

Future-Proofing Bitcoin: A New Era in Digital Payments

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Agenda

1. New Trends in Cross Border

Digital Payments

2. Challenges in Cross Border

Digital Payments

3. The Solution

New Trends in Cross Border Digital Payments

- Recent developments in digital payment technology
- Changes in consumer behaviour
- Reliability
- Speed of transactions
- Efficiency of transactions

Among the following options, which one is most important to you when you use traditional banking services?

- a. Scalability
- b. Low fees
- c. Enhanced privacy
- d. Instant settlements

Results

Challenges in Cross Border Digital Payments

- Exchange-rate volatility
- Non-competitive international payment fees
- Long delays in payment approval
- Lack of trust in the digital payment ecosystem

The Solution

So, what is the solution?

Develop a single-connection digital framework that will capture some of the features of embedded finance in traditional payments and digital banking:

Agenda

1. Web 1.0 - The Early Internet
2. Web 2.0 – The Evolved Internet
3. A Quick Look at “Payments”
4. Who Cares About Cryptocurrencies?
5. The Importance of Financial
Independence
6. Web 3.0 and Beyond

Web 1.0

The Early Internet

- Huge room-sized computer hardware used to store data
- World wide web - basic functionality, primarily designed to display one-way data; e.g. Craigslist, Wikipedia

DECEMBER 2000

“2 million britons are giving up on using the internet”

Daily Mail, Tuesday, December 5, 2000

Page 33

Internet ‘may be just a passing fad as millions give up on it’

By **James Chapman**
Science Correspondent

THE Internet may be only a passing fad for many users, according to a report.

Researchers found that millions were turning their back on the world wide web, frustrated by its limitations and unwilling to pay high access charges.

They say that e-mail, far from replacing other forms of communication, is adding to an overload of information.

Experts from the Virtual Society project, which published the report say predictions that the Internet would revolutionise the way society works have proved wildly inaccurate.

Many teenagers are using the Internet less now than previously, they conclude, and the future of online shopping is limited. Steve

Woodgar, director of the society, said: “We are often presented with a picture of burgeoning Internet use, but there is evidence already of drop-off and saturation among users.

“Teenagers’ use of the Internet has declined. They were energized by what you can do on the Net but they have been through all that and then realised there is more to life in the real world and gone back to it.”

The project, sponsored by the Economic and Social research Council, gathered together research by 25 universities across Europe and the U.S.

It estimated that in Britain alone there could be more than two million people who regularly used the Internet but had now given up.

Analysts say some simply became bored.

Net loss: Two million Britons have logged off the Internet



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COULD MAKE YOU BETTER OFF.**

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Which of the following challenges would be most detrimental for cross border payments in your industry?

- a. Regulatory oversight
- b. Lack of fraud prevention
- c. Lack of knowledge
- d. Less funds for research and development

Results

Web 2.0

The Evolved Internet

2.0 Rendering and sharing (2+ways) information

- Search engines, Yahoo, Google
- Social networks; Facebook, Instagram
- Music streaming
- Photo and video calls

THE HIGH STREET

...was not ready for eCommerce

HOUSE OF FRASER



mothercare



WEB 2.0 SUCCESS STORY



Born on the internet

Amazon's whole business model was created on and because of the internet

Mobile App

Consumers spent 12.8 billion minutes per month using Amazon's app

Trustworthy

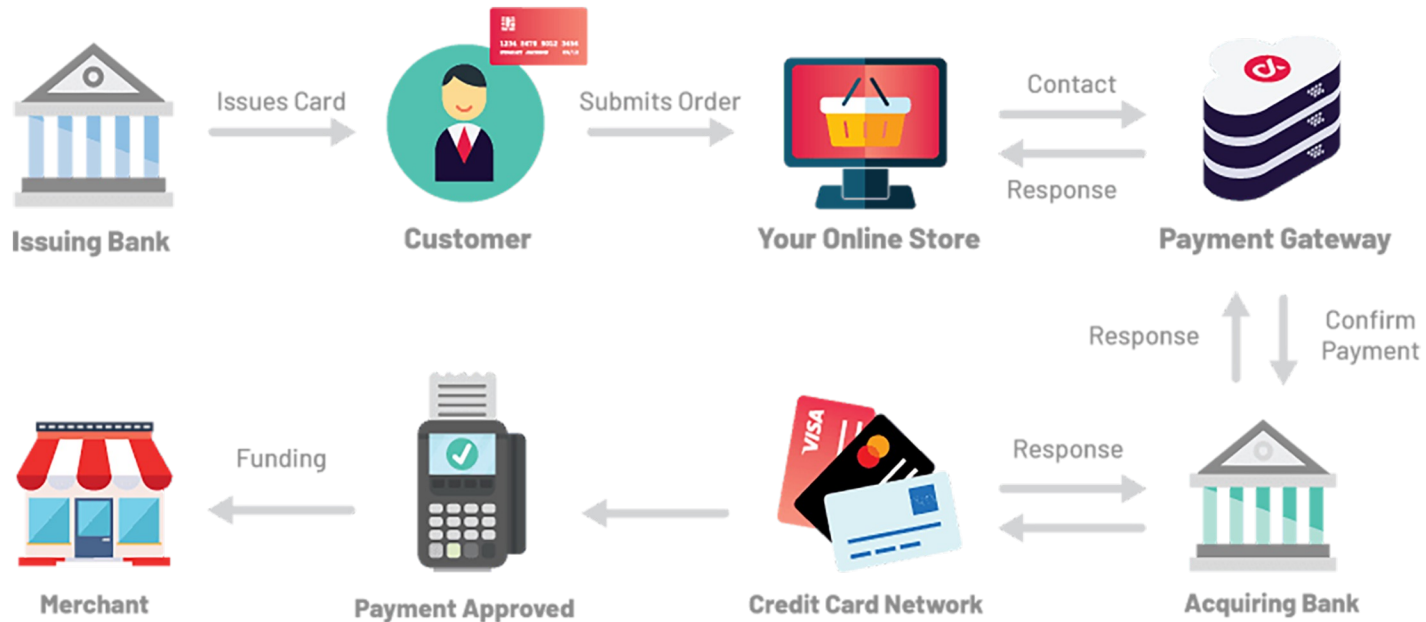
Overall reputation as a trustworthy online retailer

GLOBAL PAYMENTS

- Cross border payments rely on local payments infrastructure
- Extremely difficult where there is not a strong banking or financial framework
- Visa and Mastercard are not...everywhere!



TOO MANY INTERMEDIARIES



How much does it cost to transfer \$2 billion via the banking network?

- a. Between \$500,000 and \$1 million
- b. Up to \$20 million
- c. Between \$20 million and \$60 million

Results

IMPORTANCE OF FINANCIAL INDEPENDENCE





RICHARD S. FULD JR



Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto
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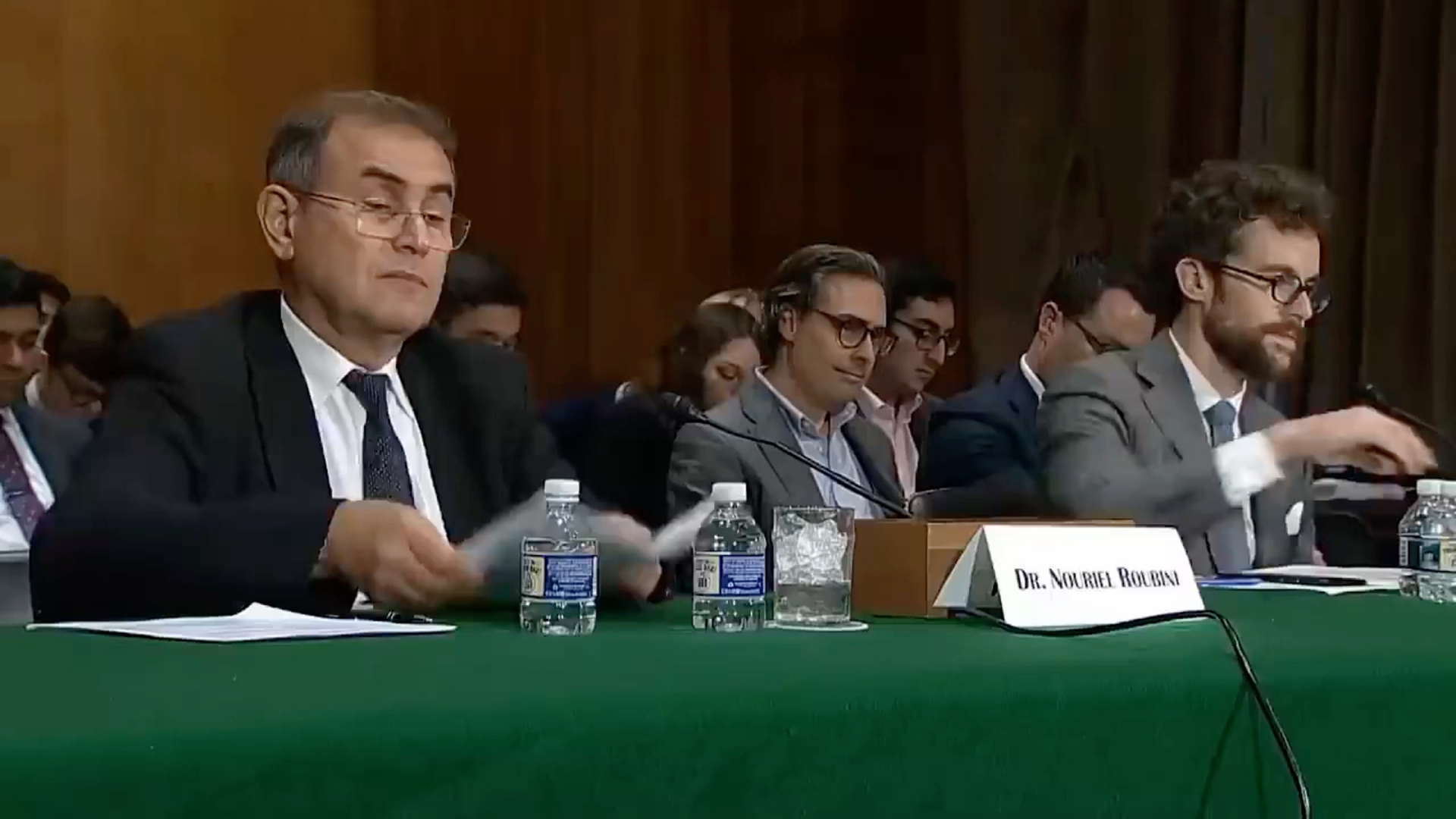
Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required 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 infeasible 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.





DR. NOURIEL ROUBINI

How much does it cost to transfer \$2b using the Bitcoin network?

- a. More than \$500,000
- b. Less than \$500
- c. Between \$20m and \$60m

Results

Web3

...and beyond

- Cryptocurrency
- Open Money Network
- P2P networks
- Decentralised applications
- Smart-contracts
- Metaverse

Promoting fairness and inclusion by default

WEB 3.0 AND BEYOND

The future of eCommerce

The future of eCommerce is in-fact 'deCommerce'

Retailers such as Adidas and Nike have already stepped into the Metaverse and soon will set up virtual stores...

...and guess which currencies these virtual stores will need to accept?

Digital ones



Countries

El Salvador

Bitcoin in particular can serve as a financial framework and some governments around the world have already made changes to their fiscal policies to reflect this

Banks

Investment Banks

JP Morgan, Goldman Sachs and some of the world's leading banks now have a remit to invest in or hold crypto assets for themselves and their customers

Corporates

Micro Strategy

Over the last two years, Micro Strategy have purchased almost \$7b in Bitcoin and now sits on their balance sheet

The Unbanked

UN / World Bank

The 1.7b people who currently remain unbanked can now immediately be included on the financial stage

“ One day we will all live on Mars,
until then let's think about crypto,
positively

MANN MATHARU

Questions and Answers



Mann Matharu
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Qi Digital



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Thank you!

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