PANJEA:A CONTENT IMAGINARIUM
A MEDIA PLATFORM OWNED BY EVERYONE

THE PANJEA WHITEPAPER

Panjea

PANJEA: THE MEDIA PLATFORM OWNED BY EVERYONE.

A place you can be yourself. The Panjea ecosystem was conceived to place creativity, innovation and human ingenuity at the heart of technology. Mirroring the structure of the human mind.

Conceptually, Panjea has been designed to be a map of the human imagination. Neurons are the individual pieces of content. Connections between neurons are nerves. Each nerve can carry individual signals. Different stimuli. And the more each pathway is used – the more it can be strengthened.

This boldly proposed new digital frontier is beyond social media.

Our content first approach deserves a new name. It's an imaginarium.

Users upload content into a nodal framework with curated links between each piece of content. Links denote connections between content – derivative works pay homage to their inspiration, information is evolved and focused, and relevancy strengthened.

Operating on a subscription and pay to post (or update) model, Panjea uses a closed financial ecosystem with a fixed coin cap that returns 90% of revenues to the creators whilst using the remaining funds for system administration. The greater the number of views and links on the content, the greater the share of revenues that will be paid to that user.

Panjea seeks to be the easel on which the world can paint its masterpiece. A canvas on which creativity is unlimited. And one that's free from the controlling paradigm that art, poetry, film and music should be allowed to finally evolve.

A song for the voices of freedom.
A picture for the heart of hope.
A poem for the cries of our souls.
And a film of what our future could be.

Panjea.
Just Be Yourself

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WELCOME TO PANJEA:

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HISTORY

Our CEO and founder Kieron Bain was an internet evangelist in the early days of the web. Mainly spending time on Usenet, IRC and emailing people all over the world, he quickly realised the power of this medium. And as someone who had always felt isolated through a turbulent childhood – the web was a place of human understanding, connection and shared experience.

When Kieron first encountered social media, the platforms were called portal sites. Friends Reunited ruled the roost. And our founder thought he'd found a home. Carving out a niche in a site called Dontstayin.com he gained prominence as a thought leader and firebrand. Yet after throwing so much of his soul at the site – it was still too young an industry to support creative and critical talent.

After too many challenges, he left the site with little more than the creative, artistic and visionary skills that have been a key driver in getting Panjea to this critical stage where we are so close to making our first statement.

This experience stayed with Kieron. He felt that social media was powered by the creators. The people who put up the content were the most important part of any network. He became obsessed with creating a social media platform that put the users first. And most importantly rewarded them for their work – so unlike him, they could make a career out of having the personal strength to put it all out their online.

Over the years he always played with the puzzle of how to monetise social media and worked on it for much of his spare time. Avoiding social media himself he watched as platforms like StumbleUpon, Digg and Flickr rose and faded into the background. Sitting and observing what worked gave him the privileged position of watching others make the mistakes so Panjea could truly do something differently.

In 2017, during the first boom – he woke up to the power of smart contracts and decentralised finance. When he began imagining how this functionality could integrate into his existing ideas for a social media network, he finally realised he'd cracked the mystery. And the first iteration of Panjea was born on paper.

And there it languished until 2021 after Kieron met Luke Jobling, an accomplished CTO with experience in taking large gaming products to market. It felt like serendipity when Luke introduced Lee Kerr to the project, bringing with him nearly a decade of cryptocurrency and blockchain knowledge. Kieron's business partner, Simon Roddis finished off the team; a designer with UX and brand experience who bought colour, useability and style to the venture.

The machine was in motion. In mid 2021 the first developer was hired, and the company began its rapid trajectory towards MVP stage. Now featuring extensive tech, marketing and leadership teams – Panjea is set to fulfil on its objectives and promises to offer a brave new proposition to all the creators out there on the web…

Alongside a place they can call home.

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WHY PANJEA?

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WHY IS PANJEA THE RIGHT PATH

Beyond the core financial proposition to creators, Panjea seeks to offer alternatives to some of the most problematic aspects of social media. The genie is already out of the bottle and this new technology has already caused massive disruption to people's lives.

As platforms like TikTok, Facebook and Twitter only seek to strengthen their hold on the creative space – are they able to offer enough space for a new model. Social media seems beset on promoting the social aspect of technology, powering individual data collection and treating human beings as neo-herds that can be farmed for profits.

Like all intensive farming, these resources are often collected at the expense of the health of both the collective and its individual members. By simply constructing a new type of media platform – which focuses on the creativity over the creator – and an alternative financial model – which pays the creators over the network – we can take the early mistakes of the industry and offer an alternative that puts this wonderful technology back in the hands of the people...

And gives them the chance to come up with the ideas, art and culture that could evolve the world for future generations.

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WHAT DOES IT SOLVE?

Panjea seeks to resolve a number of core challenges that are currently restricting the potential of digital media to operate in a healthy sane and socially responsible manner. The imaginarium has been created to offer a true alternative to the competitive and often dysfunctional enclaves of the web:

- **Sustainability** – creators can build revenues streams on Panjea for their art. No more shilling products or acting as living endorsements. Content jacking is also restricted, and original authorship problems are resolved. Creators have a home on Panjea and are not exploited.

- **Human-centric** – instead of advertising-centric. As Panjea is not focused on retaining eyes-on-media it does not have to rely on algorithms centred on gaining engagement regardless of the cost. Content can be displayed to create nuanced, balanced vistas composed of complex information.

- **Decentralised** – a free press should be available to every country. When media falls into private hands it is near impossible for it not to be subject to biases imposed by the politics and policies of the owners. With Panjea's decentralised system – the people truly, and perhaps for the first time in history – own the media.

- **Holding leaders to account** – media should be used to hold our leaders to account and focus a spotlight on inequities, injustice and self-interest. Panjea gives independent journalism and social critique a home where the weak can be represented by the brave and those who would seek to censor dissenting voices can be challenged.

- **Creativity first culture** – rather than stardom and hero worship. As Panjea places the art before the artist, a true culture of value is placed on works, challenging the social models where status within walled garden societies is used to value new ideas. Instead allowing innovation and imagination to take centre stage.

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COST OF A FREE INTERNET

For nearly three decades the internet has been a free model. Large corporations have been allowed to benefit, manipulate and strangle technologies that were originally built to add to everyone's lives. Essential services have been offered as bait to get users onto all the largest platforms – and now they are harvesting data from users to monitor habits and serve them up specific advertising.

Algorithms are creating echo chambers. People are used to 24/7 feeds of inane, meaningless content that have been optimised to keep jolting dopamine centres. And we are changing as a society. This is the true cost of a free internet. Increasingly users are asking if the price is worth paying as governments and corporations can spy on activities and communities – ultimately creating a restrictive society.

All too often the cry against this that non-compliance with these authorities that govern the web is tantamount to an admission of guilt. Who however is regulating the regulators? How do we know that our online behaviours will not form the basis of a new artificially intelligent police state – and will this be the cost of a free internet?

It is not too late to stop this runaway corporate culture. We can end our addictions on the same old platforms and start to embrace something new, something that pays its way in the world, but doesn't cost us our souls, and ultimately belongs to all of us.

This is Panjea.

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SOCIAL MANIPULATION AND COMMERCIAL AGENDAS

Social media and content networks are already marketplaces of ideas. Attention, interest and engagement are the commodities that are purchased using different types of content. However, because such platforms lack an explicit financial model this means that the interest gained by the creator has to be transformed into real world value elsewhere, rather than any worth being assigned to the content.

Consider the following scenarios:

- Musicians who are only on platforms listing their music to raise awareness to engage fan bases that will come to local tours, where the band will make money.
- Influencers and thought leaders who have to use their personal style and character to shill different products, brands and even movements, which could potentially compromise their beliefs and values and limit their impact.
- News networks and journalists who may be forced to form affiliations with lobbying bodies, corporations or even political parties and therefore have to create critique (think 'fake news') that pushes an agenda, failing to provide the unbiased information necessary for a well-functioning democracy.

In such instances the platform benefits from the input and content, and the user benefits from the broadcast. However, the bulk of all revenues are unfairly distributed in favour of the network, as they control and limit access to the platform and advertising. Because the value of content is given premium place over the broadcast medium, the value of the content is reasserted.
Why is this so important?

Because this means that all content on the internet has gradually migrated towards some kind of endorsement. Big tech has utilised a strategy of monetisation through content on the internet – and this has now become the dominant paradigm of the world wide web.

Panjea believes that content needs to have inherent value. It is time for the value to be in the words – not in the offsite commercial activity that it creates.

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BOTNETS AND
FAKE ACCOUNTS

Additionally, we currently see the most cynical harvesting of this attention to create off site value through the notorious issue of botnets created by malign third parties. Through the manipulation of public opinions and the flooding of channels with poor quality information (low value content, NSFW posts, argumentative (troll) posts etc.) these networks can be used to harvest support or endorsement for opinions, views and even products.

Botnets are used to give a completely false impression of the internet, trends, feedback and can be used to manipulate opinions. Many prominent figures in today's media have pointed out the explicit problems with these fake accounts.

Additionally with follower based (clout) accounts – often fake accounts can be used to pump up the value or social validation that site behind an account, creating an untruthful picture of interest. Increasingly there has been a rise in the number of prominent news stories where such practices have even caused financial damage to investment companies.

Through in built KYC (proof of life) functionality we can verify that every single user on the Panjea blockchain is actually a person. This proof of life (POL) function maintains the veracity of the network and prevents widescale manipulation.

Couple this function with Panjea's pay to post function and we have a different proposition for the user. Interaction must come from verified sources and additionally it has to be backed by the intention of adding something to the network in the form of personal investment.

Whilst these measures may not completely remove all bots and fake accounts – the measures should in someway manage to reduce it so that the practice is prevented from becoming a threat or danger to the platform.

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CURATION

All current social media and content platforms (such as TikTok and Facebook) are governed by 'the feed', which prioritises content viewing on an arbitrary algorithmic basis that is designed to further the commercial aims of the platform.

Such algorithms are often called into question in popular media for igniting negative emotions in order to increase engagement in their respective platforms. At best they are accused of prioritising paid for or mainstream content at the expense of organic content. The result of these practices is often that social media fails to offer any reasonable critique or appears to be an echo chamber of previous held opinions or deliberately provocative viewpoints designed to incense and trigger viewers.

Panjea seeks to solve the curation issue. Rather than relying on algorithmic and inbuilt systemic biases within the code of the network – Panjea will be entirely curated by its userbase.

Users will be incentivised to generate the links and architecture of the Panjea platform.

If content is linked, it is because users believe it is relevant. It could be the inspiration behind a musical track. A derivative work from someone's intellectual property. Or even the fact check source behind a news media article.

People can judge what is useful. What is relevant. What needs to be said and the dissenting points of view. In a network where we no longer need to keep 'eyes on the page' we can open the function of curation to the users. We believe that emotion and what's best in us should guide the journeys and links created on Panjea.

Instead of simply harnessing the tribal, primitive forces that we have spent countless generations trying to tame.

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GIVING THE POWER BACK

Panjea will give people back their playground. Their theatre of the possible where they can play with the impossible. The fun, the moment and the glory. By prizing individual creativity and ideas above all else – existing hegemonies of status, wealth and media endorsement will have no place on Panjea.

But most of all users are free to make up their own rules. To generate their own systems, societies and cultures. And to connect and curate in the way that makes sense to them.

There are no authorities other than the democratised voices of the network.

And in this sense people only need to put what feels right to them on the network.

Their joy. Their pain. Their ideas, solutions, frustrations, or moments that matter.

That can be exhibited with truth. Not hidden behind a staged image of themselves.

Instead of having to use your personal media to extract value from your life.

Imagine getting paid for just being yourself.

Isn't that ultimately giving the power not just back to the people, but back to the person?

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UTILITY

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FINANCIAL REWARDS

Panjea is a technology company, so to make the network function it needs a partner entity to manage a token that can be the currency of the rewards. This related entity will issue and market tokens that back up Panjea at an ecosystem level.

Funding of Panjea Technologies by Panjea Coin Solutions:

- **15m of salary funding** - paid linearly over 3 years
- **5m to ecosystem fund / growth / IPFS fees** - network costs
- **5m funding for strategic partners** - released over 2 years
- **5m funding for marketing partners** - released over 2 years
- **5m to reserve held in reserve by Coin Solutions entity**
- **10%** of daily reward pool goes to ecosystem fund
- **90%** of daily reward pool split between viewed content

Panjea is powered by Distributed Ledger Technology provided by Panjea Technologies DMCC registered in Dubai, tokens are sold and marketed by Panjea Token Services registered in the British Virgin Islands.

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EARNING WITH PANJEA

PANJEA.IO

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EARNING WITH PANJEA

DAILY REWARD POOL

The key to rewarding Panjea users and giving the power back to content creators is the daily reward pool. The Coin Issuing entity will remit a daily sum of coins to Panjea Technologies which then retains 10% to administer the network and pays on 90% to the creators.

Rapid user expansion is prioritised both at the launch and during early stages of growth, which will then taper down as the network becomes increasingly populated and liquidity has been strengthened. It has been contracted between the entities that emissions will be tapered in the following steps: 16M in Year One, 12M Year Two, 8M Year Three and 4m Year four. After the first four years from genesis have passed the emissions will remain at 4m a year as long as the ecosystem is in expansion.

Further agreed with the token issuing entity, contractually is that when the total supply is under 100m the ecosystem is in expansion, when the total supply is maximised - the ecosystem is in contraction.

This means the daily reward pool will be limited until the burns bring the total supply down to a level where full daily rewards can be emitted at the maximum. Contraction is impossible within the first four expansion years due to The contractual agreement with the token issuing entity.

Contraction is an improbable event following the initial expansion phase, as subscriptions and posting both burn PANJ - removing it from the total supply, and allowing for the partner entity to create more expansion from the daily reward pool. As per the contract.

CREATOR REWARDS

At the heart of our views to remove likes, votes, endorsements and their associated unwanted to social impact is our key 'content first' proposition that views are the most important metric.

If a creator's content is viewed - then they get paid. From the daily amount of coins remitted from the coin issuing entity to Panjea Technologies.

Each view will increase the share of PANJ reward pool reward allocated to the respective content. The greater the number of views received by a piece of content, the greater the allocation of reward emissions.

CURATOR REWARDS

Not all users will be creatives – or will want to publish their own content on the Panjea network. We recognise the importance of curators and critics on our network.

The links between content and groups of content have always been a fundamental building block of the internet since the first hyperlink.

One of the main strengths of Panjea is the quality of the contents link's as these will be one of the primary factors that increases the prominence of related content within user feeds.

Users can increase the prominence of any piece of content on the Panjea network - even if it is not their own. Users have the power to curate and organise the network via linking tools and will be rewarded for their efforts.

Through human curation an organic user flow focused on relevance and interest is created between content which in turn increases views and the curator taking a share of the daily reward pool.

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MARKETPLACE

Whilst every piece of content on our network can earn - some creators may wish to step down or take a break.

Building communities is a creative skill in itself – and sometimes users may wish to leave our network to support alternative digital communities. Panjea's marketplace will enable people to bid for and sell pieces of content and get paid. Going forward, we plan to expand this facility to include game items, digital products and eventually broach other theatres of commerce.

SEED TYPES

At launch Panjea will be able to support a variety of different media types and functions that appear on the platform as seeds (cells) – allowing users to post and interact with the network. Whilst this list does contain the necessary architecture for the standard running of the Pangea platform it is not exhaustive:

- **Text** - pure text post (would be for book chapters or similar)
- **Text and graphic** - similar to a medium article where you can add simple layout structures and add text and images.
- **Music** - add single songs
- **Album** - add a selection of songs
- **Video** - video page eg YouTube
- **Playlist** - links to existing music seeds
- **Curated list** - links to existing content seeds
- **Game** - this would load whitelisted games to load inside a div.
- **Chat room** - standard multi-person chat room and user list.

All content will have a thumbnail graphic, title, author pic, author name (links to authors seeds), summary text, view count, PANJ earned.

LINK TYPES

As the scope for the Panjea project develops, we are investigating the possibilities presented by detailed link taxonomies. As the network allows us to create a nodal structure that links content, we can enhance the connections to also perform different functions.

For instance, journalistic articles could link to their source material, allowing users to understand the story behind the story – or even fact check articles and information. Users would also be able to claim rewards for the extended curation functions within the network.

By introducing link types in the network, we would be able to offer an alternative to the curated web 2.0 social media platforms where the algorithmic display functions are instead handed over to the guardians and users of the network.

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ARCHI-
TECTURE
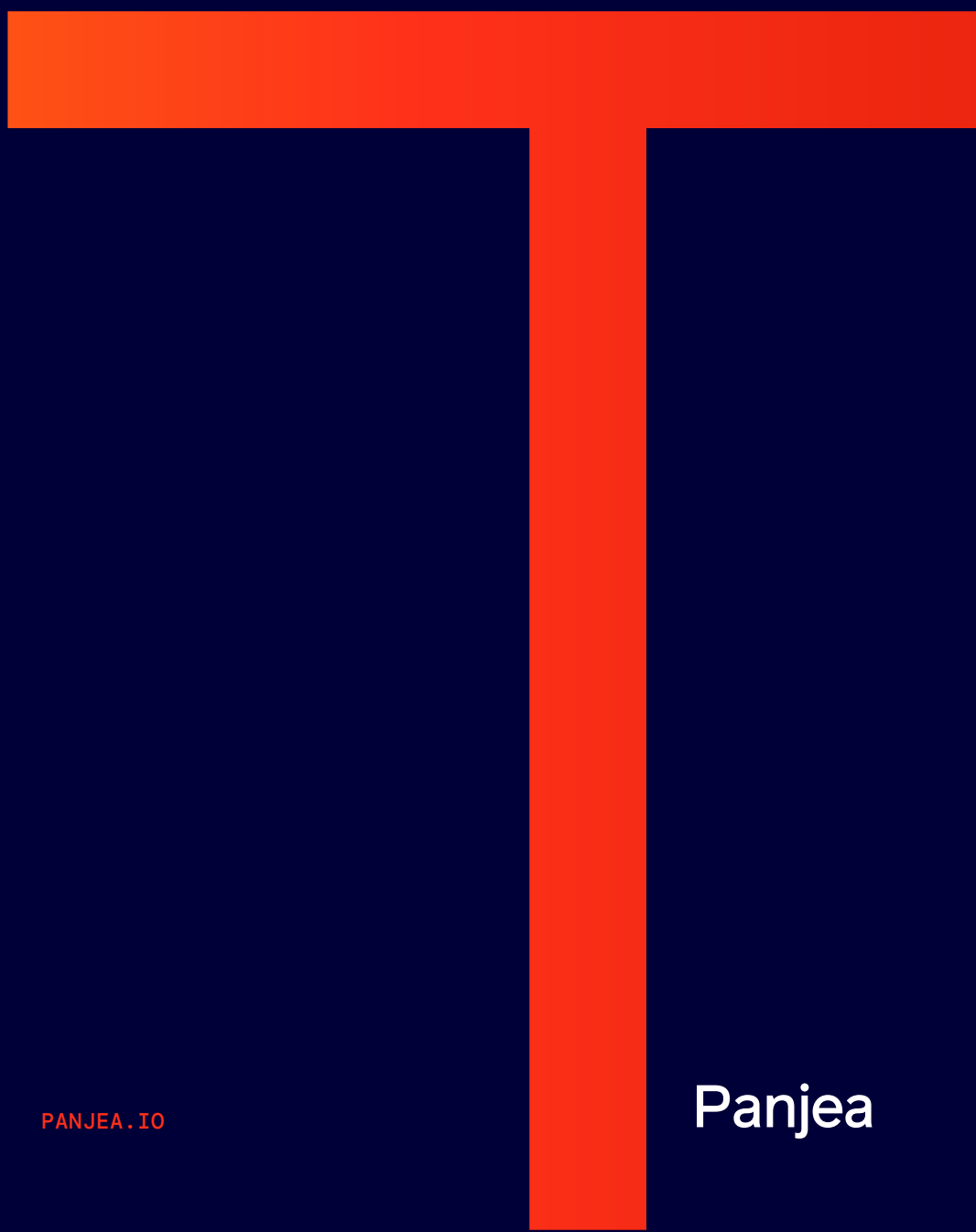
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ARCHITECTURE

ACTIVE COMPONENTS (CHAIN, NODE, ORACLE ETC)

The Panjea network will allow users to build an evolving model of human thought via linked seeds.

At the heart of the network concept is the Seed – which can be any distinct, ontologically discernible entity. Links between seeds are defined as any type of seed to seed transition. Theoretically there are additional types which can be further implemented to deliver functionality within the network structure.

The network is left free to evolve under the direction of users, with the potential for practically unlimited novel link types and seed morphologies. Navigation of the network is performed by traversing the network from seed to seed. Searching will have less relevance, since there is no user profiling, the browsing experience of the network is determined by choices of users, as opposed to gathered data or designer preference.

Users pay subscription fees to browse the network, content providers get rewards based on attention from users.

THE SYSTEM HAS FIVE MAIN COMPONENTS:

CHAIN

The core system is a blockchain built on the Aleph Zero framework. This is where subscription fees are processed from users and rewards are distributed to content creators.

Subscriptions are debit transactions taken from the users' wallets, performed at a frequency determined by the user, so that a user retains access to the network. Seeds are of two types:

- **Gateway seeds** which are locked to general user editing.
- **Regular seeds** which are the content nodes (neurons)

Gateway seeds do not hold content but only serve to structure the network logically. The network will have factory settings for gateway seeds, but these will die if unused and new gateways can be added by user suggestion and voting.

The viewing of non-gateway seeds is only available to subscribers. Additionally, it may be possible, and even desirable for browser platforms to be constructed that ignore gateway seeds.

Gateway seeds can be viewed without a subscription to allow unsubscribed browsers to get a feel for the shape of the network. Seed names and summaries are browsable without a subscription.

It is assumed that the prominence of gateway seeds will decline as the network becomes mature, nevertheless the UI will also offer the chance to browse without gateways from day one.

Other transactions that are performed on the chain are:

- **publishing seeds**
- **adding links between seeds**
- **recording community vote results.**

Publishing to the network incurs fees for the content creator, with basic seed fees including a defined file storage amount which cannot be exceeded at launch. Every day, every user that browses has a unique session for the day, this session is stored on the chain.

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LOCAL NODE

The persistent off-chain storage contains references to seed resource locations which it retrieves asynchronously at regular intervals via an OCW from an oracle data source. This allows the content selection algorithm to run in a decentralised environment. It is essentially handling the non-financial decentralised network elements.

The role of the algorithm is in making suggestions in answer to the question- "where to browse next?".

ORACLE

A traditional cloud hosted environment that handles the rapid individual transactions. These are batched by a smart contract to prepare on-chain transactions.

The oracle has tools allowing users to prove fairness. The views on the oracle are tied to user sessions stored on the chain.

MEDIA STORAGE

Finally, the system also needs a large amount of storage of media. This is handled currently via IPFS, but the architecture allows for a different solution, or a combination of solutions. Initially, Panjea seeds will consist of text, images, sound, short video and apps. Developers can submit apps which will run within the ecosystem.

All files related to the app must be hosted on Panjea hardware in a strictly change-managed environment:

• Front end files are submitted to suitable storage which will be backed by CDN.
• Front end files will not be allowed to use external resources.
• Instead, they must call a backend state transition engine which will run as a microservice.
• Multiple states per user per game will be allowed with a cost levied on the developer for storage.

UI

The UI acts like a regular browser for Panjea content. Anyone can build a browser for Panjea, with a standardised browser available as a default. The UI must support content creation as well.

To some degree, content will be ported to the network and the UI needs to be flexible enough to support content partners' uploading oeuvre.

The UI must also support the following ancillary functions:

1. An ephemeral chat client tied to a specific seed, which is hosted by the creator
2. A persistent private chat client
3. The option to create chat messages that include broadcast browser code snippets
4. In order to support the organisational goals, the technology needs to
5. Allow users to navigate nodal seed structure in a useable and useful manner
6. Present a representational sample of viewpoints with balance and nuance
7. Support a healthy useable network structure to support learning and engagement
8. Reward all contributions proportionately – fulfilling on our core proposition
9. Place reasonable blockers in the way to prevent browsing the content without a subscription
10. Track how often each seed is browsed to and subsequently issue appropriate rewards
11. Safeguard vulnerable users and remove restricted and forbidden content

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WE ACHIEVE THESE GOALS BROADLY IN THE FOLLOWING WAYS:

BASICS

The Panjea network is fundamentally an arrangement of encrypted JSON blobs (seeds), with associated media files and links between them. A reference to every published seed is stored on the chain.

A seed is typically equivalent to a pane in a website. Not on a par with a whole web site. As an example: you have three to nine contextually linked seeds on the screen in a normal visualisation.

Further seeds would be equivalent to chapters, or in the case of albums, single media.

Equivalently games would likely be small stand-alone concepts, not competing with consoles. Each seed would be a mini game with the developers' time spent across several small titles as opposed to large releases that sink a lot of user time.

The user can establish the existence of a published seed via its presence on the chain, can then find its storage location with an RPC call before accessing the decryption key from the oracle.

VIEW POINTS

From Panjea's perspective, our algorithm's main task is to decide which seeds are suggested as the next browsing options from the current seed. To promote our content first approach, the algorithm is completely agnostic to who is making the request. It simply looks to present a rounded view of content associated with the current content, be that in agreement or not.

Every seed is allowed to link to another seed (precisely one) at no charge; this is optional in case the creator wishes to make a private sub-network. Subsequent links can be added by anyone at an exponentially increasing cost (the greater the number of links to any node, the higher the cost to link to the node), the exponential

price component is to be responsive to network link density, to provide market forces to balance the links. The metric that measures attention is 'views'.

A view is recorded when the front end makes a request from a user with a current subscription to retrieve the decryption key for a given seed. The content creator typically takes most of the attention reward, with a portion allocated to the link creator. It may be that the seed relies on earlier seeds in which case these are also rewarded. Also potentially rewarded is the content curator, if present. All these rules could be fulfilled by the content creator themselves.

The oracle constantly re-encrypts seeds and moves seeds and media files around. The OCW must ping the oracle data source to be updated on the correct locations of content. Hence links sent outside Panjea will expire, creating barriers that prevent views from occurring from outside the network. The UI is only sent an encrypted string, not pre-rendered content. Limits on request frequency make scraping laborious and fraught with error.

An initial view is formally recorded when a browser requests the decryption key for a seed. A smart contract retrieves the views from the oracle data source and distributes rewards accordingly. Several checks are in place to allow users to validate the output of the oracle. If content is NSFW (age restricted to 18 plus) then the onus of flagging it appropriately is on the creator. Uploading forbidden content will result in the banning of creators with disqualified funds from future legitimate seeds or links being placed into content moderation lotteries.

There is a financial penalty on the content creator for not appropriately labelling their content - and a reward (from daily emissions) for the community policing of the network. A user self-declaring as under 18 is subject to a more cautious content policy, until the content is out of a probationary period. Illegal content is community driven with an opt-in only browsing option to view content currently (but not finally) rated as illegal.
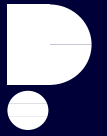
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HOW DOES THE PANJEA ECOSYSTEM WORK?

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HOW DOES THE PANJEA ECOSYSTEM WORK?

HOW TO PARTICIPATE

As well as creators we have the following types of participation in the network, (note that there is no special registration for any group, we just view users in terms of differing engagement types depending on context):

SUBSCRIBERS

In the role of browsing creators' content.

NETWORK BUILDERS

Any user can pay to link any two seeds they feel would make a relevant browsing journey: they are rewarded if this link is used.

One optional link is provided for free with every seed, which the seed creator may assign to ensure that the seed is correctly connected to the network – within their own vision. Future links to the same seed increase in price on an exponential basis so that to increase the link valency of a given connection each increment is double the cost of the last one. This means that destructive linking becomes rapidly unaffordable.

VOTERS

This group mainly exists to police inappropriate content. More detail later in this document on how we balance free speech and user protection.

CURATORS

This engagement type offers structured browsing experiences to help consumers discover the network.

TRANSACTION VOLUME

In order to limit the volume of data subject to consensus, the individual views forming the basis of the rewards structure are recorded on an oracle data service during the UTC day (reward period). At the end of the reward period, the chain will retrieve the summary of views in order to process the rewards (emissions), via a "claim rewards" smart contract.

The summary views for a given seed will be stored on-chain, grouped so as to represent fractional distributions of fees required to keep the network healthy. Network health distributions are due for contributions from network builders, citations to inspirational content and curators.

Assume we have a global reward distribution of x in a given reward period, with a total of y views across all seeds, of which z are due to a specific seed. The calculation of the reward is then as follows:

Calculate the base reward due
$$x \left(z/y \right) = A$$

Now – the deduction (where appropriate) for the share for citing inspirational content is made.

Inspirational content is charged at 20% if self-declared and 40% if the community polices it.

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This means that: if a creator does not declare at the time of publishing that they are remixing a prior song (for example) or using a meme template from a famous film (as another example), and subsequently 75% (the community threshold) votes that the creator did in fact do so, then the share due from the remixing or templating creator's seed revenue is higher. The extra 20% goes into a voting reward lottery.

N.B. In the case of games and apps they are not subject to the inspirational content charge since the code used to run games will never be made visible to any party other than the author. Instead, 20% of app and game revenue goes towards the cost of the remote gaming server which runs the apps.

Games must therefore be completely distinct, not a derivative of any game on the platform (for instance a clone of a game with additional features or levels) or created from IP that is currently well established to be within the public domain.

So let us assume that the seed is inspired by an existing seed and that the creator self-declared, then we have:

0.2A due to the prior seed creator, leaving 0.8A

Now consider that the consumer will typically, but not always, have followed a link from another seed to arrive here – and that the consumer may have done so in following a curator.

More than one network builder may have linked the seed we browsed from and the seed we browse to in order to increase prominence (and therefore rewards) and subsequently receive a portion of the reward pool for this seed.

Let's assume we have two relevant links (a link valency of two) and a curator, then the network builders* each receive:

$$0.8A * (20\%/2)$$

Since 20% is due in total for all links, meaning they receive:

$$0.08A$$
Leaving 0.64A

The curator then takes 20% leaving:

$$0.64A * 80\% = 0.512A$$

As the minimum possible share due to the creator if they self-declare citations.

Note that in many cases the network builder will be the creator themselves, and possibly also the curator.

When apportioning awards - we group the views by the connective link used to navigate to the seed (if any) and curator (if any).

These apportioned rewards are then remitted and stored as transactions on-chain (along with the session associated with each consumer in each reward period and their subscription data).

On-chain transactions are also performed when seeds are published, when links are built and when public votes conclude.

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Regarding the consensus load, we are making the following initial assumptions around user interaction and network traffic:

1. The average link valency is 3
2. A consumer might typically make time for one scheduled event per week of an hour, versus a total browse of an hour per day, a very rough estimate would be that 1/7 of browsing is curated
3. That citation bearing seeds represent ⅓ of content
4. That 25% of consumers also create content
5. All content is viewed each day
6. That each creator produces a new seed at a rate of two per week
7. Subscriptions are renewed on average every 30 days
8. 90% of citations and age restrictions are self-reported (therefore do not require community enforcement)
9. 90% of links are not subject to community action
10. Community votes are so rarely overturned as to be negligible
11. 0.1% of content is illegal

From these initial assumptions we can draw the following conclusion around the number of transactions to the blockchain:

If y is the number of sign-ups, the formula for transactions subject to consensus per day would be:

y(3 links)(1+⅓ chance of being cited) (1+1/7 chance of being curated) +

y(1 login + 1/30 subscription renewal) +

y(¼ creators)(2/7 seeds created) (1+3 links added per seed) +

y(¼ creators)(2/7 seeds created) (1/10 + 1/10 +1/10 +1/1000)

Approximately six transactions per user per day

PROVABLY FAIR

The accuracy of the views recorded on the oracle can be verified thus:

Hypothesis:

We need to prove that the views the oracle reports reflect what actually happened in each case, that is to say they are provably fair.

Approach:

Here are the possible inaccurate view representation cases to consider (that would make the proof exhaustive):

1. Invent some fake users
2. Add some views for genuine users
3. Remove some views for genuine users
4. Create browsing bots to distort figures

Case Analysis:

Here are the possible inaccurate view representation cases to consider (that would make the proof exhaustive):

1. Fake users - all users are recorded on the chain as having current subscriptions. To perform this cheat, we need to pay for some sock puppets subscriptions. Not a very cost-effective cheat, but also - anyone can do this.

    Anyone can check the users that the oracle reports against valid subscriptions on the chain.

2. Adding fake views to genuine user content would be an efficient cheat, so we have provided a way for users to check if we do this.

    Each day every user has a unique session, on which any views on that day are recorded. Thus, there are two possible sub-cases here:

    a) adding fake sessions for dormant users
    b) adding extra views for active users

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Additionally, the following constraints need to be considered in both cases:

a) The oracle can't create sessions as it never sees the user's passphrase, only a hash of it.
b) Every successful view request generates a hash which is made as follows:

hash (previous hash in session if there is one + session Id + seed Id + previous seed Id if there is one).

To ensure our network is provably fair the following enquiries could be run:

A request could be made to view the current hash and timestamp. The results would be subsequently compared to the published view data. If there are views before this timestamp that don't fit the hash trail, then the oracle is not provably fair.

To avoid false positives, we have a checksum as well as the current hash. The checksum is a hash with a secret algorithm.

The hash of the secret checksum algorithm source code is stored in public so we can reveal it if needed. If it must be revealed to resolve a dispute, it must be changed from then onward – and the new variant will be additionally published by Panjea.

3. Here is how to check if the oracle removed views; random views are periodically accessed with the checksum, before being confirmed against the published oracle data.

4. The other case where anybody could game the network, is with viewbots that target specific content to register more views. In order to make this process inefficient and uneconomical, any piece of content can only be viewed once per day by a given user, and any user can only register a new view every three seconds. Creators do not get credit for viewing their own content. To ensure that the oracle is fair and to prohibit such practices, timestamps are recorded with every view and are auditable by anyone.

LOTTERY VOTING RULES

For cases where the community overrule the content or link creator with regards to citations, age-restrictions or link relevance, the rules of the lotteries conducted to apportion the associated reward are as follows:

One user at random who voted within the winning majority will receive the reward.

The randomness is weighted by all-time voting participation (your chances of winning a lottery increase with repeated participation), and only one vote per user per seed is allowed.

The following check is performed on indiscriminate voting:

When a user is drawn to win the lottery, they are only paid if they pass the community threshold level based on the previous success of their all-time voting history, else a new winner is drawn.

If after three attempts no winner is valid then the rewards are given to a growth fund for new creators. The lottery will be decided after a month in the case of citations and links, two weeks in the case of age restricted content and one week in the case of illegal material. If at any time during these periods, the current vote breaches a 50% threshold then the content will temporarily be treated as if the vote had passed for browsing safety.

Following the award of the lottery funds, voting will continue but will be ineligible for rewards.

If at some subsequent time, the community threshold is reached in reverse, i.e., the vote share has gone from over 75% to under 25%, then the lottery results are annulled. In this case, prior winning votes are converted to losing votes for the purposes of future lottery eligibility.

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RESULTS ALGORITHM

The seed selection algorithm will work as follows:

Given the current seed (which may be the home seed or a gateway) the algorithm selects a list of seeds related to the current seed, yet simultaneously presents a broad range of views. This is achieved using the decision loop:

- Retrieve every seed which links to the current seed
- Retrieve every seed linking to the seeds we just retrieved, and thereby create a second list
- Remove duplicates, taking them from the second list

Give every seed in the first list a score composed of the two elements we want to optimise for:

Relevance score

Add link valency to the score = A
Broad range of opinions score

Sum the link valencies of cross references to other seeds in the first list, then divide this number by the count of seeds in the first list = B

The score is A - B

Then calculate the score for every seed in the second list:

Relevance score

Sum all link valencies to seeds in the first list, divide by the number of seeds linked to in the first list = A

Broad range of opinions score

Sum the link valencies of cross references to other seeds in the second list, then divide this number by the count of seeds in the second list = B

The score is A - B

Then combine the lists and make weighted random selections based on the score.

The user can also browse by:

i) Trending
ii) New
iii) Popular
iv) Random (shuffle)

GOVERNANCE

At the heart of Panjea's vision is the fact that this should be "The content platform owned by everyone". As such we need a mechanism to allow for the people's voices to be heard on the future of the platform.

As such we have redefined the idea of Governance to allow each Panjea subscriber to have an equal vote If you have an active subscription then you have an equal voice as to the direction of the ecosystem, as one of the core fundamentals of this platform is providing a true, democratised service.

GOVERNANCE VOTES

Restricted content

Age restricted and totally banned content is governed primarily by the community.

In that one member, one vote decides the ratings of any seed.

However, browsers may use this information as they wish. The only interference from the network is that once content has been blacklisted (determined by a set level of user votes), it is never available. This is to prevent illegal content such as terrorism or child exploitation.

Although the community decides when content is inappropriate, the threshold at which it is never shown is a design decision. **This is expected to be 99% (requiring a set significance* of network participation) of votes cast in favour of omission.**

*To be determined during early test versions. Super-moderation

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Super-moderation

Voting rights can be lent, and therefore aggregated within one user. Such users will benefit from additional weighting within content lotteries – however should such users wield powers in a way that is considered censorial then users will be free to deselect their chosen super-moderator to either retain it themselves or reissue it to another user. Additionally voting rights lent by redundant users will also be removed from super-moderators.

Developer rules

It is envisioned that developers will have a three-strikes-and-out governance system.

Any undesirable behaviour reported to a moderator and verified will earn a warning. Once three warnings are issued then any offending content will be removed, and any remaining content will remain but with 50% of future profits that would have been paid to the developer going to the Panjea foundation to help fund new content instead.

Undesirable behaviours include (this list may be revised at future dates) - hidden charges, charges outside the ecosystem, links to external resources, disallowed content, updates that are not change-managed properly; plus, any generally disallowed content guidance.

Any user can vote on the age restrictions appropriate to any content. Vote options are as follows: regular, over 18 only or illegal.

Content is then filtered from results based on these ratings.

The user may set their required content sensitivity in the browser. The safer the user wants to be, the lower the threshold of votes required for content to be excluded.

E.g. in ultrasafe mode, only 50% of users may be required to mark content as 15 for it to be excluded.
Whereas in ultra-broad-minded mode, 90% of users would need to have voted for content to be banned, for it to be excluded.

Any content that is voted to be banned by 99% of users is always excluded. This is intended only for illegal content, but ultimately it is up to the community.

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ROADMAP

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ROADMAP

PHASE 1

Expand the content range

Variable and larger posting fees will be introduced to allow longer videos.

There will be the option for content to charge an additional subscription fee, which will be implemented in this phase – mirroring sites like Patreon and OnlyFans.

An app approval process will be established to open up the app market to any developer. This will be hybrid AI and humanoid. The AI will review the front end code and refer any high risk cases to a human reviewer. In app purchases will be introduced - but these are forbidden from taking place outside the Panjea ecosystem, nor can we allow app browsing or use outside of the network. Navigation is always via Panjea seeds and transactions are always internal wallet to wallet.

PHASE 2

Support new original content generation within the ecosystem

This is achieved with the rollout of additional editing tools based on user feedback. Additionally, the introduction of project user matching boards which allow content partners to form teams with other users previously unknown to them in the pursuit of generating collaborative (team produced) content.

We will also introduce agents at this stage, the ethos of which is that content generators who want to focus solely on creating may have a Panjea savvy partner who handles the network for them. This will allow uploaders to set the commission value of their share of revenues.

PHASE 3

Marketplace

Revenue sharing becomes possible with any number of symmetrical beneficiaries for a seed's revenue. This allows project teams that collaborate on cells and split the revenue automatically.

Seeds will be commoditised so that their fractional future revenues can be sold and resold in a market, also allowing derivative financial products.

Holders of significant wallet balances can make funds available to early career content generators in order to develop their ideas, with the repayment and or reward shares baked in.

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ROADMAP

PHASE 4

Expanded use cases

We will add out of the box templates for common business models such as house sharing, ride sharing and shops. All of these will be presented as advanced seed types that will function as part of a wider content ecosystem.

Currently we are picturing a considered, linked system, where feedback, review functions, sales, booking and comparison information could all be stored on the Panjea system. As content can be used for advertising and sales and seeds are already set up with a commercial dimension, this seems to be a logical next developmental step.

Further link types will also be added that allow for different curation activities.

Additionally, one of Panjea's key commitments to its community is to understand the needs and desires of the users. Rather than a small majority who are able to lead the discussion or control cultural narratives, individual users can play a part (through voting) on the continued evolution of the platform.

Response to potential cultural shifts in AI (artificial intelligence)

Since the start of the Panjea project there has been a number of truly spectacular advances in artificial intelligence – most notably in the fields of language creation, artwork and even voice and character replication. Whilst this has been incredibly useful and opens up fields of new opportunity it comes also rife with danger and potential problems.

The most notable of these will be the notion of humanity within communication and content.

It will be possible to use more advanced tools, or even combinations of tools to create an experience for viewers that is indistinguishable from reality. Politicians and celebrities' images could be potentially used to exploit people. Calls could come from trusted family members that turn out to be information harvesting hackers. And news and world events could even be faked to generate panic responses.

Panjea's in built KYC (POL) function offers some resolution to this situation. As every single user on the blockchain must be verified we can offer assurances to our userbase that they are communicating with individual that owns the projected image.

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TEAM

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PANJEA'S EXECUTIVE TEAM WERE ASSEMBLED IN EARLY 2020 WITH A VIEW TO FULFILLING THE INITIAL COMMERCIAL AND TECHNICAL AIMS OF THE PROJECT. EACH INDIVIDUAL HAS BEEN SELECTED DUE TO THEIR SPECIFIC EXPERTISE EXPERIENCE AND INDUSTRY KNOWLEDGE:

KIERON BAIN
CEO

With a strong background in creative content, business strategy and brand – Kieron was the driving force behind the initial ideas that have led to Panjea. A veteran of both the digital marketing and social media industries, he brings the specific customer knowledge to the project that has allowed the platform to define a unique proposition in the face of many competing ventures.

LEE KERR
CFO

Long term crypto expert and investment guru, Lee Kerr brings over a decade of knowledge, experience and networks to the project. Part of the original development team, he has been instrumental in selecting partner platforms and financial direction. Thanks to his deep, in-depth knowledge of the crypto communities, Panjea has a financial growth plan that matches the ambitions of the customer promise.

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LUKE JOBLING
CTO

Technical lead and integration specialist working in the finance and real money industries, Luke Jobling is responsible for the technical implementation of the Panjea vision and proposition, heading up the initial technical team. Luke's true value will come in the later stages of the project however, where his ability to scale the Panjea project will allow us to bring it to a global audience.

SIMON RODDIS
CBO

Simon brings his expertise from the branding and design world to bear on the Panjea project. Responsible for the visual look and feel of both the business and the product – he is able to maintain consistency and identity across every aspect of the project. Simon also heads up the UI team ensuring that the product provides the instant exploration experience for every user.

Panjea

FINAL
THOUGHTS

A PERSONAL NOTE FROM
THE FOUNDERS...

Although financial times have been tough since the COVID pandemic and there have been various blows to the crypto industry – we believe that Panjea has what other crypto products lack – a clear use case.

Think about how projects like Airbnb, Uber, Google Ads and Deliveroo all came to fruition after the 2008 crisis. One of the universal differentiators to each one of these projects is that they took an existing market and monetised it using web2.0 technology. Panjea seeks to perform a similar transformation to the content market – and with it not only make a change to an industry, but hopefully also evolve our society.

We accept the Panjea is a risky project. It is either going to come to fruition as a world changing venture or be another addition to the pile of skulls that all successful web companies now stand upon.

The opportunity is clear. The chance is in your hands. If you are a brave investor looking for the outside chance with a possibility of going beyond your wildest expectations – then Panjea is for you.

We are not taking this project on because it is a safe bet. We are taking it on because the world needs to change.

If you are bold enough to share in our vision
If you are strong enough to withstand the storm
If you are wise enough to see the bright, possible future

Please get in touch as we want you on board with our project...

Panjea

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PANJEA

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