
CRYPTOCURRENCY: ISSUES AND CHALLENGES

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ABSTRACT

This research paper aims to analyse whether the Cryptocurrency Bill have resolved the issues related to Cryptocurrency or virtual currency. In order to do the same, firstly, the authors will introduce the concept of Cryptocurrency briefly and then head to the various issues and challenges associated with it. The transactions of the bitcoin are based on the blockchain technology which has its own set of pros and cons attached. In this paper, we will discuss the current legal state of cryptocurrency in India various security issues that come with it. For instance: Security and malware threat, loss of data, risk of gold farming, lack of central authority to regulate it etc. To place a better analysis, the legal status of cryptocurrency in other countries has also been discussed in brief. ‘Cryptocurrency and Regulation of Official Digital Currency Bill 2019’ was introduced with various features to regulate the cryptocurrency but could not become a law. This paper discusses the Bill of 2019 and the few predicted features that the new 2021 bill might contain. The 2021 bill is yet to be discussed in Parliament.

Keywords: Cryptocurrency and Regulation of Official Digital Currency Bill 2019, Issues with Cryptocurrency, Ban on Cryptocurrency, Money Laundering, Security & Malware threats with cryptocurrency.

1. Introduction

First Cryptocurrency to be treated as original was 'Bitcoin'. Bitcoin was founded in 2009 on a white paper by an anonymous man who did not reveal his identity and is known by the name Satoshi Nakamoto. Before bitcoin came into existence, there were numerous failed attempts to introduce digital currencies with ledger secured by encryption into the market.¹

The benefit of using Cryptocurrency is that it maintains anonymity concerning the identity of the parties doing the transaction. Bitcoin, Ethereum etc., are the prime examples of digital currency in the present. The increase in the demand for bitcoin was gradual initially, but then it suddenly increased at a much greater rate.²

Amidst all these arguments, some nations favoured the digital currency, whereas some nations decided to maintain their distance from it. A few countries decided to put a blanket ban on these digital currencies in the interest of the economy of their nation. The argument in favour of digital currencies was that they would boost the competition and might solve the issues of money laundering, tax evasion etc.

Digital currency aims to bring a transformation in the e-payment ecosystem with its novel and effective infrastructure fostering revenues of the operators and the companies. Apart from the fiat currency, it equips the consumers with a possible substitute that can be used to indulge in activities like transferring, buying, selling etc. easily.³

Irrespective of the fact that cryptocurrency offers many advantages, including opening various modes of digital financial transactions and establishing a new form of currency with unique methods, there is no proper legislation or framework to regulate the same.

2. Cryptocurrency in India

Owing to the popularity of Cryptocurrency in western countries, between 2012-2017, India also entered the world of digital currencies, and various cryptocurrency exchanges came into existence. For example, Coinsecure, Unocoin, Koinex, Pocket Bits etc. Suddenly the prices of Cryptocurrency started shooting up, and its popularity increased exponentially. As a result of

¹ Regulation of Cryptocurrency: a comparative analysis of Indian and Japanese position: (<https://blog.iplayers.in/regulation-of-cryptocurrency-comparative-analysis-of-indian-and-japanese-position/>) [Last visited on 9th Nov 2021]

² Ammous, S. (2018). Can cryptocurrencies fulfil the functions of money? *The Quarterly Review of Economics and Finance*, 70, 38-51.

this increased popularity in India, the Reserve Bank of India issued a Press Release, warning the public against the risks involved in dealing with virtual currencies, including Bitcoin, way back in 2013.³

Once again, the growing popularity of cryptocurrencies and the transactions being done by many Indian users compelled the RBI to issue another Press Release in February 2017, stating the concerns raised concerning Cryptocurrency in 2013.⁴

Two PILs were filed in the Supreme Court in October and November 2017. The first one was filed by Siddharth Dalmia to restrict the trading of cryptocurrencies in India, and the second one was filed by Dwaipayan Bhowmick, requesting for regulating the cryptocurrencies in India.

Later, an Inter-Ministerial Committee was formed by the Indian Government in November 2017.⁵ The main aim with which the committee was constituted was to analyse various issues associated to Virtual Currencies and to give recommendations that could be implemented. The final report of the committee submitted in July of 2019 recommended a ban on private cryptocurrencies in India.

The Reserve Bank of India and The Ministry of Finance issued Press releases⁶ in 2017 warning the Indian users about the risks involved in the transactions of the cryptocurrencies. In the Press release, the authorities called the cryptocurrency as the Ponzi schemes and not currency or coins. Various Press Releases were issued to warn people about the risks of cryptocurrency by the Ministry of Finance and RBI till March 2018 but no substantive legal actions was taken by either of them. The situation changed when a circular (RBI) was issued in 2018 and it directed Commercial and Co-operative Banks, Payments Banks, Small Finance Banks, NBFCs, and Payment System Providers to stop dealing in cryptocurrencies and were also prohibited to give any kind of services relating to cryptocurrencies indirectly.

³ Cryptocurrency Regulation in India- A brief History, The Centre for Internet and Society (<https://cis-india.org/internet-governance/blog/cryptocurrency-regulation-in-india-2013-a-brief-history>) [Last visited on 9th Nov 2021]

⁴ RBI cautions of Virtual Currencies' (https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=39435)

⁵ Report of the Committee in relation to Cryptocurrencies, Department of Economic Affairs, Ministry of Finance (2019)

⁶ RBI cautions users of Virtual Currencies against risks' (https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=30247) \ 'Press Information Bureau Government of India – Ministry of Finance: Virtual Currencies' (<https://pib.gov.in/newsite/mberel.aspx?relid=160>)

A judgement was passed by the Supreme Court of India in May 2020, and it lifted the ban imposed by RBI in 2018. Because of this judgement new doors are opened for Indian investors.⁷ It can be marked as the starting of blockchain revolution. The Supreme Court held that the Reserve Bank of India cannot impose unreasonable and disproportionate restriction on the trading of cryptocurrencies and there is no legislative ban on any such trading. In the opinion of the court, such restriction by RBI could violate the fundamental right of the citizen of freedom to trade.⁸ Another bill, i.e., 'Regulation of Official Digital Currency Bill 2021', is yet to be discussed in the winter session this year.

3. Issues related to Cryptocurrency

Though cryptocurrency offers a range of benefits it brings along a set of adversities and complexities which can't be ignored. The Committee⁹ identified the related challenges which are enumerated as follows:

Negligible Value

Contrary to the official fiat currency, unofficial fiat currency neither have backing by the Government nor a bullion backing. Despite the functional benefits of the cryptocurrencies, some special functionality or tangible benefit which they claim to provide, the market potential of these functionalities depends on various correlated factors. Behavioural economics, technological advancements and the scope of financial investments are a few of them. The fluctuations and severe shocks sum up the intrinsic value of cryptocurrencies to be negligible. These private digital currencies also lack the status of legal tender, and hence have no intrinsic value beyond the utility as promised by their underlying technologies.

It cannot be used as a store of value or medium of exchange.

Consensus based algorithms, which make cryptocurrencies trustworthy, consumes colossal amount of transaction time owing to validation procedures and network latency. Low latency is a vital feature to be considered while designing a real-life payments system. A major

⁷ *Internet and Mobile Assn. of India v. RBI*, (2020) 10 SCC 274.

⁸ Future of Cryptocurrency in India continues to hang in balance by Prashanth Perumal, The Jindu (June 2021) (<https://www.thehindu.com/business/future-of-cryptocurrency-in-india-continues-to-hang-in-the-balance/article34704676.ece>) [Last visited on 9th Nov 2021]

⁹ Report of the Committee relating to Cryptocurrency, Department of Economic Affairs, Ministry of Finance (2019)

challenge is the large gap in the processing speed of the transaction among the cryptocurrencies and various other digital methods which obstructs their potential as the medium of exchange. Extremely volatile prices as compared to traditional fiat currencies, refrain cryptocurrencies from being a suitable store of value and indicate that crypto markets are primarily driven by sentiments.

No central authority to regulate

Owing to the lack of intrinsic value cryptocurrencies are subject to fluctuations, where a central authority needs to regulate the network and restrict the transactions through its decentralization. Decentralized nature of Bitcoin and other cryptocurrencies refer to a physical absence of the fiat owing to no control of the middlemen over its transactions. Participants in a transaction are provided with pseudonymity although not complete anonymity. Transactions by nature are irreversible here. Although governments from various nations across the world have been trying to step in and get hold of the network in several ways, they have failed to make an impact. Interference from a central authority can cause legal implications. Intricacies which may arise within a dispute to claim the ownership of cryptocurrencies, the investors would be in a mayhem without a regulatory authority.¹⁰

Criminal Activities

Virtual currencies that are non-official could be used to swindle consumers, specifically the naïve ones. To instantiate, a recent event which involved the unveiling the scam of INR 2000 crores by 'Gain Bitcoin' in India, underlying the scheme of which, the consumers were promised ROI in the form of Bitcoins. It later turned out to be a ponzi scheme later. Moreover, the ROI was paid in the form of a virtual currency other than Bitcoin, value of which were too rapid to fall.¹¹

EY estimated that, "10% of the money raised through 372 ICOs to have lost or stolen itself as a part of cybercrimes, with phishing being the most used method".¹² In addition to outright

¹⁰ Central Banks and Regulation of Cryptocurrencies by Hossein Nabilou and Andre Prum (July 2019) (https://www.researchgate.net/publication/334510219_Central_Banks_and_Regulation_of_Cryptocurrencies) [Last visited on 9th Nov 2021]

¹¹ Bitcoin Rs 2000 crore Fraud: Amit Bhardwaj arrested at Delhi Airport for cheating 8000 people, in: (April 2018), (<https://www.financialexpress.com/market/bitcoin-fraud-in-india-man-arrested-for-duping-8000-people-in-rs-2000-crore-cryptocurrency-scam/1122575/>) [Last visited on 9th Nov 2021]

¹² 10Anna Irrera, "More than 10 percent of \$3.7 billion raised in ICOs has been stolen: Ernst & Young", in: (January 2018) (<https://www.reuters.com/article/us-ico-ernst-young/more-than-10-percent-of-3-7-billion-raised-in-icos-has-been-stolen-ernst-young-idUSKBN1FB1MZ>) [Last visited on 9th Nov 2021]

fraud, structural risks in the network design of some cryptocurrencies put end customers at risk.¹³

Forking is defined as a process by which the participating nodes modify programming protocol in a blockchain. The protocol of the previous chain used by transactions are not accepted in a new chain while using a hard fork. Miners could be rewarded differently in a new chain. Forking may lead a consumer's finances to be risqué. Private Key is analogous to a password, the loss of which could lead to permanent loss of the amounts held in the virtual currency wallet. As discussed above, transaction which are irreversible when executed wrongly are beyond redemption and have no avenues to compensation. Recently developed malwares went undetected to antivirus software which are capable of stealing balances in a wallet.

The Financial Action Task Force¹⁴ observes the virtual currencies to be providing greater anonymity as compared to mainstream non-cash payment methods which makes them prone to money laundering and finance terrorism. The report by the FATF calls for a risk-based supervision over the financing of illicit activities including cyber-crimes, terrorism etc. in spite of its potential to proliferate innovation.

Source of Money Laundering

Cryptocurrencies has opened further avenues of money laundering and other illicit activities. Owing to their inherently decentralised nature, authorities struggle a lot to adjudicate. Compromised personal accessories of the participants due to penetration of malwares facilitate offenders to exploit the vulnerabilities of a consumer not so technologically savvy. Hence, these crypto transactions can be misused by criminal organizations for their illegal purposes, harmful to any nation.¹⁵

The anonymity maintaining the identity of the transacting parties, make it difficult for the authorities to keep a check on the authenticity of the purposes of the transactions. Tracing the identity of the wallet involving transaction is possible but identifying the owner of the

¹³ Report of the Committee to propose specific actions to be taken in relation to Virtual Currencies, Department of Economic Affairs, Ministry of Finance (2019)

¹⁴ 'The *VIRTUAL Currencies: GUIDANCE For A RISK-BASED APPROACH* report' by the Financial Action Task Force

¹⁵ A Short Introduction to the World of Cryptocurrencies by Fabina Schar (January 2018) Federal Reserve Bank of St. Louis Review 100(1):1-16 (https://www.researchgate.net/publication/322456542_A_Short_Introduction_to_the_World_of_Cryptocurrencies) [Last visited on 9th Nov 2021]

transaction based on this information is not feasible. This process of transferring valuables over the internet without the possibility of tracing the owners of the transactions become a concern for the regulating authorities hinting at money laundering.¹⁶

- **Loss of Data**

Decentralised nature of the crypto transactions, make them available at various nodes owing to no physical presence. In the event of damage of any device due to physical reasons or vulnerability exploitations, may lead to huge financial losses owing their origin to loss of data pertaining to the transactions.¹⁷

Inadequate Literacy

Limited awareness related to cryptocurrencies and blockchain technology play a key role imposing resignation on cryptocurrency settlement in India. Researchers have time and again observed that digital assets especially crypto and bitcoin are vulnerable to various exploitations. This is a major contribution towards limited success and thriving nature of start-ups and fintech organizations emerging in this domain.¹⁸

Security & Malware threats

Every system has a set of inherent vulnerabilities. The exploitation of these vulnerabilities can enable the Hackers to generate enormous amount of virtual currency leading to further macroeconomic consequences. Once compromised, these malicious users can create fake virtual currency by a small weak of wallet addresses. For instance, in the game of World of Warcraft (WoW), users launder the money and buy virtual gold from unreliable sources to pay for the items they need, thus bypassing the policies of the game. Hackers continuously monitor these websites to ransack the innocent users who end up losing real money for no actual asset.

Concerns relating to Cryptocurrency Systems

These systems are no different, they can create unlimited amount of virtual currency and

¹⁶ The Virtual Currency Regulation Review: India by Vaibhav Parikh and Jaideep Reddy (September 2021) (<https://thelawreviews.co.uk/title/the-virtual-currency-regulation-review/india>) [Last visited on 9th Nov 2021]

¹⁷ Discussion Draft: <https://thetokenist.io/wp-content/uploads/2019/12/Cryptocurrency-Act-of-2020.pdf> (https://www.rbi.org.in/Scripts/BS_ViewMasDirections.aspx?id=11566)

¹⁸ Cryptocurrency and its rising importance in India in 2021 by Disha Ganguly (<https://www.analyticsinsight.net/cryptocurrency-and-its-rising-importance-in-india-in-2021/>) [Last visited on 9th Nov 2021]

distribute them among the virtual communities. It indicates to the similar practice of money printing by the central banks, but they are not constraint by demand and supply unlike the central banks. Virtual currency providers like Second Life, can release unregulated amount of Linder Dollars and manipulate its price to gain more revenue and defraud people. Consequently, this will destabilise the economy due to soaring inflation which may lead to further collapse of the virtual currency system.

Real Monetary Systems Impact

Considering the involvement of the legal tender in buying these cryptocurrencies and their correlation, cues disruption of demand and supply of the legal fiat. The risk of macroeconomic instability increases with increasing use of virtual currency to buy goods and services be it real or the virtual ones. These disruptions can lead to decreasing demand for the legal tender further causing disruptions. In contrast to the above, peer to peer exchange of virtual currency for real currency may increase the demand of the money. These fluctuations affect the real monetary systems.

Risks of Gold Farming

A popular concept in China and other developing countries wherein players indulge in social games like World of Warcraft (WoW) to gain gold is known as Gold Farming. This gained gold is encashed for the real money. Many inept and amateur players who don't indulge completely are affected the most. Unregulated nature of these transactions add to the risks and encourage the transactions for illicit activities.

Virtual currency value fluctuation

Unlike the guarantee provided by the central banks in case of legal tender, these Virtual currencies are fully controlled by market forces and may get devalued based on the market sentiments. Let say, currently, if a single unit of the virtual currency can buy 10 units of an item, its devaluation will lead to availability of fewer units for the same single unit of that virtual currency. This is more prevalent in closed virtual communities.

Unidentified identity risks

These virtual currencies can damage the social fabric as well and add to the security issues of the nation. Considering the usage of newer platforms like social games such as World of

Warcraft (Wow) adds to the risks involved. These platforms don't require any sort of authentication, so the financial transactions involved can't be traced and scrutinized. Gamers and malicious users can use these unknown accounts for all sorts of illicit activities. The untraceability enhances the challenges of the law enforcement systems in case of money laundering apprehensions. Criminals can encash these virtual currencies for their benefits, thus reinforcing the vicious circle.

4. Cryptocurrency: Perspective of other nations

Countries that banned virtual currency

China: As per the reports of agencies of the Chinese Government, there is a ban on the crypto exchanges in the territory of China. Moreover, the initial coin offering is also prohibited and illegal. But there is no restriction on Chinese people from doing business in cryptocurrency. Therefore, it is predicted that the ban imposed by Indian Government will be larger and stricter.

Bangladesh: The Central bank Of Bangladesh by issuing a notice in 2017 held the cryptocurrencies to be illegal in the territory of Bangladesh. The Government reasoned it out by saying that the crypto transactions violate the laws dealing with money laundering, terrorist financing and foreign exchange.¹⁹

Countries that have the Law

United Kingdom: In UK it is mandatory for a country to be registered with UK Financial Conduct Authority if it is dealing with crypto transactions. Such companies can also apply for the license of 'Authorized Payment Institutions'. Also, as per a recent judgement given by the High Court in United Kingdom, crypto assets are 'British Common Law Property'.²⁰

Singapore: In Singapore, it is legal to trade in cryptocurrency. A central authority called as Monetary authority of Singapore regulates it. This authority works under the 'Singapore Payment Services Act of 2020'. In Singapore, obtaining a license to operate crypto swapping is mandatory for crypto currencies. Public offerings of virtual currencies are regulated by the Securities and Futures Act of 2001. In the last few years, Indian cryptocurrencies companies

¹⁹ Status of Cryptocurrency in India and foreign countries by *Swathi Vajjhala (May 2021)* (<https://blog.ipleaders.in/status-cryptocurrency-india-foreign-countries/>) [Last visited on 9th Nov 2021]

²⁰ Blockchain and Cryptocurrency Laws and Regulations 2022- United Kingdom (<https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations/united-kingdom>) [Last visited on 9th Nov 2021]

have shifted to Singapore. For example: CoinDCX has relocated to Singapore, and consequentially it has raised humongous amount from global investors i.e., over INR 100 million. Another company that relocated to Singapore in Unocoin.

Canada: A notice was issued in 2018 by ‘The Canadian Securities Administrators (CSA)’ in clarifying that the conditions of the Securities Act are to be followed by to cryptocurrency companies as well. Another round communication took place in January 2020 where it was further clarified as to in what manner law of securities can be made applicable to such platforms that will make trading in crypto assets easier. As of 1st June 2020, it is mandatory to be registered with ‘Canada's Financial Transaction and Reporting Analysis Centre’ ("FINTRAC") for all companies involved in trading of this has been laid down in Canadian Money Laundering Act.²¹

Other Countries that have regulatory legal framework for crypto currencies are Switzerland, Netherland, Germany, Australia, Thailand etc.

5. Regulatory framework: ‘Banning of Cryptocurrency and Regulation of Official Digital Currency Bill 2019’

Currently, Cryptocurrency trading is not per se illegal in India, but there is no law to regulate the trading of Cryptocurrency. Cryptocurrencies though not a legal tender in India, exchanging crypto are legal in operation. However, the Government of India is willing to bring in the regulation of cryptocurrencies by inflicting a ban on their use.

The 2019 Bill seeks to prohibit the mining, trade, issuance, holding, selling or use of cryptocurrencies in India is pending in the Parliament of India. Indian Government is trying to encourage the use and application of blockchain technology. A turmoil in the market was noticed when the 2019 Bill was introduced. This bill startled the traders and the holders of currency as it prohibited the cryptocurrencies.

This bill lays down that the mining, holding, sale, issue, transfer, or use of virtual currency in India is an offence punishable with imprisonment of maximum 10 years or fine or both.

²¹ Canadian Security Regulations for Cryptocurrency market (<https://www.sia-partners.com/en/news-and-publications/from-our-experts/canadian-securities-regulations-cryptocurrency-businesses>) [Last visited on 9th Nov 2021]

The ban is against the use of virtual currencies. Crypto transactions are digitally encrypted and can be tracked by involved parties only. By using this manner, the holdings and transactions of the investors are kept away from the sight of the regulators. People could further evade tax by converting their money into Cryptocurrency and making further transactions in currency. The non-regularization of cryptocurrencies in India is resultant of numerous scams and crimes. The crypto transactions are being used for terror financing and hawala operations. After a few years of Crypto trading being introduced in India, the Union Government has been pondering about the legal complications relating to virtual currencies and has issued various press releases admonishing against the risks connected to such currencies in India. As per the contemporary speculation around the issue of banning of these ban private currencies by the 2021 Bill, the MCA Notification may lay down a way to accommodate the investors' opportunities. Nevertheless, the underlying struggle between the 2021 Bill and the MCA Notification will not place much confidence in the company of the investors about the legitimacy of virtual currencies/cryptocurrencies in India. The skirmish ascends, as on the one hand, 2021 bill seeks to put a blanket ban on the cryptocurrency, and at the same time, the notification issued by MCA has asked companies to reveal the history of their crypto transactions during the financial year.

It is still uncertain that the Cryptocurrency Bill, 2021 would come under the legal ambit but notification issued by MCA has instilled a hope that the ambiguity relating to the legal nature of the virtual currency in India for the near future at least.

There is an urgent need for the Government to frame a constructive policy framework to regulate cryptocurrency in India and that must be done in consultation with RBI and fintech industry. Instead of imposing bans, it would be an intelligent approach to organise camps to spread awareness regarding some risks associated and regulate trade to avoid scams. It becomes imperative for the RBI to draft a framework to give license to cryptocurrency intermediaries in India.

It should be made mandatory by the Government to adhere to KYC norms which are followed by stock exchanges.

There is a need for the Fintech Industry to show that virtual cryptocurrency trade can be carried out safely and responsibly with self-imposed safeguards, such as adequate customer due diligence.

The Government could take one step to recognise the intermediaries involved in cryptocurrency and make them liable to report to entities under the PMLA.

A new expert regulatory body should ideally do these steps with capability in technology, economics, and finance.

6. Conclusion

The Central Government almost immediately plans to introduce the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, which includes provisions entirely banning the use of all cryptocurrencies. The future of cryptocurrencies in India, thus, yet swings in the balance.

There are numerous encouraging characteristics of cryptocurrencies that the Indian Government appears to neglect. During an economic slowdown, the cryptocurrency assets have the potential for high return rates, turning out to be a magnet to many Indian investors. If controlled via good quality legislation, the crypto business can do exponentially and fairly well in India. India has a very large quantity of crypto investors trading in cryptocurrencies. A ban on cryptocurrencies in the age of technological advancement cannot be a way out for aggressive economies. Therefore, it is essential and the necessity of the hour to bring in strong legislation controlling cryptocurrencies in India right away.

Since the contents of the Bill are yet not accessible, it is still unclear how the cryptocurrency platforms are likely to be impacted. Only limited data is available in this respect. For example, the Lok Sabha Bulletin Part II suggests that the Bill establish a 'facilitative framework' to create an official digital currency issued by the Reserve Bank of India. The digital currency, called the Central Bank Digital Currency (CBDC), is not a new concept. A CBDC uses a blockchain-based token to correspond to a digital form of a fiat currency. The value of such a CBDC is associated and equal to the fiat currency and may be free from the unpredictability largely connected with conventional cryptocurrencies. CBDCs have been put forward by the Indian Government, which have pressed for instituting such a digital cryptocurrency comparable to the Indian rupee.

The Bill also recommends forbidding all private cryptocurrencies and associated activities in India (mining, buying, holdings, sale, dealing in, issuance, disposal, or use). It is still uncertain what establishes such 'private cryptocurrencies' and how cryptocurrencies other than such

private cryptocurrencies would be controlled. The 2019 Bill gave a broader definition of the term 'cryptocurrency', which raised concerns that it may even include tokens or other digital issues generated through non-cryptographic methods. Likewise, other related issues like tax implications and the scope of Bill's pertinence to Indians having crypto assets outside India are still unidentified. The accurate repercussions of these can be reviewed after the new Bill's draft is laid in front of the Parliament.

A properly regulated cryptocurrency sector can seem boost the Indian financial sector. Considering the face of growing technological innovation in the financial sector or the rising fintech, it becomes critical to strengthening India's supporting regulatory frameworks that operate regardless of the nature of an instrument.

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