Myriad

By: Barton Johnston, Pandu Sastrowardoyo & Jean Daniel Gauthier

Myriad :
Decentralizing Social

Discussion

Since its inception, social networking has transformed the world unlike any other technology. While mass communication has a long history — from the invention of the printing press to the wireless radio, and eventually television broadcasting — all of these technologies moved information in essentially one direction: from a central publisher to a wide audience of listeners.

While other technologies such as the telegraph, and eventually the telephone, allowed individuals to communicate with each other at distance, these communications were only possible between pairs or small groups. It was only with the invention of the Internet, and the eventual rise of social networking platforms, that all individuals were capable of becoming their own publishers and accumulating a listening audience on a scale like the broadcaster class.

Consequently, this powerful new venue for public discourse has also produced a new class of kings and kingmakers of the digital world — such as Mark Zuckerberg at the head of Facebook, Jack Dorsey at the head of Twitter, Larry Page and Sergey Brin heading Google and several others.

These “kings” are naturally influenced by their business interests, shareholder demands, political pressures, and personal moral beliefs. They have allowed these forces, in turn, to influence the policies and actions of the platforms they operate, thereby sculpting the tone and content of the public discourse occurring therein. There are both benefits and dangers in this, and where one beholder may see good-natured public guidance, another may see corrupt social manipulation.

Whether it's the right of these kings of the digital communication era to modulate the social discourse within the platforms they own and operate is a complex question. We have instead focused on a simpler question — *What would a true alternative to this model look like?*

Introducing Myriad

Myriad is a fully decentralized social network that aims to reshape the relationship between Users, community operators, and content hosters. It has been carefully designed to address the fundamental problems stemming from private ownership of modern mass communication infrastructures.

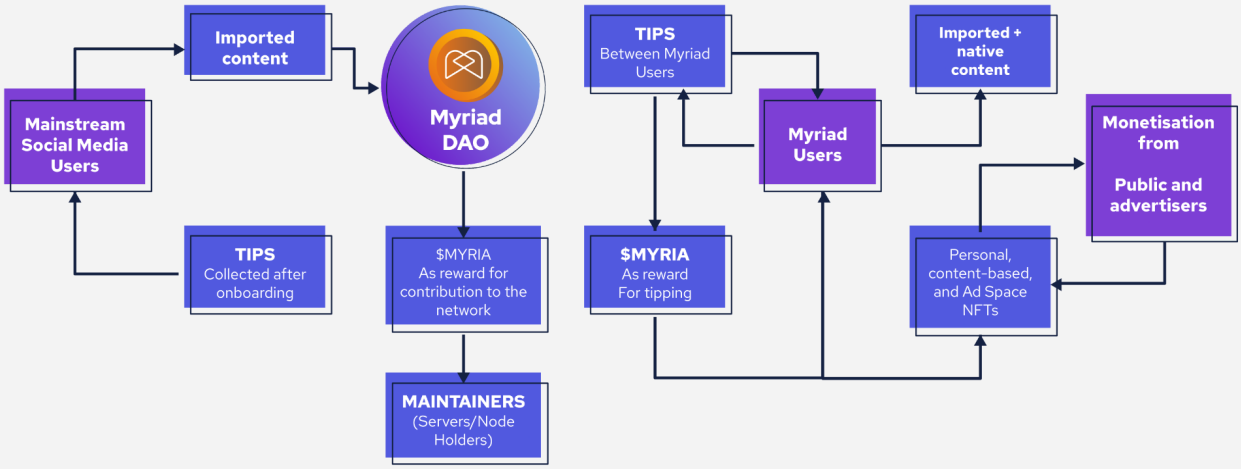
Myriad preserves the freedom of expression of all Users, the freedom of community management for all community operators, and the freedom of choice for all content hosters.

Beyond this, Myriad explores new design territory relative to organization of content feeds, social aggregation across platforms, User-driven post quality and spam control, User content monetization, and community governance.

These features are built on top of a novel decentralized architecture composed of two protocol layers — a federation of servers and a blockchain — which operate in tandem to preserve User sovereignty while enabling scalability, transparency, and fully decentralized ownership and management of the platform.

While Myriad is decentralized, it's not anarchistic. Power is moved from the traditional centralized corporate authority into the hands of individuals who host servers for the platform and manage User Communities. Any person can host Myriad servers or Communities and moderate the content in their own spaces in the way they see fit.

In the same spirit, Myriad is completely transparent. Any User can review the source code of the application and ensure that no special rules are built in to bias one kind of content against another. Any algorithm chosen by a server or community operator to arrange posts for a User is made transparent to the Users of that community.



Together, we believe this architecture and these feature design choices allow for a social network that can operate in the best interest of each User and each community, allowing guidance and moderation on a personal level within Communities without censoring freedom of expression for the greater Communities themselves.

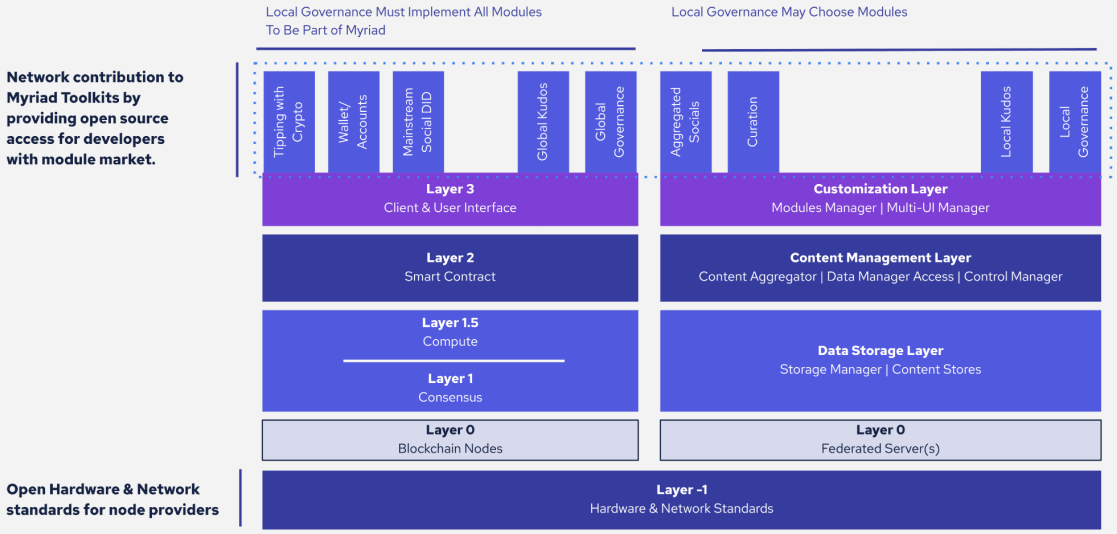
Moreover, such an architecture makes impossible the type of top-down social manipulation that has become the intentional practice of large centralized social networks which we believe is destroying open and honest public discourse on such platforms.

Architecture Overview

Myriad's decentralization is organized into two layers — the Myriad *blockchain* and the Myriad *federation*. While each of these two layers is a network of cooperating computers that collectively constitute the Myriad platform, each individual layer provides something to the platform that the other cannot.

Myriad's blockchain layer (composed of Myriad *Nodes*) is developed with the open-source Substrate blockchain platform and secures data that must be held strictly in global consensus, such as *ownership*, *asset transfer,* and *global reputation*. This includes things like Myria token balances, User's global reputation scores, and NFT ownership.

Myriad's federation layer (composed of Myriad *Servers)* allows for both *scalability* and *data sovereignty* which would not be possible in a pure-blockchain architecture. The federation servers store things like communities, posts, and experiences. This type of data is distinct from the hard-consensus data stored in the blockchain in a few significant ways — It can be *high-volume*, *curated per server*, and it's not used in hard-consensus decisions (such as ownership transfer validation.)



Myriad's logic stack

It's important to note that the same physical computer can be both a Myriad *Node* and a Myriad *Server* (although it need not be both.) These two protocols work together to provide the features of the Myriad platform as a whole. As a consequence of this dual-network architecture, the following things are made possible:

- Myriad Server Operators maintain complete *data sovereignty* — The network does not force Server Operators to host content they disagree with. This is not possible, for example, in a pure-blockchain architecture where a node operator only has the binary choice to either host ALL data, or not run a node at all.

- Myriad Servers can scale to millions of Users by leveraging traditional horizontal scaling techniques (which is impossible with conventional blockchains by virtue of the scaling problem) while remaining fully decentralized and censorship-resistant by virtue of any person's ability to operate a server that maintains their own community's data.

- The social media experience can be seamlessly augmented by the ability to send and receive tokens, convert any post into an NFT, or even automate the democratic governance of communities — all with the security properties of hard-consensus blockchains (such as *ledger immutability* and the *unforgeability of digital signatures*.)

Through this paper, when we use the terms *Blockchain* and *Node,* or the terms *Federation* and *Server*, we refer to the way that they have been defined here.

Myriad Accounts

While content on the Myriad platform can be browsed anonymously, a User's primary interaction with the platform is made through their Myriad Account. This account is registered directly on the Myriad blockchain via a Substrate account address, after which its authenticity is proven to Myriad federation servers.

Actions taken by the account, both in the blockchain layer (such as sending tokens) and in the federation layer (such as making posts) are authorized by digital signature from a User's Myriad private key.

A Myriad account tracks two balances for a User — a balance of *Myria Tokens* and a balance of *Kudos* social currency.

- *Myria tokens* are rewarded to Users for particular actions on the platform. Users are rewarded Myria tokens for performing a variety of activities, such as importing posts from external social media platforms, tipping posts, and/or content creators, with cryptocurrency — both within the platform and on external social media platforms — hosting a Node, hosting a Server, and more.

- *Kudos* "social currency" is a non-financial token that is dripped daily into every Myriad account (see the *Post Quality and Spam Control* section below). Users can invest *Kudos* into one of their own posts or comments to increase its visibility, or they can award it to other Users by investing it into their posts or comments. Any User on the platform can set a minimum *Kudos* filter for posts and comments they want to see. This feature allows Users to focus their experience on the Myriad platform by filtering out spam and cheap comments to get to the content they care the most about.

A User's Myriad account will also allow them to:

- Create *Experiences* (individual collections of content from people and topics) for themselves and/or other Users to subscribe to
- Create *NFTs* of posts they like and sell them
- Invest *Kudos* in posts or comments they wish to amplify
- Create *Communities* for other Users on the Myriad platform, and more.

Social Aggregation

Myriad is a meta-social platform. While posts are published directly on the Myriad platform, they are also pulled in from a diverse set of external social media platforms and online content aggregators, and then organized by a Myriad Server into topic-oriented feeds called Experiences.

Myriad frees Users from the question of which social media platform they should spend time on. Instead, the User's focus becomes which people she wants to follow and which topics she is interested in. Myriad handles the rest by crawling and organizing content from the internet according to that User's preferences.

In Myriad, Social Aggregation has two primary elements — the ability to Link accounts from diverse social media platforms together into one Myriad account, and the ability to combine feeds of posts from Users and topics across diverse social media platforms together into Experiences.

Linked Accounts

Once a Myriad account has been created on the blockchain, it can claim identity with social media accounts on other platforms. A User can prove her authenticity to Myriad servers by making a special post from her account on other platforms.

Linking accounts is a logically decentralized process in that the User never exposes their login credentials for other platforms to Myriad. The server simply detects whether a cryptographic code included in a foreign post matches the code it generated for the Myriad User.

Myriad Users also have the ability to Tip cryptocurrency to any account on any social media platform. The funds tipped to such accounts are held in escrow by a smart contract on the Myriad blockchain until the foreign social media account is linked to a Myriad account. Only the foreign account's owner can link an account to a Myriad account. Once the accounts are linked, any tips paid to that Myriad User's foreign social media accounts will be released to their Myriad account address for the User to trade, sell, or tip as they please.

Myriad aims to make this tipping feature available for the widest possible range of cryptocurrencies and will update its selection incrementally.

In the spirit of social aggregation, linking your accounts on other social networks to your Myriad account will also let you share content directly to those other social accounts directly from Myriad. This feature enables the Myriad platform to become somewhat like a social media command center from which a User can post to all of their social channels.

Experiences

Each Myriad Server can host a set of Experiences defined by Users on the platform. Each of these Experiences establishes a collection of people and topics, optional Add Spaces to monetize the Experience, and an algorithm that the Server uses to organize the content feeds presented to Users transparently. Experiences can be created by any User with a Myriad account and subscribed to by any User with a Myriad account.

Once an Experience is configured, the Myriad Server will crawl all social media platforms for which it has been customized (Facebook, Reddit, Twitter, etc). The Server looks for posts on the official accounts of those people selected in the Experience and for posts related to the relevant topics chosen for the Experience.

Internally, the Server digests and mixes these post streams, producing a feed that Users of that Experience can consume (see Algorithmic Transparency section below).

A User's primary feed on Myriad is itself an algorithmic mix of the Experiences that the User subscribes to. Every Myriad User can inspect and configure the algorithm through which his own posts are selected, ordered, and displayed from his subscribed Experiences.

Algorithmic Transparency

One of the significant modern problems of social media and other content aggregation tools, such as search engines, lies in opaque algorithms that govern the arrangement of content presented to the User. This practice originates from the intention of solving two fundamental problems:

- **Manipulation:** When the exact algorithms used by a digital service to organize content are known, the rules can be easily abused. For example, in the early days of search engines, it was profitable to fill your page with keywords that would force it to the top of any search result ("keyword stuffing").

- **Scale:** When a User's entire feed is composed of a few people making a few posts per day, it's feasible to show them every post. But when a User subscribes to hundreds or thousands of channels producing at least as many posts, displaying every post becomes nonviable. Instead, heuristic strategies serve to fill the User's relatively tiny window of attention with a representative sample of all the content they've requested to follow.

In response to these problems, content aggregators have developed highly complex algorithms that rank, filter, arrange, and otherwise curate the Experiences of their platform's Users. Unfortunately, once these "dark filters" exist, they present enticing opportunities for abuse.

- **Hidden paid promotion:** In the rush to be seen, with aggregators standing between what Users are looking for and what they see, people are willing to pay handsomely to make sure their content is exposed the most. Fortunately, most content aggregators today make this explicit by identifying a post as an ad, a sponsored post, or some other form of paid promotion. However, no platform making money this way would be willing to allow the User to remove these paid promotions from their experience. Such companies frequently

crackdown on third-party developers offering extensions or services that would enable their platforms to be used without paid promotions. As most Users are generally uninterested in advertisements or paid promotions, this practice degrades User experience.

- **Social manipulation:** Even when a platform does not directly stand to profit from how it arranges content for its Users, it may come under external and even internal pressure to manipulate content visibility. Governments, regulators, large corporate and advertising partners — and even a platform leadership's misplaced sense of moral superiority — can attempt to shape public opinion and discourse by choosing which posts and authors are visible to the User. Google has gone so far as to label this practice as "AI Fairness." They inject their opinion of what is "fair" into the machinery of how results are presented. Other platforms such as Twitter and Facebook are known to silently "dial down" or "shadow ban" accounts by decision-making processes kept highly secret. YouTube has even bragged about tuning its search algorithms to steer Users away from "controversial" content. Instead, it directs Users to clips from mainstream news outlets when specific terms are entered in the search field. The result is a particularly insidious degradation of the User experience, usually unnoticed by a User until his content trips over one of the "hidden rules." To the extent that such platforms are today a significant forum for public discourse on important issues in society, these platform operators usurp power over what the unsuspecting public comes to believe is true without its consent.

For these reasons, the next generation of content aggregation and social media tools must find a balance to retain the scalable and manipulation-resistant qualities of algorithmic content presentation while eliminating the deceptive and manipulative abuses which are commonly quietly mixed in. In Myriad, such algorithms can be configured at the Experience level, including:

- **Content Providers:** The Experience creator may select and manage a collection of subscriptions to content creators or streams on any social media

platform. The subscriptions can be related to any theme or topic that the Experience creator desires. Once customized, the set of subscribed contents are fully transparent, eliminating the ability of any biased central authority to secretly censure the content or “shadow ban” the account.

- **Algorithm Configuration:** The Experience creator may select and configure the algorithms used to solve the manipulation and scaling problems mentioned above. The choice of algorithm and any other chosen parameters are public knowledge. This transparency allows any potential subscriber to inspect them before subscribing. Myriad supports several such algorithms. Algorithm options enable Experience creators to easily generate the type of User experience and content meta-stream they believe is most appropriate for the respective topic, whether it be showing an explicit linear ordering of posts, a random sampling of posts, or posts prioritized by some other defined criterion.

Post Quality and Spam Control

In a setting of purely open social forums and anonymity, it can be challenging to find the right balance of freedom and moderation to increase post quality without sacrificing a User's genuine freedom of expression.

On the one hand, an anarchistic level of anonymity and freedom results in aggressive free-for-alls like 4chan. On the other hand, tyrannical levels of content regulation and algorithmic manipulation lead to a fear of posting (that many Users currently experience on Facebook) or the type of aggressive self-censorship seen on YouTube.

Myriad handles this problem in two ways. First, Communities on the Myriad platform can have a complete hierarchy of administrators and moderators who can curate the content that appears within their Community to whatever standards they wish. Second, at a more general level, Myriad gives Users Kudos social currency to influence which posts will rise to the top in a noisy environment.

Community Moderation

Myriad's Communities are topic-oriented spaces owned either directly by a User or owned and administered collectively via democratic process (see Community Management below.)

Myriad's philosophy holds that the Community owner has full rights to curate the content occurring specifically within that Community to encourage on-topic discussion, polite discourse, or any other quality the Community owner desires.

Users interested in the same topic who disagree with the Community's administration are always free to create their own Community over which no centralized authority can impose regulations or content restrictions.

Only an individual Community can have a hierarchy of administrators and moderators who have full powers to delete posts or comments, ban members, or otherwise censor speech they dislike within their Community.

Users seeking a serious and uninterrupted discussion on a particular topic without censoring authorities of any kind are encouraged to find a Community in line with their ethos, or create their own Community and manage it however they choose.

Opt-in decentralized moderation

While hierarchized moderation structures are widely used and well understood across platforms, it has been proven time and again that this system, if technically easy to implement and philosophically fit for most use cases, can be exploited through social engineering.

The hierarchical moderation model is also, in practice, fairly centralized which results in most duties and responsibilities to be put on the shoulders of individuals, single or in small groups.

Myriad proposes an opt-in decentralized alternative to this model, which aims at reducing the moral and psychological pressure of moderation while mitigating the possibility of centralization of power.

In this decentralized model, any member of the community can apply to be added to a moderation queue. When a request for moderation is sent, it is broadcasted to a fixed number of random members of the moderation queue. Then, a majority vote within those members is used to determine the outcome of the moderation action. Moderators are then rewarded with $MYRIA.

To further mitigate centralization, and keep the moderation quality to a maximum, moderators who have already voted, or have omitted to vote in the previous round can not be selected to vote for the next moderation request. Moderators who omit to vote do not receive $MYRIA rewards.

Kudos

Myriad goes a step further than allowing Users to simply “like” or “upvote” posts and comments. Each Myriad User has a balance of “social currency” called Kudos.

Kudos cannot be bought or sold, and the total supply is not a conserved quantity, so they don't represent an instrument of financial value. Rather, they are exchanged when a User who has Kudos endorses a post or comment of another User.

Each User has a balance of Kudos. When a User makes a post or comment, they can invest some Kudos into that post or comment to increase its visibility in a busy feed or comments section according to the algorithm configured in the Experience in which the post appears.

Likewise, other Users can invest their own Kudos in a post they would like to see promoted. When other Users invest Kudos in your post or comment, a portion of those Kudos is added to your own balance of Kudos, giving you more potential to increase the visibility of future posts you think are important.

In this Social Economy, Users who post the most quality content (as determined by the endorsements of other Users) also gather increased potential to promote posts they appreciate — thereby empowering the content creators of those posts to do the same.

We’ve anticipated the possibility of small numbers of people accumulating massive post-boosting power by collecting more Kudos than everyone else to manipulate feeds. To eliminate this possibility and keep the playing field level, we’ve designed the

Kudos system so that the effect of Kudos on a post's visibility is logarithmic compared to the amount of Kudos invested in the post. In other words, dumping huge amounts of Kudos into a post has diminishing returns.

Users with large balances of Kudos must invest Kudos at a reasonable level that other users can afford. Should any User choose to use a substantial amount of Kudos to push a post above all the others, they must also burn a disproportionately large amount of their own Kudos, reducing their ability to continue doing so to prevent abuse.

Kudos are constantly being created and destroyed by the Myriad platform. The Social Economy is bootstrapped by a small daily allowance of new Kudos given daily to each User. Kudos are burned when a User invests Kudos to boost the visibility of her own post, and some portion of Kudos is burned when a User invests Kudos into another User's post. The unburned portion is given to the post's creator.

Whether viewing an Experience or a moderated Community, a User always has the ability to order posts and comments by their Kudos score and can even apply filters only to see posts and comments above a particular Kudos threshold — or apply a filter that completely disregards Kudos' influence altogether.

Myriad gives Users the tools to cut through the noise to view the most relevant, quality content (as decided by other Users' endorsements) in any context on the Myriad platform. The structure of the Kudos system allows Users to enjoy greater flexibility to customize their viewing filter and express dynamic appreciation for favored content — all while denying the opportunity for aggressive anti-freedom mobs to censor posts collectively.

Community Management

Content in the Myriad platform is organized by two major mechanisms: Experiences (as described above) and Communities. A Myriad Community is a virtual space which has an owner (or owners). Community Owner(s) can assign administrators and moderators and create rules and regulations. Admittance into a Community is subject to the rules set up by its owner(s).

Compared to an Experience (which is simply a feed of posts from selected people or related to specific topics organized by an algorithm), a Community is more structured and specialized.

Communities can be built around specific topics or people and enforce particular post and comment quality standards via a moderation team. A Community can impose specific prerequisites for members to join and designate special ranks or insignias for select Users within the Community.

Communities in Myriad differ from other decentralized social networking implementations by two fundamental principles:

01. **Data Sovereignty** — The right of Server operators to decide what they will and will not host with their computing resources.

02. **Decentralized Governance** — The right of the Community members to democratically manage the rules and leaders of the Community itself.

Data Sovereignty

Blockchains have particular difficulty when it comes to node operators being in control of the data they will host. To stay in sync with other nodes, each node must have the same data. This data is decided on by the consensus of the network as a whole, not by the node operator herself.

For this reason, a social network built directly on the blockchain (even if it could scale) would not afford node operators the right to decide what post content they are comfortable hosting on their computers (for legal or ethical reasons.)

In a fully decentralized social media solution such as Myriad, the rights of three kinds of Users must be preserved:

01. The **Rights of the Users** to express themselves freely
02. The **Rights of Community Operators** to control what happens in their communities
03. The **Rights of Server Operators** to control what communities or User data they will host on their servers.

This third right is the right of Data Sovereignty — the right of a Server Operator not to host data from a platform with which they disagree.

In Myriad, a Server Operator can exercise this right of Data Sovereignty by electing which Communities and Experiences it will host, either by whitelist (specifying exactly which Communities and Experiences it will maintain) or by blacklist (specifying which ones it refuses to maintain).

If a Community is not acceptable to any existing Server in the Myriad federation, that Community's only recourse is to host their own Myriad servers — They cannot compel another Server operator to host content they disagree with.

Additionally, there is no global authority in the Myriad federation that can prevent Users from creating a new Server and connecting it to the network to host whatever Communities and Experiences they wish with their server resources. The platform guarantees Users complete censorship resistance (with the caveat that they may need to pay their own server bills to do it.)

Decentralized Governance

A Myriad Community is associated with a Community Token — a special NFT that lays out the Constitution of that Community. A Community's Constitution includes information meant to be interpreted by humans (such as rules, post guidelines, disciplinary actions to be carried out by moderators, etc.,) as well as information meant to be interpreted by computers (such as vote totals that must be reached for Community consensus to be able to take certain actions or to amend a Community Constitution itself.)

A Community's Constitution, and any amendments to it, are kept in global consensus by the Myriad blockchain. Multiple Servers may share in the hosting of a Community (where each Server either keeps a full redundant copy of the Community data, or Servers shard storage of the Community amongst themselves.) Those participating Servers reach consensus about the Community's rules, properties, and state by referring to the Community Token on the blockchain.

In the simplest case, the Token for a Community can be fully owned by the owner(s) who created the Community. In this case, the owner(s) of a Community would then have full rights to change the Community's rules at any time, appoint or dismiss moderators, and unilaterally transfer ownership and administration of the Community to another User. We could call this an example of an Autocratic Community.

In a more sophisticated case, the Token for a Community could have its ownership divided amongst a large number of the Community's membership. In this case, actions such as appointing or dismissing moderators or changing the group rules would require a vote majority with a certain quorum as specified by the Community's Constitution. This is an example of what we could call a Democratic Community.

There are many other possible models of decentralized Community governance that can be developed to create the right balance of power, flexibility, and reactiveness needed by Communities formed for certain functions aside from the Autocratic and Democratic examples given above. This is an area of active research.

Direct Monetization: Tipping and Social Tokens

One of the most powerful repercussions of modern social networking and digital content creation is the manifestation of a "content class" of YouTubers, Podcasters, Influencers, Streamers, and others whose commentary, influence, or content is appreciated enough by other Users to pay them for the work.

However, in the current social media ecosystem, this "content class" must not only navigate the shifting labyrinths of varied social media platform rules and algorithms to earn revenue, they must also worry about payment methods and financial censorship from centralized banking institutions.

The Myriad platform provides two categories of tools to platform Users who want to be paid by their audience in exchange for their content and commentary:

1. **Direct Monetization** — Earning revenue from the content itself
2. **Indirect Monetization** — Earning revenue via decentralized advertisement placements (see Indirect Monetization below).

Myriad's Direct Monetization option offers Users two ways to directly monetize their own content:

1. **Tipping posts or accounts**
2. **Creating and selling Social Tokens.**

On the Myriad platform, any User can send a Tip in the available cryptocurrency of their choice — either to another User directly or to a specific post. The tips given to any particular post will always be visible on the post itself to reflect the User's

reactions to that content. Myriad aims to make this tipping feature available for the broadest possible range of cryptocurrencies and update its selection incrementally.

To incentivise tipping, accounts that send or receive Tips in other cryptocurrencies will receive Myria tokens as rewards for tipping, receiving tips, or importing content from a third-party platform that is tipped after import.

Meta-Social Tipping

One of the most powerful features of Myriad is the ability to Tip posts on other social media platforms for which the owner has not even created a Myriad account yet. In this case, the tips are held in escrow by a smart contract on the Myriad blockchain until a Myriad account proves ownership of the tipped account by linking the accounts. Only a foreign account owner can prove ownership. Once the accounts are linked, the tips are transferred to the proven Myriad User.

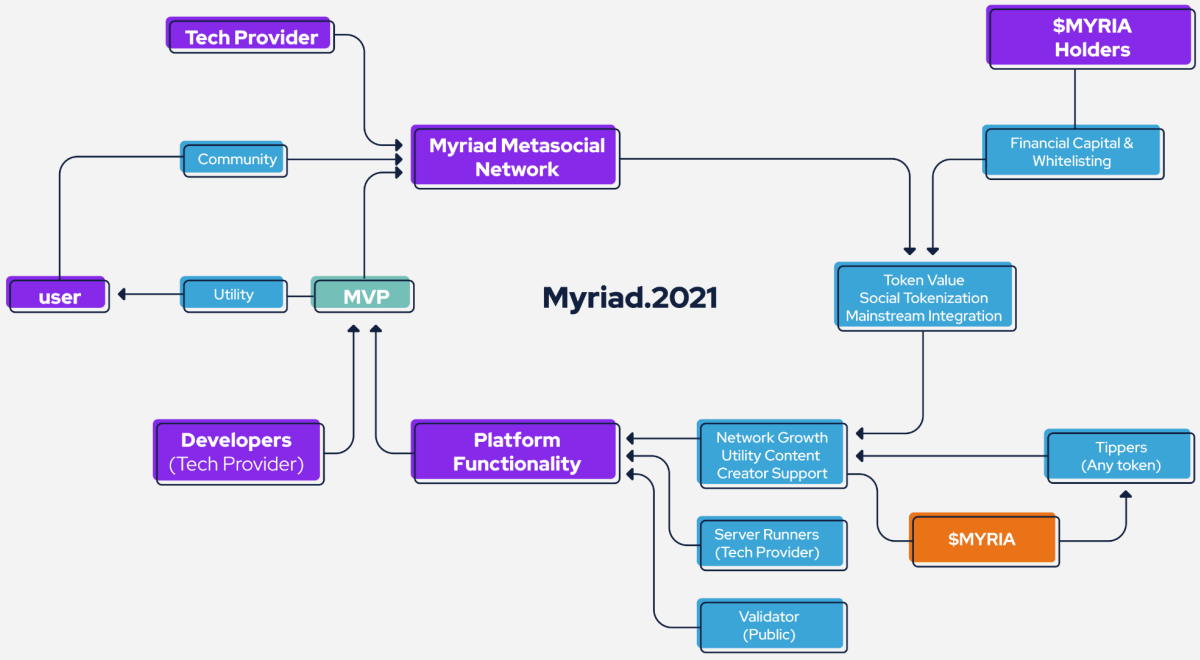
This tipping mechanism can serve as a primary direct payment method to content creators as the ecosystem matures. When content creators' posts become popular, Users who value their work can send them tips in cryptocurrencies to support their endeavors. Because tipping is powered by Myriad's blockchain, the tips are censorship-resistant and cannot be prevented by any central authority.

Social Tokens

The Myriad platform offers the unique opportunity for a User to transform their social media posts into Non-Fungible Tokens or NFTs, which Myriad calls Social Tokens. These Social Tokens are supported directly on Myriad's Substrate-based blockchain which supports interoperability. These Social Tokens can then be bridged onto other

blockchain ecosystems such as Polkadot or Ethereum to participate in popular DeFi contracts.

While the value of a Social Token is subjective, the value of Social Media NFTs to some NFT collectors can be quite high. The ability to “own” a viral post may be in the future what the notoriety and value of owning a famous art piece has become today. As such, the ability to tokenize one’s posts and sell them should they become famous (or infamous) represents a second opportunity for Direct Monetization of a User’s content.



Direct monetization fosters the network effect an enhances defensibility

Indirect Monetization: Decentralized Advertising

Besides the Direct Monetization model, social networks and content aggregators also commonly employ secondary or Indirect Monetization models, such as advertising. A social platform might retain 100% of the advertising revenue it generates (such as Facebook), or it might implement a kind of partner program to split the revenue with its content creators (such as Youtube.)

However, this top-down, centralized approach to advertising management comes with many challenges.

First, the platform owners create absolute rules about which ads are allowed — which systematically excludes others who should generally have the right to advertise. Second, reviewing thousands or millions of ad submissions is a formidable job for any organization. Third, content creators often see slim returns from the advertising revenue collected by the platform when monetizing their content.

Myriad's approach to this problem is to decentralize the advertising system entirely. Ad quality and fair payments to content creators and hosts can be managed by employing a triangular incentive scheme. This triangular incentive scheme balances the interest of Advertisers, Experience Creators, and Ad Space Operators (who manage an abstract thing called an "Ad Space.")

Ad Spaces

Myriad allows any User to create an Ad Space, which is a container for paid promotions. An Ad Space can be configured for a specific topic area and target

audience, and with certain rules for the contained advertisements. The creator or Operator of an Ad Space holds compete control over which listings (ads) are allowed in the space to maintain the quality level of her choice.

Once an Ad Space exists, advertisers can pay the Ad Space Operator in cryptocurrency to have their ads included into the space. Because the Ad Space Operator holds veto power over which ads are admitted into the space, these funds are held in escrow until the Ad Space Operator approves or rejects the ad placement.

Experience creators can include one or more Ad Spaces into their Experiences. The algorithm configured to organize posts for an Experience has specific rules for Ad Slots which are mixed into the stream of posts presented to the User by the Experience.

The Incentive Triangle

Ad Space Operators, Experience Creators and Advertisers all have incentives which balance each other.

The Advertiser wants to have his ad placement seen by those Users most likely to react to the ad and buy the product. To do this he must first have his ad accepted by a respected Ad Space.

The Ad Space Operator's goal is to secure placement in popular Experiences by curating the quality of the ads he allows into the space.

The Experience Creator's incentive is to include only those Ad Spaces that both meet her standards and are relevant to the Experience topic so that she can keep the Experience popular for subscribers and generate the most fruitful ad impressions.

When an Ad Space Operator approves a new ad into his Ad Space, he can specify a fixed fee and/or a percentage fee that includes the ad in the space. (Additionally, upon acceptance, a small fixed percentage is automatically allocated to the creators of the Myriad platform.)

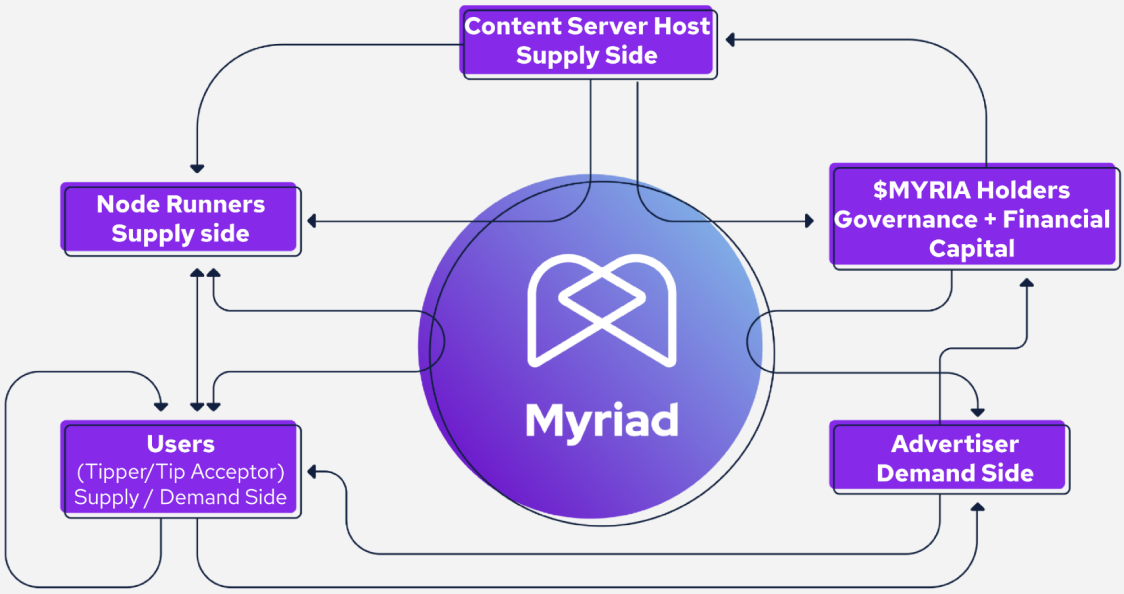
The allocated fee for the ad goes into a bucket for that specific ad. Each ad loses a small percentage of funds from its bucket every time it's shown to a User (on each ad impression.) Once an ad's bucket of funds is depleted, it will stop being shown by Experiences unless the Advertiser tops up the bucket with new funds.

For an Experience Creator, including an Ad Space into their Experience is free. When ads are shown to Users (ad impressions), the funds taken out of the ad bucket are split between the Experience Creator, the Ad Space Operator, and any other ad-relevant content creators included in the Experience by some predefined ratio.

Thus, Advertisers are paying Experience Creators (to include their ads,) Ad Space Operators (for accepting their ads,) and content creators who attract the Experience subscribers that view and react to their ads.Co

Experience Creators can maximize their ad revenue by increasing their subscription rates and delivered ad impressions. For this reason, Experience Creators are incentivised to only include quality Ad Spaces into their feeds to avoid alienating subscribers.

Ad Space Operators, in turn, must only accept quality and well-targeted ads into their spaces to retain their placement in popular Experiences. Advertisers must only submit quality advertisements to Ad Space Operators so that their ads are accepted, seen by Experience subscribers, and acted upon.



Ads spaces within Myriad's value chain.

This Incentive Triangle between Experiences, Ad Spaces and Advertisers is able to organically stabilize the quality of both advertisements and User experience on the platform without the interference or organization of a central arbiter.

Building Myriad's ecosystem: Chat and Metaverse

Myriad Chat

Current leading social media platforms all provide direct messaging systems, which are centralized and linked to their applications. While they provide some encryption features, popular chatting apps are also centralized, closed source, and can only leave users guessing about their actual levels of privacy and security.

As a social platform rather than a social network, Myriad also intends to bring its philosophy of decentralization and modularity to its direct communication system: Myriad Chat.

Myriad chat includes granular privacy settings that can be applied to both groups and individuals, private encrypted chats, and ports the possibility to send tips and mint NFTs from its main interface.

Myriad Chat will start as a feature integrated to the Myriad ecosystem, and will later be forked into a standalone app with opt-in linking to Myriad.Social and other components of the Myriad ecosystem.

Myriad Metasocial Metaverse

'Metaverse' is the accepted term for a virtual and customizable massively multi-user online world. While metaverses aren't new (Second Life is one of the earliest examples), the rise of web3 is opening new possibilities when it comes to virtual asset ownership. Lots, props, cosmetics and additional features are now mintable as NFTs, traceable and tradeable on the blockchain, enabling better persistence and portability.

The launch of Myriad will be accompanied by the release of its corresponding metaverse, where Myriad users will be able to conserve their Myriad persona. This metaverse is built with 2dver.se , and offers a multi-chain federated back-end, on the top of which server owners will be able to add mods, frontend and gameplay elements.

Ecosystem Interactions

As Myriad defines itself as a social *platform*, we are designing it so individual components of its ecosystem can connect with each other in a way that allows users to optionally conserve their wallets, personas and NFT inventories across those components. Features such as tipping and minting, which are cornerstones of the platform, remain consistent across components.

Myriad will eventually evolve into a platform where users can, for instance, acquire metaverse land through their Myriad.Social timeline, chat about it *in-universe* on Myriad Metaverse, and continue that chat privately on Myriad Chat.

Metasocial Metaverse

Myriad.City stands at the crossroads of real life and digital interactions. It is permissionless, everything a user does on Myriad.Social is possible on Myriad.City. Everything in Myriad.City can be turned into an NFT. Think of tipping, minting, showing NFTs, even buying a plot of land by staking $MYRIA.

Developed in partnership with Realitychain, Myriad.City is built with portability in mind and will soon be available as a web app, running on any laptop, tablet, or smartphone.

Identity & Time Ownership

Users can log into Myriad.City with their public key and retrieve their Myriad identity. They can claim their social media timeline by posting public keys on social media, no API call and no SSO required.

A World of NFTs

From launching a business, turning a hobby into something more, to sharing a creative project with the world, Myriad.City is the way Users tell their stories online.

Revenue Stream Ownership

Tipping on Myriad.City makes it easy to get revenue from Users content, safely backed by the blockchain. NFTs showcases and land sales are of course available, but further than that, Myriad.City will propose ad space and land traffic analytics to help content creators and businesses optimize their revenue generation.

The Future of Myriad

As outlined here, these systems represent our first formulation of a solution to contemporary social media challenges, but they are not the last word. We are merely taking the first steps to outline the philosophical vision of this project and create its first implementation.

We believe that it's only through a truly decentralized and open source development effort that we can all build a better social media platform together — one that will fully revolutionize the way digital citizens realize their right to free expression and association in the new digital world.

We invite those who recognize the flaws in the current social media paradigm to share our vision of these robust technological solutions. If you also recognize the catastrophic potential for harm by continuing to allow such influential power to rest with centralized actors, we urge you to come forward and contribute your intelligence and expertise to this cause.

We currently have a historic opportunity to transform and secure the way people connect, pay, organize, and express themselves online. Join us on this journey of experiment and discovery as we demonstrate the creation of a social internet beyond the reach of undue influence. The world is ready for us!