Colorado and Adoption of UCC For Blockchain Technology

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The ability to transact value over the internet via blockchain technology has caused a stir within financial and legal systems around the world. The first proper decentralized application, Bitcoin, enabled people around the world to securely send digital money without the need for a central bank. Bitcoin has given rise to a number of newer, similar applications to manifest, like Ethereum, Monero, and Ripple. Ethereum, in particular, has shown that blockchain can do even more through smart contracts - digitize the world and help facilitate trade via both data and value exchange. The interesting thing about this blockchain phenomenon is that people are treating this digital currency as actual money, despite many countries not officially considering it as such yet. Cryptocurrencies have an agreed upon, though highly volatile, value and are being used to buy all sorts of goods worldwide. This widespread adoption of cryptocurrency and increasing research into blockchain technology has pressured legislators to move forward and try to make amendments to the Uniform Commercial Code (UCC) so as to keep up with the changing times. Drafted in 1952, the UCC is a policy that has served the United States for quite some time. It was largely successful in its original vision of standardizing commerce/sales laws between all the states and territories under the United States. The UCC made an attempt to try and standardize the contract law between businesses that needed to operate in multiple states. It made it easier to do business within the United States, but it was initially drafted to work for a goods-based economy, not a digital economy. Due to the recent changes in the way businesses can now transact via blockchain technology, a 2022 amendment has been passed (U.C.C 2022 art. 12). Sponsored by the American Law Institute and Uniform Law Commission, this amendment adds a new article, article 12, and amends all previous articles to make more sense with the addition of this new article. The article aims to more clearly define cryptocurrencies and NFTs, but more importantly prioritizes protections for consumers of this technology under the US government. The UCC is not a law that states must accept verbatim, but rather a set of guidelines that could potentially be codified into a state's code of statutes if they so choose. Most states have historically codified the UCC with minimal changes, so it will be interesting to see how states react in 2023 to article 12 and the changes they make to this long respected policy. After reviewing the changes to the UCC as well as looking into recent policy initiatives proposed by the state of Colorado, I believe that it would be in the state of Colorado's best interest to accept the changes to the UCC. This paper will first go over the major conceptual changes in the UCC as stated in article 12, then assess current blockchain legislation that the state of Colorado has looked into or passed, and end with describing specifically how article 12 and the updated UCC guidelines will be beneficial for Colorado's blockchain innovations as a whole.

I. Description Of the New 2022 Amendment and Article 12

It is important to note that at this point in time, any regulations that try and stifle the innovation and research into blockchain development should not be considered. As this technology is still new and emerging, trying to define what blockchain is or isn't at a great level of detail doesn't help anyone. A major pro of article 12s writing is that it tries to be fairly vague and open with its definitions. It does not address whether a blockchain-based asset is a security or a commodity, any taxation rules for blockchain assets, how money transmission laws for the tech should be regulated, or even how anti money laundering (AML) initiatives ought to being put in place. The amendment also opts to be technology neutral, as the specific words blockchain, distributed ledger technology, and public/private keys are not used at all in the bill. Instead, the focus is only on creating a new asset class for blockchain assets and addressing concerns over the rights of all private parties involved. This consumer-focused bill tries to improve the rights of the consumer primarily, which wouldn't get in the way of innovation at all.

A major theme of article 12 is the definition of a new asset class called the Controllable Electronic Record (CER). It is under this new asset class that all blockchain-based assets fall under. The American Law Institute and Uniform Law Commission deemed it necessary to invent a new asset class under digital assets because of some unique differences CERs have when compared with money or traditional digital assets. Firstly, traditional digital assets are non-rivalrous, while cryptocurrencies and NFTs are rivalrous assets. A digital asset, such as an MP3 music file or other intellectual property, can be easily shared with another person. Since traditional electronic files can easily be made a copy of and distributed, there is no real scarcity in their existence or creation. Because blockchain assets are innately unique and scarce, they differ from traditional digital assets in this particular fashion. Two people simply cannot own the same NFT, as each NFT has a unique hash that is tied to a specific account holder. Also, CER assets fall under a "Take-Free Rule," which makes CERs more similar to money in that these assets are exchanged from one person to another. The CER asset class contains aspects of money and aspects of digital assets, but is its own unique financial instrument. Article 12 of the UCC is clearly defining that CERs are not money, since it they are an intangible asset.

It is also worth noting that the letter C, controlled, in CER has a specific meaning as outlined in the bill. It means that a particular person has the power to enjoy all benefits of an associated asset, power to prevent others from enjoying benefits of the asset, exclusive rights to transfer ownership of the asset from one person to another, and must be able to identify themselves using a cryptographic key. The definition of controlled is a definition I like here, as it simply defines the rights that a person or entity has to a CER. These are concepts of ownership that I think crypto-anarchists around the world would generally approve of. The fact that the states of the US government are going to be able to protect consumer rights for blockchain-based assets is a major plus for the blockchain industry. Confidence in blockchain products could go up as now there are protections for the consumer being put in place.

II. Previous Blockchain Legislation From Colorado

Colorado in particular has been taking the lead in the passing of bills relating to the exploration of blockchain technology's intersection with agricultural management. This paper will briefly go over all recent legislation between the years of 2018-2022 proposed in the state of Colorado concerning blockchain technology.

In 2018, Colorado passed two bills and indefinitely postponed one. The first bill authorized Colorado State University - Pueblo to begin researching the development of marijuana tracking technology (CO 2018 SB 29). This bill is meant to promote the enforcement of legal marijuana sales and is trying to protect the businesses and consumers within the marijuana industry through blockchain technology. Protecting the marijuana market's sales by preventing black market sales as well as tracing marijuana as an NFT could be bolstered by the new UCC article. Another bill aimed to explore how blockchain technology could be leveraged to reduce falsification of state records (CO 2018 SB 86). It is another research focused bill that doesn't directly deal with commercial activities, though shows Colorado's interest in furthering blockchain technology. The United States department of commerce is directly mentioned in this bill, however, so interest in collaboration has already been presented in this bill. Another bill passed in 2018 mentioned the marijuana industry again, but this time the focus was on certifying legal marijuana (CO 2018 SB 279). Turning certified marijuana into an NFT of sorts would again work well with article 12 and help provide consumer and business protections.

In 2019, there were two bills proposed in the state of Colorado regarding blockchain technology. The first bill focused on trying to stimulate research regarding how blockchain technology could generally improve farming operations (CO 2019 HB 1247). It is quite similar to the marijuana bills passed the year before, but the focus is less on certification and distinguishing between black and legal-market sales, but rather on exploring how blockchain technology can generally improve agriculture operations. Another piece of legislation that is more directly relevant to the UCC article is the senate bill regarding the use of blockchain databases to manage water rights (CO 2019 SB 184). This bill was indefinitely paused, but in the next year, it was passed with some minor changes made to the bill (CO 2020 HB 1072). Tokenizing water as an NFT and providing it to the people of Colorado could change the world of water rights and potentially reduce water insecurity among the people.

In 2021, Colorado passed a single bill to more fully explore water and irrigation tracking (CO 2021 SB 1268). It is less of a consumer focused bill and instead tries to fund the exploration and furthering of blockchain technology itself in terms of how it manages wireless sensor networks and such.

In 2022, there were two bills passed regarding blockchain technology. The first bill explores whether it would be possible to expand the kinds of collateral the state treasurer is allowed to leverage with regards to state capital financing (CO 2022 SB 25). Security tokens in particular are specified, where their use in state financing is to be explored in order to broaden the ways in which the state can repay their obligations. The second bill aimed at trying to get the commissioner of agriculture to create, deploy, and oversee an online education program to educate agricultural producers about progressions in blockchain technology and what exactly it is capable of (CO 2022 HB 1053).

III. Why Colorado Should Accept Article 12 With A Few Modifications

As outlined in the previous section, all of Colorado's legislative activities have revolved around improving consumer protections, researching blockchain technology in general, and educating business owners about what exactly this technology is capable of. It is important to note too that most of the bills focus on stimulating research, as there is almost nothing in production that is capable of doing any of the things outlined in these bills. Blockchain tech is still in its infancy and it will likely be some time before article 12 and blockchain will be particularly relevant to the public. Some of the bills, like CO 2018 SB 279 and CO 2020 HB 1072 could directly be affected by article 12 of the UCC and they should be edited accordingly. Water and legal weed ownership, represented each as NFTs, would fall under the umbrella of article 12. Another bill that would be affected by article 12 is CO 2022 SB 25, as security tokens are directly mentioned. Since tethering and security tokens are also mentioned directly in article 12, these security tokens could be subject to article 12.

IV. Conclusion

Article 12 of the UCC is one of the first overarching regulations to hit the United States and attempt at trying to regulate the blockchain technology market. It is important to note that it does not make very many changes to the UCC and also tries to stay out of the way of innovation as much as possible. It instead, defines a new asset class called the Controllable Electronic Record, which has clearly different features from previously defined asset classes, like money and digital assets. Ownership is a major component of article 12, and being able to transfer rights as well as enjoy all benefits of the asset are emboldened and highlighted by the article. Basically, consumers could have the assurance that their CERs are actual assets that have protections from the state governments of the US. Since Colorado has a number of bills proposed that explore marijuana and water ownership via NFTs as well as bills promoting education and research into this technology in general, it only makes sense to provide some level of security for asset owners. There is so much more to explore and learn about blockchain technology and getting the public more enthused, educated, and comfortable about CERs is a step in the right direction.

Reference of Bills In This Paper

Colorado (2018). *Senate Bill 29*.
Colorado (2018). *Senate Bill 86*.
Colorado (2018). *Senate Bill 279.*
Colorado (2019). *House Bill 1247.*
Colorado (2019). *Senate Bill 184.*
Colorado (2020). *House Bill 1072*.
Colorado (2021). *Senate Bill 1268.*
Colorado (2022). *Senate Bill 25.*
Colorado (2022). *House Bill 1053.*
U.C.C art. 12 (amended 2022).