Executive Summary: LicenChain 1

Decentralized Copyright Registry and Licensing for Digital Art (Simple NFT-based Platform): *LicenChain*

Executive Summary

ECON-UH: 2512: Fintech Innovation

Eva Bi, Daun Kim, and Sophie Lin

Every day, thousands of digital artists share their work online without any guaranteed protection, recognition, or fair compensation. *LicenChain* changes that with blockchain-backed ownership and licensing.

The Problem

Digital artists face a broken system: there's no simple, verifiable way to prove ownership of their work or to license it safely and transparently. Traditional copyright registration is slow, expensive, and often inaccessible, especially for independent creators and those outside established institutions. In the U.S., registering a copyright costs between \$45–\$125 and can take up to 8 months to process (U.S. Copyright Office, n.d.). Globally, more than 60% of creative workers operate as freelancers, many without institutional support or legal resources (UNESCO, 2012).

Worse, digital art is frequently stolen, reposted, and monetized without credit or permission. In 2021 alone, DeviantArt recorded over 90,000 alerts about possible fraud to thousands of its users since then, company executives said. It's now scanning for fraud across 4 million newly minted NFTs each week (Beckett, 2022). NFT platforms have also faced backlash, with OpenSea reporting that over 80% of NFTs minted for free were plagiarized, fake, or spam (OpenSea, 2022). Artists, designers, and online content creators are forced to either trust centralized platforms or rely on fragile social contracts, like timestamps or follower testimonies. Meanwhile, potential buyers or licensees struggle to verify rights, usage history, or legal status, which hinders trust and discourages fair commerce and collaboration. The creative economy is estimated to be worth \$2.25 trillion globally (UNESCO, 2022), yet creators are still left without basic ownership infrastructure. If creative ownership could be registered instantly, licensed automatically, and enforced transparently, it would unlock a more trusted and profitable ecosystem for creators and users alike.

The Solution

LicenChain is a simple online platform where digital artists can register and protect their work. Artists can turn their artwork into a digital certificate (using NFTs behind the scenes), which proves they own it and shows when it was created. They can also license their work to others directly on the platform, choosing who can use it, how, and for how long. This is a software service aimed at creators, designers, and companies that want to buy or use digital art legally and easily. We replace the current messy, manual system of emailing contracts or uploading files to cloud drives with a clear, trusted, and easy-to-use solution.

LicenChain fits into the digital art ecosystem as a neutral and secure bridge between artists and those who want to use their work—like marketers, brands, publishers, or collectors. We work alongside existing art platforms (e.g., marketplaces, portfolios, design tools) by allowing them to plug into *LicenChain*'s registry or licensing features through simple tools (APIs), without replacing their services.

The Opportunity

The global digital art market is booming. Grand View Research (2023) estimates that the global online art market will reach \$17.76 billion by 2030, growing at a CAGR of 9.0%. The shift from traditional galleries

to online platforms and the increased accessibility for buyers and artists are key factors driving this growth, fueled by the rapid adoption of NFTs, online marketplaces, and creator-driven platforms. However, while trading volume is growing, intellectual property protection and licensing infrastructure remain outdated or nonexistent. Thus, our initial focus is on independent digital artists, illustrators, and designers, a fast-growing segment of the creator economy. Millions of them publish content across platforms like Instagram, Behance, and ArtStation but lack easy tools to prove ownership or monetize their work securely. These creators face rising threats of IP theft and misuse, with few legal or technological safeguards.

A second growing segment includes content-hungry businesses and marketing agencies that want to license original digital art but are deterred by murky ownership and legal ambiguity. They're actively seeking platforms that guarantee traceability and enforceable usage rights. By targeting these two groups: 1) digital creators seeking protection and monetization, and 2) businesses seeking trustworthy licensed content, *LicenChain* enters a growing, underserved space with a solution that meets real legal and commercial needs. This opportunity aligns with three high-growth dynamics: 1) Rise of the Creator Economy, 2) Mainstream adoption of NFTs and blockchain tech, 3) Global push for fair compensation and copyright enforcement online

To quantify the opportunity, we present the following market size estimates. The projected value of the global online art market by 2030, encompassing all digital art sales, licensing, and distribution channels., is ~\$17.76 billion, thus the TAM (total addressable market) value. Amongst here, we estimate a SAM (serviceable available market) value of ~\$3.5 billion, estimate including creators and buyers active on online platforms (e.g., Instagram, Behance, marketplaces) who require licensing, protection, or verification tools. Given this, our initial target market is independent digital artists and small-to-mid-sized agencies in North America and Europe likely to adopt blockchain-based licensing tools within the next 2–3 years, estimating ~\$250 million as *LicenChain*'s SOM (serviceable obtainable market) value.

Competitive Advantage

LicenChain competes not only with NFT marketplaces and stock content platforms like Shutterstock, but also with the current informal ways creators share and license their work (like emailing files or stating terms in DMs). What sets us apart is that we combine **legal clarity**, **ownership proof**, and **ease of use** in a single platform. Artists don't need to learn blockchain or hire a lawyer—we handle both the tech and the trust.

Our sustainable edge lies in our integration of simple user experience with legal validity and auditability: every registration is timestamped, every license is recorded on-chain, and every transaction is traceable in a dispute. No other platform combines ease, legal traceability, and verified ownership into one creator-first licensing service.

The Model

LicenChain's projected revenue model is built on a balanced mix of recurring subscriptions and usage-based fees, providing a scalable and predictable financial foundation. The platform offers three

subscription tiers—Creator (\$9.99/month), Pro (\$29.99/month), and Enterprise (\$99.99/month)—which are distributed across 60%, 40%, and 20% of the user base, respectively. Based on a projected growth in user population from 1,000 in Year 1 to 2,000 in Year 3, subscription revenue alone grows proportionally each year. In addition to subscriptions, *LicenChain* generates income through \$1.50 minting fees, 5% license transaction fees (on an assumed \$30 transaction value), and 2% service fees applied to priority and audit services used by 500 users monthly. Altogether, this multi-stream revenue strategy yields annual revenues of \$485,706 in Year 1, \$713,634 in Year 2, and \$1,169,490 in Year 3, reflecting a strong and steady upward trajectory. The model not only supports scalability but also offers monetization opportunities tied directly to platform engagement and creative output.

Given this, *LicenChain*'s financial model is carefully structured to balance early-stage infrastructure development with scalable, long-term operations. The total one-time setup cost is \$101,500, primarily driven by MVP development (\$80,000), initial marketing and outreach (\$20,000), and setup for admin tools and platform maintenance (\$1,500). In Year 1, operating expenses amount to \$90,000, covering essential activities such as blockchain gas fees (\$20,000), legal and licensing compliance (\$10,000), and developer and engineering salaries (\$50,000). As the platform gains traction, costs increase to \$201,500 in Year 2 and \$271,500 in Year 3, primarily due to scaling technical resources, expanding the development team, and intensifying marketing efforts to attract a broader user base. These growing investments support *LicenChain*'s robust growth trajectory while maintaining lean operations relative to projected revenue.

Overall, *LicenChain* is projected to achieve strong and accelerating profitability within its first three years of operation. In Year 1, even after accounting for one-time startup expenses and operational costs totaling \$191,500, the platform is expected to generate a net profit of \$294,206. This is driven by a diversified revenue model combining subscription tiers, minting fees, licensing transactions, and service charges. As the user base grows to 1,500 in Year 2, total revenue increases to \$713,634, while costs rise modestly to \$201,500, yielding a substantial profit of \$512,134. By Year 3, with 2,000 users and revenues exceeding \$1.1 million, *LicenChain*'s annual profit climbs to \$897,990, reflecting the platform's scalable infrastructure and efficient cost control. This trajectory underscores a high-margin, low-burn business model that delivers increasing returns as adoption expands, positioning *LicenChain* as a sustainable and investor-attractive venture in the blockchain licensing space.

The Team

Our founding team of *LicenChain* brings a clear-eyed understanding of both the technical and market challenges facing digital creators. Eva, our Head of Research, leads work on decentralized verification systems, drawing on her computer science background and deep interest in creator rights and blockchain ethics. Sophie, Head of Tech, is building the infrastructure behind our protocol, focused on secure, scalable tools that make ownership and licensing seamless for creators and verifiable for buyers. With a business background and a strong focus on early-stage ventures, Daun, our Head of Finance, ensures that our economic model supports artists first, while building a viable and sustainable marketplace. Overall, our team is uniquely positioned to reimagine digital rights, combining technical skill with a commitment to empowering creators through trustless, transparent systems.

References

Beckett, L. (2022, January 29). 'Huge mess of theft and fraud': Artists sound alarm as NFT crime proliferates. *The Guardian*.

https://www.theguardian.com/global/2022/jan/29/huge-mess-of-theft-artists-sound-alarm-theft-nfts-proliferates

Credence Research. (2024, December 16). Digital Artwork Market. Credence Research.

https://www.credenceresearch.com/report/digital-artwork-market

Grand View Search. (2023). *Online Art Market Size, Share, Growth & Trends Report. Grand View Search*. https://www.grandviewresearch.com/industry-analysis/online-art-market-report#

OpenSea. (2022, January 27). *Tweet*. Twitter. https://twitter.com/opensea/status/1486843204062236676 U.S. Copyright Office. (n.d.). *Registration Process*. https://www.copyright.gov/registration/

UNESCO. (2022). *Re|Shaping Policies for Creativity: Addressing Culture as a Global Public Good.* https://www.unesco.org/reports/reshaping-creativity/2022/en

Appendix

I. Revenue Model

	Annual Revenue Source	Unit Price (USD)	User Base or Volume	
1	Subscription Plan: Creator	9.99 USD per month	3/5 of the user population	
	Subscription Plan: Pro	29.99 USD per month	2/5 of the user population	
	Subscription Plan: Enterprise	99.99 USD per month	1/5 of the user population	
2	Minting Fees	1.5 USD	1,500	
3	License Transaction Fees	5% per transaction	1,500 transactions/month	
4	Priority Services	2%	500 users	
	Audit Services	2%	500 users	

II. Revenue Calculation

Assumptions for All Years (Fixed):

- Minting Fees: $1,500 \times $1.5 = $2,250$
- License Transaction Fees: 1,500 transactions/month \times 12 months \times \$30 avg transaction \times 5% = \$27,000
- Priority Services: 500 users \times \$30 avg \times 2% = \$300
- Audit Services: 500 users \times \$30 avg \times 2% = \$300

Year 1: 1,000 users

- Creator: $(3/5) \times 1,000 = 600 \text{ users} \rightarrow 600 \times \$9.99 \times 12 = \$71,928$
- Pro: $(2/5) \times 1,000 = 400 \text{ users} \rightarrow 400 \times \$29.99 \times 12 = \$143,952$
- Enterprise: $(1/5) \times 1,000 = 200 \text{ users} \rightarrow 200 \times \$99.99 \times 12 = \$239,976$

Total Revenue (Year 1) = \$71,928 + \$143,952 + \$239,976 + \$2,250 + \$27,000 + \$300 + \$300 = \$485,706

Year 2: 1,500 users

- Creator: 900 users \rightarrow 900 \times \$9.99 \times 12 = \$107,892
- Pro: $600 \text{ users} \rightarrow 600 \times \$29.99 \times 12 = \$215,928$
- Enterprise: $300 \text{ users} \rightarrow 300 \times \$99.99 \times 12 = \$359,964$

Total Revenue (Year 2) = \$107,892 + \$215,928 + \$359,964 + \$2,250 + \$27,000 + \$300 + \$300 =**\$713,634**

Year 3: 2,000 users

• Creator: 1,500 users \rightarrow 1,500 \times \$9.99 \times 12 = \$179,820

Executive Summary: LicenChain 7

Pro: 1,000 users → 1,000 × \$29.99 × 12 = \$359,880
Enterprise: 500 users → 500 × \$99.99 × 12 = \$599,940

Total Revenue (Year 3) = \$179,820 + \$359,880 + \$599,940 + \$2,250 + \$27,000 + \$300 + \$300 =**\$1,169,490**

III. Cost Chart

		One-time Cost	Year 1 Cost	Year 2 Cost	Year 3 Cost
1	Development Team	80,000		25,000	25,000
2	Blockchain/Gas Fees		20,000	30,000	40,000
3	Legal & Licensing Templates		10,000	10,000	10,000
4	Marketing & Community Acquisition	20,000		25,000	30,000
5	Cloud Services & Storage		10,000	10,000	15,000
6	Developers and Engineers		50,000	100,000	150,000
7	Admin Tools & Platform Maintenance	1,500		1,500	1,500
	Total (USD)	101,500	90,000	201,500	271,500

IV. Profit Calculations

Year 1 Profit: \$485,706 - \$191,500 = \$294,206 Year 2 Profit: \$713,634 - \$201,500 = \$512,134 Year 3 Profit: \$1,169,490 - \$271,500 = \$897,990