Chapter 47

The legitimity power conferred by blockchain in the creation of extrajudicial executive titles

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ABSTRACT
The article invites the reader to understand and reflect on a new method of certifying and giving faith to documents and legal acts more broadly, based on a system called blockchain, a digital tool with great expectations over its vast possibility of applications. With this, the article seeks to show the reader from the perspective of digital law how the aforementioned system can legitimize legal acts capable of generating the right of action conferred on extrajudicial titles and how the democratic system of law gives this system a certifying power capable of giving "faith" without necessarily passing through the public authorities. Finally, the article uses a bibliographic methodology in books, supported by documentaries and videos, to guarantee the security of the resolution of the central problem, that is, what a blockchain-enabled judicial system would be like and what are the dimensions of the power conferred on this system.

Keywords: blockchain, Faith, Legitimize, titles, Democratic.

1 INTRODUCTION

It is essential to understand that the article deals with a very pertinent problem in modern times, because with the advancement of digital law there must also be an advance in the public system to monitor the demands present in the network environment and increase data security.

In this line of guidance, the article seeks to deal with a complex system of storage of decentralized *information called blockchain*, in order to suggest ways to implement it in the operating system of the judiciary, similar to what occurs in registry office.

Meanwhile, the article seeks to expose a perspective on what a blockchain-adept judicial *system would look like* and what its contribution to society would be and how it enables the advancement of judicial activities and gives more security to the data present within the system.

With this, it will be analyzed how the right of action is protected and how legal acts can be legitimized and generate effects of the world of law, such as the possibility of creating extrajudicial securities and securities capable of justifying monitory action, within a judicial system adept at new technologies.

In addition, the article intends to address the *implementation of the blockchain system in* notaries, in order to provide greater security to the legal acts practiced and registered in the carorary establishments

throughout the country, creating an even more complex and integrated system to record the information recorded in the blocks.

Finally, it is necessary a methodology regarding the purposes of the objectives, explanatory, since it brings *systems where blockchain is applied* in digital media; as for sources, it takes care of a bibliographic study in books, periodicals and electronic sites; how much the technique of data collection is based on observation; how qualitative the approach is and how much nature is theoretical.

2 OVERVIEW ON *BLOCKCHAIN*

Blockchain is a kind of decentralized registry operating system that works with the validation of blocks of information, which are concatenated to each other and validated successively, in order to make it impossible to change a block already validated, because the validation of the latter depends on the validation of all previous blocks since the first block created within the system, that is, there is no way to defraud previous blocks without identifying the change by the last block in the validation process. This system, poorly comparing is a large book of records to which all members of the system have access to the digital file always updated, thus being a single file, public and universal, that is, is all users of the system has a file one hundred percent equal to that of all others, it is of a public character because there are no restrictions on their access according to the original idea, and universal because there are no territorial or jurisdictional boundaries in the pure form of this system.

2.1 HISTORICAL ORIGIN AND APPLICABILITY OF *BLOCKCHAIN*

It is important to highlight that the system in focus was born along with the digital currency called bitcoin, it was a way created in order to rule out that someone could take control of the currency, taking into account that the currency was created in the midst of the American economic crisis of 2008, what was sought was the total disposal of economic institutions in economic relations, the solution to this was to create a currency conveyed by the users, who initially mined the blocks in exchange for coins, mining in this context means validating the blocks, the computer capable of solving the algorithm generated in the blocks was rewarded with units of the currency, thus generating incentive for the *blockchain network* to become increasingly larger, because the larger the network of computers connected to the system, the greater the security.

Given this logistics, it is possible to visualize that *the blockchain system emerged* as a means of democratizing trust, because, from the creation of the system there is no longer a central unit responsible for validating operations, whether they are financial in nature or not, because from this moment on the information will be validated by an indeterminate or indeterminable number of virtual witnesses, therefore, it will no longer be necessary to validate a single central body, as the system is completely decentralised and integrated.

In this tuning point, it is notorious that *blockchain emerged* with the power to enable financial operations based only on trust among the users who make up the blocks, however, there are numerous applications for the functionalities of the system, representing a great advance, endorsing the democratic system of law adopted by Brazil, so that the power and trust actually emanate from the people, made the government's action available through its agents to give credibility to the acts performed in the context of public administration when it comes to existence, being the responsibility of the agents to supervise and produce validity and effectiveness of the acts performed.

Finally, it is important to highlight that *the blockchain system not* only implies the legitimacy and credibility of the acts, making the actions of public agents useless, but also enables a "foolproof" system of supervision of acts performed by public agents, which by their nature are already endowed with relative truth, so they are ratified by *the blockchain* its existence, but not its validity and effectiveness, and it is so that it is for public officials to hold the content conference and requirements for the practice of the acts.

2.2 IS IT POSSIBLE TO DEFRAUD *THE BLOCKCHAIN?*

In the sothes, it is possible to defraud the system in question, however, it would be necessary to simultaneously hack 51% of all computers connected to *the blockchain network*, that is, imagining that there are millions of computers connected to the network, spread all over the world, so it is something materially and technologically impossible until then.

This need to hack into at least 51% of computers is necessary for the defrauded information placed in the block to be accepted as validated by most connected computers, obliged the rest to validate according to most, as there can be no incompatible information within the blocks, since the system works as a book updated periodically in each connected user, thus, as taught by Galhardo, Paro, Nalini, Brandelli (2021, p.336):

> The distribution of the ledger also enables transactions recorded on *the blockchain* to become irreversible. Once the information is posted, it will be stored on all computers on the network. To reverse a record, it would require consensus of more than half of the network, which is virtually impossible. Therefore, to correct or modify a record, you must enter new information. But both – the original and the rectified record – will remain visible.

However this invasion has a very limited time of operation, ranging from 10 to 30 minutes to be detected, this time is set at the time of creation of the block, because it consists of the time that will be generated new code, or new encryption, there is also a limit of reach, it is not possible to defraud very old blocks, there is a small margin of possibilities for the choice of the block, thus the block most susceptible to fraud is what is being validated at the same time with the fraudulent act.

Therefore, linking this operational logistics to the acts performed in notary, that is, those acts that seek to give publicity, security, authenticity would be extremely *safer in the blockchain system*, since the paper is infinitely more likely to be defrauded than a system with such logistics, still attached to the fact

that it would not only be the notary or registrar than from faith to the act, but all the miners connected to the blocks, because they are witnesses of the content, time, ownership of the act practiced and registered within the block, still joined to simultaneous validations of the blocks that come after the act registered in the network, since, as already mentioned, the blocks are validated from the first created.

3 *BLOCKCHAIN SYSTEM IN THE* JUDICIARY

Taking into account the theoretical path traced so far, it is possible to imagine how the system could be implemented in the judicial system. It is important to highlight that what is proposed here is not *blockchain in* its pure form, without the absolute publicity of the block here, since not every process can be made available to the knowledge of the people.

So imagine here the entire Brazilian judiciary interconnected in a large decentralized network, where all the organs of the judiciary have all the information of what happens throughout the national territory, without having to go through a server, so the judiciary would not be prevented from accessing information by power outages, server failure, waiting for information that only another region has access, so there may be a mutual supervision between all organs, a kind of checks and balances within the judiciary itself, a judge or server could not do hidden acts, because every act would be recorded automatically in the system, so once registered in the block the information will be there in a perpetual way.

Therefore, the information could only be "altered" by means of rectification, that is, the correction of the operation in a later block, so that if there is fraud in the act, it cannot be deleted from the block.

The main benefit with the implementation of this system in the judiciary would be the debureaucratization of acts of justice with regard to a cooperative system, because there will be no longer a need to ask for access to acts, since this is recorded in the *blockcheain "ledger*", the impossibility of fraud, and ostentatious supervision of the entire judiciary, so that acts such as predatory letters would be considerably less used, since the information is already available at national level, so it would be limited to acts of order, without the collection of information in other regions.

3.1 REDUCED ADVERTISING

It is a fact that everyone is not allowed access to the content of the acts performed in the judiciary, so there is no way to have a *pure blockchain system in the judicial* system, since access to information must be cadenciada, among the members of the judicial public administration, public prosecutor, defender, lawyers and individuals who have no direct interest in the judiciary, or without other words, individuals who are not exercising the right of action or defense, of course without prejudice to the publicity of acts whenever possible.

However the access proposed *by the blockchain* does not reveal sensitive data, such as the content of the acts, unfortunately to the bitcoin financial system, what would appear in information for public access would be the number of the process, possibly the name of the parties, in case of secrecy of justice, the

number assigned to the parties, therefore, it is possible three conclusions, the first is that there was an act practiced, the second is that it was in that process and the third is that it will refer to those individuals. As a result, there would be no way to disclose information sensitive to the public, since only the parties can have access to the file and the content of the acts.

The main benefit of this system would be the upgrade before the principle of advertising present in Article 5, XIV of the Federal Constitution, reconciling it simultaneously with the item LX also of Article 5 of the CF/88, making the information increasingly accessible.

4 EXECUTION PROCESS AND *Blockchain*

When talking about the execution process, what is in question are mainly the extrajudicial executive titles made by private document between the parties and signed by two witnesses, or the act booked in notary, contained in Article 784, II and III of the NCPC.

Well, what is proposed here is the acceptance of the *blockchain system* so that it can "replace" witnesses, because witnesses in this type of title formation are necessary first to ensure the existence of the legal business, and certify its validity plan, even if the system in focus cannot reamy defects present in the validity plan, will be considered valid, because it is the title itself does not require witnesses to be aware of the content of the business, since it is not necessary the presence of witnesses at the time of signing the contract. Before the understanding of Alexandre Câmara (2017, p.291) as it reads:

> The witnesses are merely instrumental, and it is not necessary to put their signatures on the document at the time of the practice of the act of debt confession. It is quite possible that they sign it later, and it is not even necessary that their signatures be posted on the document in the presence of the debtor in order to constitute the out-of-court enforcement order.

Therefore, what can be extracted is that it is sufficient that the document in summary has to be valid, that is, it is sufficient that it is duly signed by the debtor and the creditor, in order to validate the legal act.

In addition, the *blockchain discards the possibility of these witnesses* being prevented or suspected, because it is not only two witnesses, there are thousands of users confirming the existence of that business, making it undeniable that the business occurred, however, it is important to highlight that this system is not able to rescan possible defects of will as a rule, because these relate to human conditions, therefore, what is discussed in summary is the effectiveness of the title, considering that it is regular in its field of existence and validity, according to the theory of the "ponteana ladder" created by the jurist Pontes de Miranda.

Just as the titles would not only be founded on the public faith conferred on notaries and registrars, but will also be based by an indeterminate a priori number of witnesses who visualized the information played in the system, validating the blocks of operation and perpetuating the information within the registral system.

Also in compliance with the provisions of Article 4 of Law 8. 935/94 in the following content:

> Art. 4 º The notary and registration services will be provided, efficiently and **appropriately**, on days and times established by the competent court, met the local peculiarities, in a place of easy access to the public and that offers **security** for the archiving of books and documents. (griffin)

Therefore, as for the principles that govern more specifically the cartorary activities relevant to efficiency, adequacy and security, it should be appropriate that *the blockchain system* meets all requirements, also adapting to the principles that govern the public administration, as to legality, impersonality, morality, publicity and efficiency, so that the service could be provided with notorious speed.

4.1 DEMOCRATIC SYSTEM OF LAW AS AN ATTEATOR OF ACCEPTABILITY

It is a fact that in a democratic system of right the acceptance of something is due to the number of people qualified to express their wills, so the more people accept and validate something, the more legitimate this will be, especially for the right, example of this are the elections, where the candidate with the largest number of votes, that is, manifestation of the will of the qualified people in the face of it, then this will be the rightful occupant of the office.

It is necessary to remember that a democratic state of law laws are created by the people and for the people, so it is essential that the acts to be validated are in accordance with the law.

The *blockchain* here acts in this same sense, who gives it legitimacy is not the law but the people, here there is a large number of people ratifying that that act is being manifested in the plane of existence of life, but what gives it effects on the law is not only the law, here the people have direct participation in the validation of the act, therefore, the law will be considered with respect to the formalities of the object subject to registration, that is, it confers legitimacy before the content and formalities of the legal act subject to registration in the blocks.

In addition, the *blockchain system in the context* of notaries can be created to "rotate" the information only by notaries of every country and its notaries, so it is still democratic, given that the testimony of the act will also be a factor of authentication of operations, even if it was practiced exclusively by notaries, as is the example of the *notarchain system* created as a pilot project for the *implementation of blockchain in the* carorary systems of Brazil, established by the Notarial College of Brazil.

4.2 CREATION OF AN OUT-OF-COURT BOND IN THE CASE OF 784, NCPC II

Here in this topic we are already facing a reality, because there are already notatories in Brazil that use *the blockchain system for registration* purposes, such as the company "originalmy" that emerged in the year 2015 as a "start-up" enabling among other services the insertion of the information represented by document in the proposed system, however, the company has agreement with a certain registry office called Azevedo Bastos, located in João Pessoa, Paraíba, also as peck teaches (2021, p. 311):

> [...] more economical and technically more reliable means, such as blockchain technology, are already available to astoll the integrity of the conversation. It is cited as an example the measurement made through the originalmy.com site, which attests to the validity of the conversation through the verification of metadata, that is, through information such as the day and time when the message was sent registered in the application system. To do so, it is enough that the validation is done through the "PacWeb" service of that site, through access to the conversation through the "WhatsApp Web". It should be noted that this means of proof falls within the hypothesis of inc. II of Art. 411 NCPC.

Generally speaking, the procedure to be done is to upload the file, followed by payment, soon after the certification [1]of *documents in blockchain* and authentication will take place at the registry office. Once the payment is confirmed, your document will be blockchain certified and will then be sent to the Registry office to authenticate at your head office, and finally, an email will be sent with all the information to download the authenticated documents as soon as the entire process is complete.

Conferring public faith in the information contained, thus making it a public document signed by the debtor, so it will be qualified to initiate the enforcement process. Before the understanding of Alexandre Câmara (2017, P.291) as it reads:

> It may happen that the debtor recognizes his debt through an act practiced by public document (of which public deed is the best known example). So, for example, imagine the case of a debtor who, before the notary, wash declaratory deed of debt confession. For this debt confession (provided that relative the right obligation, net and chargeable, of course) by public deed is extrajudicial enforcement.

Thus, it is clear that, in order to be accepted, it is sufficient to be a valid document signed by the debtor, and public faith falls on this document, and it is not necessary to be a declaration of confession, it is enough to be able to recognize the existence of the business signed.

5 MONITORY ACTION AND *BLOCKCHAIN*

The monitoring action here fits into a subsidiary possibility of the application of the system, since, if questioned the legitimacy of the block in the face of witnesses, then it will be possible to propose monitory action if it is not conferred on it executive force. Here there would be no controversy as to the existence of the document registered in the blocks, because it must be written, albeit digitally, and who has its executive title strength discarded, always maintaining the requirements of the fit of Article 700 of the NCPC.

Imagine a situation where a written and registered purchase and sale contract has been signed in the block, where the alienator and the acquirer validly sign the contract, the ready alienator already registers the *document on the blockchain*, however, the debtor in the figure of the acquirer does not pay the alienator and records false receipt without the signature of the alienator in the block. Soon the question arises, right now the two facts are recorded, so the two generate effects, right?

[1]Upload: On computer networks, uploading is sending data to a remote system, so that the remote system can store a copy.

No, as *presented the blockchain* certifies the existence of valid acts, the act may have been manifested in the world, but does not mean that it was manifested in law, as it does not meet the requirements of a valid receipt for the right, however the alienator may use both the contract to propose a monitory action and to prove the bad faith of the debtor, for the act that previously did not have an effect on the world of law now generates with regard to bad faith and not as the debtor denies that he falsified the document, since it will be recorded there forever.

Therefore it is possible to once again highlight that the *purpose of blockchain* is registral, there is no way to have value judgment before the information provided, what is recorded is the object represented here by the document and who is registering, the legitimacy here is with regard to the existence of the act and if somehow this act manifests itself in the world of law, whether for law or for evidentiary purposes.

6 RIGHT TO FORGETFULNESS AND IMPOSSIBILITY OF RECTIFICATION OF ACTS

Perhaps the big problem about this system within the judicial context would be the impossibility of granting the right to forgetfulness, because once registered it will be eternally in the "ledger" of the judiciary.

However, it does not prevent the later acts that oppose those already registered, the purpose of the system is to prevent fraud and illegalities, nothing prevents another totally legal act from being filed, with the purpose of documenting the acts practiced, so there is greater control of what is being done, because it is possible to visualize both the previous act and its content and the new act verifying what was modified between them, considerably reducing fraud.

In this context, it is clear that the right to forget fully cannot be granted, but there is the possibility of actively practicing acts in order to rectify the acts of vices, errors, illegalities, among other problems that can affect the acts, so that the editing of certificates verifying what is sought with the right to forgetcan still be checked.

6.1 RECTIFICATION

It is important to highlight that the acts also cannot be directly rectified, because, once validated the block, it will not be possible to modify it, because any divergence will be expelled and accused by the validation system, so another act will be necessary rectifying the information contained in the defective act, that is, a new act with remission to which it seeks to rectify.

Despite being a longer protocol, this feature gives more security to the data registered in the judiciary, because there is no way to defraud the validation system, that is, if someone wants to change the content of an act because it contains illegalities, this will not be possible after the validation of the block, so it will be necessary to edit a rectifying act, that is, when supervising the acts it is easy to find that there is an attempt to fraud in decisions in the case of divergence between the blocks.

7 CONCLUSION

Given the theoretical path outlined during this article, it is possible to glimpse what a blockchain-adept judicial system would be, and the benefit that the system would bring to the control and transparency of acts practicing within the Brazilian judicial system, making supervision more skilled for those responsible for judicial control, strengthening the system of checks and balances between powers.

It is also possible to conclude that there is a *clear feasibility of using blockchain* to give validity to the extrajudicial titles proposed in the article, because even if the judiciary is not adept *at blockchain* is a factor that the system gives validity to the title, because it meets the legal requirements, since it is not allowed the interpretation to suppress rights. Just as it can also found the purpose of a monitory action if the judicial system denies accepting *that blockchain gives validity* to titles, which in itself is already questionable.

Finally, it is possible to conclude that although it is not a perfect system its benefits are much greater than its defects, providing significant advances to Brazilian justice.

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