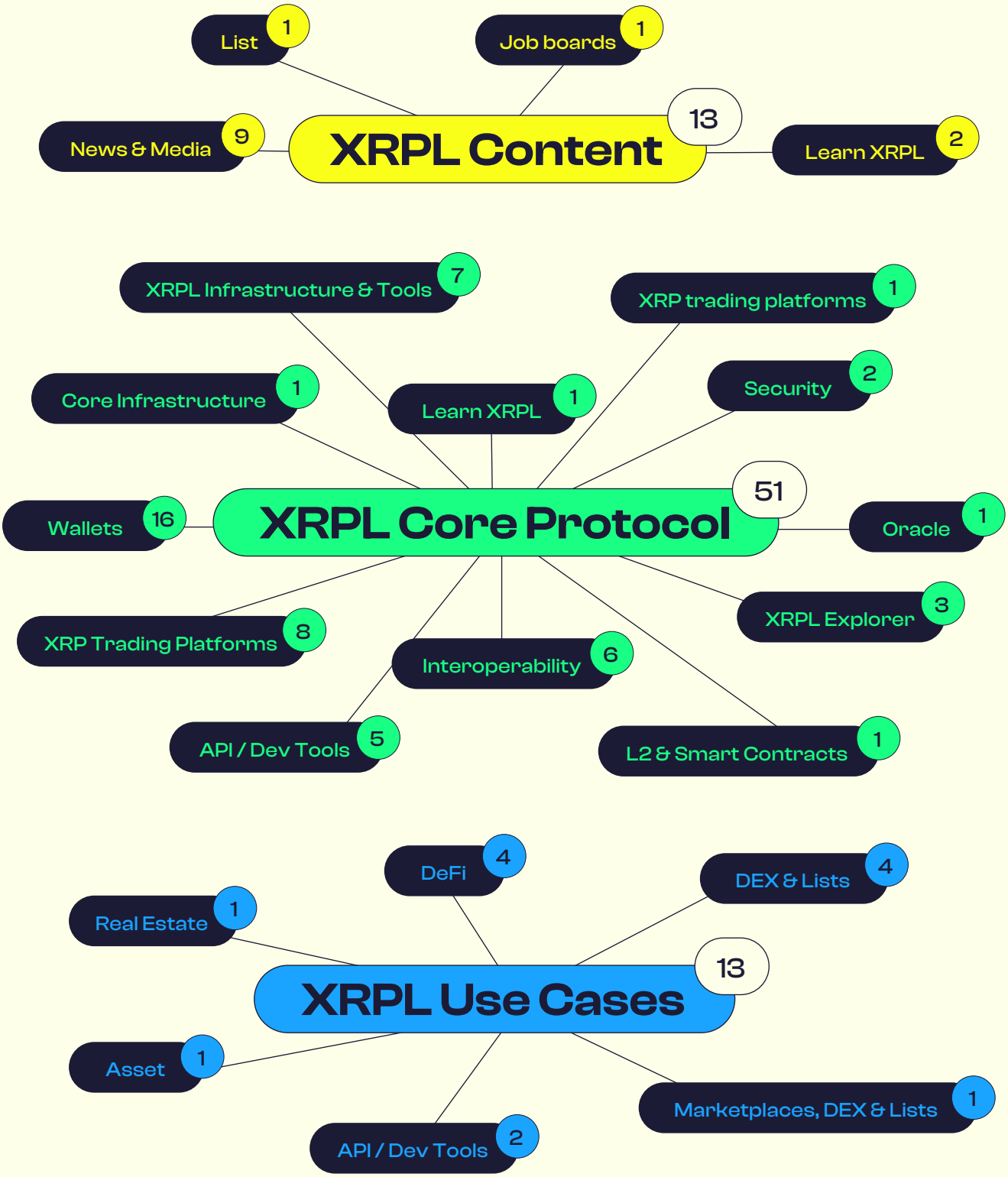
This section highlights those who share knowledge, disseminate news, and provide educational resources. Here, you'll find educators, news outlets, and content creators dedicated to the XRP Ledger.

**Core Protocol Tools**

Within this segment, we delve into the practical applications of XRPL. Discover the realms of NFTs, DeFi, sustainability, gaming, DAOs, and more. These innovators are shaping XRPL's real-world impact.

**Use Cases**

At the heart of XRPL's functionality lies a collection of essential tools and resources. Such as wallets, XRPL explorers, infrastructure, security, API and dev tools, XRP trading platforms, interoperability, and beyond.




Scan the QR code to join us in this collective effort as we map the progress of XRPL and share your views and contributions!

Join us


Humans
of
XRPL

# Exploring the Diverse Universe of XRPL

## Meet the Pioneers

**Welcome to the Humans of XRPL section of our report, where we introduce you to the faces shaping the future of our ecosystem.**
**In the rapidly evolving blockchain world, XRPL provides ample ground for innovation. To shed light on the multifaceted nature of our thriving ecosystem, we've had the privilege of speaking with four exceptional individuals, each contributing to XRPL in their own unique way.**

Fresh Faces

### Thomas and Maxime

Our journey begins with Thomas and Maxime, two young FinTech engineers who seized the spotlight by winning the hackathon of Paris Blockchain Week in 2023 with their XRPL Solvency project. Fueled by an XRPL Grant, they embarked on a mission to transform their success into a long-term endeavor. In our conversation, we delved into their beginnings and explored the opportunities of using the XRP Ledger.

XRPL Impact

### Flaviene Scheidt de Christo

Last but not least, we introduce you to Flaviene Scheidt de Christo, a PhD candidate at the University of Luxembourg, supported by Ripple's UBRI program. Her mission? To enhance the XRPL and enable its growth in a healthy way. Beyond her academic pursuits, in collaboration with XRPL Commons, Flaviene is preparing to share her expertise through educational YouTube content, demystifying blockchain for diverse audiences. Her commitment to filling the "knowledge gap" about blockchain highlights the potential for our ecosystem to drive positive change.

XRPL Wizards

### Viacheslav Bakshaev

Next up, we bring you a glimpse into the world of an XRPL expert. Viacheslav Bakshaev shares the genesis of Bithomp, the go-to explorer of the XRP Ledger. We also learn more about his views on recent developments in the ecosystem and the future of Bithomp. Viechaeslav's story offers a glimpse into how community support can make incredible projects come to life.

**Whether you're a student, developer, project owner or researcher, XRPL welcomes you with open arms. It's a realm where innovation can be built on a solid foundation. The Humans of XRPL are at the forefront of this journey.**

# The Young Builders behind Alice's Ring

Fresh Faces

**Who are the newcomers in the XRPL ecosystem? What is their experience like? The story of Thomas Hussenet and Maxime Dienger, two French blockchain engineering students, exemplifies the various paths to entry into our XRPL community and showcases how a concept can swiftly evolve into reality with the support of a robust ecosystem.**

**THOMAS (21) AND MAXIME (22)** are master's students at ESILV Paris, specializing in fintech and blockchain. They have both actively led Kryptosphere, France's most significant student tech and blockchain network. Through their involvement with the organization, they've recognized the significance of community and found a way to contribute meaningfully to it.

*"I guess we realized that blockchain isn't solely about investment and speculation. For us, building tools for a better ecosystem and world is key,"* says Maxime. *"Apart from the community, it's the technical challenge that motivates us,"* adds Thomas.

We initially crossed paths with Thomas and Maxime at the Paris Blockchain Week in March 2023, where their XRPL Solvency project won. This prize enabled them to advance their project and apply for a XRPL Grant. Boosted by a significant $100,000 contribution, they founded Alice's Ring, with a mission to empower individuals to demonstrate solvency without divulging their wallet address or transaction history, utilizing the concept of ring signatures.

## A User-Friendly Privacy Solution

*"The signature scheme we devised allows you to establish ownership of an asset on the blockchain without disclosing your identity. This is feasible because, with ring signatures, you can sign a message on behalf of a group based on a shared characteristic,"* explains Thomas. They believe in the importance of more scalable and user-friendly privacy solutions while being able to substantiate your on-chain value. *"In the future, we aspire to have this kind of proof hold the same weight as a traditional bank statement, without revealing your personal data and identity,"* they explain. Hence, their future objective is to collaborate closely with traditional financial institutions to develop similar cross-solutions between fiat money and blockchain.

While their primary goal at this time is to establish the main library for developing ring signatures, they are already considering long-term add-on modules to enhance Alice's Ring's potential for real-life applications, such as apartment rentals, benefiting banks and users alike.

## The Future is XRPL

*"Since March, we've been continuously participating in hackathons focusing on developing tools that can complement our core feature,"* shares Maxime, adding, *"There's a surge in zero-knowledge solutions, but in our view, it's also important to explore what can be done with other cryptographic schemes, such as ring signatures, to provide privacy solutions."*

When asked about the advantages of building on XRPL, they highlight XRPL's user-friendliness for new developers in the Web3 environment and express enthusiasm about future interoperability possibilities, such as the EVM and Xahau sidechains. *"These enhancements would offer solutions to many of our current challenges arising from the lack of hooks and smart contracts."*

# Getting Started in the XRPL Builders' Community

Thomas & Maxime's tips!

## 1 Master the Basics First

Before diving in, conduct research, build a foundational understanding of how the internet works, and familiarize yourself with the fundamental coding principles in Web2. "In the long run, this will give you a comparative advantage, as all scalable Web3 infrastructure is built on web2 technologies," says Maxime. A brilliant source to get started with is the Learn XRPL portal, offering free and accessible courses for learners of all levels.

## 2 Join a Real-life Community

You will likely find a student group or organizations offering blockchain-related events and meet-ups regardless of location. "For us, joining a community has been instrumental. It's where you can find partners for your project, get introduced to hackathons, and learn collectively," they explain.

(One such opportunity could be **XRPL Commons' Aquarium Residency program**, open to builders globally).

## 3 Engage Virtually

Don't hesitate to engage with the XRPL Community online, ask questions, and acquaint yourself with the key figures and developments in the ecosystem. The Alice's Ring team recommends joining the Developers' Discord channel, where they've observed a supportive and collaborative atmosphere.

## 4 Participate in Hackathons

Participate in hackathons for firsthand insights and good vibes! As students, Thomas and Maxime find hackathons to be the best platform for applying what they learn at university. "After 5-6 times, you'll have a good understanding of the key features and players in the ecosystem," says Maxime, adding that "at PBW, we directly learned from the best experts in the field, built a project in a single weekend, and, on top of that, we had an absolute blast!"

The journey of Thomas and Maxime stands as an inspiring testament to the potential within the XRPL ecosystem. As they continue to refine their project, Alice's Ring, we invite you to stay updated on their progress: **www.cypherlab.fr**

# Bithomp's Journey


**Meet Viacheslav Bakshaev, founder of the longest-running XRPL Explorer. Back in 2015, Viacheslav began Bithomp out of sheer curiosity. He noticed a lack of user-friendly XRPL explorers and wanted to contribute to the ecosystem by creating such a tool. The community's response was positive from the start, allowing Bithomp to grow quickly. From its origins as a hobby project to its transition into a full-time endeavor, Bithomp has been driven by community support and a commitment to user-friendly tools.**

### What brought you to blockchain?

Coming from an e-commerce background, I was always intrigued by the concept of online money systems, even before they were based on blockchain technology. I didn't truly delve into blockchain until later. Back then, the crypto landscape was uncharted and intimidating. The price volatility and rumors of exchange hacks were common, which made it challenging to embrace them fully.

### What made your perspective shift?

My view shifted when I started noticing more intriguing use cases. It was a period when cryptocurrencies began to take on a more significant role, and the idealistic aspect of decentralized money gained traction. As the technology evolved and new use cases emerged, it became more apparent that blockchain had a broader, more positive role to play.
Right from the start, I've been more interested in the technology itself and how it can benefit the world rather than its purely financial aspects.

### What value does blockchain represent today?

Connectivity and resilience. Blockchain transcends borders and operates transparently, irrespective of political regime. It's a decentralized system that cannot be easily manipulated. Interestingly, cryptocurrencies gained attention after e-money systems like e-gold or Liberty Reserve were facing scrutiny and shut-down.

### Tell us more about Bithomp.

Bithomp is an explorer that enables users to explore all XRPL accounts, their balances, transactions, owned assets as fungible tokens, and NFTs, orders, escrows, and more on the XRPL network. Think of it as a search engine for the vast decentralized database of XRPL. It's also a source of live XRPL statistics.
We have an NFT-explorer, where you can search through all exciting on-XRPL NFTs, for example, by name; a popular NFT viewer and rich NFT statistics. You can also buy and sell NFTs without our fees, burn them, and cancel all expired offers with one button. By registering a Bithomp username, users get a user-friendly link to present all their collected NFTs.
Another product is an API to get XRPL-related data, for example: information for an address or NFT, statistics, and historical data. Finally, we also have a CDN for the fast delivery of cached and resized videos and images of NFTs, which can be used for various NFT-related projects.
We contribute to the XRPL ecosystem by making it accessible to a broader audience.
In the past year, we also launched a few new pages: Verified domains, UNL Validators, Amendments, and Ledger's transactions.

### What led you to focus on the XRPL ecosystem in particular?

I came across XRPL due to my interest in IOU (I Owe You) tokens, back when no other cryptocurrencies used them. It was also home to the first decentralized exchange in the blockchain world. XRPL was not only fast and efficient but was also cost-effective, which was a significant contrast to other protocols, bringing better user experience and new use cases.

### How did you transition from being a hobbyist to working full-time on Bithomp?

For over 5 years, I was working at one of the largest crypto broker companies in Sweden. In the meantime, I was building Bithomp on the side. Throughout this time, Bithomp had gained a substantial following, with users suggesting new improvements regularly. The turning point came in 2021 when we received an XRPL Grant, allowing us to form a company. Today, Bithomp has a large number of unique users daily. Traffic tends to increase when there are notable price movements. Many users and major exchanges rely on us to confirm transactions and monitor XRPL activities.

### What are your views on some recent developments in the XRPL ecosystem?

Hooks represent a substantial addition to the XRPL ecosystem, and we are excited to support them. The Xahau network provides a live environment to feature-proof hooks amendments which ensure a secure transition stage before deploying them to the Mainnet. It can also exist as a complimentary side chain.

### What else is on your horizon?

We aim to make Bithomp convenient for our subscribers while ensuring that our services remain accessible to all. We want to establish an event-notification system, enabling users to get push notifications in the case of a live XRPL event to their communication channel of choice. We are also enhancing our API offerings and introducing a user dashboard where API users can monitor their usage, access statistics, and manage their subscriptions. Furthermore, we are working on supporting various transactions with different wallets, making it easier for users to interact with XRPL directly through the Bithomp interface. These initiatives are part of our ongoing commitment to providing a user-friendly and feature-rich XRPL Explorer.

### How do you engage with the XRPL community?

We maintain a strong presence within the XRPL community through platforms like XRP Chat, Twitter, Discord, and email. The community plays a crucial role in shaping Bithomp's development. We recently added support for 8 languages thanks to our dedicated community translators. Beyond that, I'm happy to announce that Bithomp launched its Discord channel. You're all invited to join!

**We're grateful for the trust and partnership we've built with the XRPL community, and we look forward to enhancing our platform further in collaboration with our users.**

Keep in Touch!

**Website**
→ bithomp.com

Scan me

**Discord**
→ discord.gg/ZahGJ29WEs

**X/Twitter**
→ @bithomp

# Advancing XRPL with Flaviene Scheidt de Cristo

XRPL Impact

**In the ever-evolving landscape of research on the XRP Ledger, Flaviene Scheidt de Cristo emerges as a prominent figure. Hailing from Brazil, Flaviene is a 4th-year PhD candidate at the Interdisciplinary Centre for Security, Reliability and Trust (SnT) at the University of Luxembourg, specializing in distributed systems and networks and specifically, their application to XRPL.**

### Can you tell us about your first encounter with blockchain?

When I started my studies in Computer Science in 2010, blockchain technology was hardly on my radar. My true immersion only came later when I received an invitation from the University of Luxembourg to pursue my PhD and work with the UBRI program, focusing on distributed networks, which seemed relevant to my previous expertise in distributed databases and computer architecture. Still, it also offered a completely new way of applying it.

### How do you approach research in this field?

From the start, I consciously approached blockchain from a purely scientific and neutral standpoint. I maintain a clear separation in my mind between blockchain as a technology and the economic dimensions associated with crypto assets.
My expertise lies in the technology itself rather than its economic impact.

### What's your research about?

My research journey has been an interesting one. Initially, I was working on the Interledger, the open-source protocol suite used for sending payments across different ledgers. Subsequently, our research focus shifted, and we began to address network-related challenges, specifically within the XRP Ledger. The primary goal of my research is to enable the XRP Ledger to scale healthily and sustainably.
Our research encompasses two critical projects: one focuses on message replication to prevent network congestion, and the other delves into conceptual methods for selecting unique node lists (UNLs) to enhance network trust.

### How do you collaborate with other researchers in the UBRI network?

We maintain direct contact, hold regular meetings, and participate in various in-person events with the UBRI team, such as APEX or UBRI Connect. This has facilitated a more engaging and productive exchange of ideas between researchers.

### In 2021, your team won a hackathon related to improving the security aspect of Paystring. Tell us more about this project.

Paystring is a payment identifier protocol providing a single ID for anyone needing to send or receive money, aimed to simplify account management and transactions. However, we have observed that privacy was not adequately addressed in its initial design. To enhance privacy, we leveraged the Hyperledger Fabric's decentralized identities, a crucial step toward granting individuals greater control over

their online identities. You can read more about our proposal in our team's research paper.

### Which developments are you excited about in the XRP Ledger ecosystem?

One particular aspect that excites me is hooks. They are typically written in C, which aligns perfectly with my background. I believe that they truly have the potential to revolutionize how users interact with the ledger.

### What are some of the other research initiatives or use cases in the blockchain space that excite you?

As an immigrant who occasionally sends money back home to Brazil, I appreciate the practical value of blockchain, particularly its ability to eliminate intermediaries from financial transactions. This aligns perfectly with the primary purpose of XRPL —to enable fast and cost-effective cross-currency transactions. I'm also fascinated by blockchain applications in regions where unstable political regimes prevail. In such environments, blockchain becomes a tool for community organizing and self-governance in the face of instability.
Furthermore, I'm intrigued by projects that harness blockchain and the XRP Ledger for product authentication, such as Ap0cene's NFC chip solution revolutionizing luxury fashion or NIRWatchdog using Near-Infrared Spectroscopy to authenticate products' raw materials susceptible to economically motivated tampering.

### You're working on educational material about XRPL. What do you wish existed when you started in this ecosystem?

When I first ventured into the blockchain ecosystem, I noticed a gap in accessible and comprehensive educational material. Particularly, foundational topics like the consensus mechanism lacked sufficient coverage. Together with XRPL Commons, my objective is to fill this void by creating engaging, objective, and comprehensive videos accessible to all. These resources will provide newcomers with a solid starting point, eliminating the need for extensive and often confusing digging on the Internet.

### How can the community engage with you?

You can connect with me on the Developers' Discord channel, and my university email is open for suggestions regarding my ongoing research. Your insights and ideas are always welcome, so don't hesitate to reach out!

**What is UBRI?**

UBRI is short for Ripple's University Blockchain Research Initiative, supporting a diverse portfolio of blockchain research, technical development, and innovation at universities worldwide. With over 45 academic partners across 20 countries, UBRI helps prepare the next generation of the global fintech workforce, including engineers, entrepreneurs, and other global changemakers.

Scan me

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→ Flaviene's page

Scan me

**Email**
→ flaviene.scheidt@uni.lu

**Discord**
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Grants
and
Opportunities

# Exploring Opportunities in the XRPL Ecosystem

**In this report, we zoom in on some of the signature opportunities available within our ecosystem. Whether you're just starting out, poised to take the next step, or already well-advanced in a specific project – there are various avenues to turn your ideas into reality with support from the community.**

## 1 Getting Started: The Aquarium

→ 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 (Read more about it on page 41).

→ Unable to make it to Paris this time? Participating in **XRPL hackathons** is another excellent way to begin your journey in the community. Here, you can directly interact with leading experts and connect with like-minded peers.

## 2 Launching Into the Sea: XRPL Grants

→ Once you have a clear project idea and a team to do it, the perfect next step is applying for a grant. The **XRPL Grants program** - a RippleX initiative - supports individuals, small teams, and companies with prior experience in developing on the XRP Ledger, possessing a project that adds value to the XRPL ecosystem by addressing a real-world challenge and involves a technical component. Since its establishment in 2021, they have supported over 130 projects. Awards range from $10,000 to $200,000 per project. Projects seeking funding for general infrastructure (including validators) and overhead costs may not be eligible for funding.

**→ To glimpse the most recent projects supported by the Grants program, turn the page!**

## 3 Finding Your Edge: XRPL Accelerator

→ To further enhance your project-in-progress, RippleX's **XRPL Accelerator** might just be your ideal next step. It's a 12-week program to support entrepreneurs seeking to scale up their XRPL projects. Besides financial support, it empowers projects through mentorship, masterclasses, and exposure to investors. The program's objective is to validate projects' ideal product-market fit. Participating teams should have an existing vision and product (or MVP).

**→ To get notified when registration opens for the next cohort of the Accelerator, please drop an email to afalk@ripple.com.**

XRPL Grants

# Wave 5 of Grantees

## 3ShopXRP

E-Commerce/Finance | Usability/Developer Tooling

$200,000 France

Adrien V., Sinane S., Eric Djavid, Robin Vallat, Farès Abida, Alexis Kruger

A Web3 CMS compatible with XRP Ledger, allowing for token-gated products, services, content and experiences. 3ShopXRP offers a no-code Web3 website builder, allowing merchants to read the NFT of their users. When users are logged in they can access specific experiences based on their digital assets. The NFT becomes a Web3 cookie allowing merchants to enhance the experience of their customers through a seamless loyalty program. With 3ShopXRP, online retailers can offer exclusive offers to NFT holders.

## Alice's Ring

Infrastructure/Security | Usability/Developer Tooling

$100,000 France

Maxime Dienger, Thomas Hussenet, Adam Dahmoul, Nathan Hervier

Alice's Ring (XRPL Solvency) enables individuals to prove solvency without disclosing their wallet address or transaction history utilizing ring signatures. The tool delivers robust, verifiable solvency proofs while safeguarding user privacy.

## Alphaday

Usability/Developer Tooling

$10,000 Singapore

Deniz Omer, Felipe Faraggi, Pablo Palomo, Vicente Almonacid, Gideon Anyalewechi, Jonathan Irhodia, Charles Nwankwo, Paris Charanas Giannakou, Michael Hagopian

Alphaday is a powerful crypto workflow aggregator that pulls in news, on-chain data, social media, Web3 services, and more into one customizable UI. Alphaday builds crypto experience dashboards for enthusiasts, developers, and projects. Users can drag and drop from hundreds of services, news and social feeds, charts, and dApp functionality to create their daily workflows inside a single dashboard.

## Amora

E-Commerce/Finance

$100,000 Colombia

Jose Miguel Vega, Matheus Aguiar

Amora is a Shopify App that allows merchants to mint XLS-20 NFTs on the XRPL, associate those NFTs to token-gated campaigns, and reward customers.

## Bithomp

DeFi Infrastructure/Security Usability/Developer Tooling

$100,000 Sweden

Viacheslav Bakshaev, Ildar Gumirov

Community-focused XRPL explorer, exploring the ledger since 2015. *(See page 28–29)*

## Dhali

E-Commerce/Finance Usability/Developer Tooling

$75,000 United Kingdom

David Simmons, Robbie Daniels

Dhali is a Tokenized API Marketplace that makes it easy for users to monetize their code by using payment streaming and NFT ownership. Dhali enables users to expose their projects via an API in the marketplace. Other users can then consume these APIs by streaming XRP payments to the platform. APIs and their corresponding cash flows are owned via NFTs, which can be sold on any secondary market.

EVERNODE

## Evernode

Sidechains

$200,000 United Kingdom

Scott Robert Chamberlain, Richard Andrew Holland, Makumburage Ravin Saranga Perera, Ihalagedara Mudiyanselage Chalith Desaman, Kuda Singappulige Kithmini Shanika Gunawardhan, Ilukwattayale Udith Gayan Indrakantha Thilakarathna, Thalahitiya Gamaralalage Kasun Kavinda

Evernode brings “layer 2” smart contracts to the XRP Ledger ecosystem. It combines our HotPocket protocol with the proposed Hooks amendment - small pieces of code that allow XRP Ledger Accounts to function as “lite smart contracts” - and NFTs to create a global, permissionless, decentralized network of nodes designed and incentivized to run any dApp cheaply and speedily in any language at any scale in concert with the XRP Ledger (or Hook-enabled sidechain).

## GateHub Data API

Infrastructure/Security | Open Source | Usability/Developer Tooling

$200,000 Slovenia

Enej Pungercar, Rok Pajnic, Tadej Golobic

GateHub Data API provides comprehensive access to XRP Ledger (XRPL) transaction history and processed analytical data (exchanges, volumes, balance changes and more).

## Keystone

Infrastructure/Security | Usability/Developer Tooling

$200,000 Iceland

Gunnar Gylfason, Kristinn Kristinsson

Keystone is a treasury management platform for digital assets that empowers users to every major component of the Web3 ecosystem. The platform allows users to access and manage all their funds in a single location and configure bespoke workflow automation on top of digital asset activities.

## Poof XRPL Payments

Infrastructure/Security | Usability/Developer Tooling | E-Commerce/Finance

$75,000 United States

Alex Shi

Poof XRPL Payments offers a self-custody XRP-based financial infrastructure for payment processing and building financial applications on the XRPL.

## XRPL Elixir

Usability/Developer Tooling

$10,000 Brazil

Julien Lucca

An Elixir-based RPC library (XRPC), allowing Elixir developers to easily integrate with XRPL blockchain HTTP APIs. By leveraging Elixir's inherent concurrency, fault tolerance, and real-time capabilities, XRPC accelerates XRPL adoption, enabling developers to build scalable, secure, and efficient decentralized applications with ease.

## XRPL Meta

Open source | Usability/Developer Tooling

$100,000 | Germany

Marc-Emanuel Otto, Michael Gindert

Metadata API for XRPL Assets. XRPL Meta provides a uniform way of writing and reading metadata, token issuers only have to publish this data once. At the same time, app developers can read this metadata in a convenient and trusted way.

## XRPScan - Deep search platform

Open source | Usability/Developer Tooling | Infrastructure/Security

$200,000 | India

Anurag Patel

XRPScan Deep search platform is a data processing pipeline and API service to index XRPL transactions in a distributed search and analytics platform. The platform provides complex transaction search capabilities, aggregate information, patterns, intelligence, and anomaly detection for XRPL transactions.

## XRPSpec

Open source | Usability/Developer Tooling | Infrastructure/Security

$100,000 | Singapore

Chu Chee Huan, Divyakrishna Konda, Roja Kamasanil

Behavior-driven workflow test framework for XRPL. An XRPspec CLI/Hooks and additional xHookControl assert capabilities allow developers to prepare a well-defined test spec that collects, inspects API results, and evaluates XRP ledger transactions, data types, and metadata to ensure expected results. This project is an extension of the team's first funded project, xHooksControl.


## conFIEL

DeFi | Usability/Developer Tooling | Infrastructure/Security

$50,000 | Switzerland

Jose Jesus Perez Aguinaga

conFIEL is a digital certificates manager that allows KYC Tier 1 payments to be made on the XRPL by using RSA keys issued by the Mexican tax-revenue service ("SAT").

# Matt Mankins the Story of Kudos

Grantee Spotlight

### What is Kudos?

Kudos is the concept of retroactively rewarding digital contributions, addressing the difficulty of assigning value to many digital experiences. Kudos enables the recognition of all the people who digitally contribute to developing a project.
Consider Microsoft depending on an open-source library for multiple software applications. As they want to ensure the library's maintenance, they are willing to provide financial support to those contributing to this library. With Kudos, they can compile a list of all the contributors and then distribute a portion of their budget among them. This redistribution of funds ensures equitable recognition for all supporters.

### What's the motivation behind it?

Passionate about the future of work and new economic models, I envision a future where distributed teams and new organizational forms like DAOs (decentralized autonomous organizations) allow us to contribute independently, akin to open-source communities. Yet, the challenge remains in securing sustainable income while pursuing our passions.
My journey began with Lorem Ipsum Books in 2003, a bookstore in Cambridge, Massachusetts, which inspired our company, Lorem Labs. Kudos, our latest project, evolved from ideas nurtured during a Mozilla fellowship in 2021, where I embraced openness and collaboration.

### Who is your primary audience, and how does it benefit them?

Kudos is designed for the open-source development community, where individuals often contribute their time and expertise for free to enhance open-source projects. Kudos ensures compensation for all these contributors by allowing enterprises to retrospectively fund the work of open-source developers whose contributions they employ. Often, these developers commit numerous lines of code without direct financial reward, but Kudos aims to shift that paradigm.

# Meet Matt Mankins, former XRPL Grantee and recent XRPL Accelerator graduate, now the founder of Lorem Labs. His mission focuses on revolutionizing retroactive digital contribution rewards, especially in open-source projects and content creation, through the Kudos project.

**Why did you choose XRPL as the project's foundation?**

The thing about XRPL is that it just works. Its ability to facilitate nano and microtransactions to a vast user base made it the practical choice. Given Kudos' goal of supporting every single contributor, XRPL's capabilities are essential. Not to mention XRPL's supportive community!

**How was your experience in the XRPL Grants and Accelerator programs?**

XRPL Grants have given us more time to work on early versions of our product and gather initial feedback. Taking part in the XRPL Accelerator allowed us to further develop our business by providing a series of activities designed to help navigate the path to success as the project evolves.

**What are your next steps?**

We've built a whole ecosystem around Kudos, available on the Kudos.Community website. To see Kudos in action, visit semicolons.com, put in a repo, and we'll show you all the contributors involved, after which you can send funds to these contributors via XRPL. The next step will be to automate this process, allowing enterprises to create and send Kudos. Eventually, we would also like to reward other types of creation, like digital content.

"Kudos enables the recognition of all the people who digitally contribute to developing a project."

INTRODUCING

# The Aquarium

## A Unique Residency Program in the Heart of Paris

At XRPL Commons, we are thrilled to announce the launch of our recurring **12-week blockchain residency program,** set in the heart of Paris, with the first cohort taking off in October 2023.

THE MISSION OF AQUARIUM is to cultivate a vibrant and diverse community of like-minded individuals, each bringing a unique skill set to the table. From builders to visionaries, our residency program creates a space for forging new connections and nurturing collaborative endeavors. In a world where time is the most precious commodity, we offer the time and space for the brightest minds to work together, addressing global concerns, and pushing the boundaries of decentralized applications powered by the XRP Ledger.

We recognize the significance of hands-on experience and personalized support. Throughout your residency, you will have access to mentorship, comprehensive training, and one-on-one guidance, allowing you to deepen your understanding of the XRP Ledger and bring your boldest ideas to life.

The projects developed during the residency can take various forms, from innovative blockchain technology projects to leveraging datasets from the XRP Ledger. Additionally, research conducted here can pave the way for groundbreaking solutions within the XRPL ecosystem.

However, the Aquarium is not just about learning and building; it's a journey of inspiration, knowledge sharing, and practical application.

For our inaugural cohort, our focus is on the theme of **Regeneration** in any shape or form. We are excited to partner with **Standard Deviation,** a renowned consultancy that champions, coaches, and invests in businesses to accelerate a regenerative economy.

We are happy to announce that applications for our next two cohorts are open, focusing on **IP (Intellectual Property** and **Decentralized Identity.** We seek builders and project owners with an idea or interest in developing sustainable models for IP usage in the blockchain space, utilizing the XRP Ledger.

To Know More

**Applications are now open for Cohort 2 and 3. Don't miss your chance, apply today!**

→https://www.xrpl-commons.org/residency

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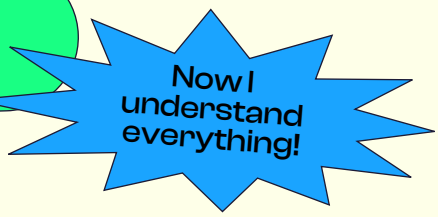
# Glossary




**Account:** An XRPL account represents an XRP holder and transaction sender. It includes an address, XRP balance, transaction history, and requires cryptographic key pairs for sending transactions.

**Amendments:** Changes or updates made to the XRPL protocol for improvements or new features, voted by the community.

**AMM** (Automated Market Maker): A decentralized exchange mechanism used in DeFi to facilitate trading without the need for traditional order books. They facilitate constant liquidity and price discovery for digital assets.

**APEX:** An XRPL developer summit that meets in different cities. The last one was in Amsterdam and gathered 400+ people and the next edition will be in June 2024 in Amsterdam, too. See you there!

**API** (Application Programming Interface): A set of definitions and protocols for building and integrating application software. It can be considered as a communication bridge between applications.

**CDN** (Content Delivery Network): A content delivery network (CDN) is a group of geographically distributed servers that speed up the delivery of web content by bringing it closer to where users are.

**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.

**Devnet** (Development Network): A test environment where developers can experiment with and test new features or code changes. Tokens on Devnet are not real assets and cannot be transferred over to the Mainnet in any way.

**DEX** (Decentralized Exchange): An exchange platform that facilitates direct peer-to-peer trading of digital assets without the need for intermediaries.

**EVM-Compatible** (Ethereum Virtual Machine Compatible): Refers to blockchain networks that can run smart contracts compatible with the Ethereum Virtual Machine.

**Evernode:** A layer 2 smart contract platform built on the XRP Ledger fork the Xahau side-chain, using off-chain nodes to execute code and maintain a flexible layer 2 state for smart contracts.

**Fiat:** A type of currency that is issued by a government and is not backed by a commodity such as gold or silver.

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

**Hyperledger:** An open-source blockchain project that offers tools and frameworks for building private and permissioned enterprise blockchains and Distributed Ledger Technologies (DLT).

**IOU** (I Owe You): Dating as far back as the 18th century, it is a representation of debt or obligation on the XRPL used for trust-based transactions. Originally, it is a document viewed as an informal written agreement rather than a legally binding commitment.

**Interledger:** A protocol that enables payments across different blockchains and payment networks.

**KYC** (Know Your Customer): The process of verifying the identity of users to prevent illegal activities on blockchain platforms.

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

**NFT** (Non-Fungible Token): A unique digital asset on a blockchain, representing ownership or proof of authenticity for digital or physical items, art, or collectibles.

**PII** (Personally Identifiable Information): Sensitive personal data that requires protection, often related to KYC processes.

**RSA** (Rivest-Shamir-Adleman): A widely-used public key cryptography algorithm that enables secure data encryption and digital signatures by using the mathematical properties of large prime numbers.

**SaaS** (Software as a Service): Software applications delivered over the internet on a subscription basis, often used for XRPL Commons operations.

**Testnet** (Testing Network): Testnet is similar to Devnet, but focuses on network performance and stability, typically used by validators. Tokens on Testnet are not real assets and cannot be transferred over to the Mainnet in any way.

**Token:** A digital unit of value or asset representation on the blockchain.

**TPS** (Transactions Per Second): A metric used to measure the processing capacity of a blockchain network; XRPL has a low latency, typically processing transactions in 3 to 5 seconds.

**UNL** (Unique Node Lists): A list of trusted validators on the XRPL used to achieve consensus and maintain network security.

**Wallet:** A cryptocurrency wallet stores your private key, which is used to access your cryptocurrency.

**WASM** (Web Assembly): A binary instruction format for a stack-based virtual machine.

**W3C** (World Wide Web Consortium): An organization that develops standards and guidelines for the World Wide Web.

**Xahau:** Xahau is a proposed XRPL sidechain enabling smart contracts and dApps through Hooks, derived from XRPL's rippled codebase, preserving core features while introducing smart contract capabilities.

**XLS-30:** An amendment that proposes adding non-custodial automated market maker (AMM) as a native feature to the XRPL DeX.

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

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

**ZK** (zero knowledge) **proof**: A cryptographic method for one party (the prover) to demonstrate the truth of a claim to another party (the verifier) without revealing any claim specifics.


## XRPL ACCELERATOR COHORT 2 DEMO DAY

14 November Dhoby Ghaut Green Visual Centre, Singapore

Find out more about the projects of current XRPL Accelerator participants.

→ For more info, visit the XRPL Accelerator website.

## SINGAPORE FINTECH FESTIVAL

15-17 November Singapore Expo, Singapore

The annual festival will explore the intersection of policy, finance, and technology.

→ Register here

## XRPL COMMUNITY MEETUP AND PANEL DISCUSSION

28 November XRPL Commons HQ, Paris

An informal reception and panel discussion where you can mingle with different members of the community, learn more about XRPL Commons, and hear from prominent experts in the ecosystem.

→ For the detailed program, check out the festival's official website.

## XRPL HACKATHON IN COLLABORATION WITH UNESCO

8-10 December Paris, Location TBA

Join us for a unique XRPL hackathon in collaboration with the UNESCO, open to all.

→ More information about the hackathon will be available on the XRPL Commons website soon.

## AQUARIUM DEMO DAY AND CLOSING CEREMONY

19 December XRPL Commons HQ, Paris

Meet the residents of Cohort #1 and find out more about their blossoming projects.

→ More information about the event will be available on the XRPL Commons website soon.


Apex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# LET'S KEEP IN TOUCH

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## THE AQUARIUM RESIDENCY

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## LIKE US ON INSTAGRAM

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## CHECK OUT OUR X/TWITTER

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## Contest

Got a cool name idea for the Community Report? Submit your most creative title proposal by scanning the QR Code and win exclusive XRPL merch.

Scan me!

# Thank you

We're grateful for your time spent reading this report and would appreciate your feedback. Our aim is to turn the quarterly Community Report into a collaborative effort that truly benefits the entire community. Instead of sticking to a single perspective, we want to create a space where everyone's contributions are welcome.

We're eager to hear from you: What topics would you like to see in the next report? Would you be interested in contributing to the upcoming issue with an op-ed or interview?

Feel free to reach out at zsofi@xrpl-commons.org, we look forward to hearing your thoughts and ideas!

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