ACOI 2021 Annual Conference

From Tiger to Crisis to Recovery & Beyond - the future evolution of Compliance

CPD Code: 2021-2351

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Deputy Governor, Prudential Regulation at the Central Bank of Ireland

Ed Sibley

Regulatory Update

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Non-executive Director at the Global Legal Entity Identifier Foundation

Vivienne Artz OBE

Ensuring Support Not Conflict for Better Data Privacy

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Current Landscape

- EU Data Strategy aims to make the EU a leader in a data-driven society. Creating a single market for data will allow it to flow freely within the EU and across sectors for the benefit of businesses, researchers and public administrations
- UK National Data Strategy is an ambitious, pro-growth strategy that drives the UK in building a world-leading data economy while ensuring public trust in data use
- China National Data Strategy – a state led toward a data driven digital socialist market economy
- Data powers both algorithms and analytics
- Algorithms can be emulated; analytics can be redesigned; data can't be invented
- A company's data can be worth more than its market capitalisation e.g. two airlines secured a loan using customer data worth more than the company
- Global accounting standards don't recognise the value of data as an asset until bankruptcy – needs updating
- Data treated as an asset, but not recognised on the balance sheet

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Current Landscape

- Digital economy is the size of the GDP of a G7 country and growth is 6x faster than major emerging markets.
- Cross-border data flows added $2.8 trillion (or 3.5%) to world GDP in 2014, surpassing the impact of the global goods trade and 75% of the value accrued to traditional industries.
- The world's data is expected to grow 61% to 175 zettabytes by 2025
- Global shift from industrial to digital based economy
- 4th industrial revolution (technology), 5th industrial revolution (smart society)

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Data Challenges

- Data localisation
- 2/3 world has Privacy laws and growing
- Data transfer restrictions
- Digitisation and Digital Transformation - Pandemic multiplier
- Compliance and Culture

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Trends

- Cyber threats
- Artificial Intelligence
- Ethics
- Cloud and Edge and Internet of Things
- Quantum computing
- Metaverse – virtual vs physical world realities
- Virtual + physical = mixed reality
- Data in all forms – written, audio, video, meta etc.

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Financial crime is a global issue: Cost of Financial Crime

- Proceeds estimated up to $2.1 trillion
- But less than 1% of laundered money is recovered
- Corruption estimated up to $2 trillion
- Tax evasion up to $3.1 trillion
- Company impact estimated $1.45 trillion lost aggregated turnover

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Financial crime is a global issue: Social Impact

- Modern slavery higher than ever estimated 40 million
- Human trafficking estimated to generate $150 billion
- Green Crime estimated $257 billion
- Wildlife trafficking ranks 4/5 most lucrative illicit activities in the world

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EU AML Reform

- EU AML/CFT Reform Package, 20 July 2021
- The package includes:
  - The creation of a new EU AML/CFT authority
  - EU single rulebook for AML/CFT
  - A Sixth AML Directive
  - Full application of the EU AML/CFT rules to crypto-currencies

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Privacy Issues

- Basis for processing of personal data, special category data and criminal record data
- International transfer challenges – localisation & Schrems II
- Data minimisation vs data maximisation tension
- MLRO and DPO need to be in sync

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EDPS Opinion on new EU AML Strategy

- Welcomes aim to increase effectiveness of AML/CFT via greater harmonisation of rules and supervision and risk-based approach

- Recommends and observes:
  - Need to identify the categories of personal data to be processed
  - Conditions and limits for processing of special categories of personal data and criminal convictions/offences
  - Personal data related to sexual orientation or ethnic origin should not be allowed
  - Beneficial ownership list to be exhaustive, purposes of access limited to AML/CFT by competent authorities and obliged entities (separate rules for NGO and other entity access)
  - FIU access to data to be exhaustively set out
  - Preference for “investigation-based” rather than “intelligence-based” more consistent with proportionality and purpose limitation principles
  - Storage limitation period for central AML/CFT databased
  - Sources of information and watchlist usage to be limited i.e. high risk only

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Where to from here?

- What is the future of public private partnerships?
- Will a risk based rather than an intelligence led approach be sufficiently effective?
- How will privacy requirements support AML/CFT objectives?
- Can privacy enhancing technologies help address privacy concerns?
- How will the proposed EU AI Regulation, with the restrictions on high risk processing, impact the EU AML Action Plan?
- Should the AML/CFT approach be proactive or reactive?
- Will the new legislation and bodies be sufficiently agile to pivot to address new areas of AML/CFT e.g. environmental and wildlife crime?
- Does AML/CFT need to focus “upstream” or continue to address the current areas of focus?

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Back to data …

- How do organisations view data today, and what should they be thinking of for tomorrow?
- What do you know about the data your organisation holds?
- What are the opportunities and challenges that data poses for your organisation?
- Is data still siloed in your organisation? How is this a “risk multiplier”?
- Who is responsible for data strategy?
- Why do you think data is important for your organisation?
- What do you see as your role in relation to data?

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Managing Director and Data Scientist/Analytics Lead at KMPG Ireland

Kieran Towey

A.I. - How Will it Impact Compliance?

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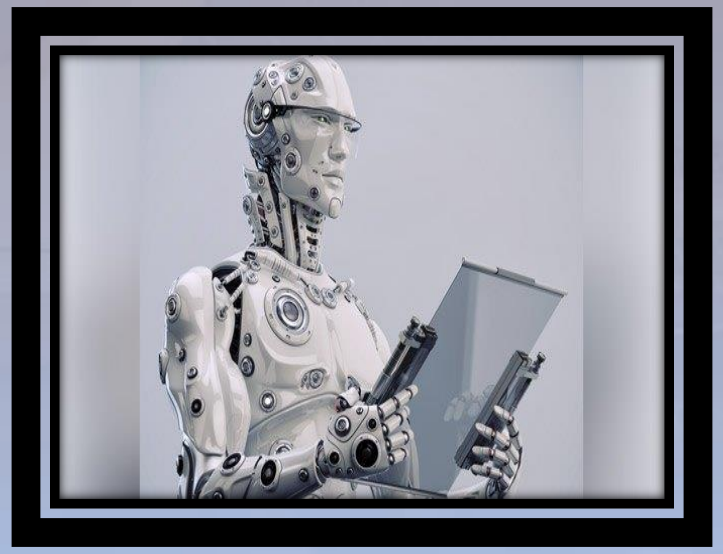
The 2 most frequently asked questions about AI



When are they coming to take my job?

When are they coming to murder me in my bed

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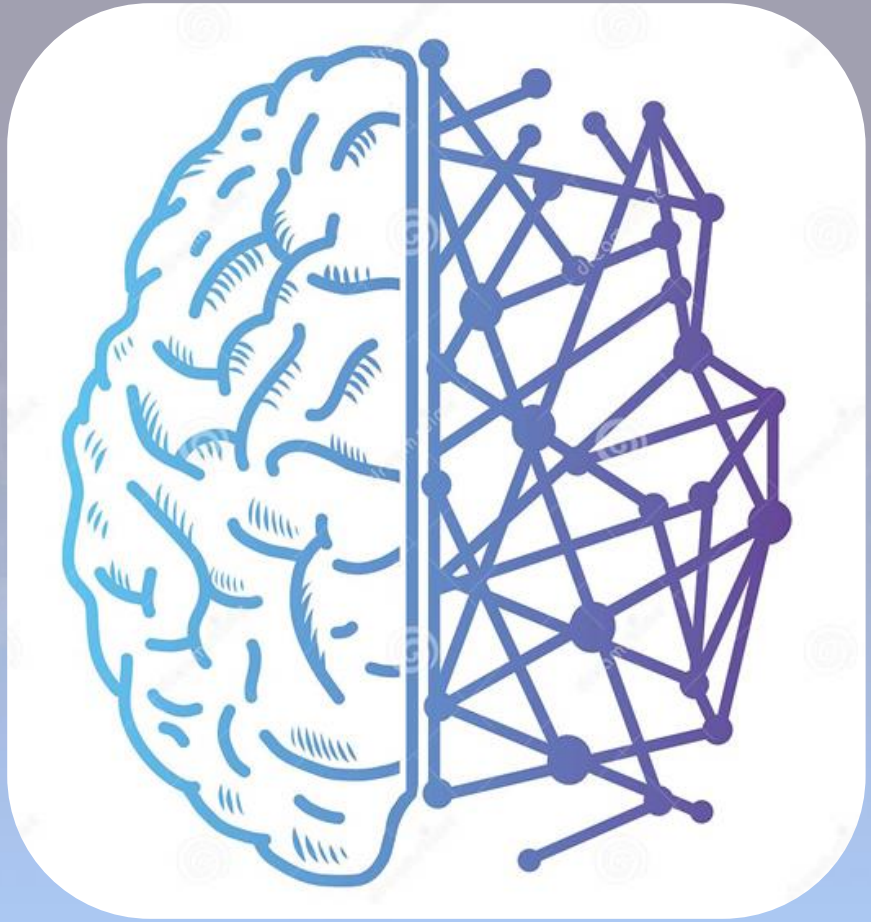
What is Artificial Intelligence (AI)?

Artificial intelligence (AI) refers to the theory and development of computer systems able to **perform tasks** that **mimic** human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages and making decisions based on data.

The area of computer science devoted to creating machines that can engage in behaviour that humans consider intelligent



What is AI important?

Artificial intelligence (AI) releases the productive power of machines to exceed human capability.

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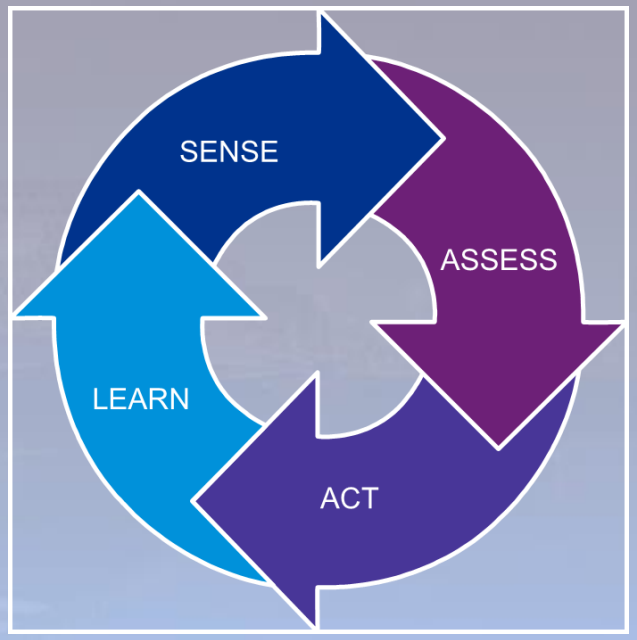
The Artificial Intelligence process – how it works

AI requires **data** (inputs) and **processes** to make decisions.

AI machines gather and process **data**.

AI "weigh up" the data and comes to a decision.

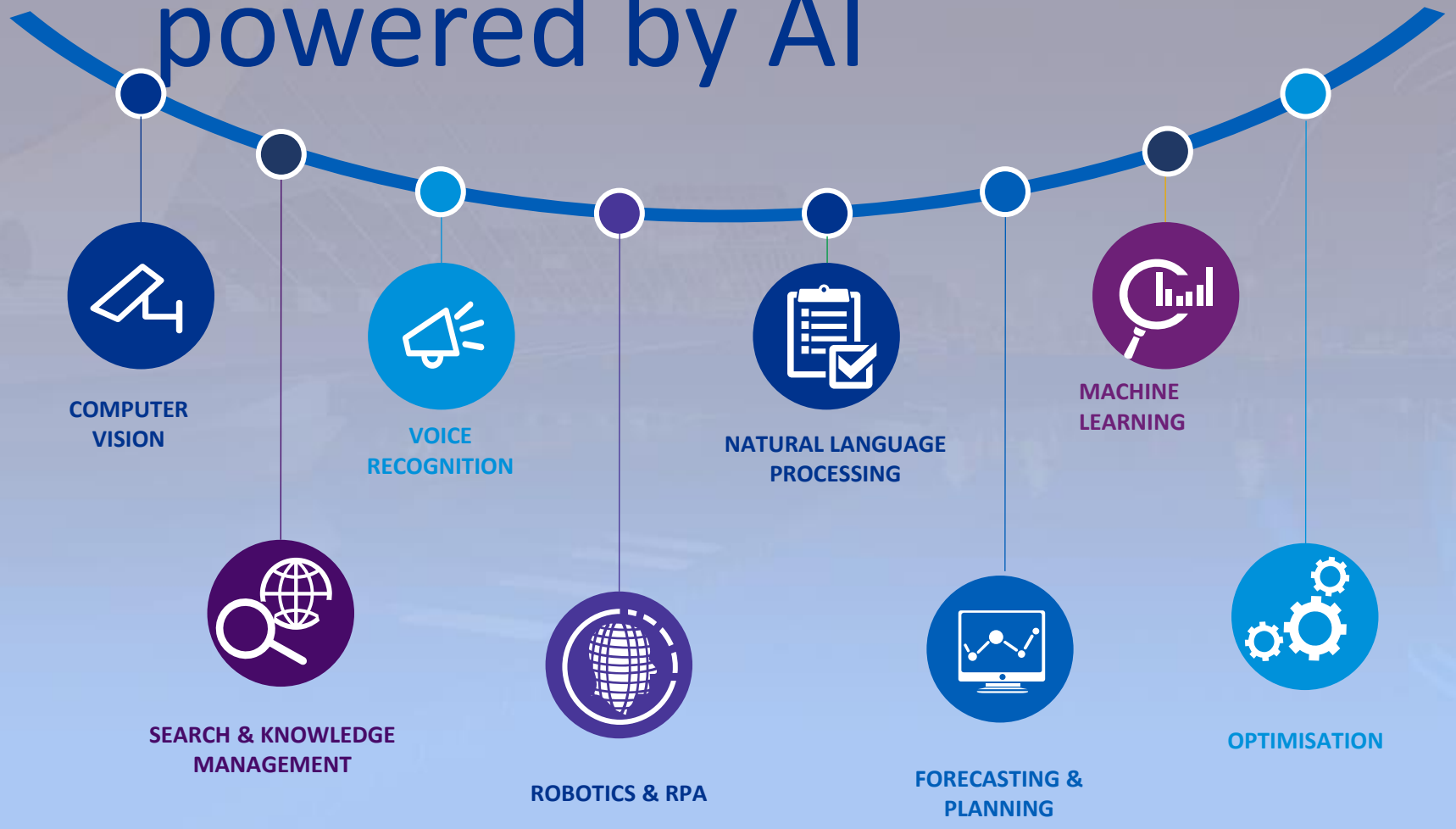


AI gathers the outcomes of the action and updates

AI executes the decision and performs an action

AI is not (yet) Intelligent

Cognitive technologies powered by AI



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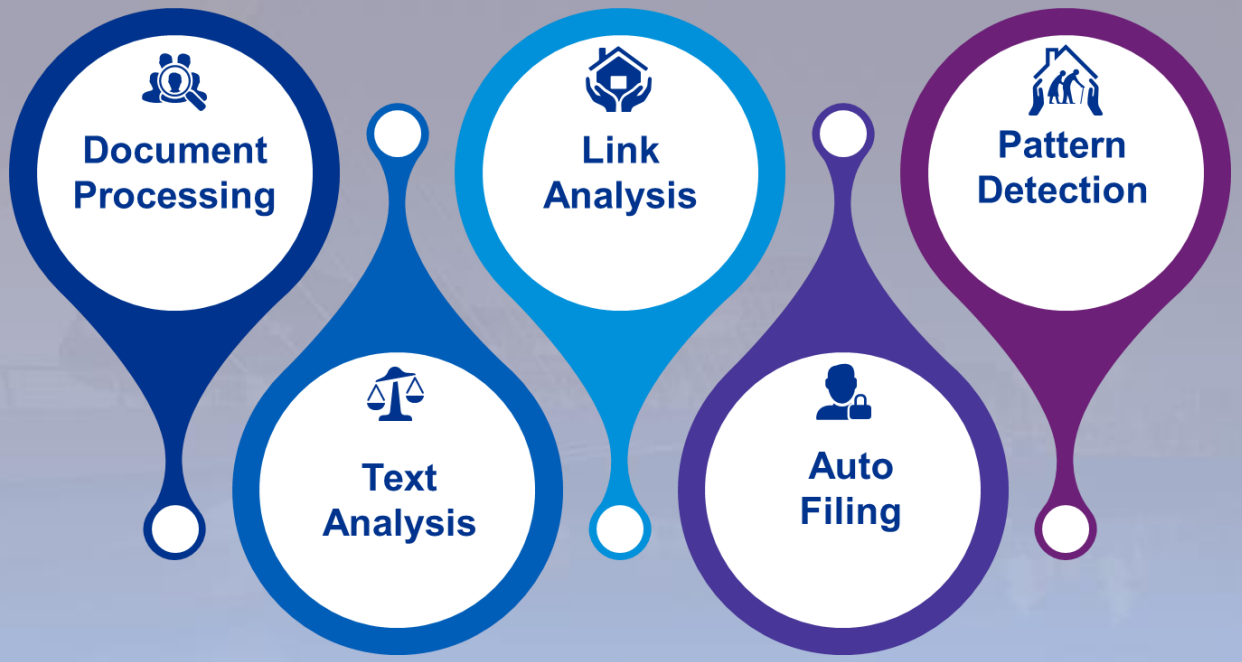
AI in AML\KYC



Reduced manual effort & costs

Increased effectiveness

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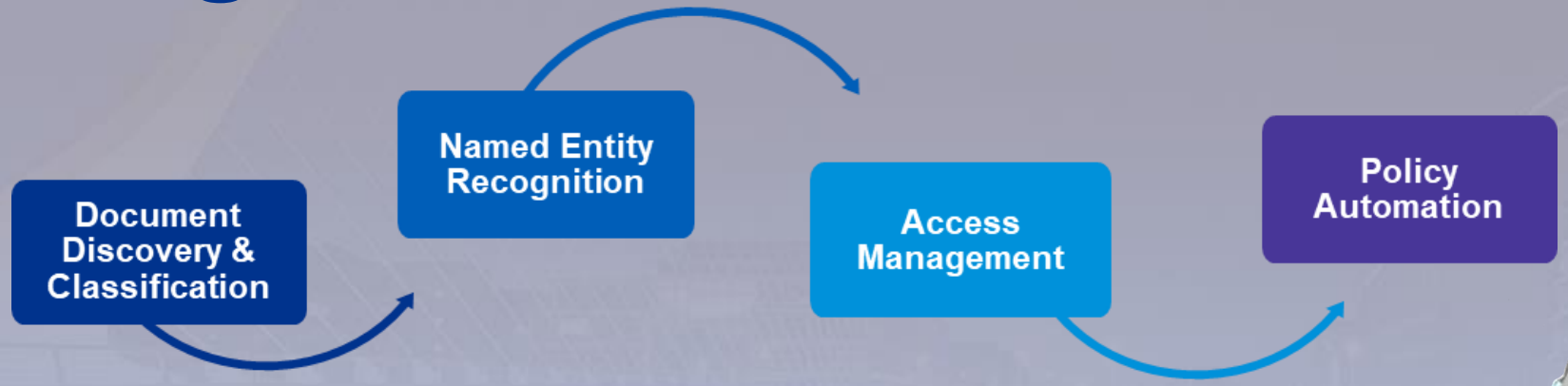
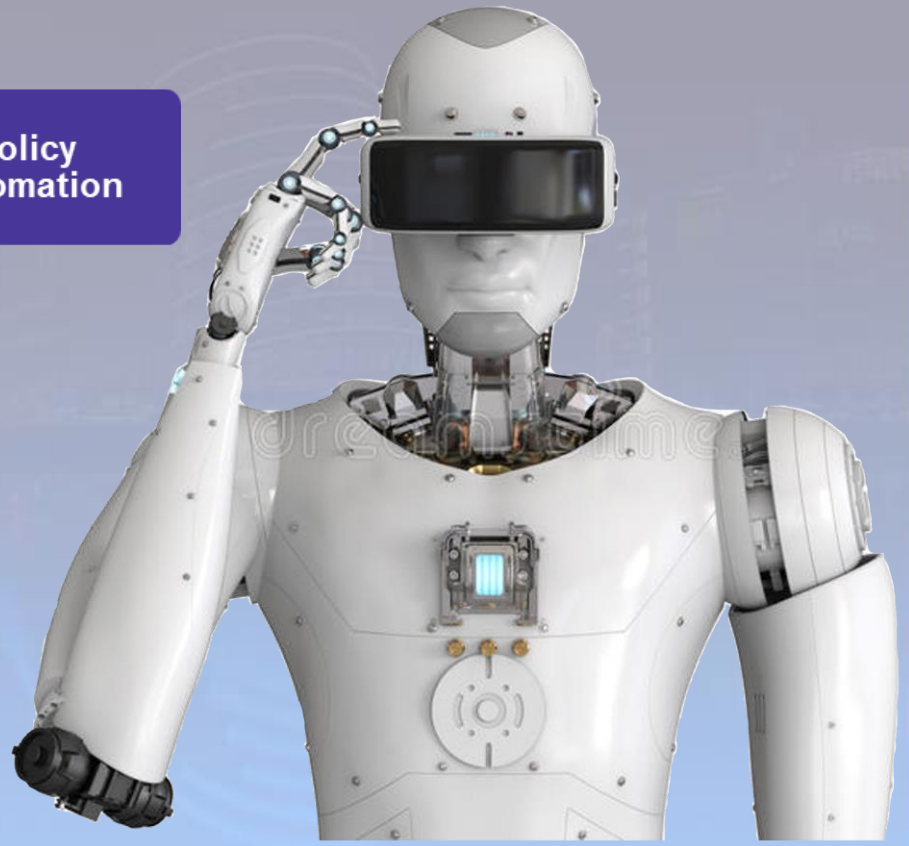
AI in unstructured data governance





Increased coverage and accuracy

Automation

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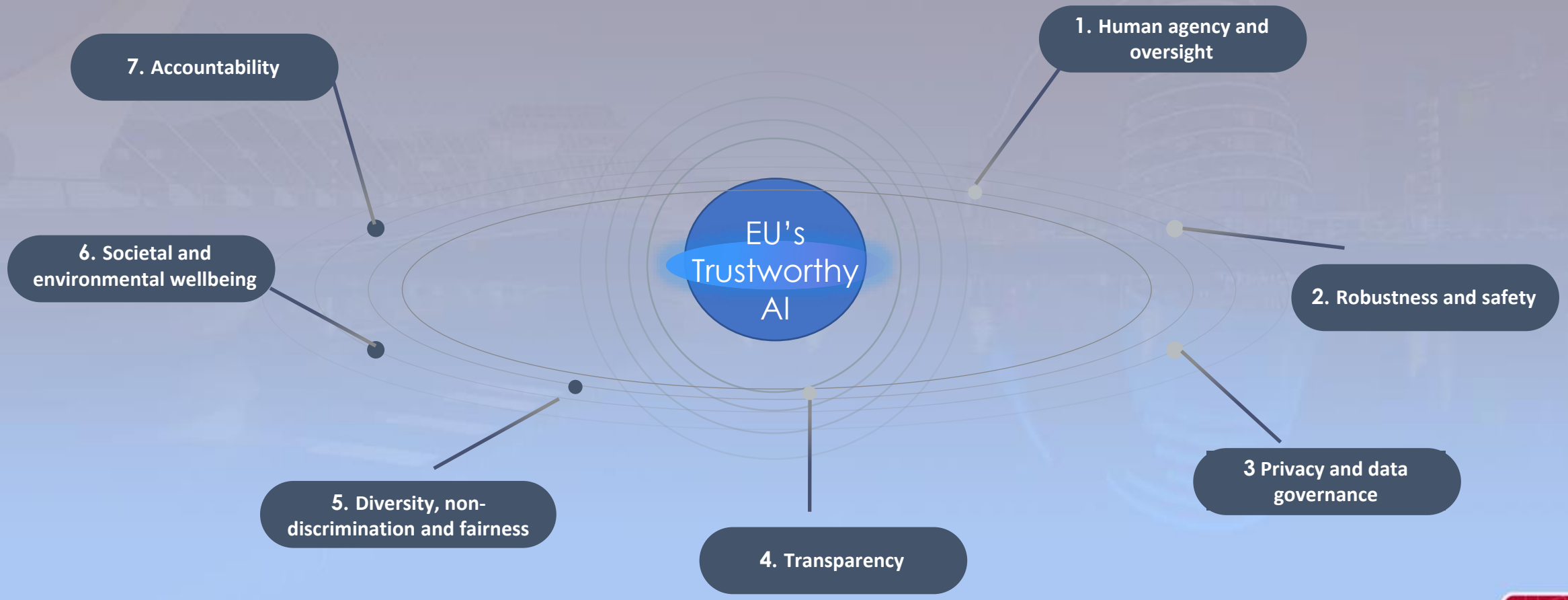
Proposed EU AI Regulation – Ethics in AI

On 21 April 2021, the European Commission (the "Commission") published its proposal for a Regulation on Artificial Intelligence (the "AI Regulation")



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Director of Government & Strategic Affairs at the Vancouver, Canada based Blockchain Intelligence Group

William Callahan

Cryptocurrency, Illicit Activity & Investigative Methods

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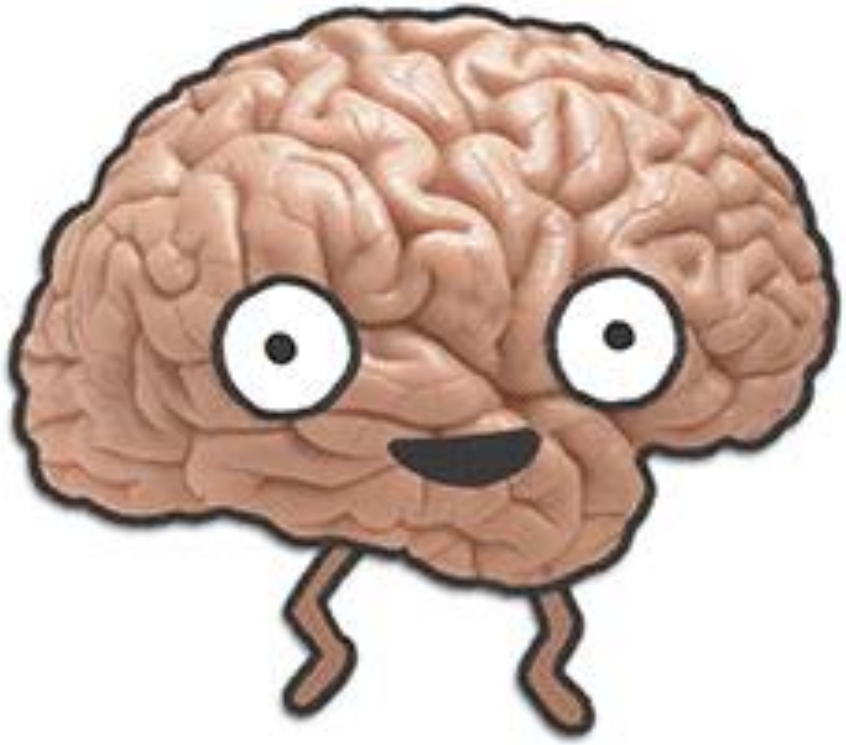

y

youtube
yahoo
yahoo mail
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Who is Old Enough to Remember Saying

"I'm Not Getting into a Stranger's Car, in a City I've Never been to before, and be driven to the Airport, Conference, Dinner, etc?"

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The World’s Largest Taxi Company

Who is Old Enough to Remember Saying…

“I’m Not Staying in Some Stranger’s House/Apartment, in a City I’ve Never been to before?”

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World’s Largest Accommodation Provider

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Which Company is the World’s Largest Media Outlet…But Creates No Content?

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Which Company is the World’s Largest Shopping Portal…But Owns No Inventory?

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Alibaba.com

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What do these companies have in common?

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These are all peer-to-peer systems

- Facebook is the world's largest media outlet creates no content
- Alibaba, the world's largest shopping portal has no inventory
- Airbnb, the world's largest accommodation provider owns no real estate.
- Uber, the world's largest taxi company owns no vehicles

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Cryptocurrency

Bitcoin, and blockchain create P2P for finance, contracts, etc.
Decentralized Finance – financial transactions without banks.

BLOCKCHAIN
INTELLIGENCE
GROUP

BLOCKCHAIN INTELLIGENCE GROUP

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Goals for Today

- Provide some basic fundamental understanding of Cryptocurrency, Blockchain, Distributed Ledger Technology (DLT) and basic investigative techniques.

Virtual Currency

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Virtual Currency

What is it?

Digital payment system

Perception of Elevated levels of confidentiality

Entrenched in both domestic and international commerce

Over 6,000 cryptocurrencies

Highly Volitale

What is Virtual Currency (aka Digital Assets)?

- Virtual currency is a digital representation of value that can be digitally traded and functions as
  - a medium of exchange; and/or
  - a unit of account; and/or
  - a store of value, but does not have legal tender status (i.e., when tendered to a creditor, is a valid and legal offer of payment) in any jurisdiction.

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What is Virtual Currency (aka Digital Assets)?

It is neither issued nor guaranteed by any jurisdiction, and fulfils the above functions **only by agreement within the community of users** of the currency.

What is Virtual Currency (aka Digital Assets)?

Virtual currency is distinguished from **Fiat Currency** (a.k.a. “real currency,” “real money,” or “national currency”), which is the coin and paper money of a country that is designated as its legal tender.

What is Virtual Currency (aka Digital Assets)?

Virtual currencies are issued by private developers.

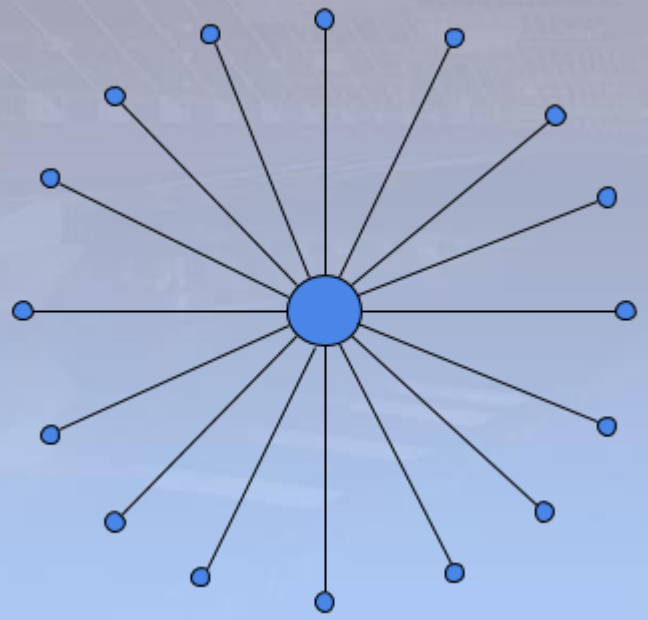
Two Types of Virtual Currency

Centralized

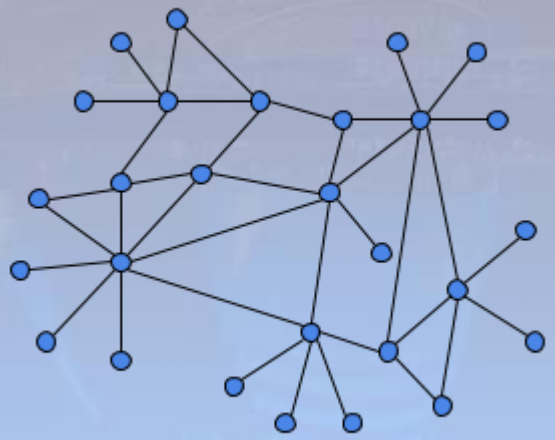
Decentralized

Virtual Currency

Centralized

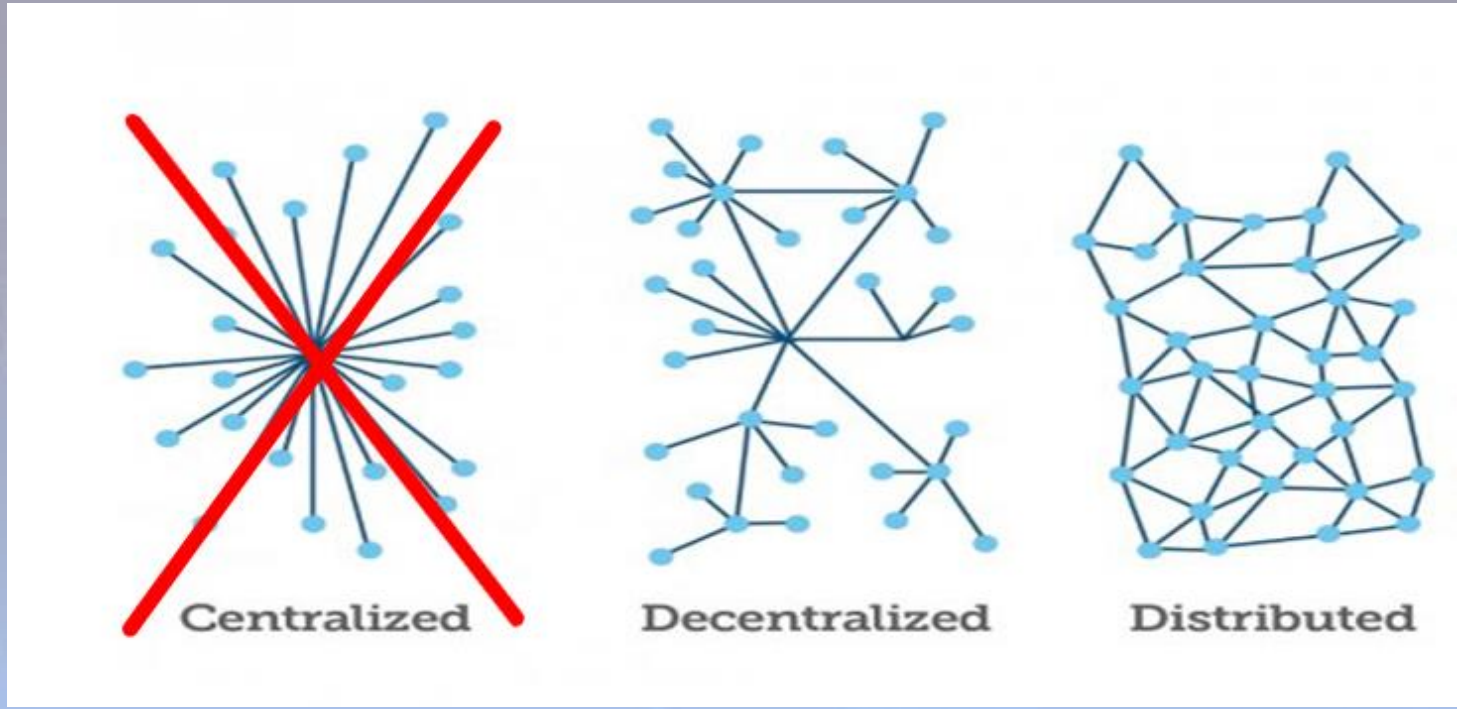


Decentralized

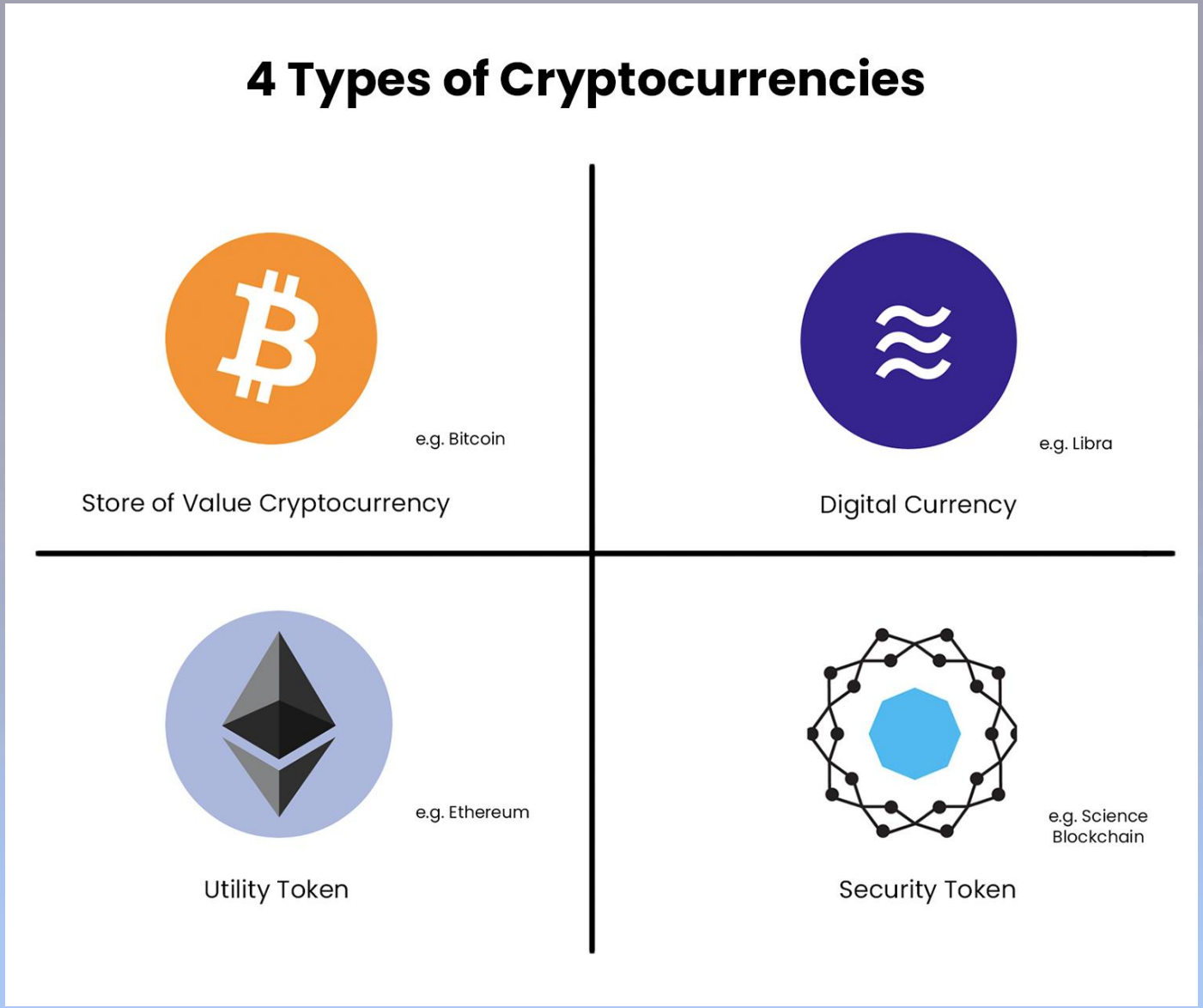


Cryptocurrencies are decentralized and distributed

Cryptocurrencies use a network of connected nodes, or volunteer computers, to broadcast transactions and record transactions. The nodes are independent of each other. Meaning no one country, business or person owns a majority of the nodes.



Not All Cryptocurrencies Do The Same Thing?



Store of Value Cryptocurrency

Bitcoin – a type of digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds.

Digital Currency

Facebook Libra's mission is to act as a simple global currency that empowers billions of people. Libra will be built on a secure, reliable, and scalable blockchain. It will also be backed by a reserve of assets to give the coin its intrinsic value. Libra promises to be stable over time due to it being backed by a reserve of low-volatility assets.

Utility Token

Ethereum - an open-source, public, blockchain-based distributed computing platform and operating system featuring smart contract functionality. Many digital tokens and assets are based on ETH and ERC-20 contracts.

Security Token

- A security token is a crypto token that can obtain its value from a tradable and external asset or is supported by an asset with security like features.

What is Bitcoin?

- Designed as a peer-to-peer (P2P) value transmission system based on cryptography - a currency
  - Eliminates the need for a centralized third party (Federal Reserve, financial institution)
  - Not good or evil, just another ‘format’ for value transfer
  - Pseudonymous vs anonymous
- Can be used in true P2P or through online wallet service (Coinbase, eToro, BitFlyer, Kraken, etc.)
- No one owns (true p2p), transaction fees with exchanges.
  - Fees may be required by network. Ethereum very expensive currently.
- Push system, irreversible

Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto
satoshin@gmx.com
www.bitcoin.org

Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.

1. Introduction

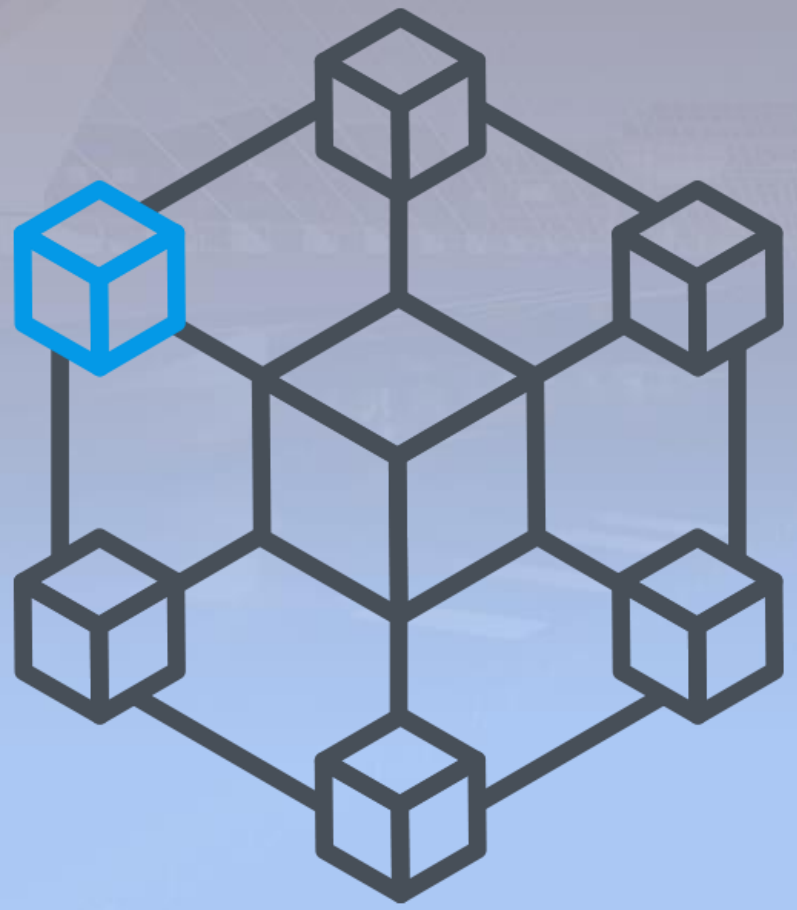
Commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the trust based model. Completely non-reversible transactions are not really possible, since financial institutions cannot avoid mediating disputes. The cost of mediation increases transaction costs, limiting the minimum practical transaction size and cutting off the possibility for small casual transactions, and there is a broader cost in the loss of ability to make non-reversible payments for non-reversible services. With the possibility of reversal, the need for trust spreads. Merchants must be wary of their customers, hassling them for more information than they would otherwise need. A certain percentage of fraud is accepted as unavoidable. These costs and payment uncertainties can be avoided in person by using physical currency, but no mechanism exists to make payments over a communications channel without a trusted party.

What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party. Transactions that are computationally impractical to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers. In this paper, we propose a solution to the double-spending problem using a peer-to-peer distributed timestamp server to generate computational proof of the chronological order of transactions. The system is secure as long as honest nodes collectively control more CPU power than any cooperating group of attacker nodes.

Satsohi Nakamoto

Satoshi Nakamoto is **the name used by the presumed pseudonymous person or persons who developed bitcoin, authored the bitcoin white paper, and created and deployed bitcoin's original reference implementation.** Nakamoto also devised the first blockchain database. In the process, Nakamoto was the first to solve the double-spending problem for digital currency using a peer-to-peer network.

Blockchain = Public Ledger



General Ledger Sheet

Sheet No:

Account:

Account No:

Date	Description	Journal ref.	Transaction		Balance	
			Debit	Credit	Debit	Credit
		Total				

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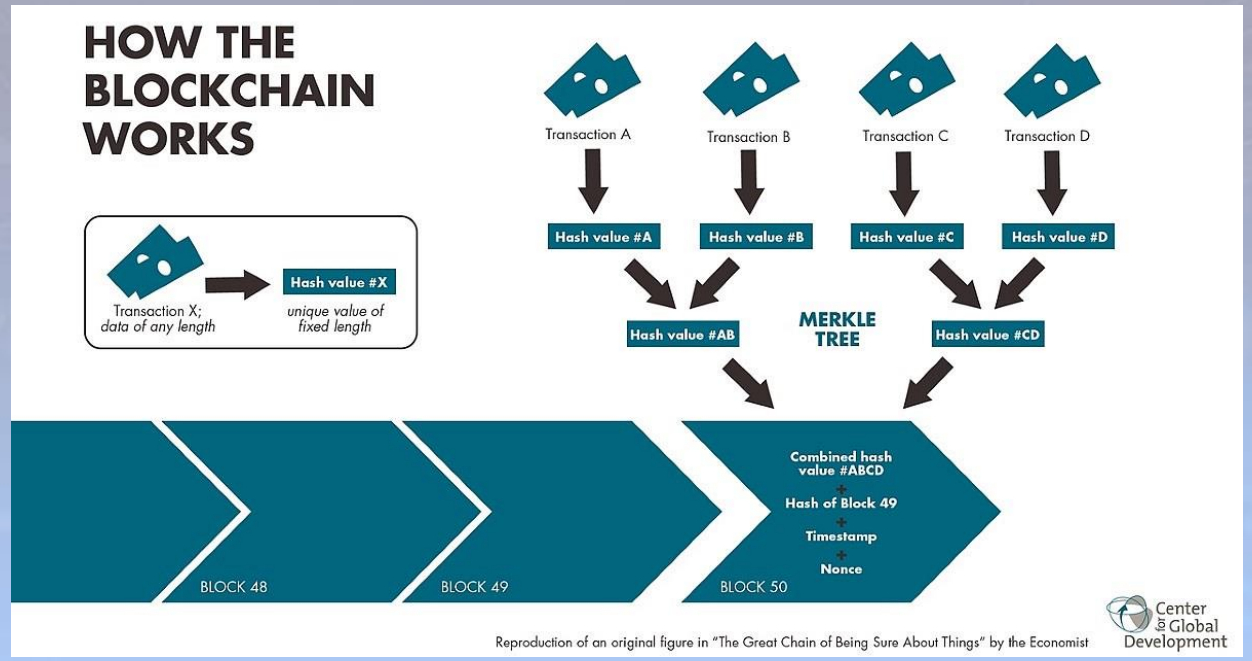
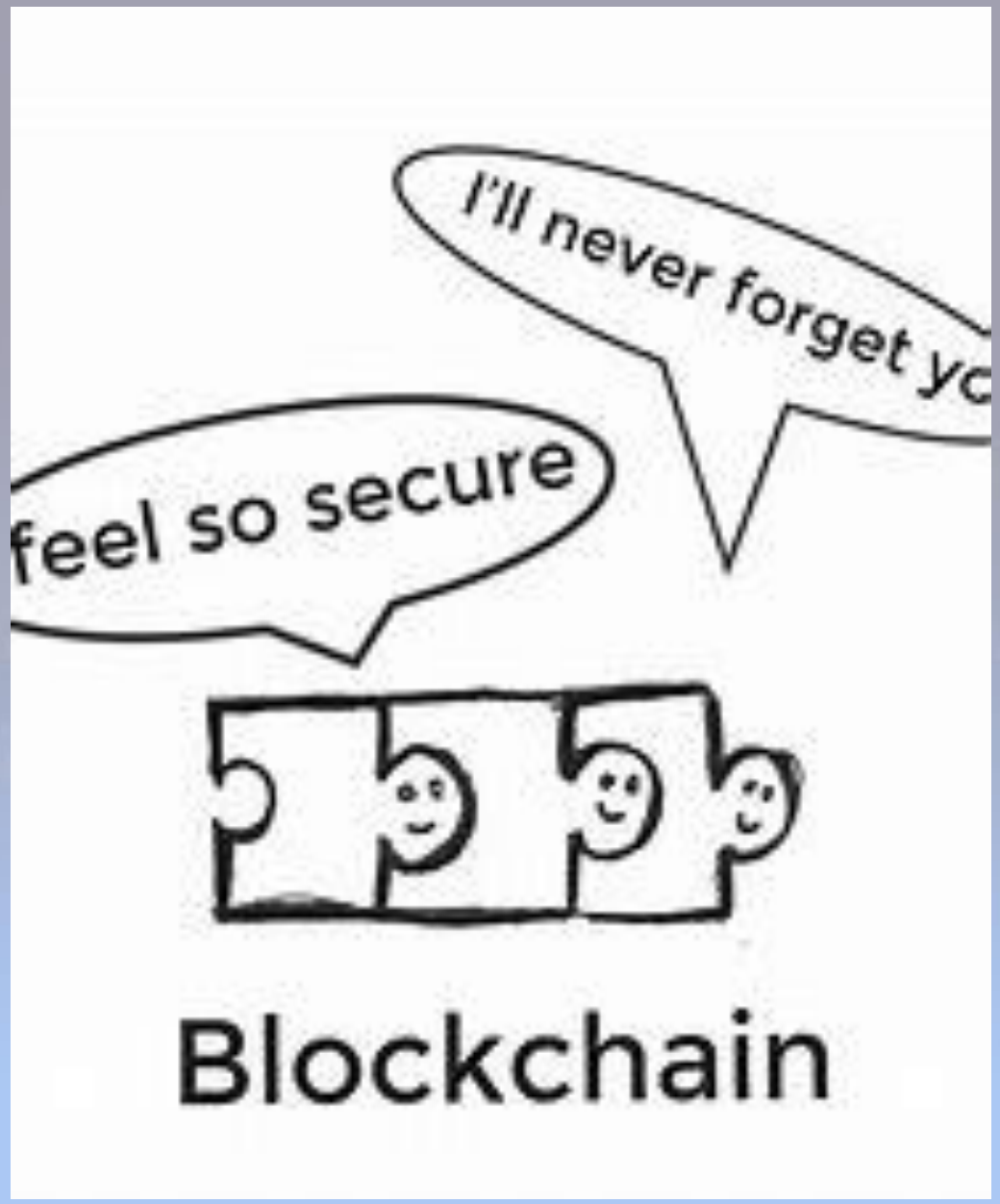
What is Blockchain?

- A type of distributed ledger consisting of blocks of data. Each block is connected to the next block using a cryptographic hash referencing the previous block.



The Blockchain Never Forgets



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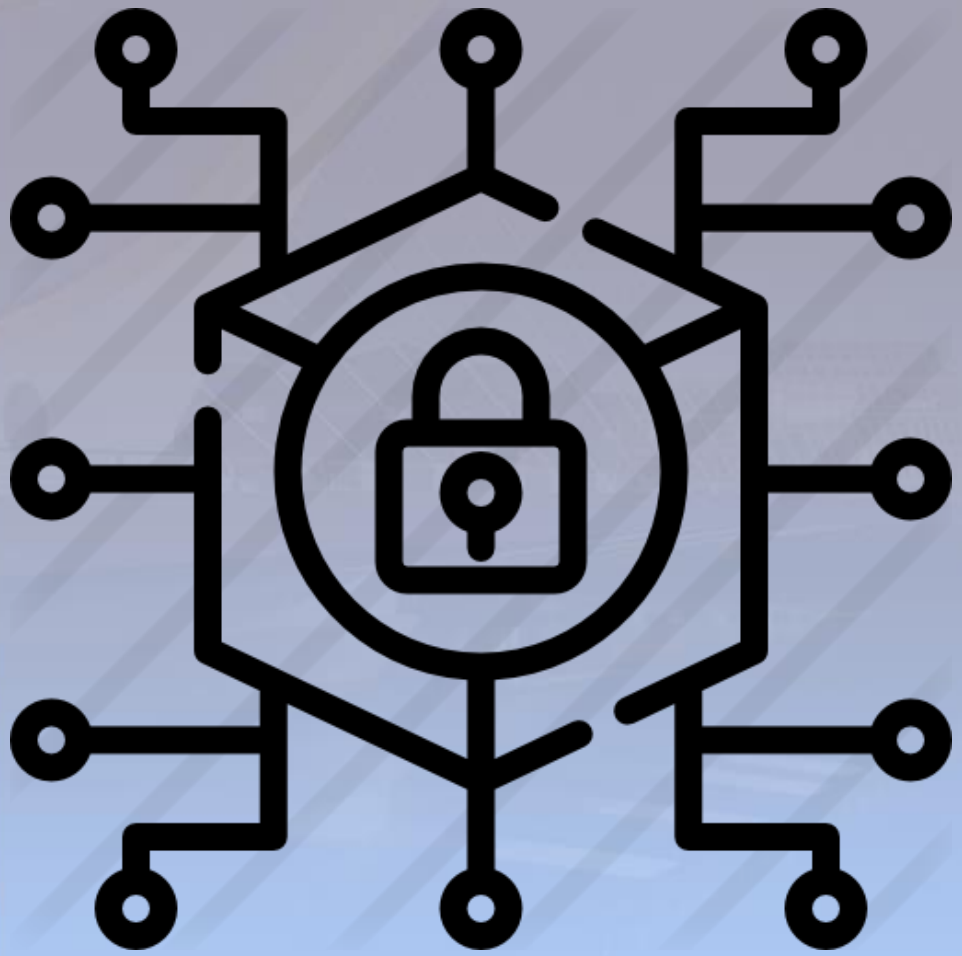

Cryptography

- Cryptocurrency are digital assets that are confirmed on a blockchain using cryptography.
- They are called cryptocurrencies because they use cryptography that has been proven to be impenetrable
- Cryptocurrencies are not secured by people or trust, but by math. (Trustless)

Bitcoin: A Peer-to-Peer Electronic Cash System

- How do you prevent someone from spending a bitcoin multiple times?
- “The Double Spend Problem”
- Use digital signatures, form a record that can not be changed
- Voluntary nodes
- 51% are working correctly to confirm transaction

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Cryptocurrency Mining

Bitcoin mining is the process of adding transaction records to **Bitcoin's** public ledger of past transactions or blockchain. This ledger of past transactions is called the block chain as it is a chain of blocks.

Mining & Validation

- Bitcoin 'Miners' operate computers and BTC software that are part of the transaction validation process
- P2P BTC transaction initiated (Ex. John sends Doug one bitcoin)
  1. Cryptographic problem transmitted to miners (billions hash computations/sec)
  2. Once 1st miner solves the problem (proof of work), trans to other miners (date/time) to verify
  3. Transaction is validated by consensus (while eliminating the need for third party validation). Permanent & Irreversible . Transaction visible in near real-time. Blocks resolve roughly every ten minutes..
  4. Transactions fully validated within approximately two hours.

Mining & Validation

- ‘Winning’ miner is rewarded with newly created BTC – the mining function
  - 21 million BTC limit and created at pre-determined rate (halved every 210,000 blocks)
    - Cryptographic problems get more difficult as BTC is mined
    - Inflationary control
- Currently, between 160-180 million terahashes (trillion) computations/sec in computational power mining BTC (160-180 quintillion per second worldwide)
- Bitcoin mining consumes one-half percent of worldwide energy. The network consumes the equivalent of the amount of power generated by 8-9 nuclear plants.

Hot Wallet

- Highly accessible funds
- Connected to the internet
- Vulnerable to phishing and hacking

Cold Wallet

- Highly secure
- Less accessible funds
- Not connected to the internet

The key distinction between a hot and cold wallet is that hot wallets are connected to the internet, while cold wallets are not.

Example of a Bitcoin Wallet

Bitcoin address 1MpmhCc9yq5Sj78f83zLdvUQFK3E4s9xpz

Hash	e46b5fb1b1162e1e04bebba241d71821a433acff
Number of confirmed transactions	4
First transaction	753 days ago
Last transaction	411 days ago
Total Received	25.8 mBTC
Balance	0 BTC

Transaction 28d8cf3389c7b7b7da29091f294e3c07b42fbceca00aff48bd9f444e54519d49 (fees: 8.22 mBTC)

Bitcoin wallet addresses always start with a “**1**”, “**3**”, **or** “**bc1**”, making them easily distinguishable from public keys and private keys. Bitcoin public keys and addresses are presented in various formats.

What's the Big Deal?

- BTC, in current form, can be more efficient than current financial solutions because the centralized 3rd party is eliminated
- Blockchain can create trust between two parties (or more) who do not know each other.
- Blockchain works well for financial transactions, but potentially for any situation in which the need for a 3rd party is not ideal (smart contracts).
  - Legal documents/agreements, voting, authentication, doc storage, supply chain
- Can work well for merchants without volatility risk
  - Instant currency conversion, no chargebacks
  - Increasing number of merchants like Overstock, Home Depot, Starbucks and AirBnB.

Travel Rule

The Travel Rule is the common name for **FATF Recommendation #16 on combating money laundering**. It requires both financial institutions and crypto companies—otherwise known as Virtual Asset Service Providers (VASPs)—to collect personal data on participants in transactions exceeding 1,000 USD/EUR.

AML Considerations

- Dark Net / Dark Market
  - Accessible only through TOR (The Onion Router) which anonymizes users web activity by utilizing multiple proxy servers
    - Bounces from many different servers in different countries

- BTC has been popular in the dark market where many illegal items are sold including compromised credit card data
  - Push system, irreversible, instant, no chargebacks (unlike credit cards)
  - Crypto currencies can be pushed through tumblers that co-mingle currency making it more difficult to track through the blockchain
  - In the U.S., online currency exchanges like Coinbase and Bitstamp are required to register as MSBs and follow AML rules
  - FATF Travel Rule was supposed to apply to all VASPs as of 2020.

Cryptocurrency Frauds and Scams

- Fake Investments
  - IPO vs. ICO
- Mining Scams
- Fake Bounty and Airdrop Giveaways
  - Social Media Influencers and Celebrities
- Crypto Pump and Dump Scams
- Fake Crypto Exchanges
- Blackmailing Scams
- Romance Scams
- Ransomware

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Fake Investments

- **Shit coin** refers to fake cryptocurrency coins, or tokens with no potential for the long term value. This type of cryptocurrency scam tries to convince an investor of the benefits of a relatively unknown coin, asking him to buy the fake project with the promise that it will be worth more in due time.

IPO vs. ICO

Initial Public Offering

Process through which a **private** corporation is listed as a **public** corporation by offering its stock to the general public.

Registered broker performs DD.

Disclosures

No track record

Initial Coin Offering

Investors generally **do not receive ownership** shares in a company, but rather digital tokens to be used within the boundaries of the platform.

Little to no regulation

Track record of earnings required

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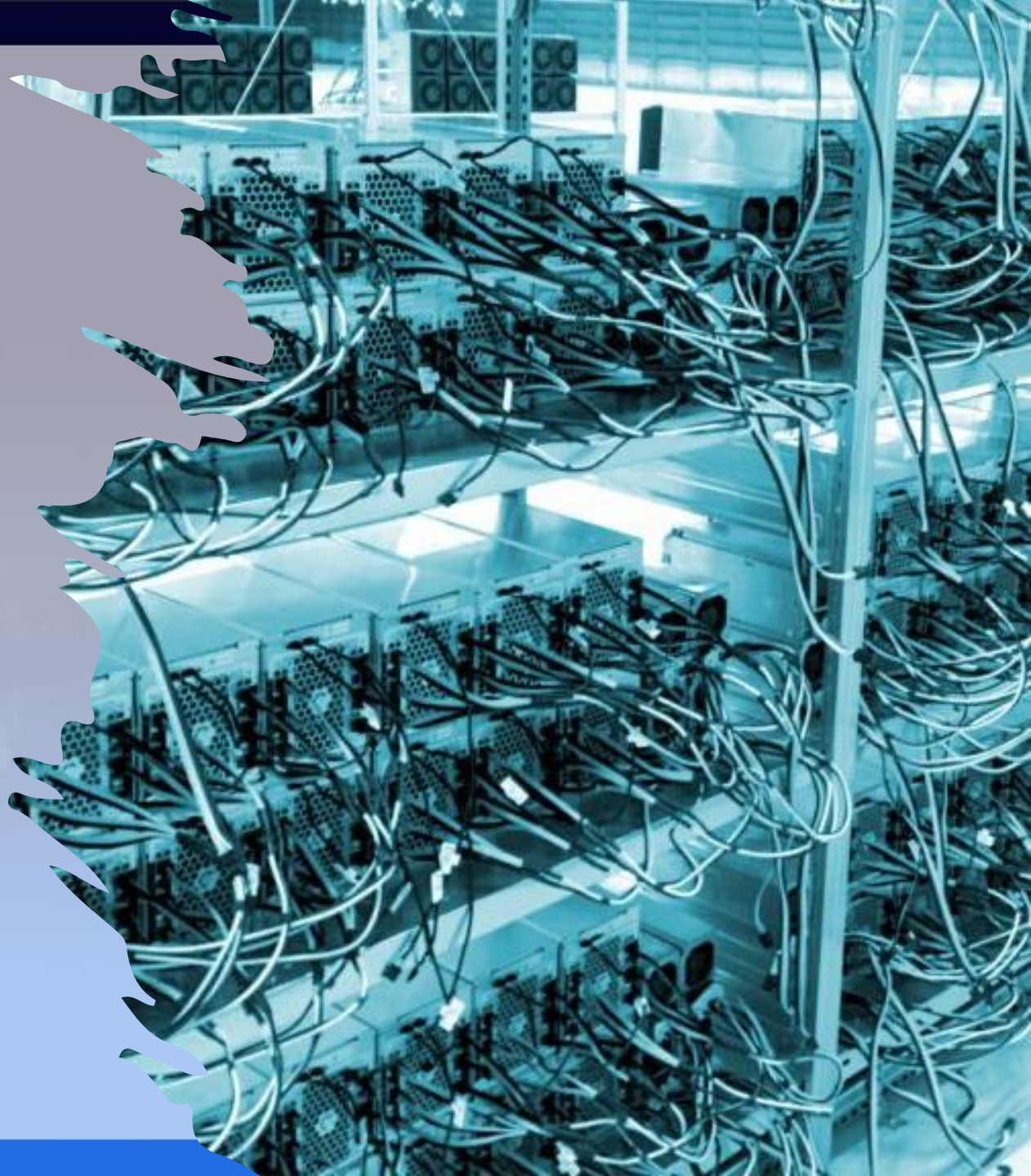
Mining Cryptocurrency Scams

- Cryptocurrency mining is a specialized crypto activity and requires a huge involvement of financed funds for mining equipment. Scammers claim to offer a fixed return for investing in their mining programs or platforms. Scammer resort to use edited images, promises of big profits, and fake testimonials to convince victimo part with your fiat or cryptocurrency.



Fake Bounty and Airdrop Giveaways

A classic example is the fake '5000 BTC Binance Giveaway' – where the perpetrators created fake social media profiles and web links, asking users to join with a promise to get a part of the 5000 BTC available for grabs.

Victims will be asked for some crypto deposit, before being eligible to win in the giveaway, or the victim may be asked to register on a clone platform, as the scammer tries to steal your log in, or data details for later access through phishing.

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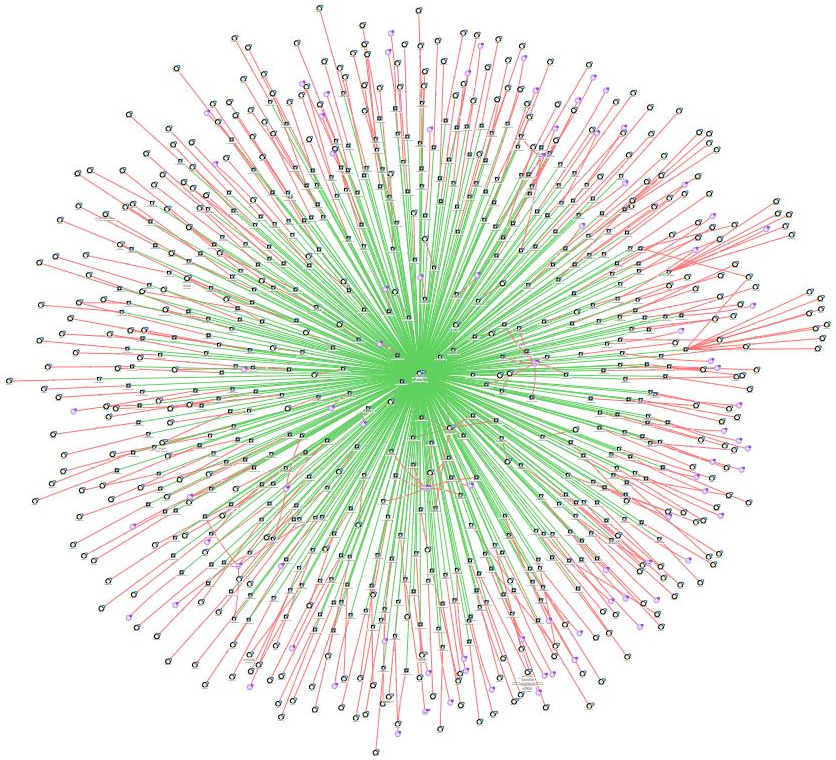

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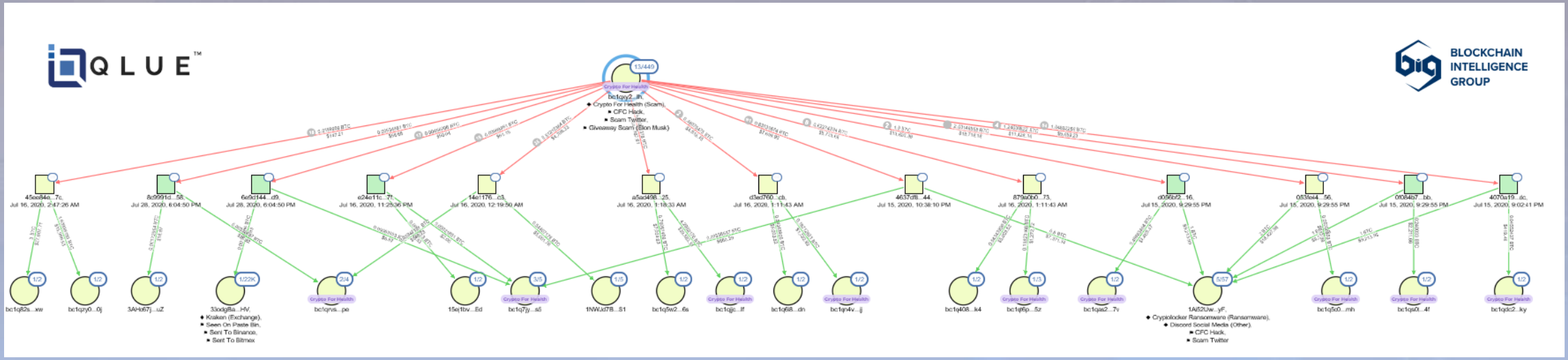
QLUE
BLOCKCHAIN INTELLIGENCE GROUP
13/449
Crypto For Health
bc1qzy2...lh,
◆ Crypto For Health (Scam),
▪ CFC Hack,
▪ Scam Twitter,
▪ Giveaway Scam (Elon Musk)
45ee84a...7c,
Jul 16, 2020, 2:47:26 AM
8c9991d...58,
Jul 28, 2020, 6:04:50 PM
6e9d144...d9,
Jul 28, 2020, 6:04:50 PM
e24e11c...71,
Jul 16, 2020, 11:25:36 PM
14e1176...c3,
Jul 16, 2020, 12:19:50 AM
a5ad498...25,
Jul 16, 2020, 1:18:33 AM
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Jul 16, 2020, 1:11:43 AM
4637df8...44,
Jul 15, 2020, 10:38:10 PM
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Jul 16, 2020, 1:11:43 AM
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Jul 15, 2020, 9:29:55 PM
0334e4...56,
Jul 15, 2020, 9:29:55 PM
0f084b7...bb,
Jul 15, 2020, 9:29:55 PM
4070a19...dc,
Jul 15, 2020, 9:02:41 PM
bc1q82s...xw
bc1qzy0...0j
3AHc67j...uZ
33odgBa...HV,
◆ Kraken (Exchange),
▪ Seen On Paste Bin,
▪ Sent To Binance,
▪ Sent To Bitmex
bc1qrvs...pe
15ejfbv...Ed
bc1q7jy...s5
1NWJd7B...S1
bc1q5w2...6s
bc1qjjc...lf
bc1q6l8...dn
bc1qn4v...jj
bc1q408...lk4
bc1q6jp...5z
bc1qsa2...7v
1AI52Uw...yF,
◆ Cryptolocker Ransomware (Ransomware),
◆ Discord Social Media (Other),
▪ CFC Hack,
▪ Scam Twitter
bc1q5c0...mh
bc1qs0l...4f
bc1qdc2...ky

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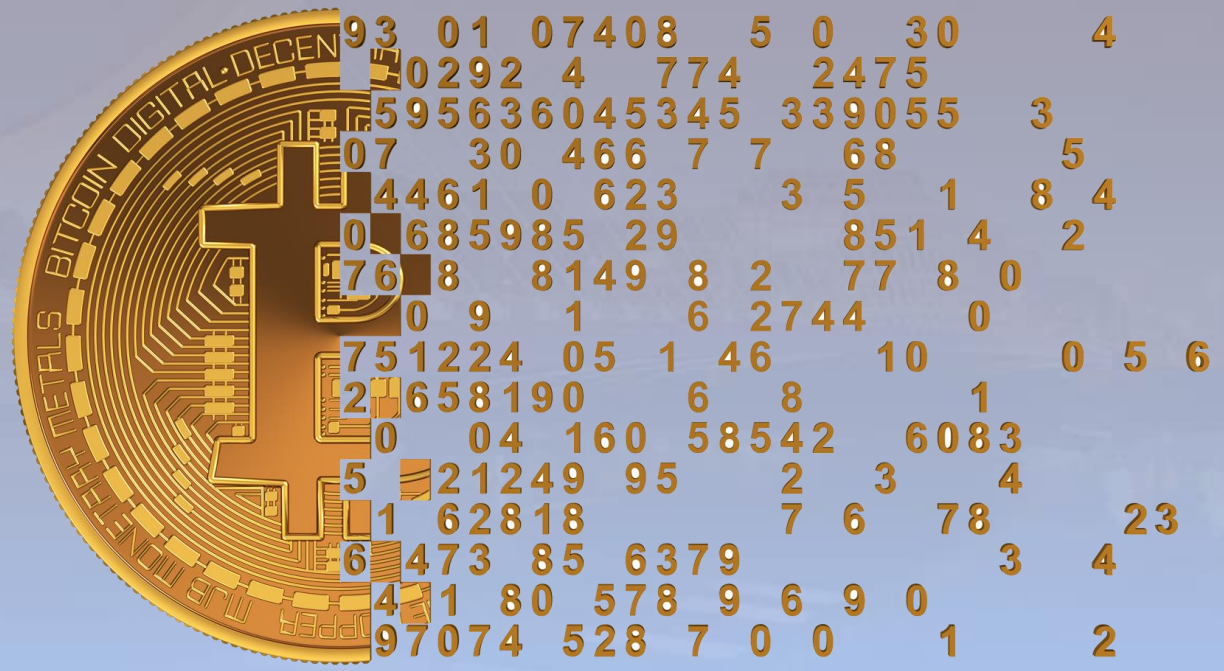
Crypto Pump and Dump Scams

- Usually happen to cryptocurrency traders (retail vs. institutional), when new crypto-coins are freshly introduced into the market. Lack the basic features that determines the value.
- The people behind such crypto projects may use FUDs, or controversies to push the price of the cryptocurrency high, so their own investment can increase.
- As soon as people starts buying and the price spokes, the scammers start selling their own stakes in the project and the price will fall drastically to almost know value.
- Lack of research and FOMO.

Fake Crypto Exchanges



Scammers set up fake cryptocurrency exchanges.

These fake exchanges may trick users by offering extremely competitive prices that attract them into thinking they got a very cheap transaction fees, quick easy access.

Be sure to use a reputable exchange when buying or selling cryptocurrency

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Blackmailing Scams

Blackmail attempts in which strangers threaten you in exchange for bitcoin as a means of extortion. Usually by email, where the sender transmits a message claiming that he/she hacked into your computer and is operating it via remote desktop protocol (RDP) and a Virtual Private Network (VPN).

The sender says that a key logger has been installed and that your web cam was used to record you doing something you may not want others to know about.

The sender provides two options – send BTC to suppress the material, or send nothing and see content sent to your email contacts and spread across your social networks.

Scammers use stolen email lists and other leaked user information to mass-mail thousands of individuals.

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Phishing and Spear Phishing

Scam is an advanced model which employs tools and behavioral predictability of the victim.

For e-mail phishing, they try to get access to your security passwords, or wallet by sending clone links of websites or infiltrating your PC/device through malware.

They usually send out mail to their victims – telling them that their investments account have been tampered, and they should reset their password(s).

"Your blockchain wallet password is under review, click here blocchain.com to reset password."

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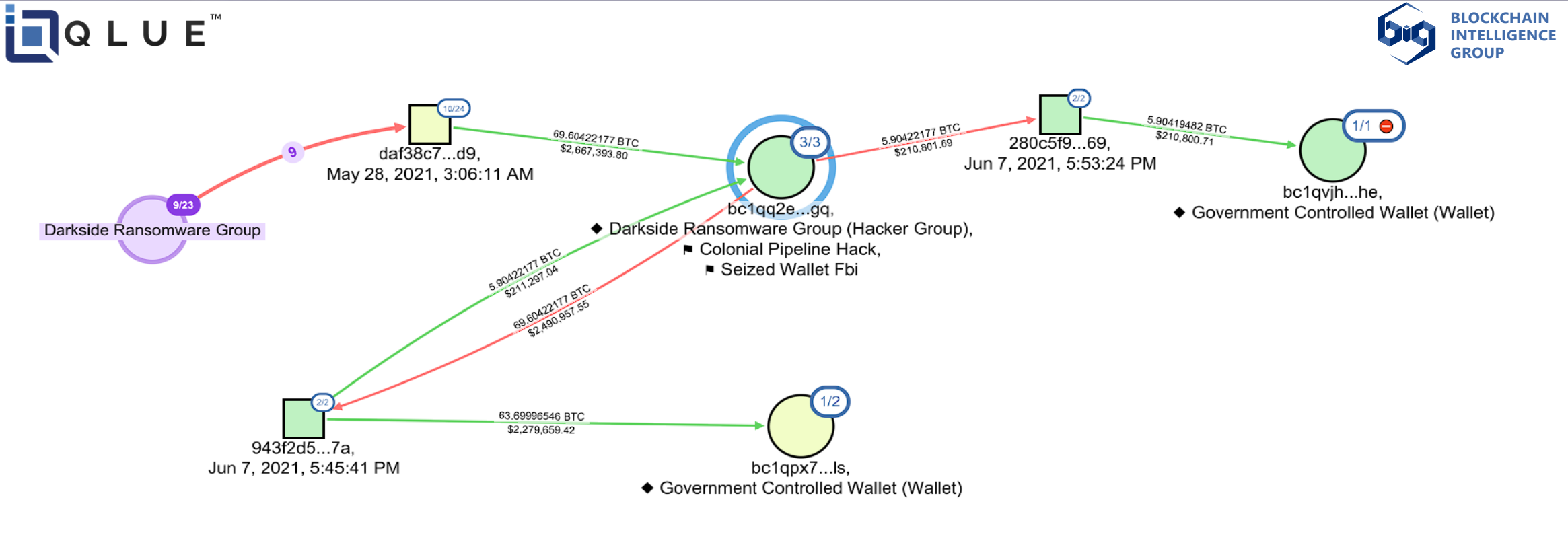
Romance Scams

- A Romance Scam is a confidence trick involving feigning romantic intentions towards a victim, gaining their affection, and then using that goodwill to get the victim to send money, fiat or crypto, to the scammer under false pretenses or to commit fraud against the victim. These scams are often perpetrated by organized criminal gangs, targeting multiple victims at a time

Ransomware

- A type of malicious software designed to block access to a computer system until a sum of money is paid.


QLUE™
BLOCKCHAIN INTELLIGENCE GROUP
Darkside Ransomware Group
9/23
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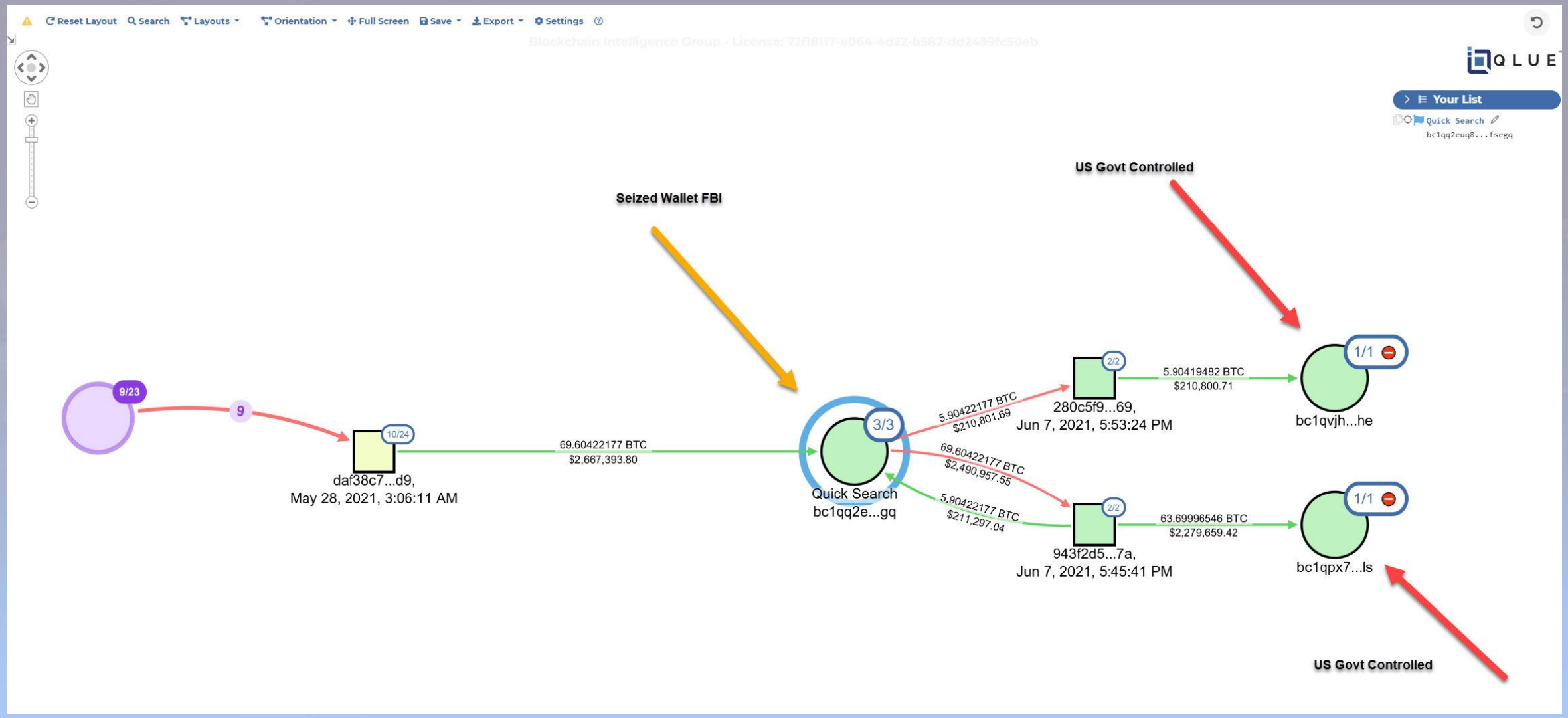
10/24
daf38c7...d9,
May 28, 2021, 3:06:11 AM
69.60422177 BTC
$2,667,393.80
3/3
bc1qq2e...gq,
◆ Darkside Ransomware Group (Hacker Group),
⚑ Colonial Pipeline Hack,
⚑ Seized Wallet Fbi
5.90422177 BTC
$210,801.69
2/2
280c5f9...69,
Jun 7, 2021, 5:53:24 PM
5.90419482 BTC
$210,800.71
1/1
bc1qvjh...he,
◆ Government Controlled Wallet (Wallet)
5.90422177 BTC
$211,297.04
69.60422177 BTC
$2,490,957.55
2/2
943f2d5...7a,
Jun 7, 2021, 5:45:41 PM
63.69996546 BTC
$2,279,659.42
1/2
bc1qpx7...ls,
◆ Government Controlled Wallet (Wallet)

ACOI


Reset Layout
Search
Layouts
Orientation
Full Screen
Save
Export
Settings
Blockchain Intelligence Group - License: 72f18117-e064-4d22-b582-dd2499fc50eb
QLUE
Your List
Quick Search
bc1qq2euq8...fsegq
US Govt Controlled
Seized Wallet FBI
9/23
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daf38c7...d9,
May 28, 2021, 3:06:11 AM
69.60422177 BTC
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Quick Search
bc1qq2e...gq
5.90422177 BTC
$210,801.69
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2/2
280c5f9...69,
Jun 7, 2021, 5:53:24 PM
5.90419482 BTC
$210,800.71
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bc1qvjh...he
2/2
943f2d5...7a,
Jun 7, 2021, 5:45:41 PM
63.69996546 BTC
$2,279,659.42
1/1
bc1qpx7...ls
US Govt Controlled

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Cryptocurrency & Blockchain OSINT

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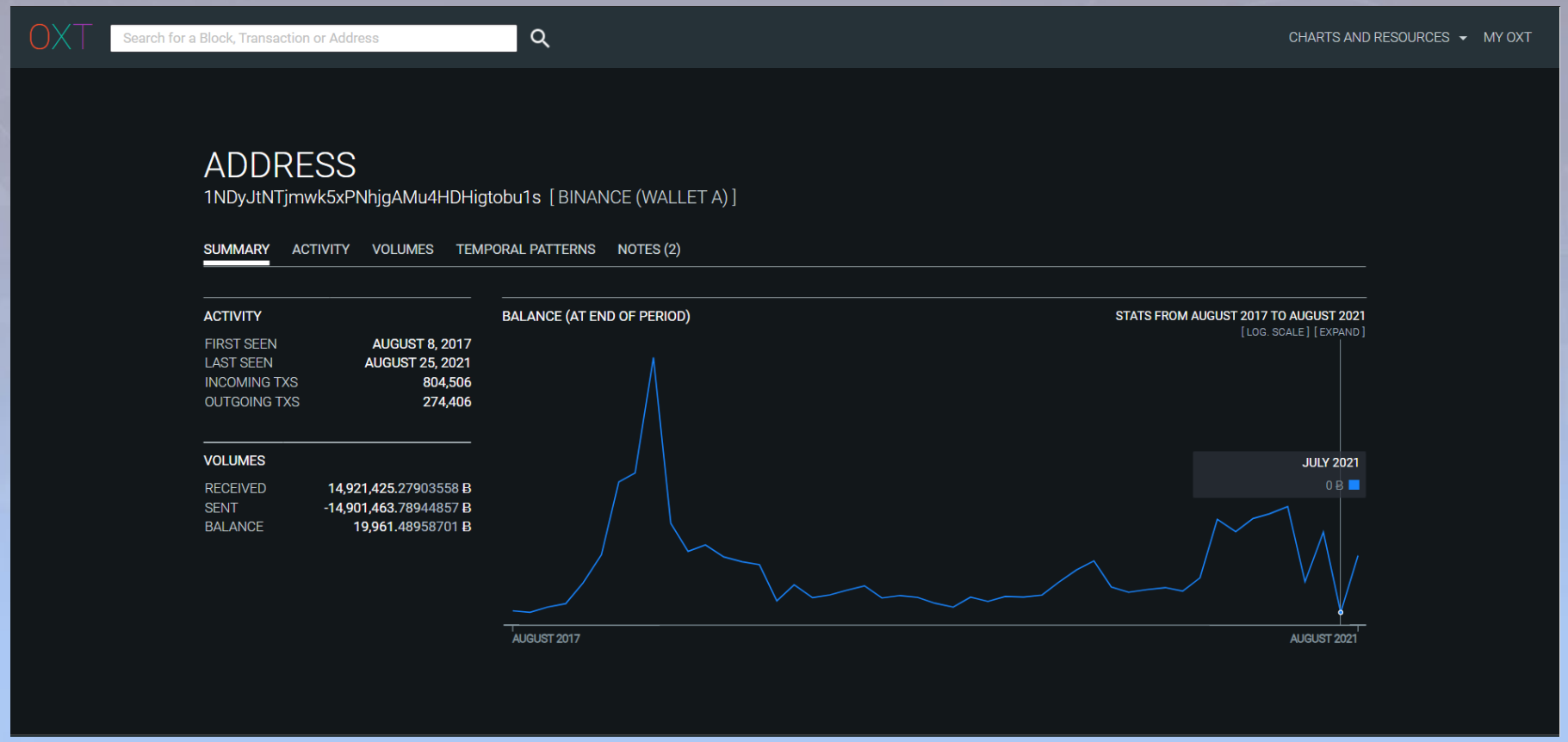
OSINT Resources

Name: OXT
Website: https://oxt.me/
Currency: BTC
Example: https://oxt.me/address/1NDyJtNTjmwk5xPNhjgAMu4HDHigtobu1s



OSINT Resources

Name: Wallet Explorer
Website: https://www.walletexplorer.com
Currency: BTC
Example: https://www.walletexplorer.com/address/1Q5MK5UXBZpnTcYodak8N6VsgK7P1paDXF

WalletExplorer.com: smart Bitcoin block explorer

Search address/txid/wallet id/firstbits

Address 1Q5MK5UXBZpnTcYodak8N6VsgK7P1paDXF

part of wallet MercadoBitcoin.com.br

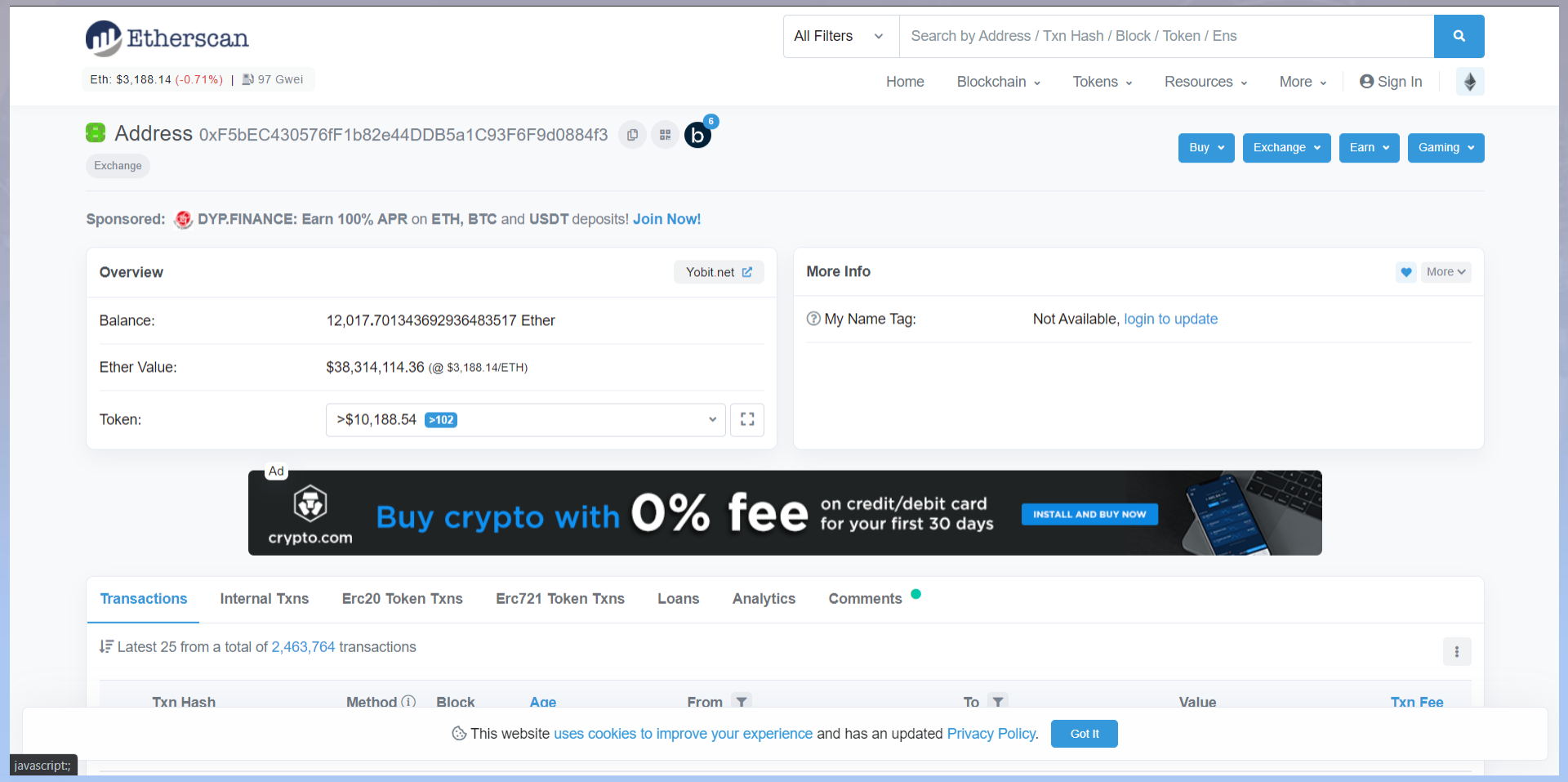
Page 1 / 2 Last (total transactions: 121)

Download as CSV

date	received/sent	balance	transaction
2020-08-10 15:39:49	-2.95513585	0.	965c24ebaefec8daac5075a467f095300efc691cc35223839eca9449d4bd7c61
2020-08-05 18:07:58	+2.95513585	2.95513585	47ac95471050ac0f65a6700a2d5b2bbf917ee4b11cd22e0f0cc18588628aeb88
2019-06-13 14:12:25	-0.00899051	0.	7c32d342ccf04772ba7cdd984ffb9a09265450c28dc8ade86cf37c0c13c6f9d0
2019-06-13 03:07:58	+0.00899051	0.00899051	90f17183e9bdf6635f9a5566e9bd7ec36ff02cbd9ac5cc7a9ae8b915ff417dce
2019-05-23 18:54:27	-0.0986297	0.	41ae05856b79a4e1a8495621ba537182e51f6e974156a5c13bd126bc1f336a4f
2019-05-23 10:59:16	+0.0986297	0.0986297	3800c1c139db77f38e9798d2a1f799890d43e1928d30159f62ff1c2e358de9ad
2019-04-03 22:35:10	-0.66189901	0.	aaeff515a22112b6feb4f84f9c67fedf8ef869ebe14de22cfe90613b4e3d6be8
2019-04-03 20:18:32	-0.01787288	0.66189901	43caa19ac64b592436393c1d7095fe30bbc5bb1a97c74f1bcfe97e3d6df114a0
2019-04-03 20:00:57	-0.07951647	0.67977189	af6ce82d48cde11b2cef97253049d67b90544e3534ff8ddad87fd90923288dbe
2019-04-03 19:49:25	-0.10724118	0.75928836	29ff98cc832d37e9dfc6e8c8fdce2eea034d69df634c9e4c43f4237c1bd792f4
2019-04-03 19:35:54	-0.4059115	0.86652954	e3f71fd88cee4cb08afd42d1a07d4f41774ac1fbf330366c4cf52536ff0716db
2019-04-03 19:07:01	-0.27125171	1.27244104	87ad90a4f9d4b6864c52b9c2821909e4f6fee1879f1805c5c632dec81e3e132a
2019-04-03 18:47:51	-0.01756093	1.54369275	7617199e76aa56ddf07f6da46d848c21d613ac93c3af6dccf14057e34471c96e
2019-04-03 04:03:44	-0.08908169	1.56125368	611cdc374ea747cde7429efe5db4fb6f0a731bafce3b0cd019361daf9c442e99
2019-04-03 03:45:15	+0.0403217	1.65033537	292fb88e75d8c810dc6c5aa604251a7dbff1c74138f0712bc94d7c619bd1ad7e
2019-04-03 03:45:15	+0.05362059	1.61001367	4373b0eb8221a5fbf2ca0afc14225f0d127d5e66a31c36820c43ee7a4e3d7501
2019-04-03 03:45:15	+0.03054981	1.55639308	8ac8b6c66509e056627333a534f66cd689cbdddb10244e48a2ff5cc5e2d9f973
2019-04-03 02:25:35	+0.01798791	1.52584327	16a9dde366b04a5ad9538b6f0693718e14cb08561507736b3d0bd79517c101eb
2019-04-03 02:25:35	+0.05362059	1.50785536	1f53710cd91d0f645e07b0fdbe005e9abf82162c8cb844e16a22182c5704efb4
2019-04-03 02:25:35	+0.05362059	1.45423477	a9a223f2b376b1ea7ffcf244ceefe9a97c525bd09cf8383a08eb05f05ff87a0f
2019-04-03 02:25:35	+0.01782609	1.40061418	5508700503b99816ed8ba36d0a6940adb1ad2e2abcaecebd9632cd5b2362448e
2019-04-03 02:25:35	+0.02898811	1.38278809	cce6b5967c851bb82ad0a8bdd16d854b9d18b9b91a56835746c50dd8ee1328f1
2019-04-03 02:25:35	+0.06473387	1.35379998	229b82c6d35b38716215ec2f32a7bc01b1342286d4cc7676d84f0e08f7670d09
2019-04-03 02:25:35	+0.01756093	1.28906611	f6db02e48ee35e10399c0a02e5e3044015870347b72a3591c74598c42a6c7157

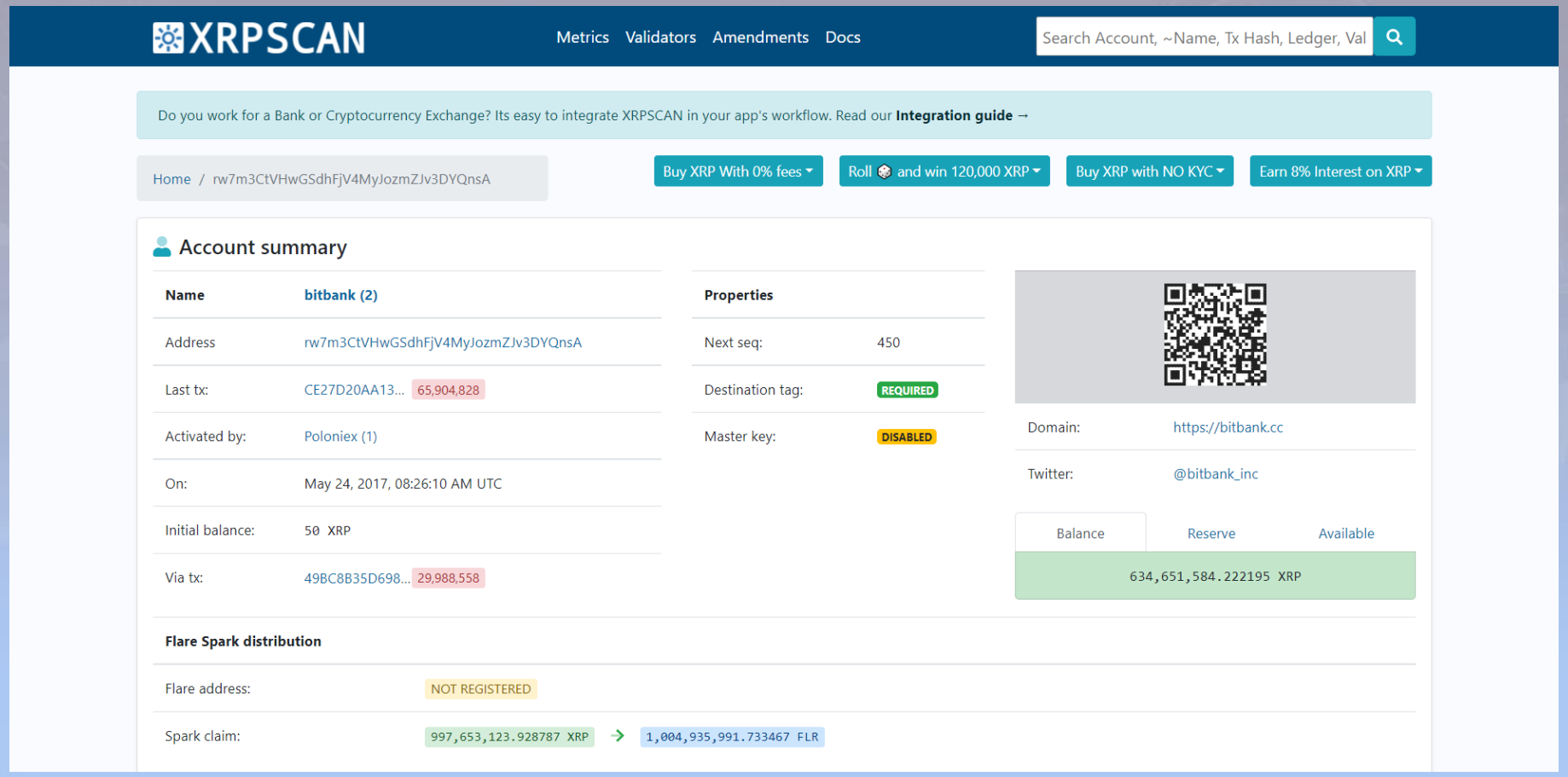
OSINT Resources

Name: Etherscan
Website: etherscan.io
Currency: ETH
Example: https://etherscan.io/address/0xf5bec430576ff1b82e44ddb5a1c93f6f9d0884f3



OSINT Resources

Name: Etherscan
Website: etherscan.io
Currency: ETH
Example: https://etherscan.io/address/0xf5bec430576ff1b82e44ddb5a1c93f6f9d0884f3



Cryptocurrency & Blockchain Forensic Tools

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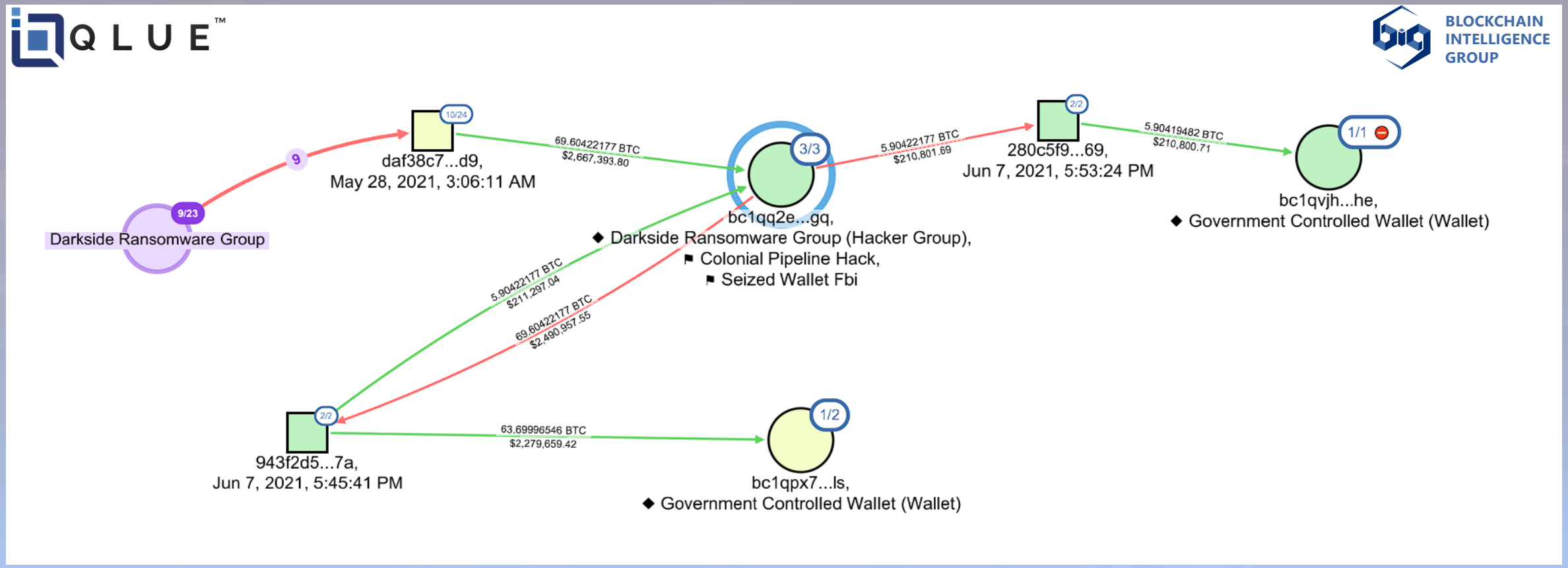
QLUE™
BLOCKCHAIN INTELLIGENCE GROUP
9/23
Darkside Ransomware Group
9
10/24
daf38c7...d9,
May 28, 2021, 3:06:11 AM
69.60422177 BTC
$2,667,393.80
3/3
bc1qq2e...gq,
◆ Darkside Ransomware Group (Hacker Group),
⚑ Colonial Pipeline Hack,
⚑ Seized Wallet Fbi
5.90422177 BTC
$210,801.69
2/2
280c5f9...69,
Jun 7, 2021, 5:53:24 PM
5.90419482 BTC
$210,800.71
1/1
bc1qvjh...he,
◆ Government Controlled Wallet (Wallet)
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$211,297.04
69.60422177 BTC
$2,490,957.55
2/2
943f2d5...7a,
Jun 7, 2021, 5:45:41 PM
63.69996546 BTC
$2,279,659.42
1/2
bc1qpx7...ls,
◆ Government Controlled Wallet (Wallet)

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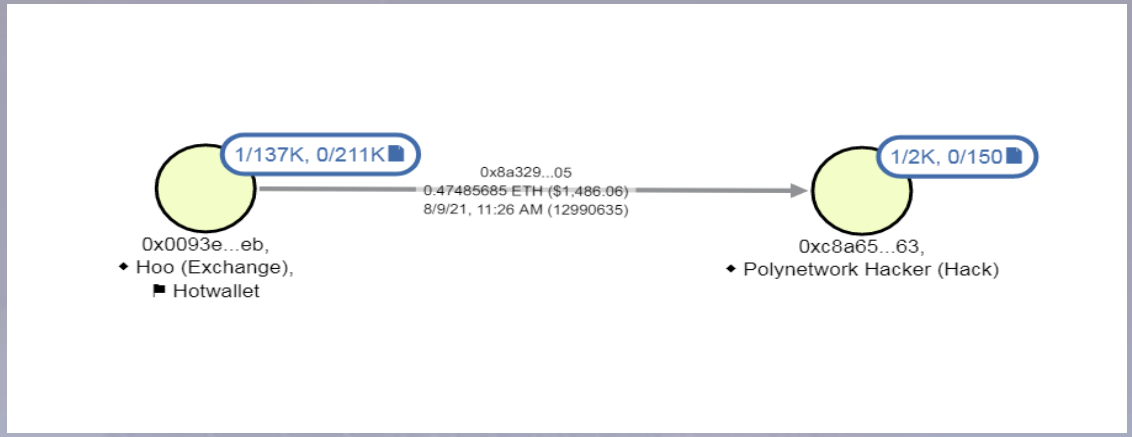
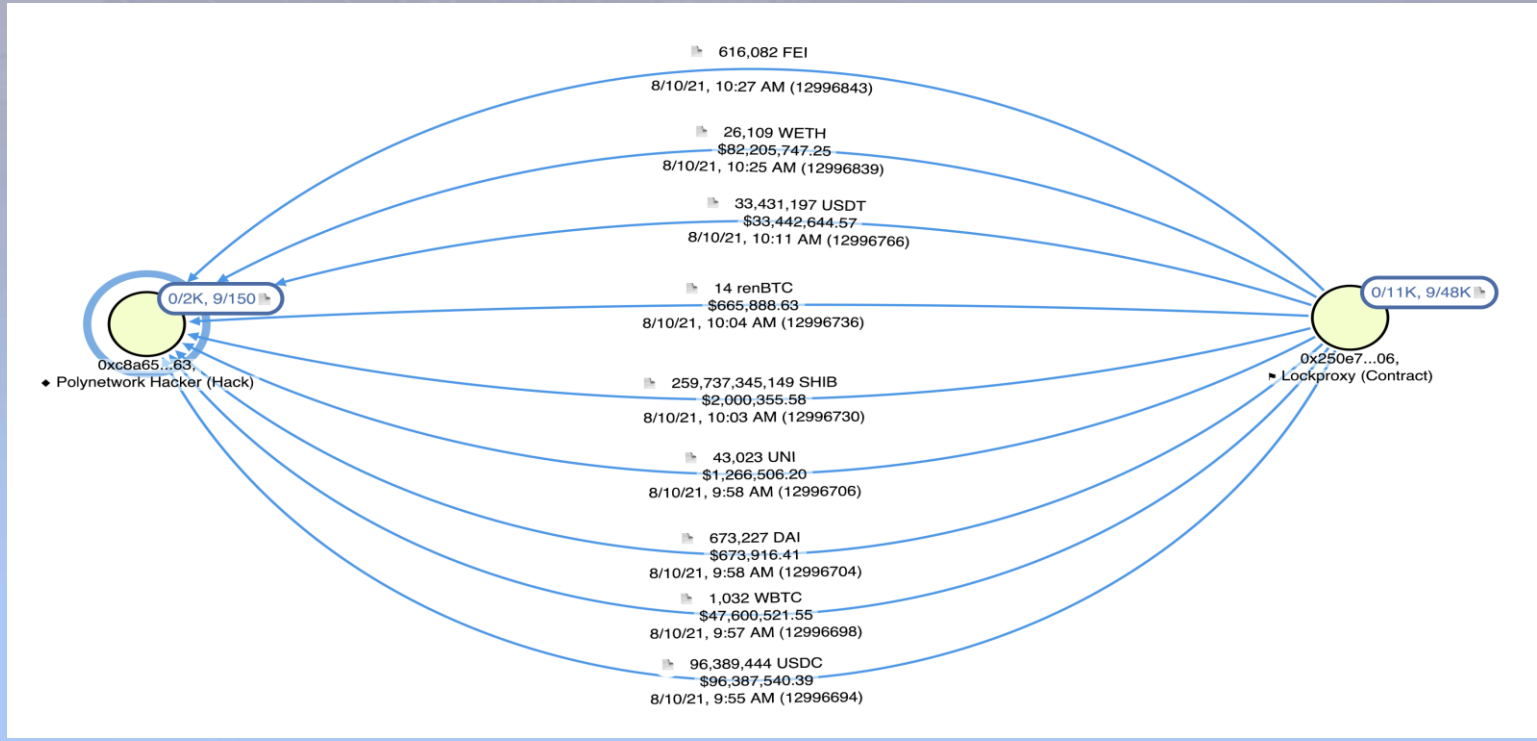
Series of events on the Ethereum Blockchain:



The graph above shows the transaction between Hoo exchange and the hacker. On Aug 9, 2021, The PolyNetwork hacker withdrew 0.47 ETH from Hoo.com (Exchange),
Which was used to pay gas fees for the transaction associated with the hack.



The graph shows the token transfers to PolyNetwork hacker's address

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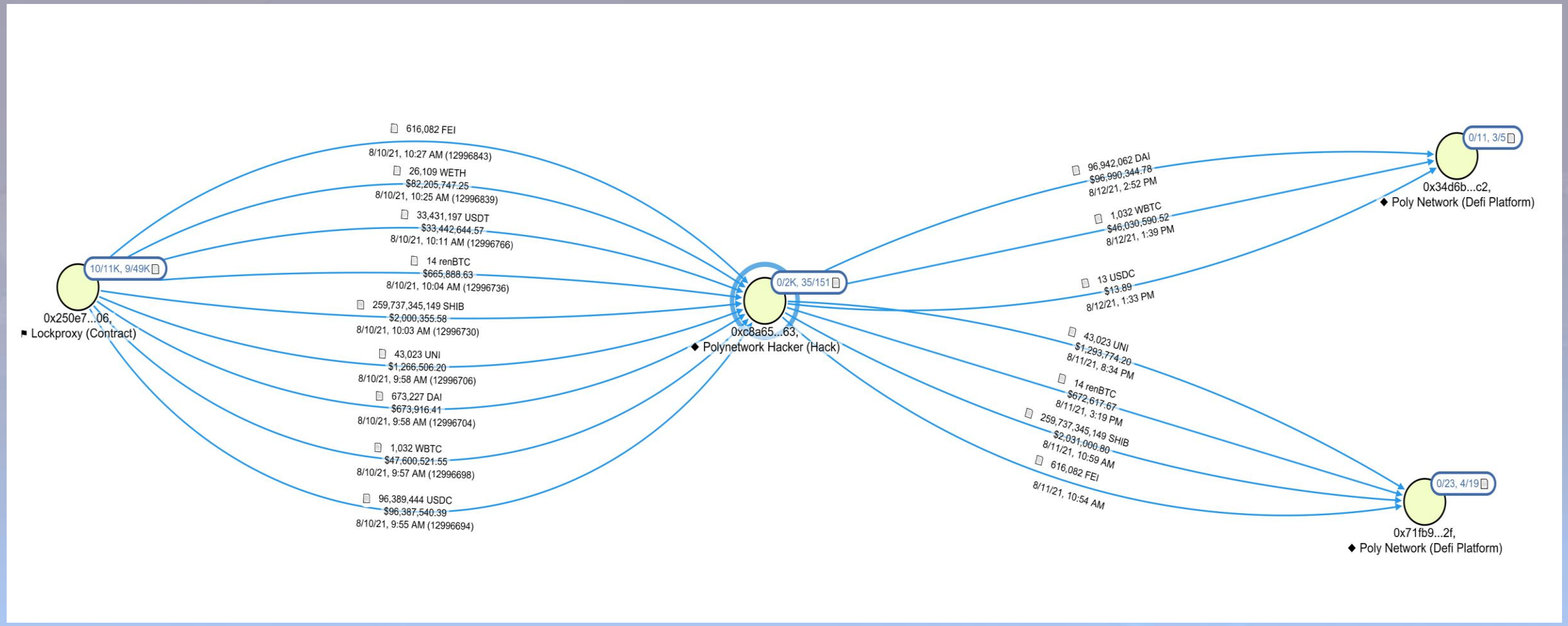
All transactions between Poly Network and the Hacker



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Messages between Poly Network and the Hacker:

The Poly Network has been actively sending messages to the hacker using ‘0x0e860f44d73f9fdbaf5e9b19afc554bf3c8e8a57’ address on the Ethereum network.

These are some of the messages which weren’t encrypted.

Poly Network

Can you connect us? contact@poly.network

We can offer you a security bounty when you return all the remaining assets.We will provide a secure address through e-mail.

The decision made by DAO can't changed the fact that the assets are stolen from crypto believers.We want to offer a security bounty and we hope it will be remembered as the biggest white hat hack in the history.

We are preparing a multi-sig address controlled by known Poly addresses

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Some encrypted messages between Poly Network and the hacker


```
□¨2|uoËºº®ò\□P□H□□!ÂÐè^□Ò□O5□0;□)yJ□□Ñ}¦:□äLLØ]-sÝ$=□TZ÷cQÎåZv¶È}§□Ý□CÊ□sZS§□Pj¡n□□ÙeY£YÐ¥s□7
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□Åòó®Ï□□7º□ó□i â□□VæÒ+£cí
```


View Input As

https://etherscan.io/tx/0x76c8bb50b66b9c21655c2379ebd023100aec3df551dffbb8c33ee11764b10544


```
d8cd85a08a41d32fd7f9ea34e03e4c37027183eb4ca2a819907fa18f72115db29ace316ecab1c057ec035f996a8b51f02f58dfad08a82a165c6cc407231e
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```


View Input As

https://etherscan.io/tx/0x64c237d37a39662c8386a6f4893c5852486c3d1bbc68605465c603061ddf7d13

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Certified Cryptocurrency Investigator (CCI)

Module 1

Introduction to Cryptocurrency covers the basics of fiat and cryptocurrencies and how it can be used in both legitimate and illicit activities.

Module 2

The Bitcoin Trail delves into cryptocurrency mining, common criminal schemes where bitcoin is used.

Module 3

The Dark Web gives an overview of the part of the internet commonly used by criminals and their criminal enterprises.

Module 4

Cryptocurrency and the Criminal Element reveals the criminal element of cryptocurrency and how to identify and track

Module 5

Blockchain Forensics deepens understanding of the intricacies of blockchain and explores analytical tools for investigating crypto crimes.

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National Association of Drug Diversion Investigators

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William Callahan
Director of Government & Strategic Affairs
Blockchain Intelligence Group (BIG)
Email: william.callahan@blockchaingroup.io
LinkedIn: https://www.linkedin.com/in/william-callahan-45877aaa
Twitter: https://twitter.com/WJCallahan3

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Thank you attending the ACOI 2021 Annual Conference

From Tiger to Crisis to Recovery & Beyond - the future evolution of Compliance

18 November 2021