#### USING BLOCK CHAIN



By Brett Romero

HOW COMPANIES ARE STAYING AHEAD OF TECHNOLOGY AND REGULATIONS TO CHANGE THE WORLD



#### **FEATURE**

The applications of blockchain are constantly evolving and any company that wants to keep up is in a race, whether they want to be or not.

From distributed applications to new cryptocurrencies and specific use tokens, not to mention ecosystems that spin off from each of these, it's nearly enough to make any founder's head spin.

But there are founders who are keeping up and staying right at the cutting edge of blockchain developments.

To do this, they not only need to be in front of the technology but also the rising wave of regulations that threaten to pour into this pool of fertile creativity.

How does a founder building a blockchain or related technologies keep up?

In this article, you'll learn how several companies keep their wits about them in the turbulent but unrestrained blockchain space.

## Not Your 90s Server Database



Companies creating distributed applications, cryptocurrencies, and tokens are bound to the blockchain for their existence. The blockchain is the underlying infrastructure that powers all the above technologies.

Blockchain started as a simple distributed ledger. Rather than some central authority such as a central bank

having control over the ledger, it is distributed across multiple nodes. These nodes validate transactions on the blockchain and are rewarded for their efforts, usually with tokens. After validation, a transaction is logged in the ledger. Once logged, transactions are immutable.

Bitcoin is the most widely used cryptocurrency but also uses one of the most basic blockchains. With the development of Ethereum, the blockchain further evolved. Ethereum introduced smart contracts which allow certain actions to occur based on conditional events.

For example, after one party completes a project milestone, funds are released to them from an escrow account. Additionally, Ethereum is much faster than bitcoin transactions.

## Further evolution of the blockchain now includes:

#### **NEO**

Decentralized open-source blockchain. Also called the Ethereum of China.

#### IOTA

Blockchain developed for the IoT (Internet of things).

#### **Blockchain as a Service**

(BaaS) Outsource your blockchain to companies that will handle the entire buildout and maintenance.

#### PAPERS PLEASE

How Regulations Are Impacting Crypto Assets

Tokens have grown in popularity due to ICOs or initial coin offerings.

Many compare an ICO to an IPO, which are initial

public offerings for public companies. That's an incorrect comparison, however. ICOs are more similar to crowdfunding.

Crypto companies raise funds through an ICO by inviting investors to purchase their tokens, which are often not yet available.

To hold off investors and make it seem as though the company actually has something in the works, the company will publish a white paper.

Based on the white paper, investors decide if they want to give the company money or not.

# More companies are actually creating real products before trying to wrangle in investors.

This tactic puts them ahead in the credibility line

compared to competitors that only have a philosophy about how they're going to change the world.

As the number of ICOs has grown, so, too, has the amount of scrutiny government regulators have placed on the activities of crypto companies. The large debate raging nowadays is over ICOs as a security, which requires registration with the SEC (Securities and Exchange Commission) or utility tokens. If the ICO is issuing utility tokens, they avoid the definition of security, which is based on the Howey Decision.



Maryanne Morrow, founder and CEO of 9th Gear, sums up the Howey Decision quite well for us: "So the question is: What makes something a security? It's the Howey Decision of 1946. Is the value of the thing dependent on the efforts of someone else?

An equity stock is dependent on the efforts of management and the employees in the corporation, thus it's an equity.

A hundred dollar bill is not dependent on the value of anyone else for its value so it's NOT an equity; it has its intrinsic value just like a barrel of oil, a bushel of wheat, or a ton of hog bellies."

More on Morrow shortly...

Many ICOs are trying to stay within the realm of utility token, which keeps them out of the realm of security. Rather than tokens that are traded on exchanges for

the sake of being traded or simply exchanges of value, utility tokens are often restricted for use only on the issuing company's platform. These tokens are used to buy the company's products and services. Note that it isn't necessary for the token to exist for a company to issue an ICO for the token.

Some examples of utility tokens are to facilitate smart contracts or allow for two banks to transfer assets between each other.

On some platforms, the token may be used as a form of payment for work performed at the issuing company.

Since the token can only be used on the company's platform, people being rewarded with the company's token can only spend it on offerings provided by the company.

## **Build A Team** and Pave A New Path

Maryanne Morrow, who earlier helped us out with the Howey Decision, runs 9th Gear, a startup located in Palo Alto, CA. They're developing a financial services protocol that will allow financial institutions to transfer and settle assets between each other much faster than traditional financial protocols currently in use. Some of the assets that can be transferred include stocks, bonds, and currencies.

"A bank goes through our protocol and we switch them into a digital asset and then they are able to trade those digital assets and then they go back into a bank,"

Morrow told Change Creator during our interview.

"Trade," in this instance, simply means the exchange of assets between two financial institutions. Or more specifically, the exchange of tokens.

9th Gear not only has the mandate of staying on top of

technological change but also regulations, which are a fairly gray area for blockchains and cryptocurrencies.

How does 9th Gear keep up with regulations that haven't even been solidified yet?

"We also know that technology is moving faster than regulations right now," says Morrow.

Her team consists of a member who used to be a regulator at the FED and stays on top of regulatory developments and another who oversees their compliance.

Having people dedicated to such tasks can certainly help to better see what may be coming down the road and cover blind spots that can otherwise wreak potential havoc.



Cloud storage is going blockchain. As reported by Bloomberg, Google is currently developing a blockchainbased cloud storage service.

You're likely familiar with companies that store data in the cloud such as Dropbox, Apple's iCloud, and Box. Google's effort is similar but adding blockchain changes a few things under the hood. Because blockchain timestamps its transactions into an immutable, transparent ledger, you'll always know the where/what details of your data.

Additionally, Google plans to license their blockchain to cloud storage companies as a white label service. This means a company such as Dropbox can utilize and already proven blockchain storage-based system. Dropbox customers will be able to view all of their blockchain transactions as if the system were completely developed by Dropbox.

By developing a service that isn't yet available on the market, Google is staying in front of its competition and technological change. Google isn't the first company to bring blockchain to cloud storage. storj.io (pronounced "storage") began creating PR around their blockchainbased cloud storage effort back in April 2016. While their network isn't yet live, it is in testing.

storj.io isn't a direct competitor of Google's blockchain cloud storage effort. storj.io works by allowing individuals to basically rent space and earn money for it.

### Staving off Competitors by Building a Completely New Market

In Europe, individuals and small, agile startups are considering trading green energy directly with each other, as reported by Reuters.

To get ahead of these smaller rivals which can largely disrupt the energy sector, bigger energy companies are utilizing blockchain technology to trade with each other.

Through the creation of energy and gas contracts, utility companies will be able to trade directly with each other via the blockchain.

A blockchain platform called Enerchain will be available

in Q2 or Q3 of 2018 for peer-to-peer wholesale trading of energy contracts.

Not only are energy companies staying ahead of competitors, but they are also at the tip of change and helping to evolve the blockchain.

Regulators will have to play catch up, which bides energy companies a large amount of time while regulations get sorted out and new ones created.

This regulatory lag will allow blockchains such as Enerchain to continue improving and evolving in ways that have yet to be imagined.

## Staying Out Front - Creating the Future

The companies outlined above all have one thing

in common — they're all helping shape the future of blockchain and crypto-assets. Basically, they're creating pieces of the future in this exciting space.

As you've probably guessed, this is no small undertaking. It requires constantly staying on top of technologies and regulations that can open up unforeseen opportunities or stifle innovation.

Lots of time and effort put into one direction can be invalidated by new regulations and laws. This is why, for entrepreneurs, monitoring of regulations has competing priority with the development of new technologies.

That is the tradeoff when forging ahead within any new frontier. It's the wild west but for only a limited amount of time. Regulators always catch up but then technology races off into a new direction and the game begins anew!

If you are going to stay out front, it will require team members who can not only watch and anticipate regulatory developments but also team members who can successfully navigate the company's vision in front of competitors and the ever-changing maze that is regulation.

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