

**School of Thought for a Decentralized World**  
**The Ecosystem of the DAGS**  
**Decentralized Autonomous Government System**

Christopher Colantuono  
Melody Colantuono  
Logos.Earth: Decentralized Movement Research  
June 28, 2020

## Prologue

### *The Setting of the Tech Scene*

The past decade has seen Cloud Computing rise to prominence by means of service-oriented architecture;aaS (as a service). Technological advancement is moving in such a way that data management & storage, personal data, big data and thus economics is undergoing a transformation. As this form of computational and storage power and capacity gains prominence, certain matters of security and ethics need to be addressed.

### *As New Technology Emerges New Ethical Problems of Security Form*

There are increasing concerns about what these hosting companies do with the data they store on behalf of their users<sup>1</sup>. Concerns regarding these facets of the industry is sparking dialogue and adoption of various schools of thought regarding the morals & ethics of how data ought to be handled. This paper seeks to define & outline the parameters of a rising school of thought in regard to data management, storage, and economics as it pertains to emerging & popular technology.

## Introduction

### *Sign these Terms & Conditions or Get Lost!*

Up to this point, morals & ethics of technology and data in the public sphere have been determined by the company running the service. They present their terms & conditions, and if the user doesn't accept them, they aren't given access to it. This has stirred controversy in recent years as the public has grown more discontented by the way their personal data has been handled, and matters of security have been brought into question.

### *Don't Blame Someone for Doing the Wrong Thing When it's the Only Way They're Empowered to do That Thing*

One response to the issue of the way large corporations have handled data has been to turn to blockchain technology. Blockchain presents a very different model that has underlying morals & ethics regarding security and the processing and storage of data. Looking at how blockchain addresses these issues it is important to understand the underlying beliefs of where morals come from.

### *Two Popular Views / Left vs Right*

Throughout the ages the authority over morality has been debated. Two popular views have been talked about to this day. These two views are, the 'Divine Right of Kings' and 'Might Makes Right'. Although the 'Divine Right of Kings' is largely a dead view, it is often brought up to serve as an example of an age-old view of how dynasties claimed their sovereignty; or the founders 'of something' have the right to control its destiny.<sup>2</sup> 'Might Makes Right' has been used by democracies to explain why they have the authority to do something.

---

<sup>1</sup> Users can be companies or individuals

<sup>2</sup> 'Might Makes Right' is very similar to consensus, or it is to say that the authority of the consensus are those who have the strongest power within it. This could be thought of very similar to Bitcoin as those who have the greatest might of mining power can ultimately determine, if they so choose, to alter the coded core of Bitcoin. Now, if this was to hypothetically occur, it is possible that people would splinter off when they see this happen if they did not agree. Nevertheless, the original blockchain that started to be mined would be altered for everyone. This is not necessarily the

### *Might Makes Right*

'Might Makes Right' is a common way democracies have held their authority as being the moral right by describing themselves as a fasces where in unity they have power and as long as that power is greater than another power it is 'the right'. This is like blockchain being thought of as the final authority being backed by whatever the miners mine. If the miners choose to mine it, then this becomes 'the right'. With this mindset one sees the enforcer as the ultimate authority of 'the right'; the miner.

### *Divine Right of Kings*

On the other hand, 'Divine Right of Kings' held authority as being transcendent to one person or family. As long as they hold the power to govern, they have been given 'the right' and can dictate law as they see fit. This is analogous to the view in blockchain that the code dictates what is acceptable or not. This leads to some holding that if the code allows it, it is permissible, even if those who wrote the code did not foresee this capability or outcome. Just as a King may not foresee all the outcomes or loopholes in the laws he passes he is allowed to make addendums. So too can the code be modified after the fact of a discrepancy that has been discovered<sup>3</sup>. If the developer is thought of as the king within the case of blockchain, then the intent of the developer is upheld. Just as the case of with a king, if the king has passed making him unavailable to interpret his decree there are still those who will go about attempting to examine and understand the king's intent. Ultimately, the actual intent of the king is unnecessary to be stated by the king as there will be those for him and after him who will draw out all ideas that are either missing or discrepant. Within this model 'the right' is determined by those with the ability to update the code; the master key holder.

### *The Final Authority*

This debate ultimately becomes a matter over are the miners the ones who have the final authority or is it the code the miners run that has the final authority? In other words, is it the one who pushes the update or is it the one who pulls the update? Although these two examples are not perfectly compatible, the point is that these types of debates have been debated before<sup>4</sup>. The problem of where does the final 'right' come from is currently in question concerning blockchain<sup>5</sup>.

### *Founders Wishes vs Users Wishes*

This view is in contrast to the view of the founder 'of a thing' having authority. Instead, it is those who are a part of 'the thing' which have the say in what it does and its destiny. There may be an initial founder and a family who upholds the original foundation, but as time continues on, who

---

view that people want accomplished within the decentralized space; most would advocate for a more balanced view of miner authority with the number of miners to the raw power of the miners as opposed to the most mining power alone.

This is a heavily debated topic. There are two main views on this, the hardcoded math, and the intention behind the hardcoded math. Those who use Bitcoin for example hold that 'code is law', the math gives the right. However, if somehow a majority hack was done on the Bitcoin blockchain that violated the principals of it, the other nodes would reject it, even though it was technically following the code. Thus, the DAGS runs on intended code.

<sup>3</sup> Retroactivity for either view is not a part of this discussion.

<sup>4</sup> The purpose of stating this analogy is not to make an accurate analogy, but to raise the point that the ideas that are being debated within blockchain have not been resolved within previous discussions. If they had been, the blockchain community would not be currently disputing them.

<sup>5</sup> There is a multitude of examples, but for the sake of this paper we represent the two primary ones.

is in control? The founder's original words and settings, or those who use the governance of those words and settings? Who has the right to change those settings? This is where you get liberal and conservative ideologies; the left vs the right. This has been a debate that has changed throughout the ages, but has not really been fully answered<sup>6</sup>.

### *Conservatives and Liberals in the Blockchain Space*

Currently, the biggest debate in the morality of blockchain is the debate over 'code is law', verses 'intended code is law'. Though not a perfect analogy, this debate could be linked to concepts of authority of morality, intended code is law being the newest iteration of 'Might Makes Right', and code is law being the newest iteration of 'Divine Right of Kings'.<sup>7</sup> This becomes left vs right as 'code is law' is on the right and 'intended code is law' is on the left. The community that is dealing with blockchain will not be able to solve such problems of morality as it has gone for so long and not had a concise answer. We can have a takeaway though, that both views need to be respected to create proper order even though they are at times contradicting and only one view can be acted upon with no room for compromise.

### *Finally, Taking A Progressive Approach to a Left and Right View of Sovereignty over Morality*

The DAGS, which stands for Decentralized Autonomous Government System, is a school of thought that has arisen out of the discussions of morality and ethics. The DAGS philosophy does not try to answer this difficult situation, but instead attempts to work within the tension. This can be done through as great of a distribution of authority as possible. Utilizing a multitude of systems to create failsafes, minimizing the chance of having one point of failure. To date, no system exists that is absolutely perfect. As some have said, 'a perfect system is just an illusion that empowers people to do imperfect things within it'<sup>8</sup>.

### *The DAGS as a Progressive School of Thought Addressing Governmental Problems with Blockchain and Decentralized Technologies*

Ultimately, neither the DAGS nor Celestial Computing attempts to address the morality that blockchain addresses. Instead, it deals with the problems by circumnavigating them whenever possible. This is done by as great of a distribution of authority as possible which enables redeployment of intent if possible.<sup>9</sup> Many have hoped for a perfect solution within the blockchain space, but such a perfect solution is still only an experiment which has not been tested long enough to know all the potential variables to make it ready for mass adoption of every sector. The DAGS school of thought attempts to make compromises that enables it to enter in as many ideologies as

---

<sup>6</sup> An in-between view would be progressive, however, if progressives had a solid answer it would have been implemented by this time in human history. In addition, progressives are still rather liberal they still inherently advocate for change; they are just liberal with a deep reverence for the conservative way of thinking.

<sup>7</sup> Although this debate goes to the contracts themselves it does not cover what would happen in the framework of the overall blockchain such as the example with the bitcoin framework being overrun with nonoriginal code. Whether this be malicious code or agreed upon code is obviously irrelevant to the computer. However, the community does care, hence the debate.

<sup>8</sup> Computers are maintained by people, there is still always going to be a reliance on people to uphold the code; if computers gain independence from people, this can be re-discussed.

<sup>9</sup> When this is not possible more Agents are brought into play as this is ideally written in the original Smart Contract; even if the writing is not code it is best practiced to make sure that if new Agents are brought in, all parties agree upon what Agents these are every step of the way of the process of solving what all parties agree on as issues and the means to resolve them. This is not a perfect solution but an ideal to strive for.

possible into preexisting systems so that the views held that physics can be the final say of a contracts final authority can at least be partly deployed within every modern sector.

### *The DAGS is the Fusion of Technology and Human Governance*

As this view of 'laws of physics' having the final authority is tested greater and greater, the DAGS school of thought will inevitably evolve to meet what the newest data and understanding of the space present. This makes the DAGS school of thought ready for mass adoption of traditional governments which will allow for a slow and cautious implementation of these new schools of thought that computer technology has been able to present to us as a possible solution to humanities age old woes.

### *Technological Governance is only able to Address the Pragmatics that have Plagued them with Mistrust and Incompetence / Age Old Debates of Philosophy Remain*

There is no clear-cut solution to reconciling the bottom line of where authority comes from. Blockchain has tackled this issue by implementing one of two ideologies, code is law or intended code is law. This system comes with its shortcomings and that is the reason why the DAGS system does not attempt to address this issue directly. Rather, it seeks to circumnavigate the issue wherever possible. This enables it to be implemented into all sectors of society safely. Also, as the technology develops it allows room for the technology to mature while at the same time offering all its benefits, rather than sitting off to the side, never being fully developed because it hasn't been fully implemented.

## **Philosophical Premise – Establishing Need of a New Ecosystem**

### *The Need for Change to Finance Using Smart Contracts*

A premise of the DAGS philosophy is that we are so overwhelmed by information that we cannot learn everything that would be beneficial to us (especially in the financial sphere), much less find it. As a result, something needs to be put in place that can allow one to understand and take charge of their personal data, especially finances, in order to move through this fast-paced world in a meaningful way. Concerning the space of contracts, they have become so complicated to implement, interpret, and enforce, experts in each of these fields are needed to make a contract effective. The DAGS strives for the ideal of simplifying contracts whenever possible and using inherent methods to protect the users of smart contracts however possible. One reason this can be a reality is that at the end of the day, in many cases, smart contracts are not up for interpretation. This is a two-edged sword that those who hold the DAGS seek to master.

### *The DAGS is a Stabilizing Force Not a Disruptive One*

It is not DAGS' prerogative to create commotion, but rather integrate into society to make it a better place for all. The DAGS philosophy seeks to enter the market in a stabilizing way; rather than fight for dominance and play all or nothing. Rather, it will come alongside what already exists, to allow time for society to transition to the new way of managing finances and data. This system does not force people off of the systems they already use, but complements them, allowing time for transition. Essentially, the DAGS way of progressing seeks to enter any market by complementing as many entities as possible instead of compete with, or disrupt them. This non-feuding approach to technology encourages old systems to be able to be transitioned to a new system, and other types of technologies to build up alongside whatever technology one is focused on so that both are complemented as much as possible.

## Thesis of DAGS as an Ecosystem

### *The DAGS is a School of Thought Regarding the Practice of Morals and Ethics Applied to how it is Implemented and Utilized*

As decentralized technology has matured it has gained a faithful userbase. Over time this community has established a set of morals and best practices that they strongly believe in. As an ecosystem the DAGS has developed with these moral convictions in mind, and will continue to develop alongside the community that necessitated it to begin with. *The DAGS is a school of thought regarding the practice of morals and ethics applied to how it is implemented and utilized.* The DAGS ecosystem represents the dreams wants and desires of the community and expresses them through an ecosystem that brings all of the services a user might utilize to one place. This minimizes the chaos and complexity that currently surrounds the overwhelming number of services a person needs on a daily basis as well as emerging decentralized technologies.

### *The DAGS Will be Able to Integrate Into all Facets of Society / Utilizing Celestial Computing / Create a Unified GUI*

The way the DAGS ecosystem will merge the services a user might use is first through utilizing all systems of computing along with Celestial Computing to generate a GUI that minimizes the complexity of using so many differing systems at once. Through creating a unified user experience for the variety of services one might use on a daily basis, the DAGS ecosystem is not limited to technological systems, but it can integrate and impact social systems, governance, and business, integrating seamlessly into daily life. This also empowers other developers, projects and entities to deploy into the ecosystem creating an ever more rich and complete experience.

### *The DAGS is Comprised of Many Sub-Ecosystems*

The DAGS can offer all types of services. This will be possible through the adoption of Celestial Computing to make use of any service whether traditional or decentralized. For instance, DAOs and traditional banking can be hosted through the DAGS<sup>10</sup> ecosystem even though those two systems are not inherently compatible. There are a multitude of other systems that can be hosted on the DAGS ecosystem, and the goal is to collaborate with developers and corporations, municipalities and governments to fulfill the needs of each niche group in society. The DAGS is an overarching ecosystem which hosts many sub-ecosystems in order to create a unified experience. In this way, the DAGS will be capable of empowering not only municipalities and companies, but also the individual to manage their affairs.

## Creeds

### *A Creed Offers a Code of Conduct for a Community to Unite Around as They Launch their Project*

A creed is defined as a statement of shared beliefs of a community. The DAGS, representing the decentralized movement, seeks to uphold certain values, ideals, morals and ethics when it comes to data management, processing and storage. The following is a creedal statement of the beliefs and values held by this community, and that of the DAGS.

---

<sup>10</sup> It is worth noting that the DAGS attempts to do this legally. As adherents to Stabilization Theory it is inherent in our belief system to support governing bodies, and empower them to *provide and fulfill* all of the needs of those they serve.

1. THE INTEGRITY OF THE BLOCKCHAIN MUST BE UPHELD.<sup>11</sup>
2. ABOVE ALL ELSE THE MISSION AND CODE ARE LAW.<sup>12</sup>
3. PERMISSIONS' INTENTIONS MUST BE INTERPRETED THROUGH THE USERS END GOAL<sup>13</sup>
4. SERVANTS OF THE BLOCKCHAIN WILL EXEMPLIFY ABOVE REPROACH CHARACTER<sup>14</sup>
5. AN ORACLES DUTY IS TO THE INTEGRITY OF THE BLOCKCHAIN FIRST AND SHOULD BE USED ONLY IN A TIME OF NEED.<sup>15</sup>
6. THE VALUE OF DATA IS PRICELESS.<sup>16</sup>
7. REVERSE ENGINEERING AND CHARGING MORE FOR A SERVICE THAT DOES NOT COST MORE TO PROVIDE IS UNETHICAL.<sup>17</sup>

### *Not Every Deployment Within the DAGS Has to Adhere to the Same Combination of Creedal Ideals*

The purpose of a creedal statement is to provide a foundation of principals that govern behavior in a specific area. Being a school of thought, the DAGS is composed of many projects, apps, technologies, and DAOs. The purpose of this creedal statement is to give grounds for those functioning within the DAGS to operate on<sup>18</sup>. It is up to the individual project to decide whether

---

<sup>11</sup> No decision to make a change should ever threaten the integrity of the data held within the blockchain, or the trust that people have formed around that blockchain's mission.

<sup>12</sup> In many cases there is a nuance between code is law, and intended code is law. Whatever the use case be, an explanation for potential protocols in the event code itself fails or unintended mistakes in the code generate a failure of the intended use should occur a clear direction of that particular blockchain should already be clearly documented for how damage control should be handled by the community.

<sup>13</sup> Permissions are a very sensitive area as it can be the difference between complete privacy and anonymity or total exposure and potential exploitation. Because of this, the intent of a set of permissions must be viewed and made with the goal of the end user in mind. It is not moral to put more restrictions than necessary, and at the same time it is also immoral to leave the user unnecessarily exposed, or not in control of their own data/privacy.

<sup>14</sup> As representatives of the project/organization, it is the morally right thing to do to find someone who exemplifies the morals and ethics of that project as well as the decentralized movement as a whole. Otherwise, the risk of corruption and scandal could cause the collapse of that project as well as a loss of faith in the management of blockchain in it's wider scope.

<sup>15</sup> Oracles are to stay out of matters which the user has denied permission to.

<sup>16</sup> The value of data cannot always be quantified in the moment, but it can be understood that the level of redundancy at the time of creation is a strong indicator of its value. At some point, data is more valuable than a person's life. Unfortunately, we do not know at the time of the data's creation the ultimate value of this data in most instances. Therefore, it is of the utmost importance that the security and availability are treated in a way that in the exact moment of its creation, erring on the side of caution, is always best; it could be more important than we think it is. Whether the security is from falling into the wrong hands, or loss of data makes no difference to this being as essential as the availability being made accessible to any and all necessary parties.

<sup>17</sup> Doing these type of things produces unnecessary waste. Reverse engineering any device which is used for the blockchain that is produced for the blockchain specifically is against the values held by the organization and the device should be boycotted.

Providing a service with price tiers which are only produced for the sake of having them is inefficient and immoral. An example of this would be making a word processor which can only be unlocked if one pays more for it to allow it to grammar correct instead of only spell checking. Even though the cost of making it would only cost more to add different tier brackets of these software services.

<sup>18</sup> Not everyone who deploys a DAO [which is a self-contained governing ecosystem] will abide by the same creeds. The big take away of the creeds is not that everyone agrees on what the creeds should be, but creeds are stated so that a

they adopt all, some or none of these creeds. This credal statement now offers something for people to interact with as it pertains to implementing DAOs and other decentralized services.

## Conclusion

### *Age old Debates of Authority has Led a Community with Strong Convictions of Morality and Ethics Surrounding Data and Security*

Throughout the centuries the many were governed by the few with little to no say in how things were run or implemented. In this age of technological advancement this has led to the mismanagement of personal data; an issue never before seen in society. As a result, a growing community has been forming with the desire to protect personal data and give such control to the user. With this community in mind the DAGS School of Thought has formed with seven creeds to sum up and guide best practices with the communities wishes of morality and ethical behavior in mind.

### *The DAGS is an Ecosystem Built on the Ideals of the Community*

The DAGS as an ecosystem seeks to come alongside the existing infrastructure to empower organizations to function affectively and ethically while also empower individuals to take control of their data. This will be accomplished through the utilization of Celestial Computing technology and techniques, as well as providing a unified platform for users to utilize to accomplish their bottom lines. The Creeds exist to give a starting point of discussion for new and existing implementations to decide the what and how of their operations. The more people and organizations take part in the DAGS ecosystem and continue the discussion of ideas perpetrated in the Creeds, the more refined and better society will become.

### *How DAGS Implements Community Ethics into its Services*

The issues brought up by the community are long standing issues that don't have a simple solution. However, the DAGS seeks to provide an ecosystem that can host both views without forcing the users to compromise on their values. This is done by creating a multitude of systems, establishing layers of failsafes and minimizing the chance of having one point of failure. The DAGS ecosystem will circumnavigate conflicting practices or ideologies wherever possible to maximize the voice and preferences of the developers and users of the ecosystem. Such circumnavigation and compromise, where possible, enables as many ideologies as possible to enter in and thrive.

## Epilogue

### *Together We can Make the World a Better Place*

The DAGS ecosystem and platform will always be developed alongside, and by, the broader community. It is to the benefit of all that municipalities, corporations and individuals are empowered to do business, conduct financial affairs, engage in social activities and so much more. We all want the world to be a better place for ourselves and our posterity; together we can make this dream a reality.

---

particular DAO does not have dissention fall upon it if there needs to be an update, direction change, a pillar of stability or whatever the Devs originally set it up to be. The creeds are there to hold accountable the Devs and community around the DAO and its continued existence.



## Bibliography

- Block.one. (2018, 28 April). *EOS.IO Technical White Paper v2*. Retrieved from github:  
<https://github.com/EOSIO/Documentation/blob/master/TechnicalWhitePaper.md>
- Blockstack PBC. (2019). *Blockstack Technical Whitepaper v 2.0*. Blockstack.
- Celestial Computing: Defining the Unnamed Idea*. (2020, August 26). Retrieved from <https://github.com:https://github.com/logos-earth/Research>
- Cloud computing*. (2020, June 11). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/Cloud\\_computing](https://en.wikipedia.org/wiki/Cloud_computing)
- Creed*. (2020, May 24). Retrieved from Wikipedia: <https://en.wikipedia.org/wiki/Creed>
- Decentralized application*. (2020, May 16). Retrieved from wikipedia:  
[https://en.wikipedia.org/wiki/Decentralized\\_application](https://en.wikipedia.org/wiki/Decentralized_application)
- Decentralized autonomous organization*. (2020, May 27). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/Decentralized\\_autonomous\\_organization](https://en.wikipedia.org/wiki/Decentralized_autonomous_organization)
- Decentralized computing*. (2019, November 20). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/Decentralized\\_computing](https://en.wikipedia.org/wiki/Decentralized_computing)
- Distributed computing*. (2020, June 6). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/Distributed\\_computing](https://en.wikipedia.org/wiki/Distributed_computing)
- Ethereum Whitepaper*. (2020, June 04). Retrieved from ethereum.org:  
<https://ethereum.org/whitepaper/>
- logos-earth/Whitepaper*. (2019, August 19). Retrieved from github: <https://github.com/logos-earth/Whitepaper/blob/master/DAGS%20WP%20Nontechnical%20Pre-release%202020.pdf>
- Praxis (process)*. (2020, June 12). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/Praxis\\_\(process\)](https://en.wikipedia.org/wiki/Praxis_(process))
- Schoenfeld, H., & Molina, A. (2019, September ). *Pascal: An Infinitely Scalable*. Retrieved from pascalcoin.org: <https://www.pascalcoin.org/storage/whitepapers/PascalWhitePaperV5.pdf>
- Smart contract*. (2020, May 29). Retrieved from wikipedia:  
[https://en.wikipedia.org/wiki/Smart\\_contract](https://en.wikipedia.org/wiki/Smart_contract)
- The DAO (organization)*. (2020, May 27). Retrieved from Wikipedia:  
[https://en.wikipedia.org/wiki/The\\_DAO\\_\(organization\)](https://en.wikipedia.org/wiki/The_DAO_(organization))