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CRYPTOCORPORATIONS: A PROPOSAL FOR LEGITIMIZING DECENTRALIZED AUTONOMOUS ORGANIZATIONS

Timothy Nielsen*

I. INTRODUCTION

With the advancement of smart-contract-based technologies building upon blockchain networks,¹ a unique organizational structure has emerged. The decentralized autonomous organization (“DAO”) is a computer-code-based organization in which business governance is automated by virtue of automatically executing, breach-resistant smart contracts operating on an immutable, decentralized network.²

A couple of years ago, a DAO was created and implemented on top of the Ethereum blockchain network.³ It was championed by a German blockchain venture called Slock.it and was a collaboration of experts and members of the public (the “Slock.it DAO”).⁴ The Slock.it DAO exceeded expectations and raised more than \$150 million worth of Ethereum and issued over 1 billion tokens.⁵ In June of 2016, the Slock.it DAO was attacked, revealing the Slock.it DAO’s vulnerabilities and resulting in Slock.it taking both remedial and preventative measures to improve the viability and security of its DAO model.⁶ One of the results of the attack was a clear demonstration that, without building checks and balances into a DAO, opportunistic individuals could take control and potentially drain all of the DAO’s assets.

The blockchain community at large learned several lessons as a result of the Slock.it DAO. Among the lessons articulated on the Slock.it blog was both that “[g]overnance and voting mechanisms adapted to decentralized systems need to be developed” and that DAOs need to “[l]aunch [g]radually” to be positioned for success.⁷ A major concern articulated on the Slock.it blog was that “the tools to submit and debate opinions to guide the development of decentralized software have

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¹ For further explanation of blockchain networks, see *infra* Section II.A.

² For further explanation of DAOs, see *infra* Section II.D; see also Jeremy M. Sklaroff, Comment, *Smart Contracts and the Cost of Inflexibility*, 166 U. PA. L. REV. 263, 279 (2017) (discussing the advantages and disadvantages of using smart contracts which are stored on a blockchain).

³ Christoph Jentzsch, *The History of the DAO and Lessons Learned*, SLOCK.IT BLOG (Aug. 24, 2016), <https://blog.slock.it/the-history-of-the-dao-and-lessons-learned-d06740f8cfa5> [<https://perma.cc/87WB-CL2J>].

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

not been developed yet.”⁸ The author of the blog post concluded that “[c]entralized forums such as reddit are certainly not appropriate tools for this purpose. . . .”⁹ continuing to say that current tools being used to guide the governance of DAOs “do not represent the token holders. . . .”¹⁰

As blockchain and smart-contract-based technologies improve, the emergence of DAOs will likely accelerate.¹¹ A legal organizational framework which fosters political, legislative, and social debate around the governance of DAOs and codifies the current standard of governance for all legally registered DAOs is essential in establishing a consistent roadmap. Once there is a set of standard, default rules by which a DAO must play to organize under a state statutory scheme, there will be a benchmark for expectations concerning investor protection, duty allocation, disclosure, and liquidity. In addition, mandating compliance with applicable securities regulations¹² with regard to the solicitation, sale, and transfer of DAO Tokens can provide for more gradual, controlled DAO launches which prioritize investor, or token-holder protection. Although this may not lead to an infallible system of regulating primary blockchain markets, investor protection is a necessary consideration and must be given sufficient weight when balancing the issues this Note discusses.

This Note evaluates how a DAO may fit within the current landscape of business organizational law and contemplates the advantages and disadvantages of classifying a DAO as a partnership, Limited Liability Company (an “LLC”), or corporation. Ultimately, this Note concludes that the DAO does not fit perfectly within any currently available organizational structure. To fill that gap, this Note proposes the concept of the Cryptocorporation, which is a theoretical hybrid entity structure that could balance the probable real-world functionality of a DAO with investor protections and secondary market support.

Part II of this Note will broadly discuss the background of blockchain networks, smart contracts, and tokens. It will also discuss the Slock.it DAO and some of the key characteristics of a DAO in general. Part III begins by identifying some current barriers to investor protection and proceeds to analyze how a DAO fits within the current laws of partnership, corporations, and state LLC statutes. Part III concludes with the argument that DAOs should be legally recognized. Part IV begins by drawing parallels between the status quo and the historical circumstances which led to the initial recognition of the LLC. Part IV goes on to articulate the idea of the Cryptocorporation, including some of its key characteristics and attributes.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ Carla L. Reyes, Nizan Geslevich & Benjamin P. Edwards, *Distributed Governance*, 59 WM. & MARY L. REV. ONLINE 1, 1, 31 (2017).

¹² See generally *Federal Securities Laws*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/page/federal-securities-laws?auHash=B8gdTzu6DrpJNvsGIS1-JY1LnXDZQqS-JgJAgaSXimg> [<https://perma.cc/WX4D-GS7Z>] (last modified May 4, 2017) (discussing the Securities Act of 1933 and Securities Exchange Act of 1934).

II. BACKGROUND

A. Blockchain and Smart Contracts

Fundamentally, the term “blockchain” refers to a protocol which utilizes decentralized ledger technology.¹³ It is analogous to an electronic ledger in which every entry is time-stamped, electronically signed, and connected in sequence with the next entry. Because a global network stores all entries, the ledger can be universally accessed, but one key feature of a blockchain is that past entries cannot be changed.¹⁴ A blockchain has been described as “a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network.”¹⁵ These assets can be purely digital, like Bitcoin¹⁶ and other digital tokens, or they can be more tangible.¹⁷ Interests in objects ranging from gold to intellectual property rights have all been recorded, tracked, and securely transferred with blockchain technology.¹⁸

The capabilities of blockchain technology have led to the development of enhanced protocols which allow for specific, irrevocable, automatically executing contracts, referred to as “smart contracts.”¹⁹ Smart contracts are encoded into a blockchain and automatically execute once specific, pre-programmed conditions are met.²⁰ All decisions are made *ex ante*, and a breach is rendered impossible because the computer code which governs the transaction cannot be altered or canceled.²¹

¹³ MANAV GUPTA, *BLOCKCHAIN FOR DUMMIES 3* (John Wiley & Sons, Inc., 2d IBM Limited ed. 2018).

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ Although Bitcoin is purely digital and lacks any express face-value, it is not quite the same thing as a fiat currency which is issued by a government:

While cryptocurrencies exist in a solely digital arena, fiat is more tangible and physical. Alongside this, cryptocurrencies have a limited supply, whereas fiat money is unlimited with the government producing more coins and paper money when necessary. While Bitcoin and other cryptocurrencies are created by computers, fiat currencies are issued by the government. Interestingly, the value of cryptocurrency is not determined by the markets or government regulations, as it is with fiat currencies. One of the other reasons that Bitcoin is making waves and capturing the attention of the world is the fact that it is not controlled by anyone or by any government, whereas fiat currencies are.

Is Bitcoin a Fiat Currency? Why? or Why Not?, CRYPTALKER, <https://cryptalker.com/is-bitcoin-a-fiat-currency/> [<https://perma.cc/5QEV-7ED5>] (last visited July 10, 2019).

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Sklaroff, *supra* note 2, at 279.

²⁰ *Id.* at 276.

²¹ *Id.* at 279.

Although this rigidity may make smart contracts a poor tool for some commercial agreements, they can offer low-maintenance, low-cost solutions in other situations.²² Advances in smart contract processing have given rise to code which, when deployed, can serve some of the roles of corporate governance.²³ Specifically, some groups have used blockchain technology to pool together funds, make investment decisions, vote on ideas, and manage their business relationships with one another.

B. Cryptographic Tokens

The term cryptographic token refers to a unique digital asset which is constrained by rulesets that exist on the relevant blockchain network.²⁴ Some tokens are called “native tokens,” which are tokens generated on a root blockchain layer.²⁵ A root blockchain layer is the primary network which allows all future networks to exist. Bitcoin²⁶ and Ether²⁷ are examples of native tokens because they are tokens which are generated on the Bitcoin and Ethereum blockchain layers respectively. These are distinguishable from tokens issued on a “sidechain,” or application layer, which overlays the native blockchain layer.²⁸

Native tokens are often used as part of an incentive scheme which encourages individuals who do not trust or even know one another to participate in a validation process.²⁹ This validation process is the backbone of all functionality on the networks. When any two parties seek to transact with the tokens on a given network, the transaction has to be validated and a new entry made in the ledger.³⁰ This process relies on the participation of other users on the network.³¹ The networks use incentive schemes to ensure that this happens relatively seamlessly. Bitcoin, for example, is part of a “crypto-economic incentive” by which a distributed network of individuals promote the purpose of the Bitcoin blockchain by collaborating to

²² *Id.* at 291–303.

²³ See generally Christoph Jentzsch, *Decentralized Autonomous Organization to Automate Governance* (unpublished white paper), <https://download.slock.it/public/DAO/WhitePaper.pdf> [<https://perma.cc/2ZGL-SJDD>] (discussing the code which was implemented during the Slock.it DAO and explaining how that code is designed to automate functions of corporate governance).

²⁴ *What Is a Blockchain Token? Intro to Cryptographic Tokens*, BLOCHCHAINHUB, <https://blockchainhub.net/tokens> [<https://perma.cc/X7R9-TYGS>] (last visited July 10, 2019).

²⁵ *Id.*

²⁶ See generally BITCOIN, <https://bitcoin.org/en/> [<https://perma.cc/59LE-55Q2>] (last visited July 10, 2019) (explaining the open-source, public nature of Bitcoin).

²⁷ See generally ETHERIUM, <https://www.ethereum.org> [<https://perma.cc/58J8-B8Y9>] (last visited July 10, 2019) (explaining the open-sourced, globally available nature of Ethereum).

²⁸ See BLOCHCHAINHUB, *supra* note 24.

²⁹ See *id.*

³⁰ See *id.*

³¹ See *id.*

validate transactions and create new blocks.³² These native tokens have taken on a role analogous to currency; both Bitcoin and Ether are used to transact and store value.³³

In addition, some networks allow for additional networks to be created atop the native layer. For example, the Ethereum blockchain allows for an additional application layer to exist on top of the native blockchain layer.³⁴ As a result, we have seen the emergence of tokens referred to as “dApp tokens.”³⁵ These are smart-contract-based tokens which are not necessarily used as part of an incentive scheme and can be created and distributed more freely than tokens which must be bound by the terms of an incentive scheme.³⁶ Because of the level of flexibility within smart contracting and the lack of a need to issue these tokens in a manner which preserves a necessary incentive system, these tokens can more easily represent voting rights, ownership rights, claims to real assets, and more.³⁷ For the purposes of this Note, the term “token” will refer to smart-contract-based tokens rather than native tokens.

C. *The Concept of Pseudonymity*

The term “pseudonymity” is used in context with many blockchain transactions. It refers to a concept which is less private than true anonymity and arises when individuals act under a pseudonym.³⁸ Unlike true anonymity, it is sometimes possible to ascertain the identity of someone acting with pseudonymity by connecting multiple sources of information or evaluating data in varying contexts.³⁹ For example, if someone uses a pseudonym to transact or communicate online, the identity of that individual could be ascertained, or at least some identifying information could be determined if they request something to be shipped to them or if they use their real name for a limited purpose. Small pieces of potentially identifying information can be gathered from communications in online forums and inferred based on the context and content of communications. In other words, although many users of online services may wish to maintain their pseudonymity, it is not true anonymity and it does not render an individual impossible to identify.

³² *See id.*

³³ I.R.S. Notice 2014-21, § 2, 2014-16 I.R.B. 938 (Apr. 14, 2014), <https://www.irs.gov/pub/irs-irbs/irb14-16.pdf> [<https://perma.cc/P6QC-WYUB>].

³⁴ *See Beginners: What Is Ethereum?*, ETHERIUM, <https://ethereum.org> [<https://perma.cc/EW44-W6K3>] (last visited July 15, 2019).

³⁵ *Cryptographic Tokens*, BLOCKCHAINHUB, <https://blockchainhub.net/tokens> [<https://perma.cc/LL2U-EUJQ>] (last visited July 15, 2019).

³⁶ *Id.*

³⁷ *Id.*

³⁸ *See* Juliya Ziskina, *The Other Side of the Coin: The FEC’s Move to Approve Cryptocurrency’s Use and Deny Its Viability*, 10 WASH. J.L. TECH. & ARTS 305, 318 (2015).

³⁹ *Id.* at 325 (discussing how some blockchain technology users choose to give up pseudonymity by voluntarily associating personal information with a key address).

Pseudonymity can be a double-edged sword. In part, it makes blockchain transactions attractive because users are permitted to transact based on aliases or with limited disclosure of personal identifying information. Pseudonymity can be beneficial in encouraging or enticing interactions between strangers who may not trust each other enough to provide their bank account details, social security number, etc. However, a potential downside is that pseudonymity—in comparison with full transparency or disclosure—could raise the risk of fraud, theft, or otherwise taking advantage of another with a reduced chance of being caught.

D. Decentralized Autonomous Organizations

In general, the term “decentralized autonomous organization” (“DAO”) refers to a distributed network of stakeholders who participate in an organizational structure despite not trusting or even knowing one another.⁴⁰ The stakeholders do not have a formal organization or employment contracts but are instead governed by smart contract provisions which exist within software code and a structure which exists on the respective network.⁴¹ The Bitcoin Network has been referred to as the “first true DAO.”⁴²

The term “DAO” was also used in a white paper (“White Paper”) written by Slock.it Founder and Chief Technology Officer, Christoph Jentzsch. The White Paper outlines the first implementation of smart-contract-based DAO code on the Ethereum network, which was designed to “automate organizational governance and decision-making.”⁴³ The novel purpose of Jentzsch’s White Paper was to share an example of a method which allows for “participants [to] maintain direct real-time control of contributed funds and . . . [for] governance rules [to be] formalized, automated and enforced using software.”⁴⁴

In this Note, the term “DAO” refers to a distributed organization whose governance is largely automated and rooted in computer code. A DAO operates by allowing pseudonymous token-holders to submit proposals on which the other token-holders will vote in proportion to their total number of tokens.⁴⁵ These submitted proposals typically include investment ideas but could also theoretically include malicious actions such as transferring all off the DAO’s assets to a single individual.⁴⁶

In an effort to prevent majority abuses, Jentzsch’s White Paper envisioned and discussed an individual referred to as a “Curator.”⁴⁷ According to Jentzsch, the Curator position is ideally occupied by an individual with appropriate expertise and

⁴⁰ Jentzsch, *supra* note 23, at 1.

⁴¹ BLOCKCHAINHUB, *supra* note 35.

⁴² *Id.*

⁴³ Jentzsch, *supra* note 23, at 1.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.*

is entrusted with the authority to approve proposals for voting (referred to as “white-listing”) or reject proposals which could be malicious.⁴⁸ The required number of token-holder votes needed to approve a proposal varies depending on the type of proposal. It could range from 20% to approve a white-listed proposal to as much as 53% in the model outlined in Jentzsch’s White Paper.⁴⁹ Jentzsch envisioned that token-holders would also have the ability to propose a replacement Curator if they do not believe the current Curator is acting appropriately.⁵⁰ It takes a majority of token-holders to replace a Curator, and if the proposal fails, the minority group who lost can split-off into their own new DAO which will be overseen by the Curator whom they had proposed.⁵¹

Users can freely trade tokens issued by any DAO on applications (“apps”) in often-volatile secondary marketplaces.⁵² Some tokens are acquired so that the holder can exercise the underlying rights associated with a particular token, while other tokens are bought purely for their potential to appreciate in value.⁵³ The number of token-holders could be very small or theoretically extend into the millions while being fluid, with holders trading freely.⁵⁴

III. ANALYSIS

A. Barriers to Investor Protection

As was discussed in Part II above, the nature of blockchain tokens is fairly fluid. The rights and obligations associated with any particular token are highly customizable, while the underlying computer code is strictly executed and complex. One side effect of large-scale token issuances and the free trade of tokens in secondary markets is the propensity for fraud and opportunism. An entity based on the DAO model uses cryptographic tokens to convey ownership interest in the underlying projects of the organization.⁵⁵ In addition, the tokens grant voting rights

⁴⁸ *Id.*

⁴⁹ *Id.* at 2.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² Snovian.Space, *Understanding Volatility in Blockchain Tokens*, MEDIUM (Feb. 23, 2018), https://medium.com/@ico_snovio/understanding-volatility-in-blockchain-tokens-6be08f135423 [<https://perma.cc/ZR7Z-2D7X>] (explaining that “cryptocurrenc[ies] (as well as blockchain tokens in general) are highly volatile assets.”).

⁵³ See Yoav Vilner, *Entering the World of Blockchain Investment: Coins, Tokens and ETF*, FORBES (Oct 1, 2018, 02:51 AM), <http://www.forbes.com/sites/yoavvilner/2018/10/01/entering-the-world-of-blockchain-investment-coins-tokens-and-etf/#5a3528a42713> [<https://perma.cc/QTG7-RB85>].

⁵⁴ There are already several secondary exchanges which have been set up to facilitate the trading and transacting in blockchain based tokens. See, e.g., COINEXCHANGE.IO, <https://www.coinexchange.io/> [<https://perma.cc/X68P-8TK3>] (last visited Aug. 16, 2019).

⁵⁵ Jentzsch, *supra* note 23, at 2.

to the token-holder, which are proportional to the number of total tokens issued and secure a right to share in the profits of the organization.⁵⁶

In 2017, the U.S. Securities and Exchange Commission (“SEC”) published a report analyzing the tokens issued during the Slock.it DAO (“the DAO Report”).⁵⁷ In the DAO Report, the SEC concluded that the Slock.it DAO Tokens constitute investment contracts, after applying a test referred to as the “Howey test,” which was derived from a 1946 Supreme Court case, *SEC v. W. J. Howey Co.*⁵⁸ The Howey test provides a four-pronged analysis which has been used to define certain contracts, agreements, or transactions as securities for the purposes of regulation.⁵⁹ The prongs include: (1) an investment of money, (2) in a common enterprise, and (3) an expectation of profits, (4) derived from the efforts of a third-party.⁶⁰ The DAO Report was a large step forward in terms of regulating a new and evolving space. The DAO Report analyzed the specific characteristics of the tokens and applied well-established legal principles to a new area of technology. The nature of the *Howey* test, in general, and the analysis in the DAO Report relies upon a factual inquiry. The SEC’s determination that Slock.it DAO Tokens constitute investment contracts was fact-specific.⁶¹ The SEC evaluated the nature of the relationship between token-holders and made decisions based on that unique situation. Therefore, as helpful as a report like this may be, it does not establish a uniform precedent.

The fact-specificity of the SEC’s analysis creates two main hurdles for protecting blockchain token holders as investors. First, any time the SEC wishes to exercise jurisdiction over an organization with potential attributes of a DAO, the SEC will have to discover a lot of detailed information about the specific properties of the tokens and the underlying software code so that it can properly apply the factors from the Howey test. This will either have to be done via independent investigation or litigation. Second, it is possible that, either through technological evolution or through intentional subversion, tokens and smart contracts could be engineered in a way which will allow them to evade a prong of the Howey test. This current method of SEC regulation through litigation will lead to gaps in SEC jurisdiction and be both costly and slow.⁶²

⁵⁶ *Id.*

⁵⁷ See generally U. S. SEC. & EXCH. COMM’N, RELEASE NO. 81207, REPORT OF INVESTIGATION PURSUANT TO SECTION 21(a) OF THE SECURITIES EXCHANGE ACT OF 1934: THE DAO (2017) [hereinafter DAO Report].

⁵⁸ *Id.* at 11 (citing *SEC v. W. J. Howey Co.*, 328 U.S. 293 (1946)).

⁵⁹ See generally *SEC v. W. J. Howey Co.*, 328 U.S. 293 (1946) (discussing what contracts or transactions may constitute securities for the purposes of federal regulation).

⁶⁰ *Id.* at 301.

⁶¹ DAO Report, *supra* note 57, at 11–15.

⁶² Jason Gottlieb, *With States’ Crypto Regulation, Problems Multiply*, LAW360 (May 24, 2018), <https://www.law360.com/articles/1046549/with-states-crypto-regulation-problems-multiply> [<https://perma.cc/VD8X-E489>].

In addition to the enforcement drawbacks mentioned above, some argue that the SEC got its analysis wrong to begin with.⁶³ These arguments only bolster the proposition that future enforcement actions will likely be hotly litigated and have high costs in both time and money. A more efficient regulatory solution could be found if DAOs were recognized in a way which grants the SEC a more presumptive level of jurisdiction over the tokens issued by a DAO. One of the best ways to accomplish this would be to establish a system by which tokens issued by a DAO constitute stock,⁶⁴ because the U.S. Supreme Court has held that stocks are by definition a security and will almost always fall under federal securities laws.⁶⁵

It could be argued that the Slock.it DAO Tokens were somewhat analogous to shares of corporate stock because the Slock.it DAO Tokens satisfy several of the factors of the five-part “stock characterization” test articulated in *United Housing Found., Inc. v. Forman*⁶⁶ and *Landreth Timber Co. v. Landreth*.⁶⁷ The Slock.it DAO Tokens satisfied some of the stock characterization factors because, as the SEC DAO Report discussed, the Tokens entitled the holders to dividends derived from profits, they were somewhat negotiable, and the tokens granted proportional voting rights.⁶⁸ Additionally, the SEC analysis in the DAO Report states that the “voting rights of DAO Token holders [were] akin to those of a corporate shareholder.”⁶⁹ The glaring problem with this analysis is that the application of the “stock characterization” test requires that the potential security in question also be expressly referred to as “stock,” which rules out this hook for SEC jurisdiction.⁷⁰

Compounding the difficulty of classifying tokens issued by DAOs is the fact that there is ultimately no state-recognized entity that can be said to have issued them and thus no LLC, partnership, or corporation from which to begin an analysis. State regulation of business entities can be a great starting point for such an analysis. State laws dictate default rules relating to the formation and management of partnerships, corporations, and LLCs. These default rules mandate if and when a corporation has been created and can set minimum standards for the establishment, distribution, and transfer of stock or other ownership units.⁷¹ In the case of an existing DAO, a corporate entity or partnership may somehow have to be established *ex post facto*.

⁶³ See Ori Oren, *ICO's, DAO's, and the SEC: A Partnership Solution*, 2018 COLUM. BUS. L. REV. 617, 637–47 (2018) (discussing the ways in which the SEC seems to have misunderstood the DAO in their analysis).

⁶⁴ See generally, e.g., *Landreth Timber Co. v. Landreth*, 471 U.S. 681 (1985) (discussing what the earmarks of “stock” are for the purposes of regulation).

⁶⁵ *Id.* at 694.

⁶⁶ See *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).

⁶⁷ See *Landreth Timber Co. v. Landreth*, 471 U.S. 681 (1985).

⁶⁸ See DAO Report, *supra* note 57, at 5–6 (describing characteristics of the Slock.it DAO Tokens).

⁶⁹ *Id.* at 15.

⁷⁰ *Landreth Timber Co.*, 471 U.S. at 686.

⁷¹ See generally Delaware Limited Liability Company Act, DEL. CODE ANN. tit. 6 (2018) (providing a comprehensive statutory structure for limited liability corporations).

The absence of an existing corporate entity has not always precluded civil action; de facto partnerships have been found by courts in cases where two or more people work as co-owners of a for-profit business.⁷² Additionally, under doctrines of de facto corporation and defective incorporation, courts have sometimes held that a legal corporation existed even in the absence of a true de jure corporation.⁷³ The ways in which these doctrines have been applied, however, may make them difficult to impose on a DAO. De facto corporation doctrine requires not only the presence of a statute under which the entity could have been legally incorporated but also a good faith attempt to comply with that statute.⁷⁴ The doctrine of corporation by estoppel has been implicated in situations where entities have held themselves out as corporations.⁷⁵ Due to the lack of any statute under which a DAO could have organized, as in the case of de facto corporations, and the fact that DAOs usually do not expressly hold themselves out as corporations, neither of these doctrines serve to help the SEC effect investor protections and regulate DAOs.

Some scholars propose exemptions to securities regulations for DAOs, claiming that “[c]ompliance with the burdensome requirements of registration . . . would destroy this new technology and method of conducting business.”⁷⁶ Concluding that the best way to prevent this would be for “Congress [to] amend the registration requirements to provide an exemption for DAOs.”⁷⁷ This proposal may enable a DAO to operate more freely but does little to protect initial and secondary market investors because it simply exempts DAOs from registration and does not impose any alternative form of mandated disclosure or regulation. In addition, SEC exemption does not resolve the issues arising from a DAO lacking any sort of formal legal organization or classification which is recognized in the United States.

B. Analysis of How a DAO Fits Within Current Business Structures

Scholars and practitioners alike have proposed several methods of categorizing and regulating DAOs under current business laws and norms. This part analyzes

⁷² See Laila Metjahic, Note, *Deconstructing the DAO: The Need for Legal Recognition and the Application of Securities Laws to Decentralized Organizations*, 39 CARDOZO L. REV. 1533, 1549–51 (2018); see also *In re Keytronics*, 744 N.W.2d 425, 437, 441–44 (Neb. 2008); Wayne N. Bradley, *An Empirical Study of Defective Incorporation*, 39 EMORY L.J. 523, 527–30 (1990).

⁷³ See Bradley, *supra* note 72, at 526; see also *Cantor v. Sunshine Greenery, Inc.*, 398 A.2d 571, 573–74 (N.J. Super. Ct. App. Div. 1979).

⁷⁴ See Bradley, *supra* note 72, at 527.

⁷⁵ *Id.* at 529–30.

⁷⁶ Tiffany L. Minks, Comment, *Ethereum and the SEC: Why Most Distributed Autonomous Organizations Are Subject to the Registration Requirement of the Securities Act of 1933 and a Proposal for New Regulation*, 5 TEX. A&M L. REV. 405, 405 (2018) (discussing some competing arguments and proposing an amendment to registration requirements for DAOs).

⁷⁷ *Id.*

those proposals and concludes that attempting to fit a DAO into current business structures is like trying to put a square peg in a round hole; it's simply not the right fit.⁷⁸

1. *The DAO as a Partnership or Joint Venture*

Some scholars have argued that the DAO should be considered a general partnership or alternatively a joint venture.⁷⁹ The Uniform Partnership Act (“UPA”) has a fairly loose definition of a partnership.⁸⁰ “Generally, a court in a state whose partnership laws are modeled under the UPA will find that a partnership exists where persons place their money into a business and share in the profits and losses.”⁸¹ This understanding of a DAO offers some advantages: partnership status avoids the potential double taxation of some corporate structures⁸² and may easily help define the way in which the voting decisions are made by clarifying who has what decision-making authority.

Whether a DAO could constitute a de facto partnership or another kind of joint venture, however, does little to promote adoption of the DAO as a legitimate entity and may ultimately harm investors. Although partnership interests can be transferred, partnership interests are not designed to be readily tradable in a secondary marketplace.⁸³ From an investor protection standpoint, the imposition of personal liability⁸⁴ for the actions of any DAO based solely on the acquisition of a token in a secondary market could be devastating to an individual investor.

Some scholars have claimed that exposure to individual liability can act as a potential check on bad-actors within a DAO.⁸⁵ One downfall with this theory is that it may not work on individuals who perceive themselves to be judgment-proof. If a DAO were to commit a tort and a large portion of the token-holders were extremely

⁷⁸ This problem has been recognized by other scholars who have analyzed and applied the current business legal framework to decentralized autonomous organizations. *See, e.g.,* Carla L. Reyes, *If Rockefeller Were a Coder*, 87 GEO. WASH. L. REV. 373, 389–402 (2019) (discussing how partnership treatment of DAOs leads to negative results and discussing barriers to incorporation or organization as an LLC).

⁷⁹ *See generally* Matjahic, *supra* note 72 (discussing the background of the DAO and applying general rules of construction of the general partnership to the structure of the DAO).

⁸⁰ *Id.*; *see also* UNIF. P'SHIP. ACT (1997), § 102(11) (amended 2013).

⁸¹ Matjahic, *supra* note 72, at 1550.

⁸² Matthew J. O'Toole, Christopher N. Kelly & David M. Hahn, *Delaware May Be the Right Jurisdiction for 'Smart' Orgs*, LAW 360 (Feb. 16, 2018, 12:41 PM EST), <https://www.law360.com/articles/1013208/delaware-may-be-the-right-jurisdiction-for-smart-orgs> [<https://perma.cc/C747-47HD>].

⁸³ Although some partnership interests may be transferred or sold, the fundamental idea that general partners can always choose their other partners makes general partnership units difficult to transfer or sell. *See* UNIF. P'SHIP ACT (1997), §§ 501–603 (amended 2013).

⁸⁴ The imposition of personal liability on all general partners for the liabilities of a general partnership is inherent in the principles of general partnership. *See id.* at § 306.

⁸⁵ Oren, *supra* note 63, at 654–55.

difficult to find or outside of the United States, American investors could become the most sought-after targets for collection while many “partners” may escape the consequences of their liability via their pseudonymity or geographic location.

The proposition of a “Decentralized Partnership” in which the smart contracts and tokens constitute a partnership agreement is also a compelling proposition,⁸⁶ however, this proposed new structure still imposes individual liability on token-holders. Moreover, a “Decentralized Partnership is more difficult to participate in because it requires investors to be informed and to continuously participate to avoid unwanted liabilities or investments.”⁸⁷ This level of liability could substantially harm token-holders and may have little to no deterrent effect on bad-actors within the DAO because of their perceived status of being judgment-proof. The fact that partnership shares carry personal liability may impose negative consequences on individual investors and inhibit secondary market trading for these reasons.

Despite arguments that a DAO can currently be considered a partnership,⁸⁸ the proposition that partnership may not be the best fit is bolstered by suggestions of a new type of partnership structure.⁸⁹ As explained above, a DAO does not fit well within the current definition of partnership for purposes of secondary market trading, nor does it allow for adequate investor protections. Therefore, as will be explained in the sections that follow, some kind of formal incorporation or organization could become a high priority for creators and token-holders of a DAO, particularly given that a partnership structure is likely the most fitting model to apply in the absence of any other, and can be applied after any damaging conduct occurs.⁹⁰ A court may still hold a DAO Token-holder personally liable for actions of the organization where there is a lack of any formal incorporation or organization.

2. *The DAO as a Traditional LLC*

Some industry practitioners claim that a Delaware LLC may be an attractive form of organization for DAOs going forward.⁹¹ Because of the specificity of this argument and because of Delaware’s position as the “gold standard” of LLC law,⁹² this Note’s analysis focuses on the Delaware LLC code. Delaware offers an exceptional amount of flexibility in the structure and governance of LLCs.⁹³ Despite

⁸⁶ *Id.* at 652–54.

⁸⁷ *Id.* at 654.

⁸⁸ Metjahic, *supra* note 72, at 1550.

⁸⁹ Oren, *supra* note 63, at 654.

⁹⁰ Metjahic, *supra* note 72, at 1554–63.

⁹¹ See generally O’Toole et al., *supra* note 82.

⁹² *History of the Limited Liability Company (LLC)*, HARV. BUS. SERV., INC., <https://www.delawareinc.com/llc/history-of-delaware-llc> [https://perma.cc/B9YP-NPF3] (last visited October 26, 2018).

⁹³ See generally Delaware Limited Liability Company Act, DEL. CODE ANN. tit. 6 (2018) (allowing for a great deal of alteration and deviation from the default rules which it establishes).

this flexibility, a few modifications to the DAO model would likely have to be made so a DAO could successfully establish itself under the current laws of Delaware, as explained below.

The LLC law of Delaware boils down to one primary rule; the LLC Agreement will almost always control in any dispute.⁹⁴ An LLC can articulate almost every detail with respect to management, ownership structure, legal duties, and more in the LLC Agreement.⁹⁵ Provisions can be laid out, allowing for the free transfer of ownership and voting rights.⁹⁶ An LLC agreement can stipulate whether members are or are not bound by fiduciary duties.⁹⁷ LLCs also have the ability to choose a tax structure which works best for its members, allowing them to avoid double taxation.⁹⁸

Another major advantage of the Delaware LLC structure over that of a partnership is the limited liability.⁹⁹ This makes purchasing interests on a secondary market safer for investors and, applying this concept to DAOs, may encourage a freer exchange of tokens on trading platforms. It may even be possible for an LLC agreement to allow for membership interests in a DAO to function almost identically to uncertificated shares of corporate stock.¹⁰⁰

As appealing as the LLC structure may be, there are a few legal requirements which may be facially incompatible with the DAO model. The first incompatibility is Delaware's requirement that an LLC maintain the names and addresses of each member.¹⁰¹ Although the information may be kept primarily for internal use, any manager has a right to access it.¹⁰² Hence, if this were applied to DAOs, token exchanges could allow anyone who is interested in obtaining the list of names and addresses of every member to do so within a reasonable amount of time. Because there would be no barrier to becoming entitled to this information beyond the purchase of a token in the secondary market, this identifying information could

⁹⁴ *See id.* § 18–1101.

⁹⁵ *See id.* §§ 18–1101, 18–1107, 18–702(b), 18–404.

⁹⁶ *Id.* § 18–404.

⁹⁷ The Delaware Limited Liability Company Act states that duties, including fiduciary duties, can be waived in an LLC agreement,

To the extent that, at law or in equity, a member or manager or other person has duties (including fiduciary duties) to a limited liability company or to another member or manager or to another person that is a party to or is otherwise bound by a limited liability company agreement, the member's or manager's or other person's duties may be expanded or restricted or eliminated by provisions in the limited liability company agreement. . . .

Id. at § 18–1101(c).

⁹⁸ *Id.* § 18–1107.

⁹⁹ *Id.* § 18–303.

¹⁰⁰ *See id.* § 18–702; *see also* O'Toole et al., *supra* note 82.

¹⁰¹ DEL. CODE ANN. tit. 6, §18–305(a)(3) (2018).

¹⁰² *Id.* § 18–305(a).

become public quickly and easily and lead to a breakdown in a key feature of DAOs—pseudonymity. The pseudonymous nature of blockchain technology means that with a few key pieces of identifying data, one could potentially ascertain the real identity of a user on the Ethereum network.¹⁰³ Members in a DAO may lose their pseudonymity on an entire network by being required to provide identifying information such as that required by Delaware’s laws. Because of this, potential users may be hesitant to provide personal information in exchange for a stake in the LLC. Further, as will be discussed more below, problems arising from the lack of preservation of pseudonymity are not unique to LLCs.¹⁰⁴

One of the largest deterrents preventing the LLC model from being widely adopted as a form of registration for DAOs may rest in the exceptional amount of flexibility Delaware grants to the terms dictated in the LLC agreement. This flexibility is a double-edged sword. For example, Delaware does not mandate that LLC Agreements be publicly recorded.¹⁰⁵ On the one hand, this will result in difficulties when researching a DAO as a potential investment and may cause massive friction in secondary markets. Even if an LLC has the ability to organize and set up in such a way that the governance in written bylaws or articles mirrors the code or philosophy of a DAO, this ability does not mean that it actually will be set up accordingly. In other words, the freedom to do a certain thing, or not to do it, does little to establish certainty that the thing was done. On the other hand, the information-risk created by potential ambiguity in an LLC agreement could be mitigated if the LLC Agreement is freely distributed along with the tokens. However, the need to conduct research prior to obtaining a token, to ensure what rights and duties accompany it, is still less than ideal for investors.

It is also a drawback that the same flexibility which could theoretically allow a DAO to function as an LLC could also allow others to take advantage of investors through LLC agreements which do not grant the rights or protections which an LLC member may have expected. The fiduciary duty is a specific example of an attribute which a potential investor may presume to be present and protective of the investor’s interests, but the presence and utility/helpfulness of such duties actually will depend on the language of the LLC agreement.¹⁰⁶ On the one hand, the presence of fiduciary duties could be very helpful in ensuring that the Curator, programmers, and even other members act appropriately concerning the financial interests of the other members.¹⁰⁷ On the other hand, these duties could also be imposed on member-managers and impose unwanted duties on investors. Without any provision to the contrary, it could be assumed that each member-manager has a duty to disclose any potentially conflicting business operations.¹⁰⁸ Given the restrictions imposed on

¹⁰³ See *supra* Part II.C.

¹⁰⁴ See *infra* Part III.B.3.

¹⁰⁵ See Delaware Limited Liability Company Act, DEL. CODE ANN. tit. 6 (2018).

¹⁰⁶ *Id.* § 18–1101(c).

¹⁰⁷ See O’Toole et al., *supra* note 82.

¹⁰⁸ DEL. CODE ANN. tit. 6, § 18–1101(c) (2018).

managers, partners, and directors under the duties of loyalty and care,¹⁰⁹ the presence of fiduciary duties may also expose token-holders to a level of liability with which they are not comfortable if they inadvertently, or unknowingly breach those default-duties.

Delaware LLC law does allow for the elimination of fiduciary duties,¹¹⁰ but this only adds another layer of informational uncertainty for secondary market investors. Whether a Curator is bound to act in the best interest of token-holders or the organization may be unknown to investors because that duty could have been eliminated in the LLC agreement. The presence of duties and the extent to which they may protect DAO participants and investors would be subject to the specific provisions in the LLC agreement.¹¹¹ Indeed, the presence of a fiduciary duty could protect investors, and organizing a DAO as a Delaware LLC could give rise to such duties;¹¹² however, the drawback is the potential inconsistency among different LLCs and the extent to which token-holders may be unable to rely on the presence of such duties or may be forced to take on unwanted duties of their own as member managers.

In sum, under the existing legal and technological framework, a Delaware LLC may be the best fitting legal entity under which a DAO could organize under current law.¹¹³ Despite this, it's still not the right fit. As technology advances and as DAO Tokens become more widely traded, a more consistent structure which grants uniform rights to token-holders would better protect investors, reduce friction in secondary markets, and help prevent investor abuse.

3. *The DAO as a Traditional Corporation*

Many of the advantages of organizing as a Delaware LLC could also be accomplished if a DAO were to take the form of a Delaware corporation. The lack of personal liability for corporate shareholders, as well as the presence of fiduciary duties on the part of directors,¹¹⁴ may account for some of the reasons that corporations make up a large portion of publicly traded entities.¹¹⁵

¹⁰⁹ See Peter Molk, *How do LLC Owners Contract Around Default Statutory Protections*, 42 IOWA J. CORP. L. 503 (2017) (discussion the fiduciary duties of managers and the ways in which they protect stakeholders); see also Michael Haynes, Comment, *Partners Owe to One Another a Duty of the Finest Loyalty . . . Or Do They? An Analysis of the Extent to Which Partners May Limit Their Duty of Loyalty to One Another*, 37 TEX. TECH L. REV. 433, 438 (2005) (discussing the duty of loyalty of partners and managers in the context of partnership law which is sometimes applied to LLCs).

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ See O'Toole et al., *supra* note 82.

¹¹⁴ DEL. CODE ANN. tit. 8, ch. 1 (2018).

¹¹⁵ The presence of fiduciary duties may help account for why corporations make up such a large proportion of publicly traded companies. See *supra* notes 97–107.

Another reason that the secondary market for shares of corporate stock has been able to thrive is the fact that a share of common stock issued by one public company generally has the same rights attached to it as a share issued by a different public company.¹¹⁶ Of course, there are exceptions and qualifications to that generalization; but for the most part, an investor, a regulator, and a corporation all know what rights and duties they have when dealing with a share of common stock. The way this certainty and consistency facilitates the secondary market in corporate stock shares is best illustrated by envisioning what would happen in the absence of such consistency and certainty: if buying a share of Apple stock exposed each shareholder to personal liability, but purchasing a share of Microsoft stock did not, there would likely be more due diligence required before purchasing corporate stock in a secondary market, and thus a lot more friction.

DAO Tokens constituting a record of uncertificated shares of corporate stock could make up a safer and more efficient secondary market than one made of highly customizable and broadly variable membership interests in DAOs classified as LLCs. However, the privacy concern raised by the informational requirement of the Delaware LLC code¹¹⁷ would also be an issue under Delaware corporate law. This is because of Delaware's requirement that a corporation maintains a stock ledger, which could be made accessible and then distributed beyond internal use.¹¹⁸ For this reason, even being a common stock shareholder in a DAO may require that investors be willing to give up their pseudonymity, which is not a current requirement to participate in a DAO.¹¹⁹

Another area in which the corporate structure stands in contrast with the DAO model is the voting structure and the powers of a board of directors. In a corporation, the shareholders vote for the election of directors and sometimes for specific initiatives.¹²⁰ The board of directors generally makes the majority of the day-to-day management of corporate affairs and financial decisions, and the board's actions are constrained by duties and responsibilities which are owed to the shareholders and the corporation.¹²¹ This is much more analogous to the United States' form of a representative republic than to that of the purer democracy inherent in a DAO.¹²²

¹¹⁶ See Melissa Horton, *What Rights Do All Common Shareholders Have?*, INVESTOPEDIA, <https://www.investopedia.com/ask/answers/042015/what-rights-do-all-common-shareholders-have.asp> [<https://perma.cc/6E8N-42HE>] (last updated June 20, 2019) (explaining that "rights that all common shareholders possess include the right to share in the company's profitability, income and assets, a degree of control and influence over company management selection, preemptive rights to newly issued shares, and general meeting voting rights").

¹¹⁷ See *supra*, Section III.B.2.

¹¹⁸ See General Corporation Law of the State of Delaware, DEL. CODE ANN. tit. 8 (2018) (stating a stock ledger includes a running list of all shareholders).

¹¹⁹ See Jentzsch, *supra* note 23, at 1–2.

¹²⁰ DEL. CODE ANN. tit. 8, § 211 (2018).

¹²¹ *Id.*

¹²² See Jentzsch, *supra* note 23, at 1–2.

Despite the more democratic nature of the DAO model, the architects of the Slock.it DAO code ultimately realized the risks of a majoritarian attack on the minority and established the Curator role so that a human could theoretically protect minority owners from an attack by which a 51% owner proposes to transfer all of the DAO's assets to the 51% owner and then unilaterally votes it into action.¹²³ The Curator component of a DAO was originally theorized and has since been implemented, to avoid attacks like these and to establish some level of oversight when propositions are suggested.¹²⁴ The Curator may be a single person, as was articulated in the White Paper,¹²⁵ or it could be expanded to include a group of people. The token-holders have the ability to confer or remove this power from an individual.¹²⁶ The Curator, or a group of Curators, function in a way which requires that they approve or "white-list" proposed initiatives or proposals before a vote can be held.¹²⁷ By doing this, the DAO model has placed some limitations on the pure democracy of the operations. Further, although individual token-holders still exercise more decision-making authority in the operations of the DAO than a typical disinterested shareholder of corporate common stock, the shift from a pure democracy makes a corporate structure fit the DAO model slightly better. The Curator, or group of Curators, could constitute a board-of-directors-type role and the token-holders could elect or remove them as appropriate. This would establish that the parties making the white-list decisions act under a legally imposed fiduciary duty and other responsibilities, such as furthering the interests of the token-holders, while giving a possible remedy to those token-holders when these duties are breached, beyond that of simply removing the Curator.

However, this analogy wherein token-holders are shareholders, and a Curator constitutes a board of directors would present unnecessary complications. In a DAO, the quorum requirement, or the number of token-holders required to approve a proposal, is a variable function and may be set well below 51%.¹²⁸ And although the programming of the DAO has the ability to recognize certain types of proposals, like a Curator removal vote, and to apply a higher quorum requirement to those proposals, the required quorum for a perfectly functional DAO may fall below the statutory requirements for shareholder initiatives to be unilaterally binding in a corporation. Delaware law usually mandates that these types of shareholder votes require a majority¹²⁹ or even a supermajority, which is far from the 20% quorum requirement articulated in the White Paper.¹³⁰ To state it another way, if token-holders were shareholders under Delaware corporate law, they could potentially lack the legal authority to act in the manner prescribed in the DAO code.¹³¹

¹²³ See O'Toole et al., *supra* note 82.

¹²⁴ *Id.*

¹²⁵ Jentsch, *supra* note 23, at 2.

¹²⁶ *See id.*

¹²⁷ See O'Toole et al., *supra* note 82.

¹²⁸ Jentsch, *supra* note 23, at 2.

¹²⁹ DEL. CODE ANN. tit. 8, § 212 (2018).

¹³⁰ Jentsch, *supra* note 23, at 2.

¹³¹ DEL. CODE ANN. tit. 8, § 212 (2018).

C. Why the DAO Structure Should Be Legally Recognized

In light of the inadequacies of the existing business entity forms, the DAO should be recognized as its own form of business organization. Creating a specialized category of business organization under which a DAO could organize would serve several favorable outcomes. First, it would allow for scaffolding, which would support the growth and development of this emerging organizational structure. Scholars have said that “[a]s [distributed ledger technology] and smart contracts continue their rapid development, more distributed business organizations will undoubtedly emerge.”¹³² There is an opportunity to create a channel through which these organizations can legitimately form and operate. This would provide for a much higher level of consistency than a scenario in which DAOs fail to follow any formal registration process or one in which various DAOs register as a mix of LLCs, Corporations, or Partnerships under the laws of one, or many states.

Additionally, as demonstrated in the prior sections of this Note, the DAO with all of its current features does not fit squarely into any single legal structure. When considering the future of decentralized organizational structures, scholars acknowledge that their “success will depend on their ability to draw upon the unique strengths of the [DAO] model while mitigating the significant governance and enforcement risks posed by broad diffusion of power.”¹³³ Creating a legal structure which preserves the essential characteristics and supports the unique strengths of the DAO model, while simplifying regulation and prioritizing investor protection, can help ensure the success and further development of distributed business organizations.

In the White Paper, Jentzsch acknowledges that “[u]ltimately, how a DAO functions and its legal status will depend on many factors, including how DAO code is used, where it is used, and who uses it.”¹³⁴ It is of paramount importance to the ultimate success of DAOs that states take action to encourage legal and productive applications of DAO code. If efforts are focused on interrupting or halting DAO operations, future use and innovations may reflect efforts to evade or subvert regulatory enforcement. If, on the other hand, efforts are taken to encourage effective and safe uses, the DAO can become legitimate, normalized, and develop within a set of legal guideposts which balance the preservation of a DAO’s unique strengths with risk mitigation.

¹³² Reyes et al., *supra* note 11, at 31.

¹³³ *Id.*

¹³⁴ Jentzsch, *supra* note 23, at 1.

IV. PROPOSAL

A. The Emergence of the LLC as a Hybrid Entity

This Note proposes that a new hybrid entity be recognized, the Cryptocorporation. This is needed because of the incompatibility and poor fit of DAOs within current business organizational structures. Similar incompatibility and poor fit have led to the creation of hybrid entities in the past.¹³⁵ For example, the LLC was considered a hybrid entity when it was first recognized by the state of Wyoming more than forty years,¹³⁶ and much has changed both technologically and socially since then. At the time, the recognition of the LLC provided an alternative to the Sub-Chapter S Corporation, for those who were looking to benefit from pass-through tax treatment while limiting personal liability.¹³⁷ This new hybrid entity was created because of the limitations which existed within the current structure.¹³⁸ Laws relating to Sub-Chapter S Corporations placed “severe limitations on the number of shareholders” and restricted ownership to individual taxpayers within the United States.¹³⁹ Partnership law, on the other hand, imposed personal liability.¹⁴⁰ As a result, in 1977, the LLC was first recognized in Wyoming, and later, Delaware law became the gold standard for the LLC nationally.¹⁴¹

B. The Cryptocorporation

This Note proposes and describes a new, theoretical hybrid entity, the Cryptocorporation. The Cryptocorporation could be recognized by the passing of legislation in any state which chooses to include such entities among its other forms of legal organization. Although any state could choose to lead the way in adopting something of this nature, Delaware and Wyoming are both strong candidates, given their historical roles in business organizational law and their fairly recent legislative discussion around adopting blockchain technology for specific purposes.¹⁴² Regardless of the state, the law should allow for DAO code implementation while providing consistency for investor protection and secondary market concerns.

¹³⁵ HARV. BUS. SERV., INC., *supra* note 92.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Wyoming Passes 5 Pro-Blockchain Laws, Points the Way in Digital Asset Regulation*, CONSENSYS (Mar. 15, 2018), <https://media.consensys.net/wyoming-passes-5-pro-blockchain-laws-points-the-way-in-digital-asset-regulation-6fae9e07d129> [<https://perma.cc/2EB8-A57J>].

C. Attributes of the Cryptocorporation

1. Legal Recognition, Service of Process, and Personal Jurisdiction

First, a Cryptocorporation must have legal existence within a state. Not only does this serve to facilitate service of process, but it can also help grant jurisdiction to relevant courts. For example, if a Cryptocorporation were to be organized in Delaware, the Court of Chancery would have “jurisdiction to hear and determine all matters and causes in equity,”¹⁴³ and to “mediate . . . hear and determine technology disputes. . . .”¹⁴⁴ This sort of groundwork must be laid so that potential investors, regulators, and other stakeholders understand not only which jurisdiction will have authority to interpret the law, but also how to serve and file appropriate documents.

2. Pass-through Tax Treatment

Pass-through tax treatment¹⁴⁵ will be an essential component of the Cryptocorporation. Allowing for this will preserve the partnership-nature of the profit-sharing and avoid double-taxation in the way that a Sub-Chapter S Corporation does.¹⁴⁶ Codifying this sort of tax treatment with regard to the token-based shares of a Cryptocorporation could also help provide guidance on future tax regulation. At the moment, the IRS considers virtual currency to be property for tax purposes.¹⁴⁷ However, not all cryptographic tokens are created equal, and they should not all be considered the same for federal tax purposes. Token-based shares of a Cryptocorporation could be an easily distinguishable asset and allow the IRS to begin to treat tokens with certain demonstrable attributes differently than others. Tokens of a Cryptocorporation could all be presumed to function in substantively the same way by default. They will, therefore, be much easier to regulate and define under the Internal Revenue Code.

¹⁴³ DEL. CODE ANN. tit. 10, § 341 (2018).

¹⁴⁴ *Id.* § 346.

¹⁴⁵ Pass-through tax treatment, in this Note, refers to the ability to pass income through an entity on to its owners without having to pay a corporate income tax on the money prior to its distribution. Since the owner receiving the distribution will incur income tax liability on the funds, this pass-through tax treatment has been credited with avoiding a sort of double taxation on business income (a tax at the corporate level and again at the owner/distribution level). See HARV. BUS. SERV., INC., *supra* note 92.

¹⁴⁶ *Id.*

¹⁴⁷ I.R.S. Notice 2014-21, § 2, 2014-16 I.R.B. 938 (Apr. 14, 2014), <https://www.irs.gov/pub/irs-irbs/irb14-16.pdf> [<https://perma.cc/P6QC-WYUB>] (stating that “[f]or federal tax purposes, virtual currency is treated as property.”).

3. *Limited Liability*

As discussed above in Part III, consistently limiting personal liability for tokenholders is essential to a low-friction secondary market. In addition, this feature will prevent secondary-market-purchasers of tokens from taking on unknown or unwanted legal liability, which is an important protection for investors and those wishing to participate in a DAO. The most common rationale for imposing personal liability—that liability serves as a check on potential bad actors—is ineffective in the context of DAOs. The reason is that, as explained above in Section III.B.1, bad actors in the DAO setting are often likely to be unreachable and thus would escape liability while leaving U.S. citizens unduly burdened/targeted with liability in U.S. courts.¹⁴⁸

4. *Exclusively Token-based Stock*

The tokens issued by a Cryptocorporation will constitute shares of stock, and all stock shall be issued in the form of tokens. This will allow for the sale or transfer of shares to a single owner, a small group of owners, or to the general public. The SEC will have presumptive jurisdiction since the tokens will be referred to as stock and since the attributes of the tokens will satisfy many of the attributes articulated in the “stock characterization” test.¹⁴⁹ The tokens will represent a proportional right to receive a dividend contingent upon profits; they will have characteristics of being negotiable by being saleable; they will grant a right to vote in proportion to the total number of shares outstanding; and, they will have the possibility of appreciating in value.¹⁵⁰ The maximum number of shares will be articulated in the filed articles and can be changed by filing an amendment thereto. Also, the Cryptocorporation would be responsible for filing all appropriate documents with the SEC,¹⁵¹ regarding the sale or transfer of the tokens, as may depend on to whom they are solicited.

An advantage of this proposal is that, because the rights and duties associated with one token of a Cryptocorporation will be predominantly the same as any other, investors will not have to engage in prohibitively excessive research prior to purchasing a token. Whether investors are purchasing tokens with the intent to

¹⁴⁸ See *infra* Part II.B.

¹⁴⁹ See *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 688–92 (1985); *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975); see also *supra* Section III.A and accompanying notes 66–70.

¹⁵⁰ See *Forman*, 421 U.S. at 848–53.

¹⁵¹ At the moment there are not documents that a Cryptocorporation would have to submit to the SEC because no such entity exists; however, the process could be similar to that followed by current issuers under the securities rules, including certain provisions permitting exempt offerings. See, e.g., *Registration Under the Securities Act of 1933*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/fast-answers/answersregis33htm.html> [<https://perma.cc/N3UA-8E2H>]; *Exempt Offerings*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/smallbusiness/exemptofferings> [<https://perma.cc/8D84-FWFN>].

exercise their voting rights and actively participate, or whether they are purchasing the token as a way to hopefully make money from its appreciation over time, the secondary-market should be safer and smoother.

5. *Voting Rights, Quorum Requirements and Division*

The fifth attribute of this Note's proposed Cryptocorporation is the ability of a specified number of token-based-shareholders to act in a binding manner in certain circumstances. The Cryptocorporation should allow for a quorum of token-holders to act unilaterally, to the extent articulated in the code of the DAO. This could result in a quorum requirement of 20%¹⁵² of voting shares to pass a proposal that has already been white-listed by a Curator. This direct token-holder control is a key component of a DAO; if a majority or supermajority of token-based-shareholders were required to pass any proposal, or if a board of directors was ultimately responsible for the decision, the appeal and novelty of a DAO would be greatly diminished. The election and removal of a Curator would require a 51% quorum, as is contemplated in the White Paper.¹⁵³

Additionally, using a hybridization of LLC law, it should also be permissible for a Cryptocorporation to split into two distinct entities upon filing a plan of division and updated articles for each entity (the dividing and the newly created).¹⁵⁴ This could give protection to minority token-based-shareholders by allowing the entity to split into two organizations if the minority disagrees with the majority's decision to retain an unwanted Curator.¹⁵⁵ Ultimately, a vote like this would result in the existence of two Cryptocorporations: the dividing entity, which would consist

¹⁵² Twenty percent of token-holders is the quorum requirement to initially pass a proposal as envisioned in the White Paper. Jentzsch, *supra* 23, at 2.

¹⁵³ *Id.* at 1–2.

¹⁵⁴ See DEL. CODE ANN. tit. 6, §18–217 (2018).

¹⁵⁵ This is the method envisioned in the White Paper:

The process of choosing a new Curator is as follows: Any token holder can submit a proposal for a new Curator. In this case, no proposal deposit is required, because an attacker could vote for an extremely high deposit, preventing any splits. The debating period for this proposal is 7 days. This is 7 days less than the minimum required for regular proposals, allowing anyone to retrieve their funds before a potentially malicious proposal goes through. There is no quorum requirement, so that every token holder has the ability to split into their own DAO. The debating period is used to discuss (on or off-chain) the new Curator and conduct a first vote that's non-binding. After this first vote, token holders can confirm its results or not. In the case a majority opts to keep the original Curator, the minority can either keep the original Curator in order to avoid a split, or inversely they can confirm their vote for a new Curator and move their portion of the ether to a new DAO.

Jentzsch, *supra* note 23, at 2.

of the majority who voted to retain the unwanted Curator, and a newly created entity made up of the minority token-based-shareholders and the proposed replacement Curator.

6. *Maintaining Pseudonymity*

The ability to maintain pseudonymity is also an important attribute for a Cryptocorporation. Some scholars have opined that pseudonymity can lead to a lack of communication¹⁵⁶ or that it is enjoyed in large part by those wishing to do something illegal.¹⁵⁷ Both of these arguments are unpersuasive when considering impeding or obstructing an emerging disruptive technology like the DAO and the refinement of smart contract technologies. First, there may be any number of “legitimate reasons for law-abiding persons to want to engage in private transactions in certain contexts.”¹⁵⁸ Second, the DAO implemented by Slock.it hosted online forums where token-holders and members of the public could debate proposals.¹⁵⁹ There is no indication that the pseudonymity of the token-holders curtailed communication.¹⁶⁰

Further, the necessary disclosures and communication that would need to be distributed to token-based-shareholders can be accomplished electronically without keeping a record of the names and addresses of every shareholder or member.¹⁶¹ The Cryptocorporation should allow for a blockchain-based stock ledger of sorts that does not require the recording of the holder’s name, address, or physically identifying information. A ledger like this will still allow for communication of important information to shareholders (such as statements of gains or losses or required disclosures), and it will place no limits on the ability of shareholders and members of the public to communicate electronically, but it will maintain the key pseudonymity of Cryptocorporations. This type of record keeping is made viable by blockchain technology¹⁶² since all transactions will already be securely and permanently logged in real time. This obviates the need for a manually maintained shareholder ledger or a periodically updated filing made to the state.

7. *Responsibilities of the Curator*

A Cryptocorporation should impose some level of fiduciary duty on the Curator. The Curator should be legally required to act in the best interest of the Cryptocorporation and the token-based-shareholders. This duty will act as an important check on potential bad-actors and will add a barrier to those wishing to act as a Curator with improper motivations. When determining which proposals to

¹⁵⁶ Oren, *supra* note 63, at 649–50.

¹⁵⁷ O’Toole et al., *supra* note 82.

¹⁵⁸ *Id.*

¹⁵⁹ Oren, *supra* note 63, at 650.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *See infra* Part IV.C.8.

white-list and which ones to dispose of, the Curator cannot act simply out of self-interest or in a way which would be harmful to the entity or its shareholders. To facilitate informed decision making on the part of shareholders, Curators may be required to list a country of residence and provide any other identifying information which may be pertinent to securing sufficient votes to become elected. The Curator may choose not to provide detailed information about themselves and may be located outside the physical boundaries of the United States. To the extent that this causes discomfort to shareholders, they will have the opportunity to propose and vote for a more forthcoming or demonstrably qualified Curator, or to divide into a new Cryptocorporation which elects such a Curator.¹⁶³

8. *Maintenance of Records on a Blockchain*

The Cryptocorporation must be allowed to maintain a ledger of its token-based-shareholders, and record of all transfers and related information entirely on blockchain technology. The tracking of the stock via tokens could eliminate the need for intermediaries and facilitate a more efficient transfer of shares while preserving accurate, immutable records. It could be required that the records and other information be readily convertible to a readable, deliverable format within a reasonable amount of time upon the authorized request of a token-based-shareholder.

9. *SEC Compliance*

The Cryptocorporation should be bound to adhere to SEC regulations involving the issuance, solicitation, sale, and transfer of its token-based-stock.¹⁶⁴ Some Cryptocorporations may choose to be available to the public, while others may limit their shares to accredited investors or a closed list of potential owners. This Note does not conduct a thorough analysis of potentially implicated securities laws; however, investor protection is of paramount importance, and federal regulations should not exempt Cryptocorporations from compliance.

V. CONCLUSION

As blockchain technology develops further and grows in popularity and scale,¹⁶⁵ the issue of how to classify decentralized organizations will have to be

¹⁶³ See *supra* Part III.C.5.

¹⁶⁴ See Securities Act of 1933, 15 U.S.C. §§ 77a-77bfff (Supp. V 1981); see also Securities Exchange Act of 1934, 15 U.S.C. §§ 78a-78kk (Supp. V 1981).

¹⁶⁵ Sagar G., *Blockchain Technology Market: Industry Growth Factors, Applications, Regional Analysis, Key Players and Forecasts by 2026*, RISEMEDIA.NET (July 29, 2019), <https://risemedia.net/2019/07/29/blockchain-technology-market-industry-growth-factors-applications-regional-analysis-key-players-and-forecasts-by-2026/> [<https://perma.cc/VYN6-8K64>] (reporting that “[a]ccording to a new study the global blockchain technology market is anticipated to reach USD 16.82 billion by 2026”).

addressed. A consistent well-suited solution will be instrumental in balancing the positive contributions of the DAO with the risks. The first step to this end should be to allow DAOs to organize within the jurisdiction of a state. How they organize should not be so customizable and potentially unique so as to impose unreasonable burdens, potential duties, and unknown liabilities on individuals purchasing tokens in a secondary market.

A DAO does not fit well within the current landscape of recognized organizational structures and, rather than shoehorning it into one, states should recognize a new hybrid entity. This Note's proposed Cryptocorporation form, with rules and protections better suited to the unique qualities of a DAO, could allow for the most appropriate tax treatment of shared profits, limit personal liability, and allow for an appropriate voting structure as articulated in the White Paper. The proposed Cryptocorporation would also protect investors and give the SEC more presumptive jurisdiction over the token-based-stock that is issued and represented exclusively through blockchain tokens. Cryptocorporations can actively attempt to preserve the pseudonymity which exists on a relevant blockchain network, because of the capabilities of electronic communication and the security of blockchain-based recordkeeping. In sum, by borrowing from and building upon the attributes of partnerships, LLCs, and corporations, the concept of the Cryptocorporation has the potential to foster the productive use and development of smart contract technology for decentralized organizations, while mitigating the risks to investors and facilitating a more frictionless secondary market.