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Downloadable - Link

Version 0.2

# Media Sifter White Paper

Always go too far, because
that's where you'll find the truth
— Albert Camus

A note about this paper:

You might be accustomed to another type of white paper; a PDF that you download, read and formulate opinions on, but lacking a form of feedback mechanism. In keeping with the spirit of the Media Sifter project, building collaboratively with the community, this document is designed to be a transparent, open document in which you can comment and provide us with your feedback directly.

So please, feel free to read, comment on and speak freely about things you like, things you do not agree with and things you might see as opportunities for improvement.

Here's to a Fact-Based Future,
Media Sifter

# 01 - Contents

# 02 - Abstract

> The press might not be successful much of the time in telling people what to think, but stunningly successful in telling its readers what to think about.
>
> — Bernard Cohen, 1963

Journalism is fundamentally broken. The media has become a machine, with business models and technologies converging to reward clicks and likes, while eradicating the incentives for quality investigation. The result is a media landscape the public no longer trusts,[1] characterized by polarising bias, hidden agendas, and ultimately fake news.

The internet has emerged as *the* platform for the media industry, and while it has democratized publishing to a degree, it has simultaneously enabled power to become increasingly centralised in an already concentrated space.[2] With publishers beholden to the internet juggernauts to algorithmically serve their content and reliant on advertising to stay afloat, they are obliged to serve the interests of the powerful, rather than the citizen. This rather unsatisfactory state of affairs has led many to experiment with 'innovative' models, yet none have offered a serious alternative in the face of an attention economy[3] built on advertising until now.

We are entering an era where decentralized technologies, like blockchain, provide new opportunities. We can distribute rewards more equitably, bring transparency and trust back into failing systems and allow for value to be exchanged directly, rather than via proxies. At Media Sifter we are inspired by this possibility to decentralize influence and distribute truth, starting with our platform.

1 2017 Edelman Trust Barometer Reveals Global Implosion of Trust Link

2 These Six Corporations Control 90% Of The Media In America Link

3 The Attention Economy: The Impact of Attention Scarcity on Modern Marketing Link

> You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.
>
> — Richard Buckminster Fuller

**Media Sifter is the Fact-Based news platform on the blockchain** a decentralized community bringing evidence back to the media to fight against fake news. Our aggregator gathers all perspectives into one place, creating a transparent, impartial setting where people can make up their own mind. For authors, it is a fresh opportunity to earn rewards for investigation and accuracy. For readers, it is a trustworthy, ad-free space to get to the bottom of the story.

To power this platform we are developing the Sift Protocol - **the evidence and validation layer for Ethereum**. It is an open source, standalone tool to bring transparency and accountability to the internet. In the long-term, the Sift Protocol will be deployed on any platform where the validation of information can be sourced and traded. The first application of this is through the **SFT Token on our platform Media Sifter**. To protect against attacks, censorship and manipulation we are developing a complimentary on-chain, non-purchasable, **non-tradable credibility score known as CRD.**

At its core, Media Sifter re-aligns incentives, **replacing the attention economy with the evidence economy**, creating an environment where investigation takes precedence. Since the story does not end once it is live on a website or in print, we believe anyone should be given the opportunity to provide evidence to a story and be rewarded for doing so.

In this model, journalists can focus on their craft, earning rewards for the quality of their investigation, rather than writing for clicks or following fads. Their audiences can enjoy an inclusive space for validated facts on a platform that shifts the position and the register of post-publication engagement, creating an alternative to partisan and divisive comment threads.

Creating a revolutionary model like this, with the aim of challenging entrenched business models, while bringing evidence back into journalism, is not a simple task. We had to think beyond the established ways of working, the de-facto advertising and attention based business model, and think through an astonishing number of behavioural variations. The result is something we believe will fundamentally **change the rules of the media game.**

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# 03 - Problem

We used to pay for the news. Before the internet, publications had a revenue stream to support their interests, alongside advertising. It was not a perfect model but offered the media the chance to support quality, investigative work.

Then came the ultimate multi-purpose technology, the internet. A wave of innovation gave us access to information, largely for free, democratising publishing to give millions of people a voice. With information essentially infinite, the real scarcity online emerged as attention, thus the **attention economy**. The media, like most online players, monetised their work through increasingly sophisticated advertising. Visitors no longer paid for the news with money, but with their attention.

Meanwhile, platforms such as Google, Facebook and YouTube operated as filters and feeds, monopolising the access to content, taking ownership of user data and using algorithms to control what people saw. In an already concentrated media space, Google and Facebook emerged as an effective duopoly, swallowing up the majority of the world's digital advertising revenues.[4]

## 3.1 - The Death of Investigation

Newsrooms had to adapt, to not only gain the attention of the reader but also comply with platform algorithms that ranked their work. Business teams realised that more stories meant more revenue and that journalists were their primary cost.

[4] Google Facebook Digital Advertising - Link

With analytics making it easy to identify which types of story were profitable, writers began to operate in a pay-per-click world.

The business model reliant on advertising meant that only those that could create content quickly and 'efficiently' to drive traffic for advertisers survived. If a story could be produced without real investigative work and still get clicks, why bother to research? Investigative journalism became little more than a niche luxury, pursued by the well-known, most noble or those fortunate enough to be subsidised by the activities of others. Simply put, the business model of the attention economy killed investigative journalism.

## 3.2 - The Age of Noise

With metrics in place, the emphasis shifted to churning stories out, or *churnalism*, relying on second hand information, press releases and internet forums. Outside of the mainstream media, the new democratized landscape for publishing meant anyone could write anything, and they did, creating the long tail.[5]

Media companies began to realise that novel types of journalism gained more clicks. Polls, slideshows and lists became standard fare. More clicks meant more advertising revenue, great for the bottom line, but not for the quality of journalism. The result is an unnavigable sea of noise only made useful by the algorithms who provide us with echo chambers and filter bubbles.

## 3.3 - The Rise of Fake News

With investigation now at a premium and everyone fighting for attention in a sea of noise, the quality and amount of evidence used to create articles diminished rapidly. Simultaneously analytics showed that sensationalist headlines got more clicks and stories with bizarre, often fictitious claims were shared more. The phenomenon of fake news was born.

Organised groups and internet trolls realised they could manipulate algorithms to make stories that supported their agenda go viral. Macedonian schoolchildren left school to set up hoax websites to earn extra cash.[6] They realised that spreading

[5] The Long Tail - Link

[6] Veles Macedonia Fake News - Link

certain stories was more profitable than others, and truth agnostic algorithms could help them make decisions on what stories to promote.

## 3.4 - A Blessing in Disguise

While the current crisis in the news industry has been exacerbated by the internet, this situation can be reframed as a golden opportunity. A chance to re-examine the fundamental issues that have followed the media business from the print to digital era. Indeed as Edward S.Herman pointed out in his last article, phenomena like fake news are nothing new:

> These publications take it as an obvious truth that what they provide is straightforward, unbiased, fact-based reporting. They do offer such news, but they also provide a steady flow of their own varied forms of fake news, often by disseminating false or misleading information supplied to them by the national security state, other branches of government, and sites of corporate power.
>
> - Edward S.Herman

Amongst the inherent issues is the notion that humans are bad gatekeepers, subject to manipulation, prone to nepotism and often corruptible[7]. Above all though is the simple fact that the media is a business driven by profits. With a model reliant almost entirely on advertising there is a conflict of interests, a misalignment of incentives which means that publishers are accountable to corporate power and national interests rather than the citizens they supposedly serve.

7 Media & Corruption - Link

# 04 - Opportunity

The problem outlined is complicated, long-standing and difficult to solve using traditional approaches. Decentralised technologies, like blockchain, however now provide us with an incredible opportunity to address many of the core issues, to transform the media industry, namely trust, influence, and payment.

## 4.1 - Building Trust

With trust in the media landscape at an all time low,[8] and awareness of issues like fake news on the rise, citizens are increasingly demanding trusted sources and factual content. Entities like Facebook and Google are responding to this by acquiring fact-checking expertise, yet their platforms remain centralised and governed by the few. While many services admirably try to provide fact-checking, they often rely upon donations, small editorial teams and advertising.

The current situation therefore represents an amazing opportunity for a decentralised platform, leveraging community knowledge and trust to validate information at scale. Journalists, publishers and amateur investigators alike to focus again on the fundamentals of the journalistic craft.

## 4.2 - Decentralising Influence

In the age of blockchain, decentralisation and distribution have finally become a real possibility for platforms across industries, creating not only new business models but new systems for governance. These new models allow companies and projects to inherently share value and ownership with the broader community, disrupting businesses built upon private control and hierarchy.

8 Reuters News Institute Digital News Report 201, Newman, Fletcher, Kalogeropoulos,. - Link

The media industry has been particularly guilty of undemocratic practices, especially with regards to maintaining a tight grip on influence. Blockchain offers a new way to derive decisions through mass-consensus rather than autocracy.

## 4.3 - Pay As You Follow

While the internet created a paradigm of free content, the results have led to a counter-trend emerging - paying for content is back in fashion. In the music industry Spotify has seen huge increases in paying customers,[9] and mico subscriptions on services such as Patreon[10] are proving that artists and creators of content need not starve. In the news industry, the Guardian recently announced that their revenue from supporters surpassed that of advertising for the first time since they went online.[11]

Leveraging the massive online communities built around interest is nothing new (Wikipedia, StackExchange, even Kickstarter), in fact it is a fundamental trait of the internet. The opportunity that now exists however, is to allow individuals and communities to support their interests directly, not through traditional subscriptions which create unequal distributions of returns, but through direct pay as you follow mechanics. Blockchain technologies allow us to create direct, immediate and simplified mechanisms for value exchange, removing barriers that have previously existed such as transaction costs and intermediaries. It suddenly becomes feasible to make micro-payments in order to support a variety of causes and interests.

Indeed, it seems that the realisation is setting in, if we do not pay for the news, we will all end up paying for it. We believe however that simply paying for the news itself will not solve the issues we outlined above. The incentives themselves need to be realigned to reward efforts in investigation and the contribution of evidence.

9 Spotify 60 Million Subscribers July 2017 - Link

10 Patreon Membership Subscriptions - Top Earners 2016 - Link

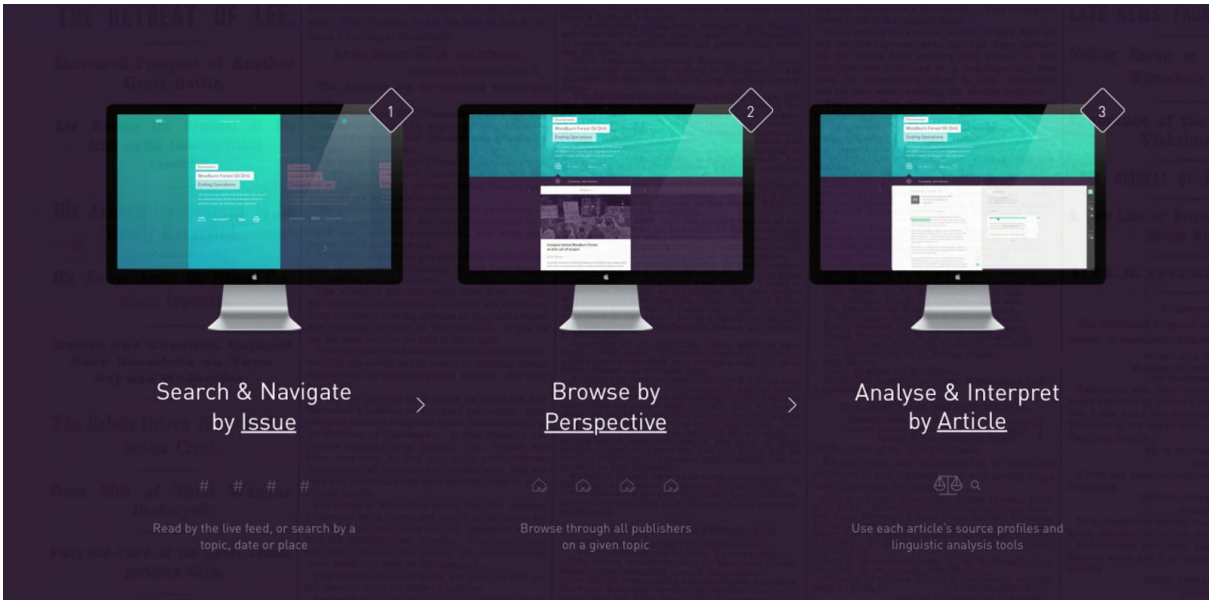
11 Guardian reaches milestone of 500,000 regular paying supporters - LInk

# 05 - Solution

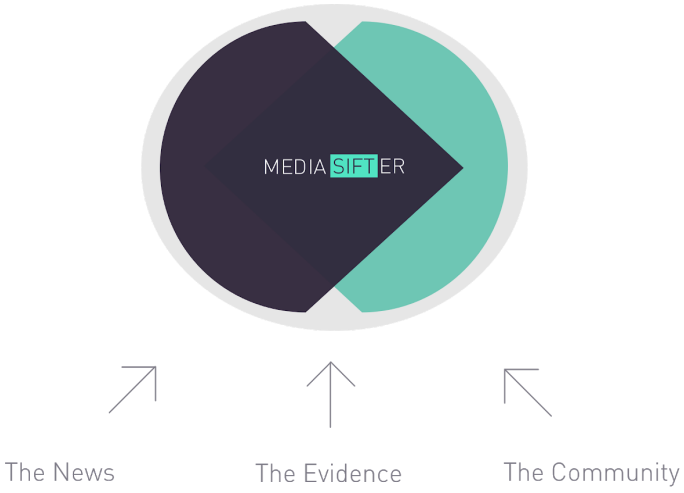
> “ The ultimate authority must always rest with the individual’s own reason and critical analysis ”
>
> —Dalai Lama

## Our approach to the problem:

At Media Sifter we want to redistribute power, giving it back to the community. We are doing this by building a new breed of digital platform, one not governed by a central entity, but a decentralised, dynamic tool that democratises influence.




This tool aggregates the news directly from all available and relevant sources; global press, local publications, niche interests and blogs. This creates an impartial, transparent place to consume the news. However, we believe that the audience should be active participants, therefore the platform **incentivises the community** to contribute towards reliable investigative validation.




This is achieved through economic incentives for all who provide validated evidence via our platform. Its core is a decentralised system built upon the Ethereum blockchain network. It gives back reporting control to the community for all our news. It has been designed from the ground up to create a new operating paradigm for journalism, that puts factual evidence at the heart of the system.

Media Sifter is split into two core pillars, the first of which is a new breed of aggregator, designed specifically to cut through the noise of the news, offering a way to browse articles by topic and facilitating navigation by perspective.

The second pillar for Media Sifter relates to the Evidence Economy which comes in the form of a blockchain protocol we call the SIFT protocol. This provides the economic incentives for investigation and the factual evidence provided once it is fully validated by our global community.

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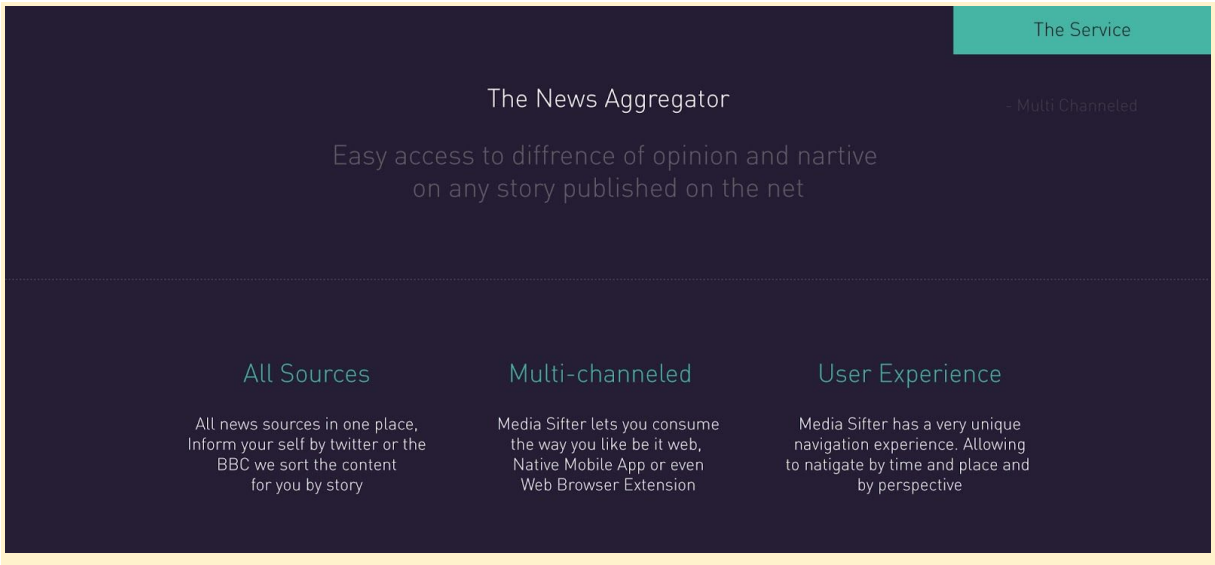
## 5.1 - The First Pillar - News Aggregation

As stated, Media Sifter is primarily distinguished by two core pillars, the first of which is the news aggregator. This pillar facilitates easy access to differences of opinion for any story or article published on online.




# The News Aggregator

This is a multi-channel platform accessible from the web, browser extension or native application that presents news articles from any agnostic source, be it an individual via Twitter, or by any international publisher. Behind the scenes articles or news items are categorised and then displayed or highlighted according to the respective issues or topic.


## 5.1.1 - Feature: All Sources In One Place - Automatic Crawler & Scraper

The news aggregator draws in articles from the internet through a technology known as web scraping. This means that within Media Sifter you can still read from whatever sources you already access, with the added benefit of also finding additional points of view on a specific story. A person is now able to access all news

sources from one place, for example as you would currently via Twitter or The Guardian. Over time, Media Sifter returns to various publisher sources to dynamically look for new stories through a process known as **crawling**.

### 5.1.2 - Feature: Aggregation by Topic

Media Sifter has an automated process for collecting articles with similarities or commonalities across various themes or stories. They are then collated and packaged together. This allows the reader quick access to locate multiple points of view on a specific story or topic, something which completely changes the modality of medium consumption.

### 5.1.3 - Feature: Aggregation by Perspective

To make it easier for a person to break the effect known as the Filter Bubble[12] , we have designed a way to provide difference of opinion through a simple user action. With new opinions just a swipe or click away, we transform media consumption and offer an alternative to algorithmic feeds which have been shown to serve users content which confirms existing biases.[13] This is done using natural language process and semantic analysis.

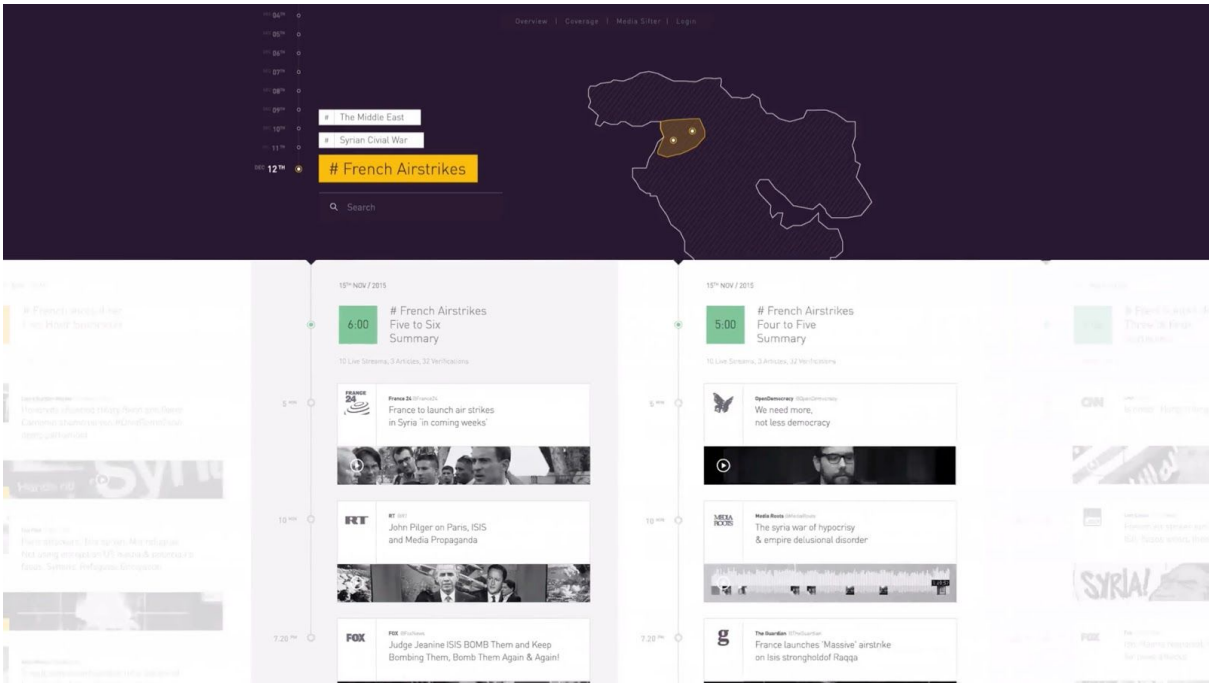
12 The Filter Bubble Effect - Link

13 Political Polarization & Media Habits - Link

## 5.1.4 - Feature: Geospatial Navigation


Within Media Sifter we offer totally new innovations to navigate the news landscape. The first of these enables you to go beyond feeds, using our geographical tool to navigate to a particular part of the world, and view published articles or stories from that specific region. We call this **geospatial navigation**.

## 5.1.5 - Feature: Retrospective Navigation




Coupled with the above geospatial navigation feature, one has the ability to also navigate back in time when researching a particular issue, topic or story by viewing commentary going back a week or even years earlier. Media Sifter refers to this as **retrospective navigation**.

## 5.1.6 - Feature: Multi Channeled Access

We allow you to choose your preferred access point to a news article, be it the platform, native mobile app or even a browser extension. The latter enables users to reach our platform directly from another publisher's website, creating a seamless experience whereby users can jump in and out of the service as they desire. This is done through the Media Sifter browser extension.

## 5.1.7 - Feature: Curator Topic Articles

Within Media Sifter, we have created what we call **Curated Journalism** which is the ability to build a collection of articles that relate to a particular topic or genre. This allows others to better inform themselves about the efforts of content curators, and provides the added benefit of allowing people to follow a specific curator's work.

### 5.1.8 - Feature: Cross Border Translations

One of the longer term goals within Media Sifter is to break down language divides across publishing. The Media Sifter team will do this by allowing automatic language translation, with a secondary, crowd intervenable editing tool to assist with translations.

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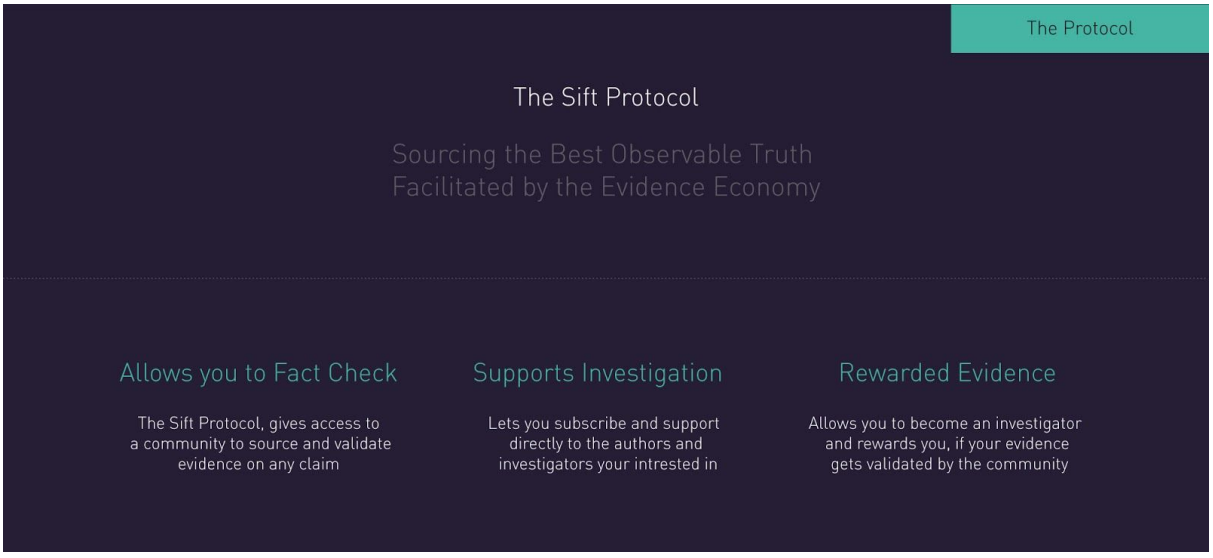
## 5.2 - The Second Pillar - The Evidence Economy

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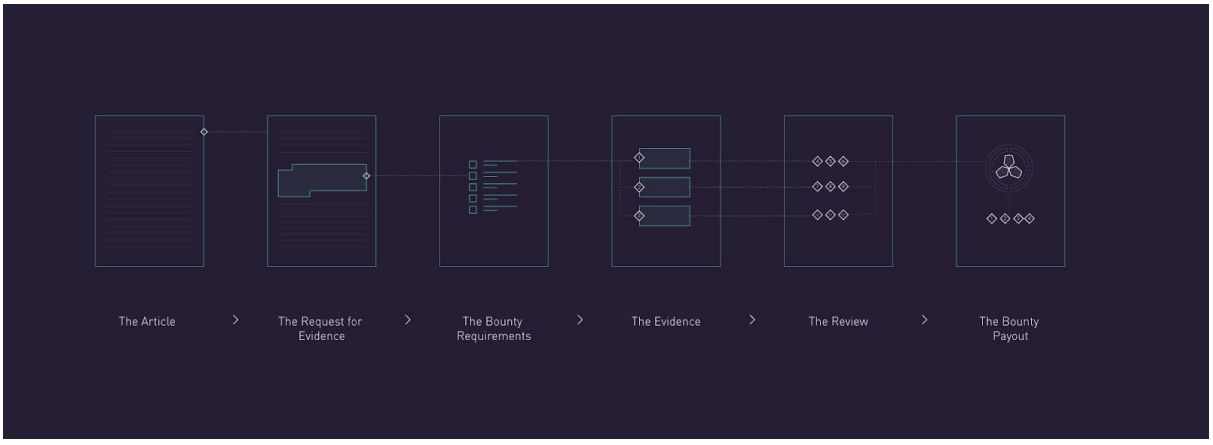

### 5.2.1 - Feature: Crowdsourced Fact Checking

The SIFT protocol provides a way to help fact-check the news on the internet. The protocol incentivises the community to crowdsource investigation, bringing a level of accountability to “fabricated” stories or claims that are made, while also introducing a sustainable income for investigators and contributors whose contributions are validated by our community of fact-checkers.

### 5.2.2 - Feature: Income - Investigator Royalties

The system rewards evidence, hence the evidence economy. It also provides a sustainable reward system in the form of investigator royalties where investigators subscribe or invest in their own body of work by becoming members of the platform to earn additional royalties for validated evidence.

### 5.2.3 - Feature: Income - Publisher Royalties

Media Sifter aggregates an author’s article and places it amongst others similar stories allowing audiences to follow issues and topics from multiple points of view. The audience also registers their support for these authors in the form of member micro-subscriptions. The system further incentivises these authors to cite their work i.e. provide additional evidence, in order to receive further royalties directly from their audience.

### 5.2.4 - Feature: Decentralised Evidence

Media Sifter makes great use of one of the most powerful aspects of the blockchain, namely, Trustlessness.[14] This concept means you no longer have to rely upon a single point of failure, or human beings to act as gatekeepers. We distribute or allocate the roles of many in the form of a review panel, positively incentivising everyone to work in the favour of the system, with an economy built around validated evidence. Therefore it is in everyone’s interest, both individual and collective to act towards the generation of more evidence and fact-based content.

14 Trustlessness - Explaining how blockchain proof of work enables trustless consensus - Link

### 5.2.5 - Feature: In Browser Sifting

A user will be able to use a browser extension to find or source other perspectives on the same story. Within their own browser they will be able to see the evidence the crowd has produced relating to any specific article.

### 5.2.6 - Feature: Follow / Supporter - Subscriptions

Underpinning the evidence economy is the supporter function. This allows users to subscribe to particular aspects of personal interest. Support can be provided to established authors or journalists, publishers and of course individuals who provide content and evidence within the system. The support function serves to reward those who contribute to the platform and offers supporters benefits such as updates on new articles and evidence as they come into the system.

We have created an array of targeted subscriptions such that user's pay as they follow, using blockchain to facilitate micro-payments using our SFT token, which are a direct line between a content creator and supporter. In other words, a subscription which each user can tailor to their particular preferences.

The mechanics of this feature are further detailed within the Token Model section.

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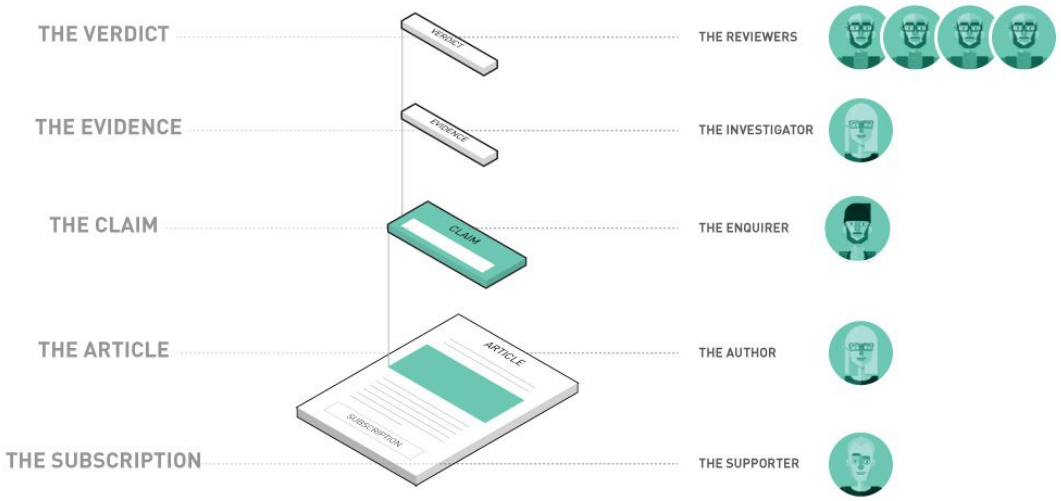
## 06 - How The System Works

Media Sifter works in a revolutionary way. Since the system dynamically scrapes and sorts articles into subject content packages, which the community can curate and build upon, publishers need not actually publish on the platform.

Content is visualised in aggregate as story packages:

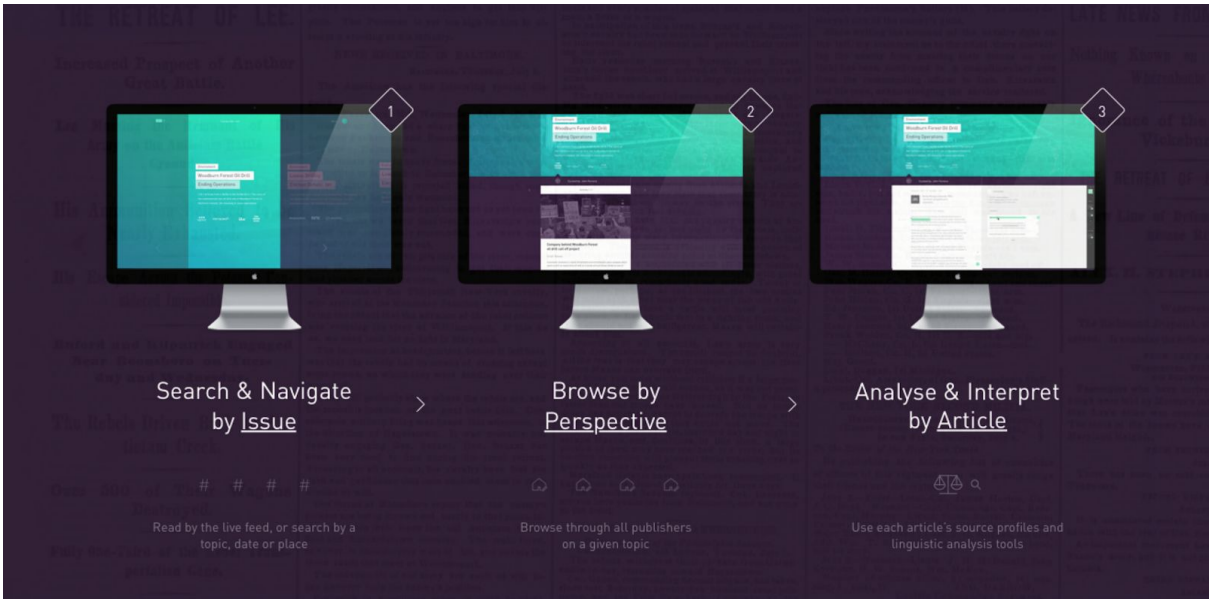



This gives audiences the greatest possible access to differences of opinion and/or noted confirmation of the narratives present. Authors and investigators are provided an income for their efforts by way of the evidence economy, which rewards investigations by those who validate or invalidate claims made within the articles.

Readers can open bounties for evidence, visualised in the form of a highlighted sentence or paragraph. Anyone can now produce evidence to validate or invalidate claims made. Once reviewed, via the blockchain, a consensus protocol distributes rewards to positive contributors, paid or funded by requesting evidence and by those who work against consensus.

This process further sustainably subsidises investigation in the form of supporter royalties. These funds are distributed monthly to authors and investigators from their audience base of subscribers, multiplied by the numbers of supporters and the validated pieces of evidence.

## 6.1 - How you would use it




### 6.1.1 - Stage 1 - Search & Navigate by issue ( Aggregator )

Media Sifter is designed to navigate the noise of the internet, helping you to read and source current news stories. It sorts through narratives by categorising news content according to each issue.

### 6.1.2 - Stage 2 - Browse by Perspective ( Aggregator )

The platform enables users to browse or search for a story, by navigating and searching for content from various topic perspectives.

### 6.1.3 - Stage 3 - Analyze and interpret by article ( Protocol / Crowd )

Media Sifter allows any user to investigate claims made within the news realm and also gives a reader a way to incentivise others to investigate topics on their behalf. This in turn allows the global community to better access, assess and interpret various prevailing agendas relating to a topic or number of related topics.

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# 07 - Mission

## 7.1 - The Mission

> “ Decentralize Influence, Distribute Truth ”
>
> — The Media Sifter Mission

As you may have gathered by now, at Media Sifter we have some really ambitious goals. We believe that while the challenges we face are great, none of the obstacles that face us are insurmountable. Indeed as Molière wrote, “The greater the obstacle, the more glory in overcoming it.”

We are building a platform to support investigative journalists and concerned global citizens to expose the truth while also providing a mechanism for them to receive a sustainable income for their hard work. We are trying to usher in a new age of critical media consumption where the public no longer *just* believe what they read.

Our aim is to strip away as many layers from the current publishing process as possible, so that we can get direct access to the most honest details. This will be achieved by receiving updates and evidence from reporters and citizens themselves, without the filter of the current editorial process, rewarding investigative efforts accordingly while building safeguards through well thought out design and technology implementation.

## 7.2 - The Vision

We are looking to be part of creating the next context of the online public sphere[15]; a future where we move beyond passive consumption and towards, critical and participatory platforms. Where reading one article no longer defines a truth. Where the discourse centres around informed opinion, and well-backed up evidence rewarded accordingly.

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[15] Jürgen Habermas - Link

### 7.3 - Our Goals

#### To Instigate Critical Thinking

A society in which citizens *just* consumes news and accepts facts without scrutiny is no longer acceptable. We want to empower citizens to ask questions and contribute knowledge.

#### To Decentralise Influence

When a few parties hold the majority of power, private interests can quickly take hold, currying favour and creating compromised projects. We want to remove the opportunity for this in news journalism by rewarding activity in the public interest and introducing a system of accountability.

#### To Reward Investigation

We want to help journalists to focus on investigation without the distraction of getting rewarded by how many clicks they receive. We also want to promote citizens to become investigators by providing them with the correct incentives.

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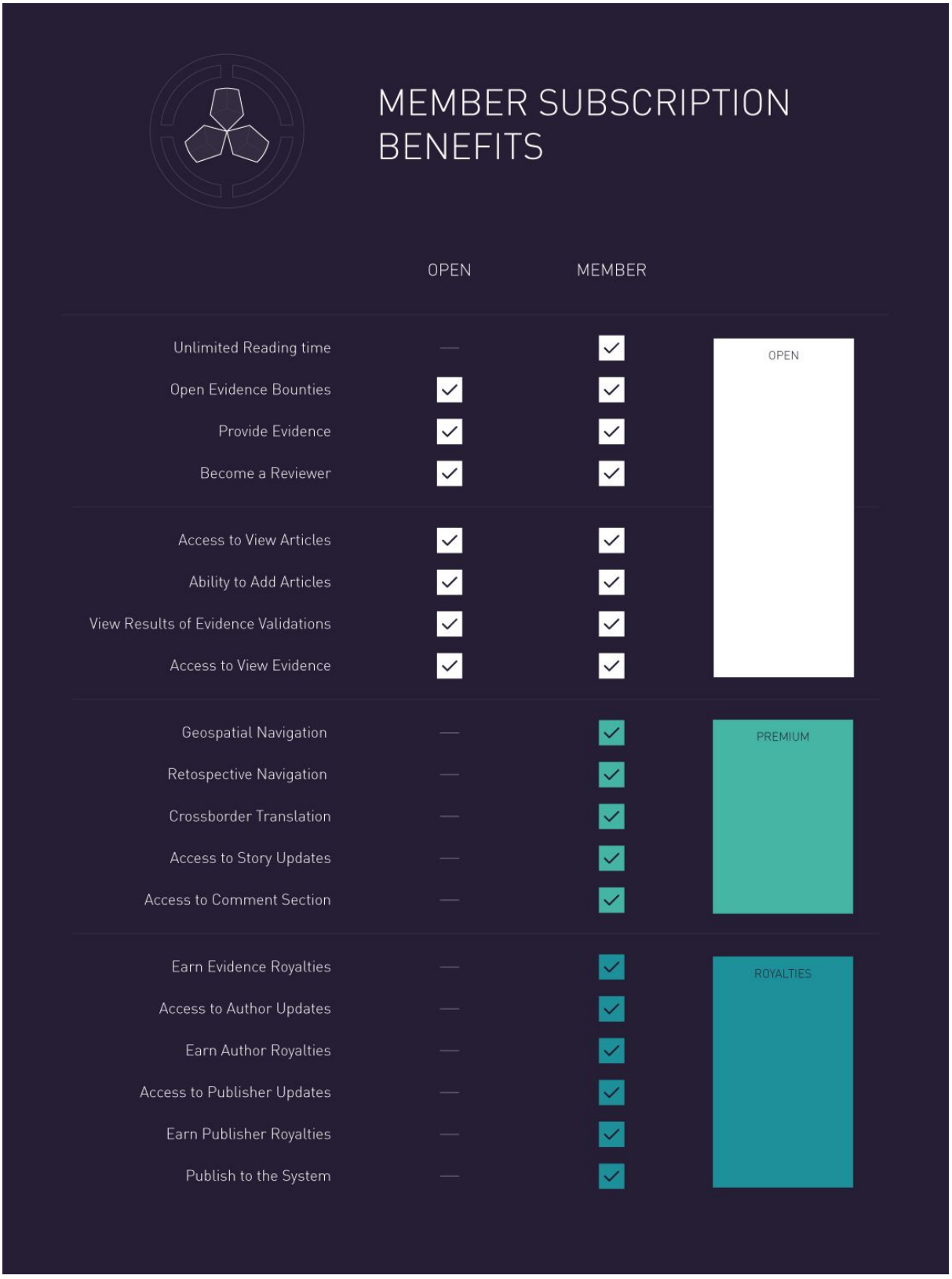
## 08 - Business Model

### 8.1 - Phase One - Development

Media Sifter's business model works in three phases, the first phase is to utilise the funding received from the token crowdsale to build out the platform over a 24-month development cycle.

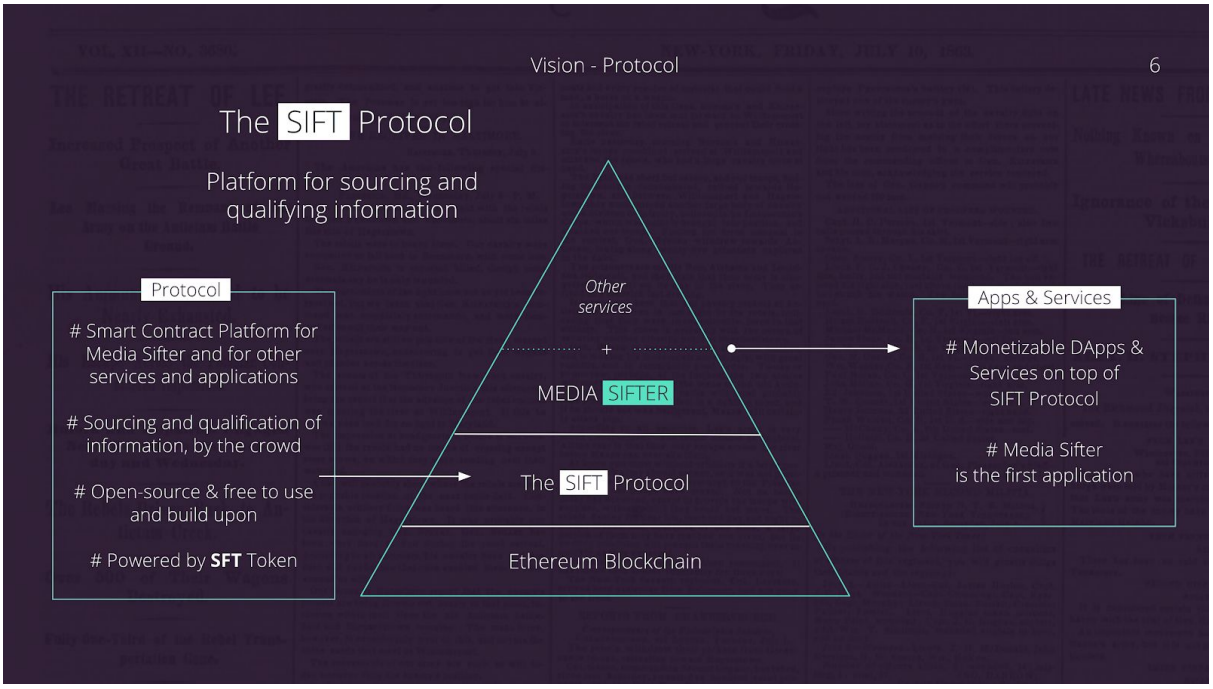
## 8.2 - Phase Two - Membership Adoption



The second phase of the project will utilise member subscriptions, to directly return value to Journalists, Publishers, and Investigators. This phase is all about developing a sustainable business level of community subscribers. Building up towards a sustainable level of supporter subscriptions.

Using our Pay As You Follow mechanic, supporters will have unlimited access to fact-based content, depending on what they subscribe to. Open, or non-paying users of the site still have access to the news aggregator, although we will employ a time-gate, allowing a certain number minutes on the platform for free. Beyond this, user's will need to subscribe to have access to the platform.

## 8.3 - Phase Three - Token Adoption




The envisaged scenario would see the token value appreciate, which also allows us to utilize our reserve tokens to supplement the platform's perpetual operational costs.

Alongside the Media Sifter platform, we will be encouraging the mass adoption of the SIFT protocol which will be an open-source and free to use platform, intended to become the world's plug and play fact checking engine. It has been designed to be standalone, to be utilized as a B2B tool where any other entities, company or

individual can utilize the SIFT protocol to fact check any form of information facilitated by the evidence economy.

As the demand for access grows, so does that of the SFT token resulting in a gradual appreciation in value. To supplement this we are building a platform to attract developers and users alike, powered by the SFT Token.

Media Sifter is an open source, decentralised platform for sourcing and qualifying evidence: A tokenized, on-demand, topic-agnostic version of Wikipedia for evidence. Wikipedia from a certain angle may be considered the most influential site in the world, with 16bn pageviews each month,[16] and millions of edits powered purely by volunteers without any other incentives than altruism. A noble cause which we back 100%, yet it leaves us thinking, *what if users were incentivized through platform-ownership and financial rewards for contribution?*

Our token model is designed to do just that.

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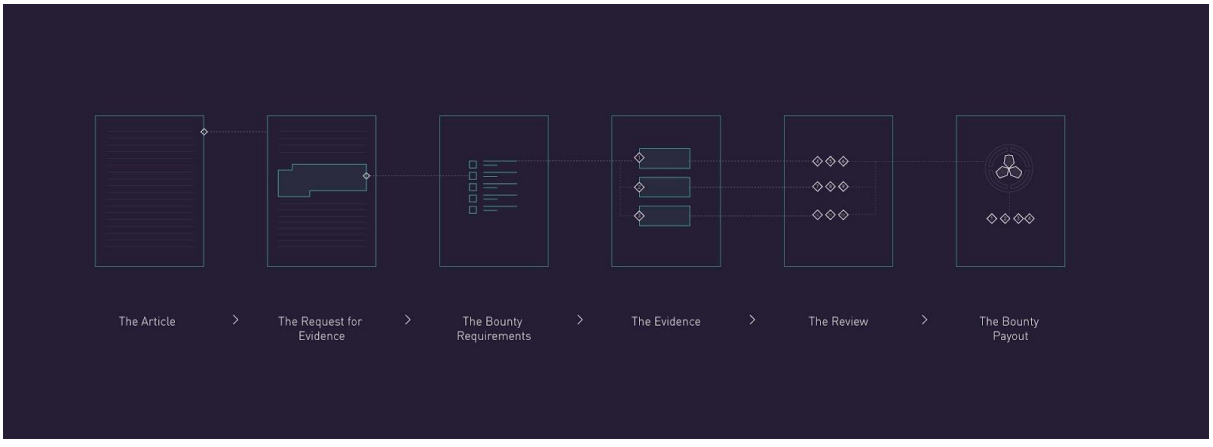
## 09 - Token Model




### How we will reward the Global Fact-Checking Community

[16] Wikimedia Report Card - Link

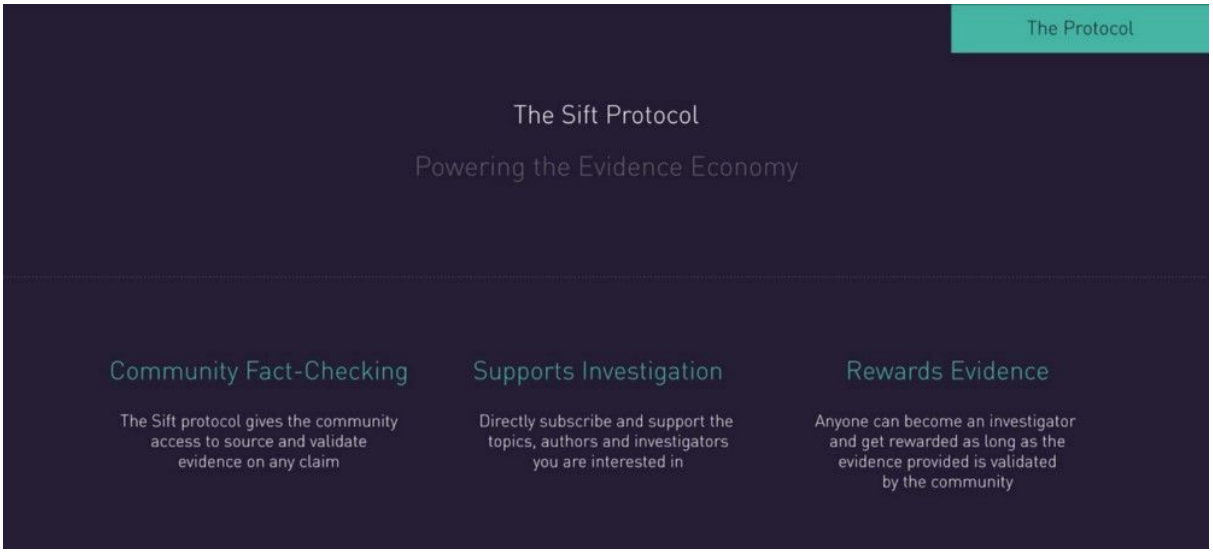
At Media Sifter, our mission is to decentralise influence and distribute truth. That's why in this age of misinformation and the attention economy, we designed a platform that has woven into its fabric an **evidence economy** which rewards all those who positively contribute to fact-based news through investigation.

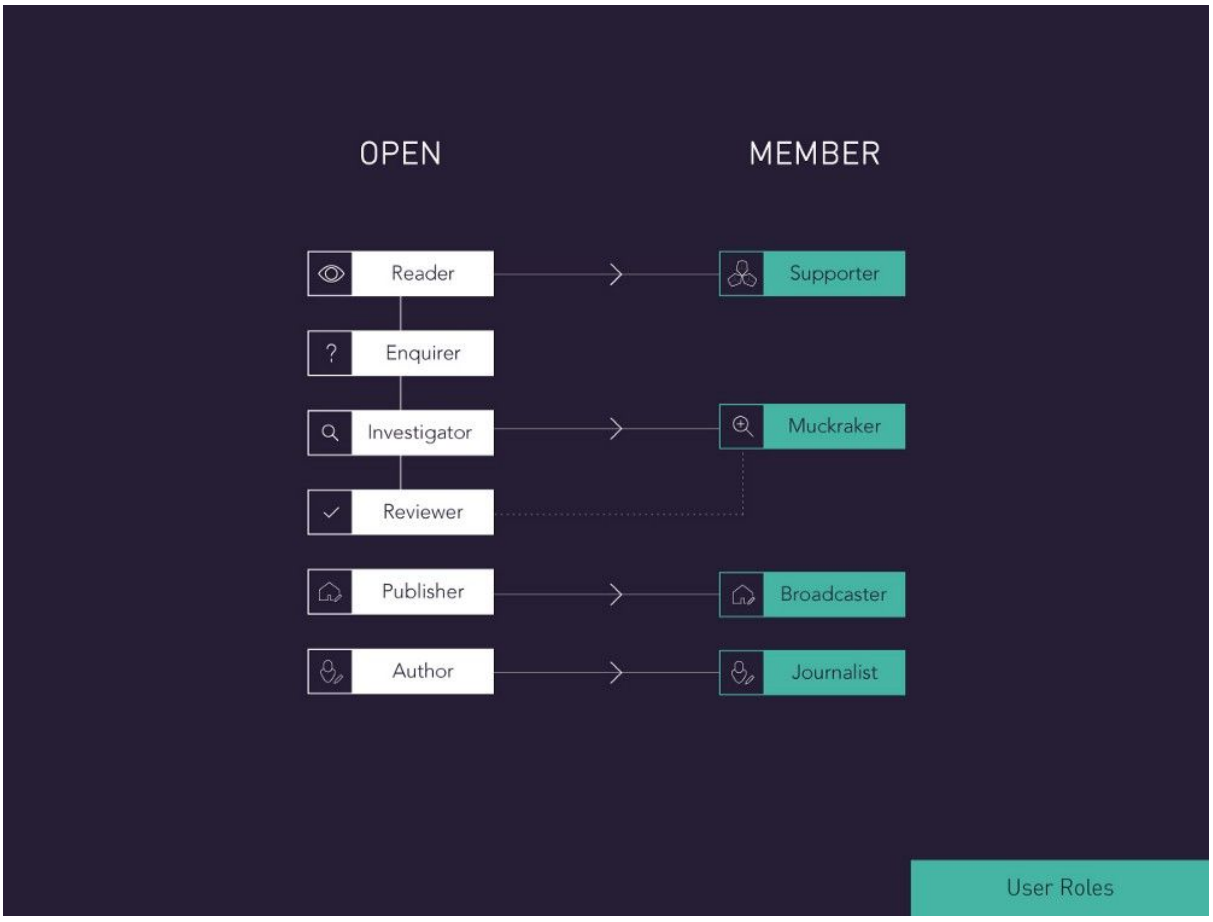
To do this we developed an open source, stand-alone blockchain protocol called **The SIFT Protocol**, which aids in sourcing and validating evidence from the global crowd.  The Media Sifter Platform is the first application to utilise this revolutionary protocol - the engine behind the evidence economy.

Within the Sift protocol are two types of digital systems, the first of which is **The SFT Token** which provides access to the evidence economy, and rewards investigators who contribute validated evidence to the platform. The second is **The CRD score** an on-chain immutable user credibility score, which rewards persistent investigators and other positive user-engagement.

Creating a revolutionary new model like this, reintroducing and returning evidence back to journalism, is not a simple task. We had to think beyond the established ways of working, the de-facto advertising and attention based business model, and think through a huge number of behavioural variables. The result is something we believe will change the rules of the media game.

## 9.1 - Token Model - SIFT Protocol:



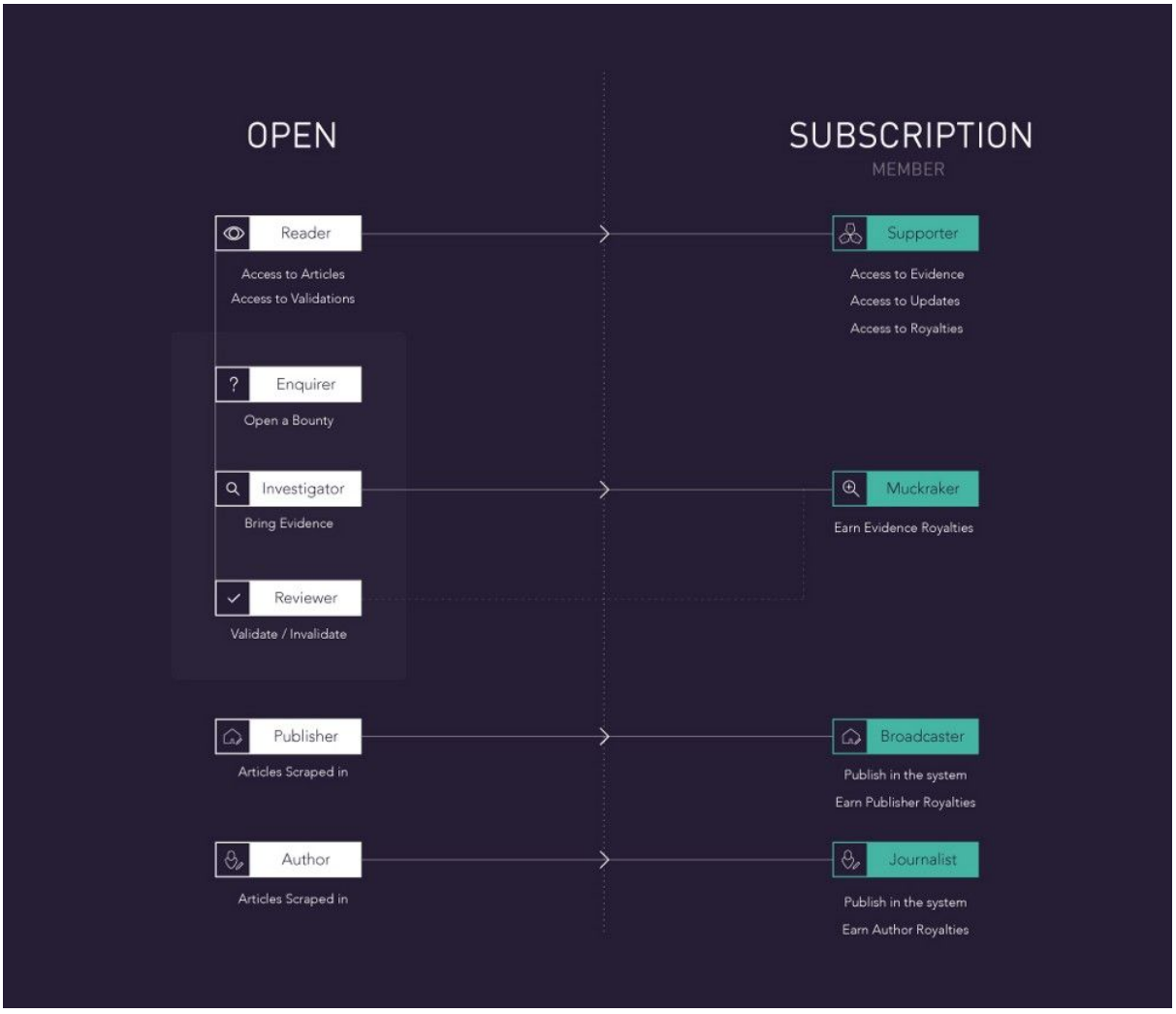



The token model for Media Sifter is the SIFT protocol which is designed to be the evidence layer of the decentralised technology stack. When we designed the SIFT protocol, we envisaged something bigger than just a platform specific protocol - therefore we built it to be open source, utilisable by any third-party service, company or person who wants evidence backed validation within their system and in turn increase demand for the SFT Token over time.

The SIFT Protocol is designed to allow for multiple user roles, exemplified by its use on the Media Sifter Aggregator, providing core utility and robust protection against attacks using the CRD credibility scoring system which we will go into in greater detail in the below section.

## 9.2 - Stakeholders - SIFT Protocol

Before we dive into the specifics of how SFTs can be used or earned, and how SFT works in conjunction with CRD, we will quickly describe the different roles a user can take on in the system, to show you how anyone can contribute.

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## Open Roles:

### 9.2.1 - Reader

Readers are the heart of the platform - they enjoy cost-free access to all of the articles the system aggregates, as we believe in open and free access to information. In addition, readers can see which claims have been validated or invalidated, but do not have direct access to the underlying evidence. To gain access to the full evidence provided, the reader can become a follower of an author, publisher, article, investigator or the evidence itself.

### 9.2.2 - Enquirer - ( Supporter who opens a evidence bounty )

Enquirers use the SFT token to open bounties for the investigation of a specific piece of information or statement. An Enquirer's SFT stake goes towards any successful evidence that is validated by the community.

### 9.2.3 - Investigator - ( Investigator is a Reader who brings evidence )

Investigators are Readers who have decided to bring evidence in response to an open bounty. If their evidence is validated, they are rewarded by the Enquirers bounty and also any readers who have decided to increase the bounty with their own SFT. Investigators can also become MuckRakers, which gives them access to monthly royalties for their own investigations if certain conditions are met.

### 9.2.4 - Reviewer

Reviewers are those who participate in review panels which help to ensure the quality of the evidence within the system. Reviewers are selected pseudo-randomly to mitigate against manipulation. A user's credibility (CRD) which may be general or topic specific, is also taken into consideration during the selection process. This means that the expertise in review panels will grow over time.

### 9.2.5 - Author

As an aggregator, authors need not actively publish on Media Sifter. Nevertheless, authors who do publish articles on the platform and contribute evidence for review, have the opportunity to earn investigator royalties on their work. The larger the author's following, the larger their share of royalties become.

### 9.2.6 - Publisher

Publishers are any entities that have multiple authors that write for them.

—

Subscriber Roles:

### 9.2.7 - Supporter - ( Supporter is a Subscribed Reader )

A Supporter is a Reader who has decided to subscribe to any aspect within Media Sifter - anything from an article, to an author, and even individual pieces of evidence. This subscription, provides premium access to the authors and publishers they subscribe to. These subscriptions will be directly distributed between the involved parties i.e authors, investigators and a micro percentage towards the Media Sifter platform

### 9.2.8 - MuckRaker - ( MuckRaker is a subscribed Investigator )

A Muckraker is an membered investigator. This gives them access to claim a percentage of the royalties on any validated evidence contributed to the platform - be it an article of their own, or an author or publisher they support. The more supporters a MuckRaker has, the greater the royalties they receive.

### 9.2.9 - Journalist - ( Journalist is a subscribed Author )

A journalist is the upgraded version of an author, one with a membership subscription which provides member only rewards.

### 9.2.10 - Broadcaster ( Broadcaster is a subscribed publisher )

A broadcaster is the upgraded version of a publisher, i.e. a publisher with a membership subscription, which provides access to member only rewards.

## 9.3 - How the SIFT protocol works

The SIFT protocol is built on two pillars. The first pillar of the **evidence economy** is the unique ability to create bounties upon assertions in articles, attracting community investigators to fact-check claims.

Within the Media Sifter platform, this occurs when a Reader highlights a sentence within a news article that they want to be fact-checked. The reader at this point become an enquirer and places a ‘bounty’ of SFT tokens on the statement at hand.

This action calls out for Investigators to bring 1st, 2nd or 3rd hand evidence to either validate or invalidate a claim made.

Next, one or several Investigators take up the challenge, placing their evidence into review by a randomised set of Reviewers. This cohort of reviewers is selected by their accrued Credibility - their CRD score. All Reviewers are unknown to each other in the reviewing process. Reviewers examine the Enquirer's conditions for the bounty next to the Investigators evidence. The results are deemed in a scale from valid to invalid by a **consensus** of the reviews, and the various parties receive their share of the SFT bounty depending on their role and success. Additionally an amount of CRD is added to the score of the users depending on their role and effort within the process. Closed bounties can be reopened if a new enquirer believes that there is new evidence to be brought to the table.

The second pillar is our mechanism for returning rewards in the form of **royalties** to journalists and investigators. These are derived from direct membership subscriptions from supporters that follow their work. We have created a **range of subscriptions** that leverage the blockchain to allow a user to follow exactly what they really want to follow, and reward contributors accordingly.

With the SIFT Protocol and the Media Sifter Aggregator comes the possibility to subscribe to not just the whole package, but instead to choose to have **micro-subscriptions** to follow a specific topic of interest like "EU Finance" or " Environmental issues", or follow a particular author or a specific news story as it unfolds. These micro-subscriptions are designed to allow subscribers to gain access to content and evidence across a broader spectrum of perspectives than they would receive via traditional publisher specific subscriptions. They also ensure that subscriptions can be tailored for each user's preferences.

Since subscriptions and CRD scores are intimately connected, we created **Topic Specific CRD** to manage user engagement around micro-subscriptions. Credibility can be earned on particular topics as you contribute factual evidence to them.

If readers want to encourage more scrutiny on a particular topic e.g. "the US Presidential election 2016", they can subscribe to that topic, which increases the reward for Authors, Investigators and Reviewers. Stakeholders operating on the given topic are able to earn CRD on that topic. This Topic Specific CRD allows us to

identify expert users within a specific field, incredibly useful for the review process, as well as ensuring a fair allocation of SFT royalties.

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## 9.4 - SFT Token - Token Utility:


The SFT Token is the access token to the evidence economy. It allows readers to open evidence bounties and earn investigation royalties on any validated evidence.

Within Media Sifter, it becomes easy and cost effective to get quality assurance on news consumption. If a user puts in a little work, it can even be profitable.

As we have touched upon in the above description, SFT tokens are the primary reward mechanism of the SIFT Protocol. It is used to encourage people to bring evidence to the table and reward positive contributions to the system. As the SIFT Protocol matures, it is our intention that it will be possible for users to earn a living by providing evidence to the news stream, and qualify the information that we all depend on for our day to day decisions. Combined with the fact that SFTs can be used to subscribe to the Media Sifter Aggregator, you get a system that allows for

subscribers to gain from the work that they put into the protocol and aggregator - a real win-win situation.

SFT tokens are also used to **discourage malicious behaviour** with a mechanism that only allows users to add evidence or vote in a review process if they are ready to stake a small amount of SFT tokens linked to their behaviour. If the community, through a review process, does not deem that the work (for example a piece of evidence) is of sufficient quality, the stake will be placed in the appropriate subscription pool, and paid out to the users that provide quality content.

Technically, the flow of SFT has two different directions. The first involves bounties, evidence and the review process. Let's examine this with an example. A reader finds a statement in an article which they require greater backing. They can decide to attach a bounty of 10 SFT to anyone who provides a reference that meaningfully answers the doubt of the reader. This is where the review process starts.

A portion of the initial bounty is reserved to reward the group of reviewers to validate if the evidence actually answers the bounty. If the consensus of the reviews are positive, the investigator and the reviewers will earn rewards from the bounty. If not, the investigator will lose their stake, which will instead be used to reward the reviewers. This way reviewers are always rewarded, no matter how they vote, and the bounty stays intact until somebody can claim it with a quality reference. If a reviewer votes against the consensus of the group, their stake will be added to the subscription pool of the relevant category, and be divided according to the CRD score as described below.

The second is linked to the CRD score, subscriptions and lost stakes. In the ideal world nobody would ever lose their stake because all submissions of evidence and review processes would flow perfectly. But realistically we might encounter attempts at spam or just plain low effort work, in which case all SFT stakes that are not used to reward for the review process will go to the same pool as the subscriptions.

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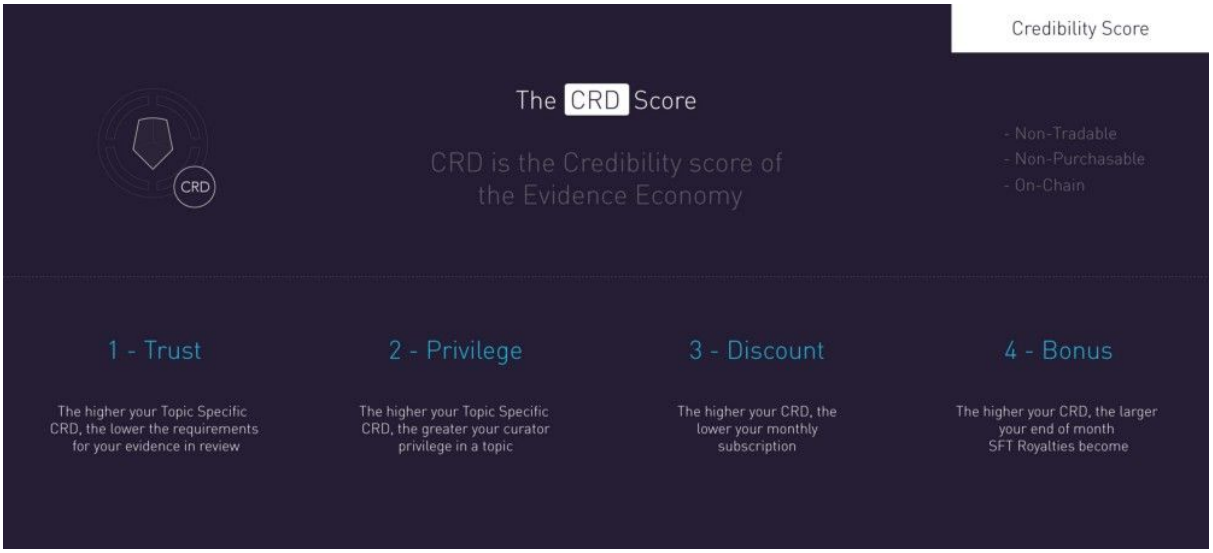
## 9.5 - CRD Score - Utility:




The CRD It is the on-chain immutable user credibility score of the SIFT Protocol and its underlying evidence economy. CRD is earned through positive contributions on the platform; activity which earns SFT and raises your CRD score.

When a user contributes positively to Media Sifter or more generally in the SIFT protocol, they will gain credibility. When a user gets a piece of evidence approved by the review process, they too will see an increase in CRD. A smaller increase will also occur for successful reviewers and enquirers.

CRD is rewarded in a topic specific manner, and is accumulated in a total CRD score. This is done to identify content experts within the system, which then allows us to better reward topic specific expertise. This means that a user can have several Topic Specific CRD scores, for example:

- 20 CRD in “EU Environment”
- 160 CRD in “Italian Fashion”
- 45 CRD in “Technology”

This means the user has a total of 225 CRD. Each of these scores will result in a reward from the subscription pools of the specific topics as well as a reward from the overall Media Sifter subscription pool.

Like in the real world, Credibility within the SIFT protocol is not forever. What was valuable and trustworthy knowledge last month may have changed. To make sure that the subscriptions are always paid out to the users that continually putting in the most effort, the CRD score of all users have a decay rate. Each month, after the subscription pools have been paid out, the CRD scores will be cut by a set percentage. This happens to keep the CRD score up to date with the ever going cycle of news, and ensures that new users have a chance to reach the top level of Credibility.

As CRD becomes a familiar concept in the Media Sifter ecosystem, it has the potential to become more than a guide for SFT distribution. It can make the SIFT Protocol more efficient and allow for quality content verification at scale in a way that classic news distribution simply cannot achieve.

For example, a higher topic specific CRD score will allow for lower requirements for review within that specific topic. As it becomes possible to identify highly credible users, over time those with the best credibility may be allowed to share evidence without having to go through review. Their evidence can of course always be disputed ex ante and go through review if other users don't find it trustworthy.

## 9.6 - Token Model - Summary:

The SIFT protocol, the token model behind the Media Sifter platform allows us to create a brand new economy in the world of journalism - the evidence economy. Using SFT tokens, this economy encourages investigation, and rewards all contributors - authors and investigators alike first in the form of evidence bounties and then via sustainable ongoing royalties. These incentives change the rules of the game. Anyone who can bring fact-based information to the platform can earn rewards, creating incentives for passive consumers of content to become active investigators, for journalists to provide evidence and not write for clicks. Ultimately our system offers rewards for work that is in the public's interest - helping to return facts back to the media.

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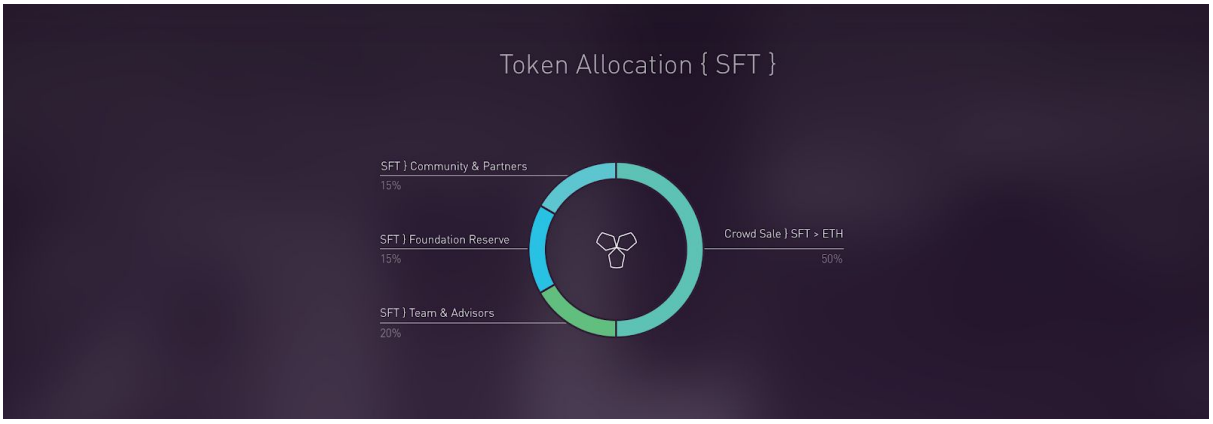
# 10 - Crowd Sale

## 10.1 - Overview:

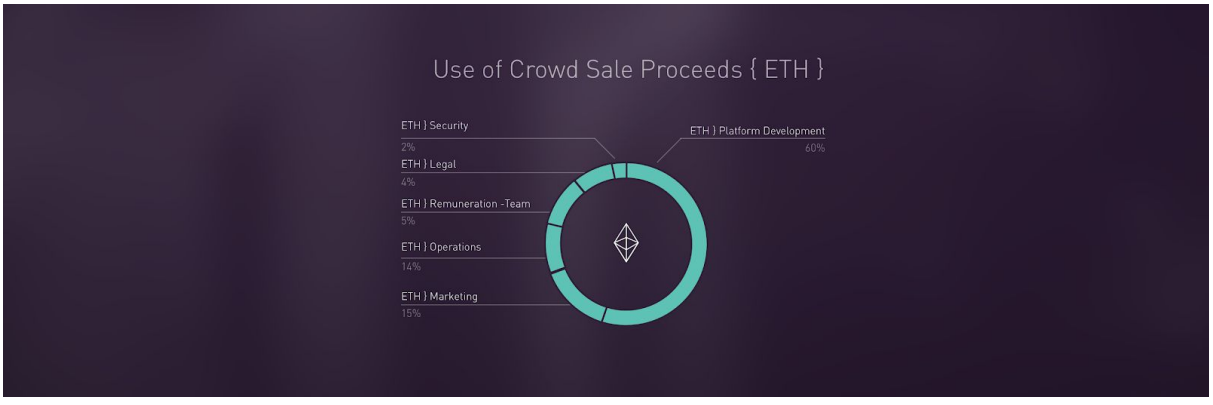
As we are committed to developing the platform, the funds raised will be used to hire more members of the product team to expedite the development process.

## 10.2 - Crowd Sale - Token Allocation




15% Community & Partners
15% Foundation Reserve
20% Team & Advisors
50% Crowd Sale

## 10.3 - Crowd Sale - Use of proceeds




60% - Platform Development

15% - Marketing
10% - Operations
5% - Remuneration
8% - Legal & Compliance
2% - Security

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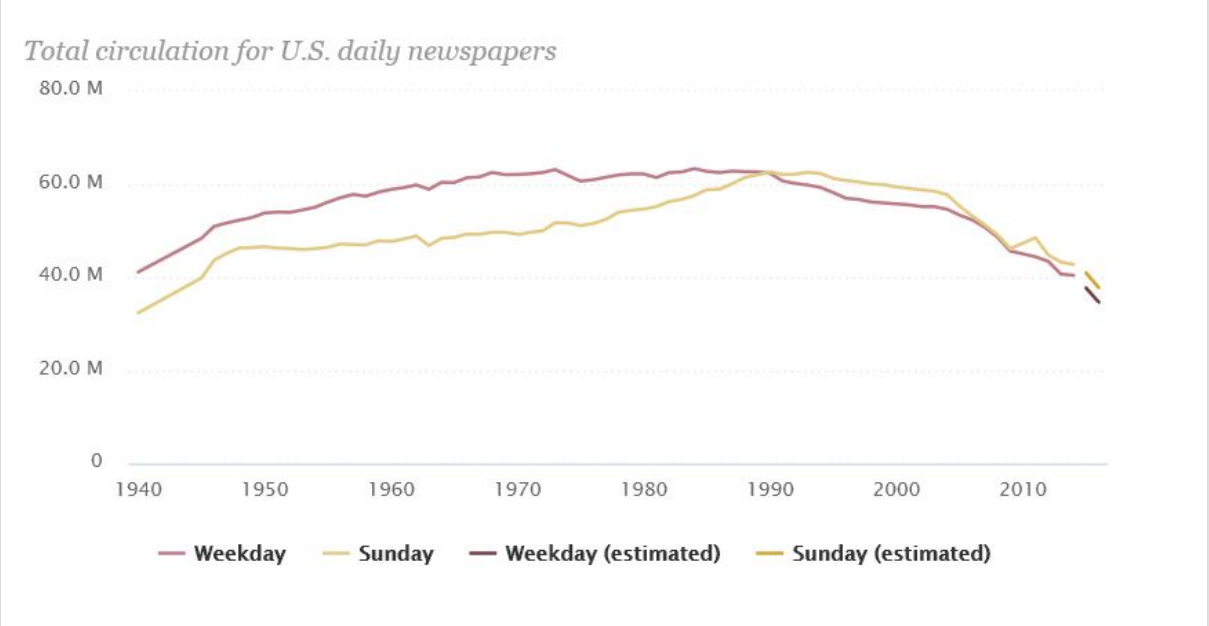
# 11 - The Market

## 11.1 - News Market

The global news market worth $153 billion dollars,[17] once dominated by newspapers, is in the gradual process of being disrupted by digital platforms. In most of the world, newspaper subscriptions are in steady decline, while the strength of digital platforms is shown by double digit year-on-year growth in related digital advertising revenues.[18] This represents a huge opportunity for digital platforms with new business models like Media Sifter to take over a market, as seen in the music industry.




[17] World Press Trends 2017 Facts and Figures - Link
[18] State of the news-media report 2016 - Link

Falling circulation in  U.S. newspaper circulation, Source: Editor & Publisher (through 2014); estimation based on Pew Research Center analysis of Alliance for Audited Media data (2015-2016).

The digital arms of established news outlets are seeing spectacular growth, in the UK, the growth from digital news outlets is fuelling triple digit growth[19]. The portion of readers who now receive their news from newspapers (20%) is falling behind digital media (28%). The outlook for print is not expected to improve - According to Magna Global, a media buying agency, global newspaper advertising spending will shrink by 8 per cent a year to the end of 2021.[20]

While ad-revenues are useful signals, the **revival of subscriptions** are a more relevant indicator of success for Media Sifter. As pointed out earlier in the piece, The Guardian now generates more revenue from supporters than advertisers. In the U.S. 53% of people now pay for the news.[21] This trend is especially interesting amongst younger audiences. The 18-49 bracket are motivated to subscribe by a desire to support a news organization's mission - a market that Media Sifter will be actively targeting.[22]

Media Sifter will also of course be appealing to the global market of Social Media users. As we are building a community to fact-check the news, the service can be viewed as a purpose driven social media. The market size for social media is proven and massive. Per Statista, the number of people using social media in 2017 is 2.46 billion and that number is projected to reach 3.02 billion by 2021.[23]

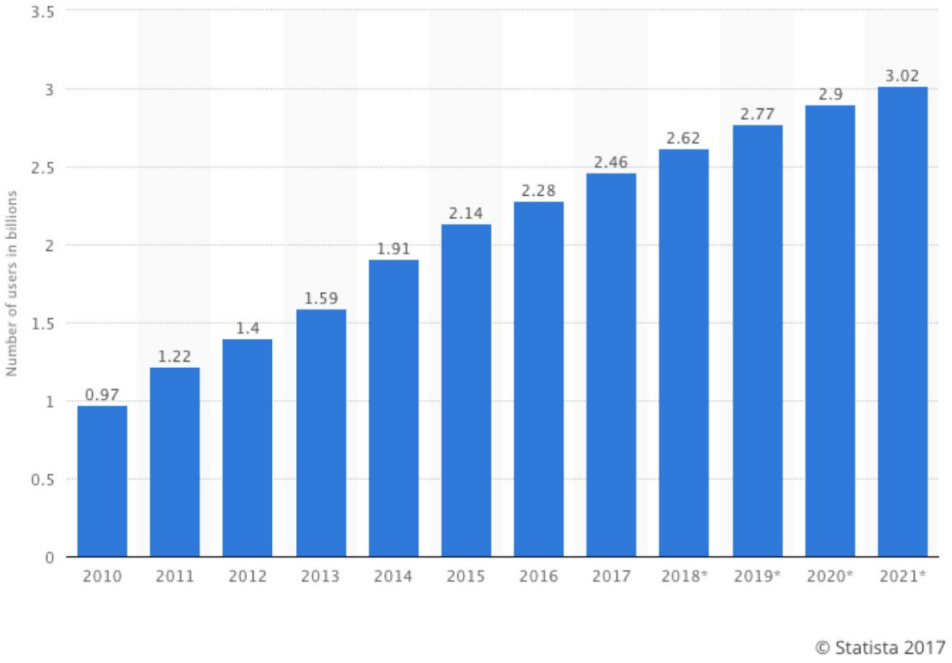
[19] Spectacular rises for digital readerships as newsprint audiences fall - Link

20 Newspaper advertising spending - Link

[21] Those Paying for News - Link

[22] Size of News Market - Link

23 Social Media Market Size - Link




## 11.2 - Target Market

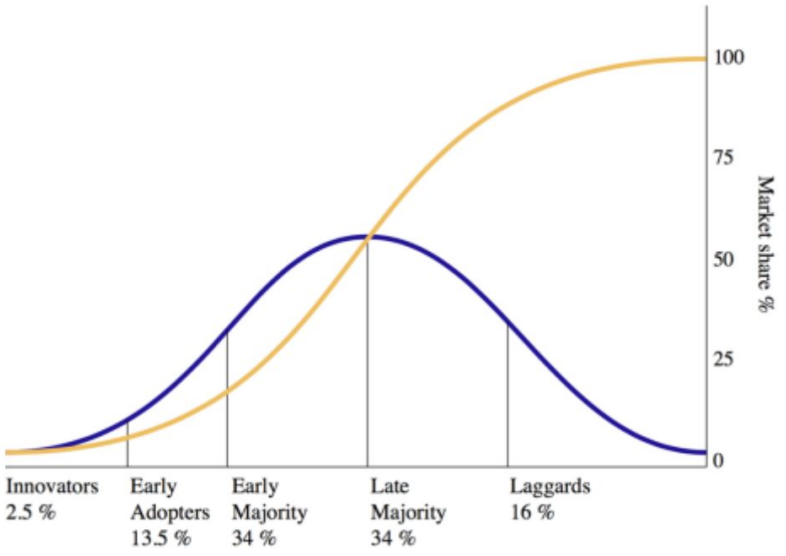
Based on the current market and predicted growth, as identified in the sections above, Media Sifter will initially focus on technology literate, media consumers who are part of the majority of people who currently pay towards the news they receive.

Subscribers to the news in this group are of course a key segment to attract - they currently represents around half of the paid media market, or around 29% of the total.[24] This figure, already significant, is likely to grow dramatically, as pointed to by the data outlined in the section above.

Interestingly, while price sensitivity for digital products is always a concern, interestingly research has shown younger adults are *as* willing to pay for digital services, as print.[25] Therefore initially, Media Sifter will be focusing early efforts on the younger market i.e. audiences below the age of 65.

[24] Who pays for news - Link
[25] Print vs Digital - Link

## 11.3 - User Adoption




Our deployment plan is designed to onboard users at various stages in our development cycle.

### Innovators (2.5%)

We start by focusing on Innovators; the initiated, digital natives and paid-up media consumers who have lower barriers to paying for digital services. This group will comprise journalists, activists, researchers, investigators and critical citizens who, as advocates for the platform, will benefit from early-supporter status and be incentivised to refer friends and family to Media Sifter.

### Early Adopters (13.5%)

The next shift in attention will aim specifically target content related to environmental issues, as this subject matter has very motivated audiences, with a the potential concentrated local network effects around audiences topics of choice. Academics, Researchers and Journalists are also vital to reach out to during this phase. As there content or “Beat” expertise will also be critical. We are currently building a journalist advisory board for this very purpose.

### Early Majority (34%)

Similarly to platforms like Facebook that rode the wave of initial student adoption, we see the next phase, the early majority, as pivotal to mass adoption. By this point the platform will be a thriving community for fact-checking and earning rewards. Groups that appreciate the fact-based content that Media Sifter provides, such as mainstream industry professionals, will be attracted to the platform by the prospect of a trusted news source, as well as the incentives to earn rewards.

### Late Majority (34%)

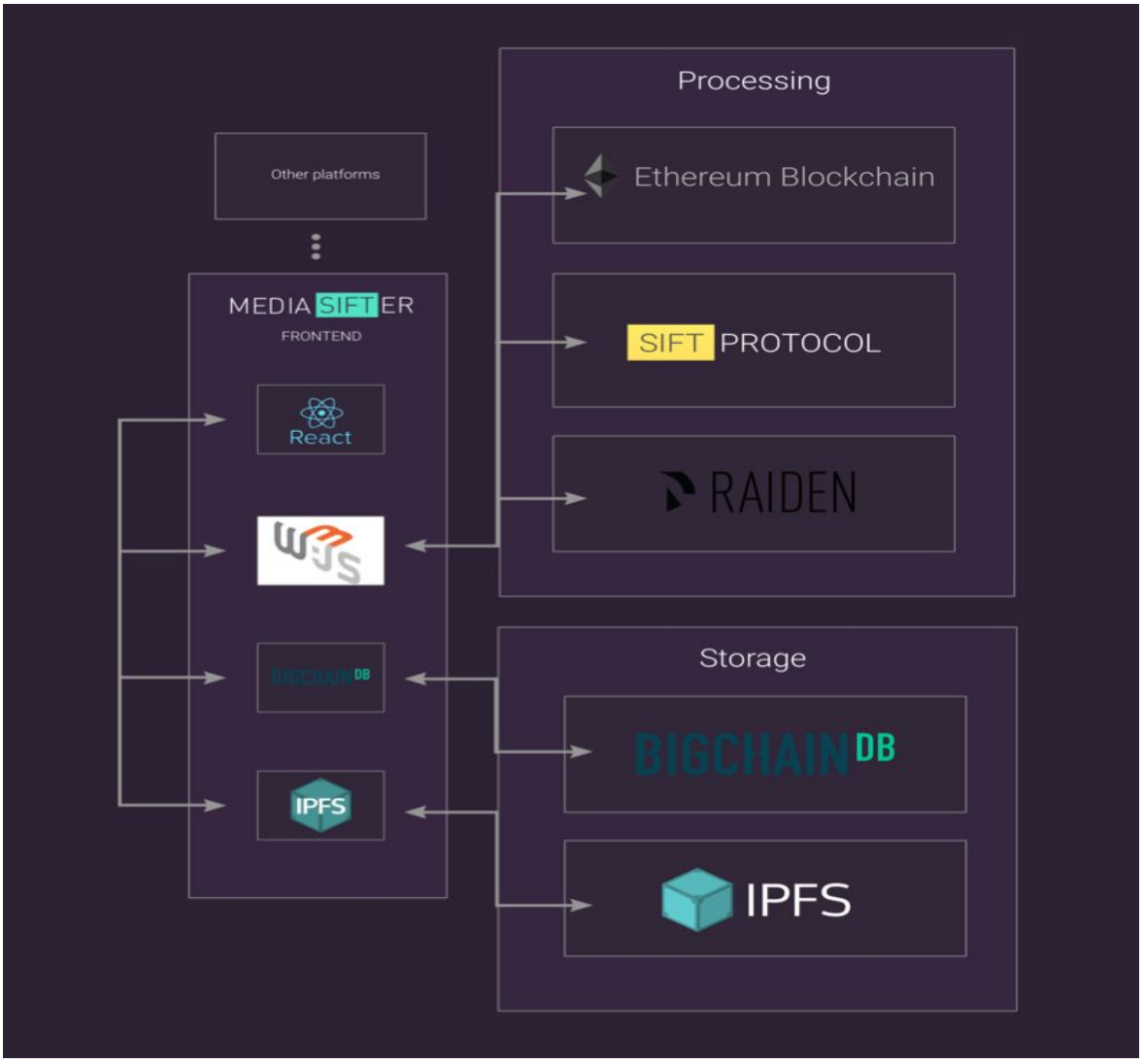
The later majority comprises various groups of consumers, but particularly groups who currently use few digital services for the news, and/or those who are resistant to paying for the media online. By becoming a hub for fact-based content we will attract this group through a mix of network effect, referrals, and reward incentives.

### Laggards (16%)

This last group will be those who are currently non-digitally savvy media consumers. As technology moves on, there will be opportunities to reach this audience with our platform, particularly older media consumers.

# 13 - Tech Stack

## 13.1 - Tech Stack - Diagram




## 13.2 - Media Sifter Platform

Media Sifter will be the platform that functions as the communicating product through synergy between all underlying building blocks and various API's.
A communicative link between The Ethereum Blockchain and the Media Sifter Platform will be established through the Ethereum JavaScript API (web3 library) which allows for communication between the two.

Most of the platform code will be written in JavaScript within a compliant server-side environment i.e Node.JS and the frontend making up the user interface, will be powered through the usage of libraries such as React.JS.
IPFS will serve the frontend as it works much faster than the normal HTTP protocol. Content such as images, PDF, text etc. will all be stored in IPFS and given a cryptographic hash (more about IPFS in the later section).
The platform will be connected to a preferably decentralized database which will contain information related to transactions, evidence, and much more.

## 13.3 - Bringing in content into the system:

Media Sifter will be collecting articles from the web into the admin section through a Node.JS crawler. This will allow us to get publicly available data from websites in an automated fashion and format the information that is relevant to the Media Sifter platform based on the  custom behavioural policies integrated into our crawler.

In addition to above, the Node.JS X-RAY scraper will be used to extract the information that we're looking for from the crawled websites. It will allow us to pull the data from pages in a structure of our choice, with the goal of allowing us to store it in a database, to finally, allow for data manipulation as we desire.

## 13.4 - Interpreting Content:

Language analysis and text classification plays a large role on the Media Sifter Platform. A custom machine learning classifier will be used to rapidly classify the various amount of text to detect language, topic and execute sentimental analysis on the data in question, in a programmatic way.

Monkeylearn will initially be used for text classification which will operate based on modularized category trees, training processes and evaluation processes structured to fit the needs of the Media Sifter Platform.

## 13.5 - Decentralising control

The backend will be done with Node.JS, we wish to decentralise control as much as possible and eliminate any single points of failure and are therefore looking for the right database to suit our needs. This would preferably be a decentralised solution which is built on top of MongoDB or RethinkDB. We are therefore, looking into

decentralized databases offered by projects such as BigChainDB and will most likely be using one to serve our vision of running a completely decentralised ecosystem with no central authority and absolutely immutable data.

## 13.6 - Ethereum Blockchain

The Ethereum Blockchain will be used to eventually settle netted changes to the balance of users with the respective hash of the finalized review process. The Ethereum Blockchain will allow users to have a verifiable receipt of changes made to their balance. Once the Media Sifter platform outgrows the processing capacity provided by the Ethereum blockchain, a migration to our own blockchain would most likely be necessary. We plan to build the project with those limitations in mind, as we want to be able to deliver a pleasant user experience and still maintain an affordable network fee. This is why focus will be placed on making sure that the on-chain infrastructure remains migratable and upgradable for a potential future migration to our own blockchain.

## 13.7 - The SIFT Protocol

The SIFT Protocol will work as a complementary protocol to run on the Ethereum Blockchain. The SIFT Protocol itself will be built as an on-chain solution consisting of a synergized network of smart contracts. The smart contracts will consist of unique features which ultimately seeks to spread influential power to users that act in a beneficial way to the platform.
The SIFT Protocol will include zero knowledge protocols for two purposes.

1) Firstly, allow reviewers in the review panels to commit their statement of validation in all secrecy while remaining anonymous and unaware of other participants until the review phase is finalized.

2) Secondly, allow investigators to be discatenated from their provided evidence until the specific evidence in question has been validated by a review panel.
The SIFT Protocol will judge outcomes of reviews based on consensus protocols which seeks the maximum possible level of agreement and consent from the majority of the participants. Additional rules will be applied to the previously mentioned consensus protocols which will determine the aftermath of changes to the user balances processed by the Ethereum Virtual Machine. Other platforms will

be able to integrate the SIFT Protocol or parts of it into their development infrastructure as it will be publically available and open source once complete.

## 13.8 - Raiden Network

The team is fully aware of the fact that transaction capacity of the current Ethereum Blockchain is very limited. Full blocks, high fees and long confirmation times are the known effects of this limitation and the problem is scalability. Ethereum is only able to confirm approximately 10-12 transactions per second.

The Raiden Network uses a mix of meshed payment channels, deposits and cryptographic tricks which allows for the creation of many-to-many payment channels between the various actors on the SIFT Protocol. It will allow us to compute all the calculations leading up to the final settlement of associated balances off-chain and only compute the critical information on-chain.

## 13.9 - IPFS - InterPlanetary File System

IPFS (or InterPlanetary File System) will be used to store vast amounts of data related to Media Sifter. Content related to a review process which includes PDF's, links, etc. will all be stored on IPFS, allowing us, to allow users, to easily verify the reasons for any changes made to their balances by attaching a cryptographic hash of the validated evidence to the transaction.
IPFS gives us the nice features of not having to trust a server as it places emphasis on content addressing rather than location addressing. This means our data will be saved in the form of objects and the data can technically come from several places as long as the file matches the cryptographic hash referring to the same data. Additionally, this allows for a more distributed file storage and mitigate single points of failure.

## 13.10 - Storage / Database

We will use a serverless, distributed, peer-to-peer database of choice, which is complementary to IPFS and it will be used to store more detailed data from various areas of the platform as well as its components. In the future we wish to be able to provide a database with publically available lookup of bias upon entity. However,

decentralized databases are still under heavy research and development and we are still looking for the perfect option in this rapidly maturing space, to suit our needs.

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## 14 - The Team

### John Ferreira

CEO / Founder — South African

System and Interaction designer, with 10 years building and designing systems, working at previously at Samsung Design Europe, Fjord London, EA Games. Media Sifter is his attempt in better helping support free expression and access to good information for all.

### Adis Begic

Blockchain Lead — Bosnian

Passionate about privacy and decentralization. His interest for hacking and cryptography ignited very early and has been burning ever since. Adis is working on elevating existing business solutions and sculpting new ones by combining knowhow with applied up to date research on subjects within the blockchain industry.

### Cyrus Clarke

Content / Community Lead— British

Cyrus wants to shake up the media machine. He believes in decentralising information and giving power to the community.

He brings a wealth of experience from his work with Channel 4 and is the former digital innovation lead at L'Oréal.

## Asbjørn Lauwersen

### Protocol Lead / Behavioural Scientist —Danish

Applied behavioural science professional, Asbjørn works to ensure that the MS Protocol empowers people's choices with the most useful information. Supporting reflective thinking, curbing information overload and confirmation bias are key concepts in this work.

## Ezequiel Djeredjian

### Communications Lead — Argentinian

With 8 years of experience in agencies, startups and corporations, Ezequiel is a digital marketer and storyteller. He is passionate about the new possibilities blockchain technologies bring.

## Martynas Mockapetris

### Frontend Dev— Lithuanian

Martynas is a talented front end developer extremely passionate about HTML and CSS. He loves to transform code into works of beauty. He is making Media Sifter's Alpha and main website look works of art.

## Matthias Roedl

### Protocol / Game Theorist— German

Scientific background in game and decision theory, Finance Professional Matthias works on constructing a sound game theoretical framework underlying the MS protocol. His main

focus is on aligning individual and community interests as well as short and long term incentives.

Colin Hill

Web Full Stacker —American

Extremely talented full stack web dev who has been architecting and building systems and platform for the likes of Tidal, Peergrade, coRelate. Colin is helping build our web platform.

Zohar Israel

CTO / Tech Lead —Israeli

Full stack 100% hands on software engineer, with 19 years of experience designing and implementing architectures in seed-stage startups. Takes special interest in AI, NLP and Cryptocurrencies

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## 15 - Advisors

Lisbeth Kirk

Founder EUobserver — Danish

Lisbeth founded EUobserver, a not-for-profit, independent online newspaper in Brussels in 2000. Her team of experienced journalists file daily news reports from the EU capital and beyond. She is responsible for the organisation's editorial strategy, including cross-border and investigative journalism.

## Sasha Schwendenwein

Investigative Journalist — South African

Sasha Schwendenwein is an internationally recognised, award-winning investigative journalist. She won the Journalist of the Year Award 2014 from the National Press Club, and a SAFTA Award for a story she co-produced on child abuse. She works mostly on investigative and human rights stories. Sasha holds three Bachelor degrees from Houston University, and a Master's from Columbia University's Joseph Pulitzer School of Journalism.

## Asger Bin

CEO at M-PAYG — Danish

Serial-entrepreneur passionate about how technology can solve some of the world's most pressing problems. As CEO for M-PAYG. Founder of Denmark's largest crowdsourced investment company Lendino.

## David Dizon

CPO at M-PAYG — Danish

Serial-entrepreneur David is a creative problem-solver and business developer passionate about value creation through the use of technology. His core focus areas are: Product strategy and development, Business development & strategy, Commercialization of high tech concepts

## Marquise Stillwell

Founder Openbox — American

Marquise is the Founder and Principal of Openbox. As a business designer and developer for more than two decades, he brings innovation and strategic planning to the Openbox vision in the

fields of investing, product development, and technology. Marquise also works in creative leadership, teaching with the KaosPilots in Denmark and South Africa to help students learn by doing.