NFTs in Finance: A Comparative Analysis of NFTfi and Figure Technologies through Distributed Innovation

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# Abstract

This report explores….

# Introduction

In the past few years, Non-Fungible Tokens (NFTs) have become widely known for digital art and collectibles. However, their potential use in the financial industry is now gaining more attention. Because each NFT is unique and can be verified on the blockchain, this technology is starting to be used in financial services—for example, in lending, tokenizing assets, and proving ownership.

This report looks at how NFT technology is being used in finance by comparing two real-world companies: NFTfi and Figure Technologies. NFTfi is part of the crypto and DeFi ecosystem, where people use NFTs as collateral to borrow cryptocurrencies. On the other hand, Figure Technologies is a fintech company that uses blockchain to manage traditional financial products like loans and real estate. Although they focus on different things, both companies use the core ideas of NFTs in their services.

To better understand how these companies innovate, based on the distributed innovation concepts studied in this course, we focus on Platform Eco and Web APIs as the two most relevant frameworks for analyzing how NFTfi and Figure Technologies apply NFT technology in the finance industry.

# Justification and Explanation

## Motivation

In this report, we have chosen to analyze NFTfi and Figure Technologies as two real-world examples of how NFT-based technology is applied in the finance industry. These companies were selected because they represent two different but complementary approaches. NFTfi works within the decentralized Web3 ecosystem, while Figure operates under regulated financial frameworks. Comparing them allows us to explore a broader spectrum of NFT use cases in finance, making our analysis more meaningful and relevant.

NFTfi, founded in 2020, is a lending platform that allows users to borrow cryptocurrency, usually ETH, by putting up their NFTs as collateral. This makes it one of the earliest and most well-known examples where NFTs are used for something beyond art or gaming. The entire process is managed by smart contracts, ensuring trustless transactions between borrowers and lenders. This reflects the core principle of decentralization, where value can be exchanged without middlemen. (Dow Jones & Company Inc, 2023)

One major reason for choosing NFTfi is its clear track record of growth and adoption. As of May 2025, the NFTfi platform has recorded over $68 million in loan volume in USDC alone, according to real-time statistics available on its official dashboard (NFTfi, n.d.). It has also expanded partnerships with popular wallets like MetaMask (MetaMask, n.d.), and it integrates with marketplaces such as OpenSea and Blur. These integrations not only demonstrate real adoption but also show how NFTs can be connected to broader financial networks.

Another reason we chose NFTfi is because of how open its ecosystem is. Everything happens on-chain, and all the transaction data can be viewed by anyone. The platform also provides open APIs and developer guides, which make it easy for others to build new tools or add new features. This matches the Web3 idea that different platforms can work together like building blocks. Since NFTfi also supports open-source projects and lets the community take part in decision-making, it serves as a strong example of how distributed and platform innovation can work in finance.

In contrast, Figure Technologies is a fintech company that applies blockchain and NFT-like tokens to institutional finance. Built on its own Provenance Blockchain, Figure provides services such as home equity loans (HELOCs), personal loans, and digital asset securitization. Each financial contract is represented by a unique token on-chain. Although these tokens aren’t officially called NFTs, they still have similar features such as being unique, traceable, and unchangeable. In this way, they follow the same logic as NFTs (Cotality, 2025).

We chose Figure because it shows how NFT principles can be adapted to a regulated, institutional setting. Unlike many DeFi platforms, Figure is registered with the SEC and works directly with banks, underwriters, and custodians. This allows us to contrast its top-down, compliance-driven innovation model with NFTfi’s bottom-up, user-led design. The contrast helps show how innovation strategy changes based on environment, target users, and regulatory constraints.

What’s more, Figure has raised over $12.5 billion in funding in just six years (Cotality, 2025). This makes it one of the most well-funded and operational blockchain startups in traditional finance. It has also partnered with major financial firms like Apollo (Apollo, 2021), showing that big institutions are beginning to take blockchain seriously in their operations.

A final motivation is the availability of high-quality public data. NFTfi’s loan data is visible on-chain and supported by dashboards like Dune Analytics. Figure provides whitepapers, use cases, and policy papers through Provenance.io, and is often cited in blockchain regulation literature. This makes both companies suitable for in-depth analysis using real examples and credible evidence.

In summary, NFTfi and Figure Technologies were selected because they offer a rich, contrastive case study on NFT adoption in finance, covering both DeFi and TradFi. Their technological models, target users, and governance structures differ, yet both demonstrate how NFT-based systems can unlock new types of financial value. Analyzing them helps us better understand how innovation is shaped by ecosystem dynamics, user needs, and regulatory environments. This analysis also aligns with the innovation concepts explored in this course, particularly the role of platform Eco and Web APIs in enabling interoperability and scalability.

## Technology Explanation

As we discussed in our mid-term report, NFTs are unique digital assets stored on a blockchain. Unlike fungible tokens like Bitcoin or Ether, which are interchangeable and equal in value, each NFT is unique and can’t be swapped directly for another (Popescu, 2021). This property makes them well-suited for situations where you need to show ownership of something specific, prove that it’s real, or keep a clear record of transactions. In finance, these qualities enable NFTs or similar tokens can be used to represent things like contracts, identity records, or financial products in a secure and programmable way.

NFTfi is a good example of how NFTs can be used in decentralized finance (DeFi). On this platform, users can borrow cryptocurrency by offering their NFTs as collateral. The borrower lists an NFT, and lenders make offers. Once both sides agree on the loan terms, the NFT gets locked in a smart contract until the loan is paid back. If the borrower fails to repay, the NFT automatically goes to the lender.

This whole process is fully decentralized and runs on the Ethereum blockchain. There’s no need for a bank or middleman to approve anything. Smart contracts handle everything, from locking the NFT to sending the loan and releasing the NFT after repayment. Users stay in control of their crypto wallets and use tools like MetaMask to interact with the platform. Every transaction is public on the blockchain, so it’s transparent and easy to track.

NFTfi supports common token standards such as ERC-721 and ERC-1155, which makes it compatible with a wide variety of NFTs from different marketplaces. These standards ensure that NFTs can be easily transferred, validated, and integrated into other Web3 services. NFTfi also offers public APIs and developer tools, allowing analytics platforms and third-party applications to interact with its lending data (Musan., 2020).

Through this approach, NFTfi is changing the way people see NFTs. Instead of just being seen as collectibles or digital art, they are now being used as tools for real financial purposes. However, the system still depends on how people value these NFTs, and that value can change a lot and is hard to make consistent. Most lenders on the platform are already familiar with crypto and know how to judge digital assets, which makes it harder for more traditional users to get involved.

On the other hand, Figure Technologies offers a more institutional application of NFT-like technology. It runs on Provenance Blockchain, a permissioned public blockchain designed specifically for financial services. Figure uses this system to tokenize real-world financial agreements like home equity lines of credit (HELOCs), personal loans, and asset-backed securities (Cotality, 2025). Each loan issued on the platform is represented as a unique token that captures ownership, payment terms, and transaction history.

These tokens aren’t always called NFTs, but they work in a similar way, and in some cases they are sold as NFTs, such as Figure’s sale of eNote mortgages in a blockchain marketplace (Martinez, 2022). Each one is unique, can be tracked, and can’t be changed once it’s on the blockchain. Even though they don’t use standard NFT formats like ERC-721, they follow the same idea and play a similar role in finance. That’s why they can be seen as a version of NFT technology made for institutions. This setup works well for financial agreements that need to be clearly recorded, checked, and traced over time. For example, when someone takes out a loan using Figure, a token is made to represent that specific contract. The token is kept on the blockchain and can be moved or traded if needed.

Figure’s system follows all the necessary regulations. Users have to go through steps like identity checks (KYC), credit reviews, and other background processes. Unlike NFTfi, which is open to anyone, Figure only allows approved users to take part. This makes it possible for Figure to work with banks, investment firms, and other big financial institutions that need everything to follow strict rules and be easy to audit.

The use of smart contracts in Figure’s system improves efficiency. They take care of issuing loans, setting repayment schedules, and handling asset transfers automatically. Everything is recorded on the Provenance blockchain, so each token has a clear and complete history (Provenance Blockchain, n.d.). This is really useful when assets are later grouped together or sold on secondary markets.

Another key innovation is that Figure supports splitting up loans into smaller parts. These smaller shares can be sold to different investors, and each investor gets their share of the repayments. This makes it easier for more people to join in on financial deals that are usually only for large institutions, like private loans or mortgage-backed securities.

Figure also provides a software development kit (SDK) and APIs, enabling banks and fintechs to build their own applications on the Provenance network (Provenance Blockchain, n.d.).These tools allow partners to automate loan servicing, monitor repayments, and manage compliance workflows directly on-chain.

While NFTfi and Figure differ in their target users and environments, where NFTfi serves crypto-native individuals and Figure supports institutional finance, they both show how NFT-based tokens can represent complex financial agreements in a secure, automated way. NFTfi emphasizes peer-to-peer lending and user control, while Figure focuses on scale, compliance, and enterprise infrastructure.

Ultimately, both companies use NFT principles to build digital trust. For example, a gaming NFT can be used as loan collateral, while a real estate loan can be turned into a token for investors. In both cases, these systems are changing how value and ownership are recorded, shared, and used in the financial world. As they evolve, such models may shape the future direction of digital finance, bridging gaps between decentralized networks and traditional institutions.

# Concept

## Relevance of Concepts

From Lecture 4, we know that a Web API is an "interface for web-based services to interact." In other words, users can not only access services through a website directly, but also interact with those services programmatically via the backend (i.e., by using code to access the services directly). In addition, as discussed in Lecture 4, Platform Ecosystems refer to the trend of companies shifting towards platform-based businesses, where a platform business means "using platforms to give different groups of people a way to interact and generate value from these interactions." Both of these innovation concepts are highly relevant to the two companies, and I will explain why in the following part.

Firstly, the platform ecosystem is very important for NFTfi. This company primarily facilitates peer-to-peer lending between users. While the internet is one of the most convenient tools for communication today, it is still challenging for strangers to find and connect with one another effectively. Furthermore, even if two strangers do manage to connect, they are unlikely to trust each other enough to engage in lending or borrowing transactions. However, by providing a platform ecosystem, NFTfi enables potential lenders to easily find borrowers and vice versa, solving both the discovery and trust issues. Without such a platform, NFTfi would need to rely on offline services, such as opening physical branches to attract investors and borrowers. This approach would significantly reduce the number of potential users, as it is neither convenient nor scalable. Moreover, with fewer participants, the number of successful transactions would also decrease. For example, originally there might be 10 potential borrowers, but without the platform, there may be only 1, leading to a significant drop in transaction volume. Another example that highlights the importance of the platform is the NFTfi marketplace website. Users can post their loan requirements, and other users can provide loans based on the posted NFTs. Without such a platform, lenders would question the reliability of these posts. But now, they can be assured that the posts are backed by actual NFTs and only need to evaluate the value of the NFTs themselves.

Similarly, the platform ecosystem plays a pivotal role in Figure’s business model. By offering this platform, Figure enhances market liquidity in two keyways: it allows loan originators to verify borrower funds via NFT validation, and it provides loan buyers with clearer insights into collateral composition (Figure, 2024). This platform-centric approach forms the foundation of Figure’s operations. Without it, the company would be unable to efficiently connect loan originators with capital providers. Compared to traditional financial institutions, Figure’s faster loan processing capabilities make it more attractive to both institutional partners and individual borrowers. For example, a lending institution using Figure Connect can instantly assess borrower eligibility through blockchain-based asset verification. Instead of waiting days for manual underwriting and documentation, the lender can rely on real-time NFT-based proof of funds, significantly reducing turnaround time. At the same time, loan buyers gain confidence in the quality and structure of collateral, as the asset composition is transparently recorded and traceable on the Provenance blockchain. This efficiency allows both sides to operate with lower risk and higher speed, directly supporting Figure’s platform-driven revenue model. Furthermore, since Figure’s revenue is closely tied to transaction volume, operational efficiency is paramount. A scalable digital platform enables the company to reach a broader audience without relying on physical infrastructure. It also ensures a seamless and rapid user experience, reinforcing Figure’s commitment to speed, convenience, and transparency in lending.

Web APIs play a strategic role in NFTfi’s growth by promoting and extending its core lending platform. According to the NFTfi API Key Request Form (NFTfi, n.d.), the company offers free API access to developers who provide a valid use case. The API allows seamless integration with NFTfi’s digital ecosystem, enabling faster, more efficient, and customized interactions with its transaction services. In addition to its API, NFTfi also offers a Software Development Kit (SDK) designed for developers who wish to build on top of the NFTfi protocol. The SDK supports the creation of automated strategies and facilitates the development of new applications that integrate directly with the NFTfi infrastructure (NFTfi, n.d.). This developer-focused strategy is intended to foster third-party innovation, expand the platform’s utility, and attract a broader user base. It reflects an Inside-Out Open Innovation model, where APIs and SDKs are not monetized directly, but are used to accelerate ecosystem growth, increase user engagement, and strengthen network effects around NFTfi’s core services.

Similarly, Web APIs play a critical role in Figure’s platform ecosystem. As an example of inside-out open innovation, Figure uses APIs to promote and extend its existing digital lending products. Designed primarily for institutional lenders, the API simplifies access to Figure’s home equity loan platform by providing standardized interfaces for services such as HELOC inquiries and pre-qualification. The availability of detailed technical documentation further demonstrates the platform’s maturity and reliability, encouraging potential partners to adopt its infrastructure. By integrating Figure’s APIs, lending institutions can streamline the processing of home equity loan applications, improving both speed and operational efficiency. Moreover, the platform ensures strong data security and compliance with financial regulations, thereby protecting sensitive borrower information (Figure, n.d.). This API-driven approach benefits both lenders and borrowers. Lenders can retain their internal systems and underwriting workflows while gaining access to Figure’s digital infrastructure, and borrowers enjoy a faster, more seamless application experience. A tangible example is Movement Mortgage (Figure, 2022), which announced plans to integrate Figure’s Home Equity Line of Credit (HELOC) service into its offerings. This partnership enables customers to benefit from a fully digital, end-to-end lending solution powered by Figure’s platform

In conclusion, platform ecosystems are crucial for both NFTfi and Figure, as they are closely related to their core business models. Without utilizing this innovative distribution concept, their businesses might need to undergo significant changes. Additionally, Web APIs also play an important role for both companies. Although neither of them directly profits from APIs, both have chosen to use them to provide better services, which in turn could attract more users.

## Discussion of Concepts

This section will explore how two distributed innovation concepts - Platform Ecosystems and Web APIs - are specifically implemented in the two companies, NFTfi and Figure Technologies. Combined with the course content, this paper demonstrates how these concepts can be embedded in the business logic and technical systems of enterprises, thereby supporting their core business goals, innovation strategies and ecosystem construction.

1. NFTfi’s Application of Platform Ecosystem

NFTfi is a representative example of the Platform Ecosystem concept. The platform facilitates peer-to-peer lending between NFT holders (borrowers) and cryptocurrency holders (lenders), constructing a decentralized financial market without reliance on traditional financial intermediaries. According to the Week 6 lecture, a core function of platform ecosystems is to connect multiple types of user groups and enable value co-creation and network effects through digital infrastructure and governance mechanisms. NFTfi exemplifies these principles in practice.

Within NFTfi’s ecosystem, borrowers can list their NFTs as collateral for loans, while lenders assess the NFTs’ rarity, liquidity, and historical price trends to decide whether to offer a loan. All lending transactions are executed via smart contracts, which handle NFT custody, loan disbursement, repayment verification, and collateral liquidation. This trustless system eliminates the need for centralized control, significantly reducing transaction risk and operational costs, while enhancing efficiency and transparency.

Following the platform functionality framework discussed in Tutorial 6, NFTfi successfully implements the four-stage model of Search – Trust – Transaction – Delivery: Users can freely browse lending requests through a visual interface (Search); All data is publicly auditable on-chain, and smart contracts execute logic automatically (Trust); Once matched, loan agreements and asset transfers are settled instantly (Transaction); The NFT is either released or transferred based on loan performance, managed entirely by the smart contract (Delivery).

Regarding platform roles, NFTfi acts as both the Platform Provider and the Platform Owner, being responsible for system architecture, smart contract logic, governance rules, and platform operations. On the other hand, borrowers act as Producers and lenders as Consumers, representing a typical two-sided market. As user participation increases on both sides, the overall value of the platform scales up rapidly, driven by positive network effects.

To further expand its ecosystem, NFTfi integrates with major tools such as MetaMask, OpenSea, and Blur, allowing users to seamlessly connect their wallets and interact with collateral NFTs sourced from widely recognized marketplaces (NFTfi, n.d.). In addition, NFTfi provides an open developer API interface that enables third-party developers to programmatically access real-time data including lending histories, collateral statuses, and smart contract interactions (NFTfi, n.d.). This fosters the development of analytics tools, dashboards, and visualizations—effectively cultivating a healthy API ecosystem. This approach aligns closely with concepts introduced in lectures, especially user-driven innovation and outside-in innovation, both of which define open and extensible platform strategies.

According to NFTfi’s official statistics, as of May 2025, the platform has facilitated over 69,779,174 USD in USDC-denominated NFT-backed loans, covering major collections such as Wrapped Cryptopunks and Bored Ape Yacht Club (NFTfi, n.d.). This figure reflects the effectiveness of NFTfi’s platform architecture and its strong network activity, making it one of the most notable success cases in blockchain-based financial platform ecosystems today.

2. NFTfi’s Application of Web APIs

Web APIs play a strategic role in NFTfi’s platform expansion and ecosystem design. Rather than monetizing API access directly, NFTfi adopts an Inside-Out Open Innovation approach, as discussed in Week 4. This means the company exposes its internal data and platform capabilities to external developers, enabling them to create new tools, analytics dashboards, or interfaces that enhance user experience and increase engagement.

NFTfi’s open GraphQL API allows programmatic access to key platform data including active loans, loan terms, collateral metadata, repayment history, and smart contract interactions (NFTfi, n.d.). By offering such granular, real-time data, NFTfi empowers developers to integrate lending insights into external wallets, dashboards, DeFi protocols, and NFT marketplaces.

This API-driven openness contributes to an API ecosystem, where innovation is decentralized and driven by community participation. For instance, several dashboards on Dune Analytics visualize NFTfi loan performance using data pulled directly via the API. Wallet providers may also use this API to show users their active loan status or collateral health, strengthening cross-platform visibility.

Importantly, the use of Web APIs enhances interoperability—a key value in distributed innovation systems. NFTfi’s APIs serve not only as technical connectors but also as strategic assets that attract developers, increase the stickiness of the platform, and extend its reach beyond its core website. This aligns with INFO5992’s course themes, where APIs are not just service layers but enablers of distributed, scalable, and collaborative value creation.

3. Figure’s Application of Platform Ecosystem

Figure Technologies adopts a platform ecosystem strategy tailored to institutional finance, primarily through Figure Connect and its blockchain-based infrastructure (Figure, 2023). Rather than reiterating the technical functions already discussed in earlier sections, this discussion focuses on how Figure operationalizes platform value creation and ecosystem scalability.

In line with INFO5992’s platform roles framework, Figure orchestrates interactions between producers (loan originators), consumers (investors), and itself as both platform provider and owner. What differentiates Figure’s ecosystem is the enterprise-grade integration of compliance, automation, and tokenization—which reduces transaction costs, enhances trust, and enables high-volume institutional engagement.

Importantly, Figure leverages its platform to facilitate fractional asset ownership and real-time collateral visibility, thereby increasing liquidity and accessibility in traditionally opaque loan markets. Instead of acting as a mere facilitator, the platform becomes a financial infrastructure layer, supporting not only transactions but also lifecycle operations, risk controls, and regulatory audits.

Through this design, Figure showcases how a B2B platform ecosystem can scale without compromising governance or transparency—highlighting the potential of distributed innovation even within highly regulated environments.

1. Figure’s Application of Web APIs

While Figure’s platform ecosystem serves as a foundational infrastructure for institutional finance, its Web APIs play a critical role in enabling seamless integration with external systems and accelerating the platform’s adoption. Rather than functioning as isolated developer tools, these APIs are tightly woven into Figure’s enterprise offering—ensuring that partners such as banks, loan servicers, and investors can embed Figure’s services directly into their existing workflows (Figure, n.d.).

Unlike NFTfi, whose APIs promote community innovation, Figure’s APIs prioritize compliance, security, and workflow automation. These interfaces support a range of backend operations including identity verification (KYC), credit checks, loan origination, settlement, and reporting. By abstracting these complex processes into programmable endpoints, Figure simplifies partner integration while maintaining strict adherence to financial regulations.

This design reflects the principles of “Platform as Infrastructure”, where APIs are not just extensions of services but the very building blocks of scalable ecosystem participation. It also aligns with Week 4 discussion on how APIs support distributed innovation, not only by enabling openness, but also by reducing frictions in cross-organizational coordination.

By offering secure, standardized APIs that integrate directly with the Provenance Blockchain, Figure empowers institutional partners to adopt decentralized technology without needing to manage blockchain complexity. This enhances trust, traceability, and interoperability, while reinforcing Figure’s role as a compliant, future-ready financial platform.

In summary, both NFTfi and Figure Technologies exemplify how distributed innovation concepts, namely Platform Ecosystems and Web APIs, can be strategically applied in distinct industry contexts to deliver scalable, adaptive, and innovation-driven business models. NFTfi leverages an open, community-centric approach to build a decentralized lending marketplace, prioritizing trustless smart contract execution and external developer participation. In contrast, Figure’s enterprise-focused ecosystem prioritizes regulatory compliance, integration efficiency, and institutional-grade automation through tightly controlled infrastructure and standardized APIs.

While the two companies operate under different assumptions—NFTfi embracing openness and external innovation, and Figure emphasizing control and compliance—they both align with the INFO5992 frameworks discussed in Weeks 4 and 6. Their architectures reflect core principles such as multi-sided value creation, network effects, and platform-enabled scalability, demonstrating that distributed innovation is not a one-size-fits-all model, but rather a versatile framework adaptable to diverse operational and regulatory environments.

# Comparative Analysis

The comparative analysis of NFTfi and Figure Technologies underscores how distributed innovation concepts—specifically platform ecosystems and Web APIs—are strategically applied to reshape financial services using NFTs. While both companies utilise blockchain technology to enhance transactional efficiency and transparency, their approaches diverge significantly in ecosystem design, regulatory alignment, and innovation strategy, reflecting their distinct market orientations.

NFTfi’s platform ecosystem epitomises decentralisation, operating within the Web3 paradigm to facilitate peer-to-peer NFT-collateralised loans. By leveraging Ethereum smart contracts, NFTfi eliminates intermediaries, enabling trustless transactions where borrowers and lenders interact directly (NFTfi, n.d.). This model has facilitated over $68 million in USDC loans as of 2025, demonstrating its scalability (NFTfi, n.d.). The platform’s interoperability with wallets like MetaMask and marketplaces such as OpenSea allows users to collateralise diverse NFT collections, fostering a multi-sided ecosystem that thrives on network effects (MetaMask, n.d.). NFTfi’s openness extends to its developer community, which uses its GraphQL API to build third-party tools like Dune Analytics dashboards, enhancing platform utility through community-driven innovation (NFTfi, n.d.). This aligns with the "Inside-Out Open Innovation" framework, where external contributions amplify ecosystem value without direct monetisation.

In contrast, Figure Technologies adopts a regulated, institutionally oriented platform ecosystem anchored on its proprietary Provenance Blockchain. By tokenising traditional financial instruments—such as mortgages and loans—into NFT-like assets, Figure enhances transactional transparency while ensuring compliance with institutional standards (Provenance Blockchain, n.d.; Martinez, 2022). Unlike NFTfi’s permissionless model, Figure restricts participation to verified entities, embedding KYC/AML protocols to align with regulatory requirements (Cotality, 2025). Strategic partnerships with institutions like Apollo exemplify its focus on integrating blockchain into legacy financial systems rather than displacing them, prioritising institutional trust over decentralised autonomy (Apollo, 2021). Figure’s ecosystem automates loan servicing through smart contracts, reducing operational inefficiencies inherent in traditional finance, while its tokenisation framework enables fractional ownership of assets like mortgages, enhancing liquidity in traditionally illiquid markets (Martinez, 2022).

The role of Web APIs further differentiates their innovation strategies. NFTfi’s open API architecture democratises ecosystem development by providing developers with real-time access to loan data, collateral metrics, and transaction histories (NFTfi, n.d.). This transparency fosters third-party applications that enhance user engagement, such as MetaMask integrations that allow borrowers to manage collateralised NFTs directly from their wallets (MetaMask, n.d.). Such openness reflects Web3’s ethos of collaborative innovation, where external developers drive ecosystem growth.

Figure’s APIs, however, prioritise security and regulatory compliance, serving as gateways between blockchain infrastructure and institutional workflows. For instance, its APIs automate loan origination processes for banks, embedding compliance checks and audit trails to meet stringent regulatory standards (Figure, n.d.). By abstracting blockchain complexity, Figure enables traditional financial institutions to adopt distributed ledger technology without overhauling legacy systems—a critical factor in overcoming institutional inertia (Cotality, 2025). This controlled API strategy contrasts sharply with NFTfi’s community-driven model, illustrating how distributed innovation adapts to institutional constraints.

Both companies share foundational principles of tokenisation and modular scalability. NFTfi embeds trust in transactions through on-chain transparency, using NFTs as collateral to mitigate counterparty risks (Musan et al., 2020). Figure tokenises loans to enhance traceability and enable fractional ownership, addressing inefficiencies in asset-backed markets (Martinez, 2022). Modularity underpins their ecosystems: NFTfi integrates with external platforms like OpenSea to expand functionality, while Figure’s SDK allows partners to build custom solutions on its blockchain (Provenance Blockchain, n.d.).

However, their growth trajectories diverge. NFTfi relies on user-driven network effects, where increased borrower-lender activity reinforces platform liquidity. Figure’s expansion, conversely, hinges on institutional credibility, leveraging partnerships with entities like Apollo to attract regulated participants (Apollo, 2021). These pathways reflect their core priorities: NFTfi champions decentralised accessibility, while Figure prioritises institutional trust.

NFTfi faces volatility risks due to fluctuating NFT valuations and regulatory uncertainties as governments scrutinise DeFi (Musan et al., 2020). Figure contends with institutional resistance to blockchain adoption, compounded by the complexity of aligning distributed systems with legacy infrastructure (Cotality, 2025). These challenges highlight inherent trade-offs: NFTfi sacrifices stability for democratisation, while Figure compromises agility for compliance.

Future innovations may bridge these models. Hybrid platforms could emerge, combining NFTfi’s openness with Figure’s regulatory rigor—for example, permissioned blockchains with open APIs that balance innovation and compliance. Such frameworks could reconcile decentralised autonomy with institutional trust, unlocking NFTs’ full potential in finance.

# Conclusion

NFTfi and Figure Technologies illustrate the adaptability of distributed innovation concepts across financial contexts. NFTfi’s decentralised ecosystem empowers users through community-driven tools and open APIs, democratising access to financial services. Figure’s institutional model modernises traditional finance via compliant tokenisation and controlled API integration. Their contrasting approaches underscore that NFT-driven innovation is not monolithic but shaped by regulatory, technological, and market dynamics. As the sector evolves, synthesising these models could redefine financial infrastructure, merging decentralised efficiency with institutional robustness.

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# Contributions

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| --- | --- | --- |
| Student ID | Name | List of Contribution |
| 490051481 | Lihang Shen | * Relevance of Concepts |
| 540291508 | Siqi Wu | * Justification and Explanation- Motivation * Justification and Explanation- Technology Explanation |
| 540521667 | Zeyu Yang | * Discussion of Concepts * Comparative Analysis |
| 510113726 | Fanyi Meng | * Discussion of Concepts * Comparative Analysis |