

ng down to the basics t Blockchain technology

Malta is attempting to grab the bull by the horns by setting up a legal framework under which the technology can operate.

Senior partner at Ganado Advocates Max Ganado has serendipitously been involved in several areas which coincidentally deal in overriding principles which underpin Blockchain technology.

Blockchain technology is essentially a ledger of information, which can be used to carry out transactions. Data and assets are recorded on the Blockchain itself and are not recorded by one single user. To be clear, the information stored on the Distributed Ledger Technology (DLT) such as Blockchain, is not stored on one person's computer, for example, but uses a system of 'nodes'. These nodes contain all the information stored on the Blockchain, meaning if one person's computer goes down, the information does not go down with it. The term distributed comes into play because the nodes replicate themselves, replicating all the information contained, making it more sturdy and secure.

The next question is why people are making a fuss about the ability to store and carry out transactions on assets through this technology? It is here where Ganado draws parallels with the internet, and how it changed the world on its head.

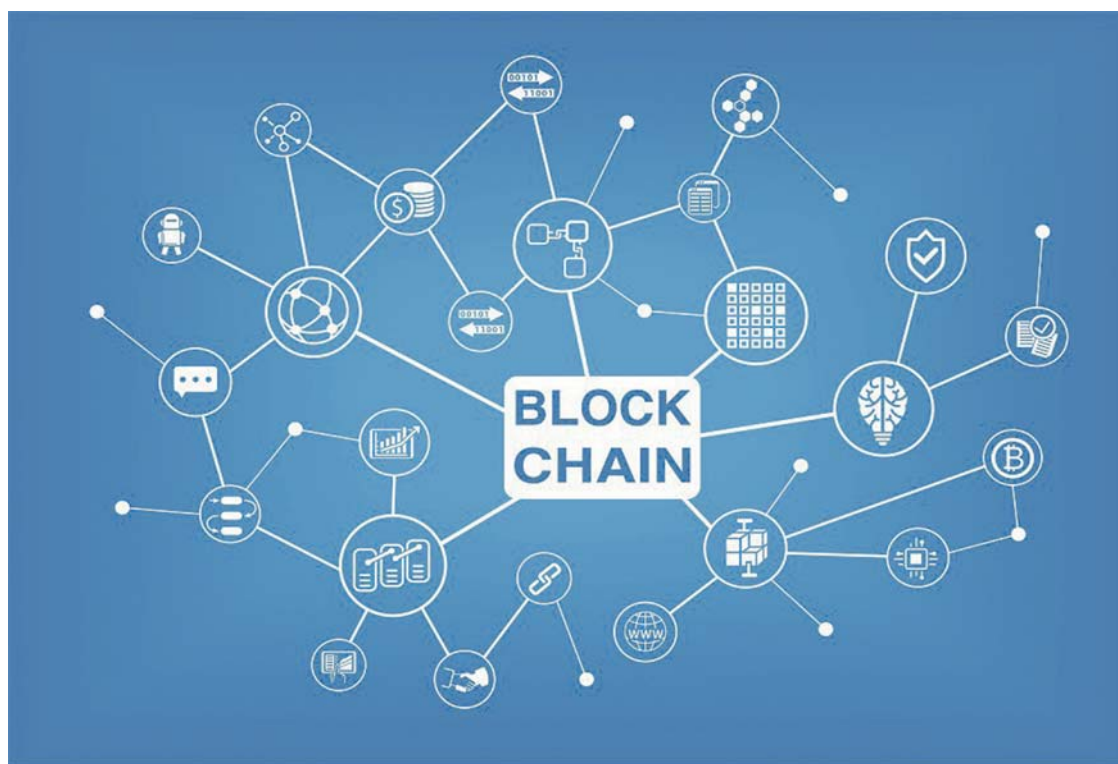
The Basics

Sitting in the grand offices of the well-respected law firm, Ganado animatedly discussed the global changes brought about through the internet, in terms of communication and access to information, and how Blockchain could potentially herald in another global shake-up.

"When people ask what all the hype is about, the answer is in thinking about those who saw the global development of communication and information exchange and observed the world progress go from zero to where we are today. These people are recognising the implications this may bring about. These same people are realising that ten years down the line, this breakthrough could bring in a huge change and provide facilities to the public surrounding the assets we own."

He explained how this technology could change the way we deal in money (cryptocurrency), how we deal in shares and bonds, how we deal with records and information such as on our health and education.

"The fact that this technology is supported by digital infrastructure as powerful as the internet, which has security, long-term record keeping, and accounting



built into it, means that the quality of the way we deal with our assets is going to improve drastically."

Practical examples

Due to the digital nature of Blockchain, this has made it difficult for people outside of the technology world to wrap their head around the implications surrounding this new wave. Asked how, in practical terms, this can help a company or an individual, Ganado said:

"Blockchain can be used, because it is a ledger of information, and can be used for a basis for transactions.

"You put a thing, documented or identified on the Blockchain, and you can deal in it. If I want to deal in my shares today, I need to use a broker. With the development we are seeing, you will not need a broker anymore to transfer the shares or to affect the payment of the price. This means it will be cheaper to deal in my assets."

"The second thing is that it will be faster. Today I have to go through systems of intermediaries. The fact that I can deal directly with people across the table means that I can do things faster. Speed and cost are two main benefits."

The third one is that the system is immutable. Once you put a record in, it cannot be deleted. The concept here is that it is not one person dealing with another on the digital platform of the intermediary. The system works by sharing the ledger among as many people plugged into the digital platform."

"If somebody is hacked and information about an asset is

amended, the other 'blocks' on the Blockchain are not amended until everybody confirms the change in data. This means your asset is more protected because it cannot be manipulated, and that is another advantage."

Will this bring in a new revolution?

In one article published by *The Malta Independent*, an economist described this new wave of technology as possibly bringing in a fifth industrial revolution. Asked about whether Ganado agrees with this characterisation, he said:

"I do agree. Go back to the internet. If you think the internet changed the world, this is going to change the world again."

"The ease of access to information has changed the way whole generations are growing up.

This is going to have the same effect in relation to transactions, and transactions are directly related to the economy. So, I do recognise that the development of this tool is going to have the same effect as very big technological inventions in the past, like electricity and transport.

People used to travel at a certain speed within a certain context, cars and transport changed our lives because suddenly the world got smaller.

In the long run this step is the start of something that is going to change a lot in our lives."

How are people expected to keep up with these developments?

Currently, the debates surrounding Blockchain and DLTs are highly technical, leaving the public to feel overwhelmed and dis-

engaged with the conversation. On this note, Ganado aptly went back to the internet example and showed how the process was somewhat similar.

"Did people ever bother about the technology around the internet? Nobody cared, the technology developed under everybody's nose and people started using it when it became easy and user-friendly. People only started using the internet when it became simple to send an e-mail, download information and surf the web.

"What's happening now is that there is a massive amount of discussion at the early stages because everybody is recognising where it is going to go, so there is a lot of debate about the technology. But when apps develop people will use them and will no longer be interested in the technology. Then the global impact will start to happen seamlessly and easily as we see with the internet today.

Fraud

The convergence in the debate on Blockchain and cryptocurrencies such as Bitcoin, and the huge media coverage on fraudulent activity surrounding Bitcoin, has raised doubt and suspicions about this new revolution, merging the two issues together.

Blockchain is the technology that underpins Bitcoin, however it is just one type of DLT. Ganado stressed that cryptocurrencies, or tokens as he puts it, have a legitimate function within Blockchain technology, as it is a way to effect payment for a transaction made. Cryptocurrency has now evolved where it is being used as an asset that is traded within and of itself,

however he stressed that this is another conversation to have with its own issues and challenges.

When questioned about the element of fraud when using Blockchain technology, such as if a person specifically input fraudulent information with the scope of cheating to make some form of gain, Canado explained:

"Firstly, the element of trust is eliminated because people trust the technology and not the counter-party, the person they are dealing with in order to transact. Nobody can steal the assets which I record because it does not depend on them. Nobody can go in and correct the books and make my asset disappear.

“What I have on the system is going to be recorded in a way that only I can control and only I can transact because only I have the codes. If I lose the codes, I can lose the assets. This is one of the major problems. If I lose the encryption key which provides me access to the asset I hold on the Blockchain, I lose all control and protection. There is some vulnerability which depends on human control and human nature.

“The putting of an asset on the Blockchain is not an unregulated process, however. It is a process which is determined before you even start. If I am going to input a music score on the Blockchain, for example, when putting it onto the system I have to follow the entry protocols to record the asset, just like we do when we register a house in a public registry. I have to give certain information about it, I have to produce certain evidence, I have to do everything to be sure that when it is there it is complete and correct. Could somebody enter an asset which is fraudulent? An invented asset? The answer is yes but the technology is strong enough to cross-verify.

"Cross-verification is run through other computers connected through the Blockchain. In all this, the urgent thing is identification of people.

"So, plug into the Blockchain and 'say' I am Max Ganado. Let us say I want to put an asset, for example €100. Who proves that I am Max Ganado? Imagine a system where the passport office or Identity Malta institution is connected to it, and when I put my information on it, Identity Malta which has all the information, actually checks it out and confirms it. So, by definition, I am then going to have an identity which is genuine, and nobody can change it.

"For example, if I were to try to defraud a health insurance company and put incorrect information about my health, Mater Dei Hospital could cross reference this and catch me out."