

EVIDENCE MEETING 1: BLOCKCHAIN DEFINITIONS

I. DETAILS

- Date: 6 March 2018
- Time: 5:30 – 7:00 pm
- Location: Thatcher Room, Portcullis House
- Participants: 162 registered attendees

II. PURPOSE

The All-Party Parliamentary Group on Blockchain (APPG Blockchain) was set up by co-chairs Damien Moore MP and Grant Shapps MP to explore the impacts and implications of Blockchain technology. It launched at the Extraordinary General Meeting (EGM) on 30 January 2018.

In 2018, the APPG Blockchain Group has decided to focus on building a roadmap to understand the practicalities and steps for addressing the implications of Blockchain technology. The group has prioritised six policy areas' respective economic, social and ethical implications: Definitions, Supply Chain Optimisation, Business Models and Competitiveness, the Impact on Fraud, the Impact on People and Smart and Intelligent Contract.



Evidence Meeting 1 concentrated on: [BLOCKCHAIN DEFINITIONS](#)

III. SPEAKERS

- Helen Disney, Chief Executive, Unblocked
- Chris Skinner, Author of The Finanser
- Geoffrey Goodell, Senior Research Associate, Computer Science UCL.
- Terry Igharoro, Founder and CEO, Inventory Club
- Simon Taylor, Co-Founder, 11:FS

IV. DISCUSSION TOPICS

- What is blockchain as a technology and as a business tool?
- What are the different constituent technologies and technological processes of Blockchain?
- Which types of Blockchain are appropriate for what?
- What Blockchain typologies do we envisage?



V. BLOCKCHAIN CONTEXTS



Helen Disney introduced Distributed Ledger and Blockchain technology as being part of the same family of technologies. She pointed out that they predominantly focus on new ways of creating trust and processing information, and conducting transactions. She argued there are different potential applications for blockchain and why blockchain is both highly relevant, timely and needed. In the public sector, she said, blockchain can improve services, cyber security and ease the administrative burdens. She then discussed a number of industry use cases for blockchain technology including for: e-voting, land registry, medical records, use in smart cities and document management. She advised the government focus on classification, and gain a full grasp of understanding the implications of these new technologies.

Chris Skinner from the Finanser followed by suggesting that most of the attention blockchain technology had received was around bitcoin. Bitcoin, he said, provides an interesting demonstration of the radical power of Blockchain and displays the potential to innovate in a wide array of industries. Put simply, he said, blockchain enables people to transact freely and quickly with trust, share databases, increase efficiency and reduce transaction costs.

Blockchain was explained in the following way: Blockchain adds transaction history to a digital record ledger, a 'block', which is processed as part of a 'chain' of blocks – that is – a transaction between two actors, is assessed and confirmed quickly by a number of server 'nodes'. The confirmation of a previous block being processed initiates the confirmation of the next block confirmation process.



Terry Igharoro, Founder and CEO, Inventory Club

Speaker Contribution



Essentially the blockchain is an immutable audit database and its peer-to-peer nature makes it perfect for the enforcement of agreements, the movement of money, the tracking of sales or assets and the exchange of secure data. Unlike traditional relational database systems, the blockchain does not need a central administrator or centralised data storage as the users are collectively the administrators and data storage providers. These characteristics make it possible for trust to be created in trust less environments, so businesses, governments and charitable organisations are able to share data across public, permissioned and private networks with the confidence that the data being received is true, incorruptible and secure.

The UK has the potential to benefit greatly if blockchain technology is integrated into the core of our public services and private businesses, as it can provide transparency, increase efficiency and reduce costs. As a leading digital nation, the blockchain can accelerate the UK's digital agenda through exploring and embracing all aspects of the technology. It's also necessary to revisit old problems and business models in order to discover and implement innovative solutions that provide real benefits to all stakeholders. Healthcare, Digital ID, Education, Transport, Supply Chain and DWP all provide exceptional opportunities for digital reform.

Public support and programmes for blockchain businesses and entrepreneurs will make the UK an attractive option for global start-ups looking for a headquarters, which will further enhance the UK's digital capabilities. Post-Brexit the UK has the opportunity to position itself as the leading blockchain nation in the Commonwealth by establishing laws, regulations and best practice frameworks for member states to adopt as part of their blockchain strategy, such actions will contribute to boosting the Commonwealth in the global marketplace.

Geoffrey Goodall, Senior Research Associate, Computer Science UCL

Speaker Contribution



The main challenges of defining terms for blockchain and distributed ledger technology are the multiplicity of different groups that promote and use such technology today and the variety of different approaches to implementing and deploying this simple but powerful concept. The applications for blockchain technology include digital currencies, streamlined financial clearing and settlement, multiparty contracts, systems for managing supply chains, and much more. Institutional stakeholders include regulators, banks, and industry leaders around the world.

Ultimately, blockchain is as much about business relationships as it is about the specific technology that can help counterparties free themselves from the need to trust third parties when they transact. In practice, intermediaries are often unscrupulous, collecting economic rents unchecked or seeking to control the transacting parties through surveillance. However, the effort to standardise and institutionalise peer-to-peer systems has been impeded by powerful groups with an interest in such rent-seeking and data collection activities and by the innovative teams that rely upon such activities for revenue. Established businesses may desire to eliminate third-party trust but find it difficult to agree upon the standards, conventions, and protocols needed to build the systems, resulting in a problem of collective action.

Organisations such as ISO have a crucial role in framing the standardisation process in a way that will include all stakeholders with equanimity. A multi-stakeholder approach will be needed to encourage bottom-up development of infrastructure to allow businesses, cooperatives, and other groups to transact with a common protocol but without a central point of control.

Simon Taylor, Co-Founder, 11:FS

Speaker Contribution



The subject of blockchain appears highly emotive because it challenges long standing conventions about how we build technology efficiently or how as a society we manage risk or illicit behaviour. Like many early technologies it is experimental and not quite ready. It's also been subject to a massive speculative bubble which has blurred the reality of what's really happening. Look past the speculative price driven discussion and you see the potential to remake how individuals interact with data, ownership and assets. The truth is we don't know 100% what this will mean for society or the economy, but we must first do no harm.

The key now is unlocking the potential of this tech, enabling it through short term sensible policy positions on taxation, anti -money laundering, counter terrorist financing that leverage the tech itself rather than bake in the assumptions of how we used to work. I look forward to working with the APPG and HMG to achieve this.

The concept of tokens potentially brings the ability to globally form capital. This is a crucial point. Historically entrepreneurs could access a capital market in a given region, and regional hubs emerged (New York, London, Tokyo). The crypto world is 24/7 and global, and for the first time we see the funding of internet infrastructure. Much like how governments fund infrastructure in a public / private partnership (e.g. Roads, Bridges, Enterprise Zones), the internet itself is building its 3rd generation. Instead of being built around central actors such as Facebook, these new protocols offer the potential to be a decentralising force and opening up access to innovation and capital.

There is a gap in the market for a tier 1 jurisdiction to provide a bone fide framework for the management of tokens. The cryptoasset taskforce may want to consider the value of this opportunity to the UK economy.

VI. STANDARDISATION

Geoffrey Goodell from UCL said British Standard Institute (BSI) was working on terminology and concepts, reference and architecture, and the taxonomy and ontology of Distributed Ledger Technologies. Standardisation of these technologies can help address the clash of interests between institutional stakeholders to prevent money laundering and a libertarian mindset. He said we need a new set of protocols, not implementations to be the same. Government standardisation can allow for new systems to emerge, as innovators alone cannot provide us ideas and applications without institutions; multi stakeholder processes without breaking the consensus of trust, and to empower local communities to establish business practice on their own terms, and a mechanism to transact

VII. DECENTRALISATION



Simon Taylor said Distributed Ledgers and Blockchain allows the government to focus on the question: who are you and what problem do you want to solve? He argued between standard solutions to problems versus tailored solutions. Decentralised governments for example allow us to have a structure without one single leader. It is a new structure which gives the ability to solve different problems for different people simultaneously.

VIII. BLOCKCHAIN VALUE ADDED



Terry Igharoro @terryitalks · Mar 6

Grateful for the opportunity to share the panel with @Chris_Skinner @HDisney @syttaylor hosted by @appg_blockchain yesterday. Massive opportunity for UK public and private sector to deliver valuable services to stakeholders. Key is to understand, embrace and implement #Blockchain

Commentators in the discussion noted that Blockchain is a new piece of technology which is currently growing organically. The government needs to ask how it can add real value to both the development of the technology, and ask how the technology can add real value to society. **How can Blockchain help us reimagine and create systems in an entirely new way?**

The advisors showed that Blockchain and Distributed Ledger technologies are transformative in their nature, allowing for unprecedented decentralisation, programmable transparency, and ultimately, help improve trust between individuals. The nature of Blockchain and DLTs being distributed across a number of computers and/or 'nodes' means existing systems which exist on a centralised structure are quickly becoming redundant.



This leaves the government with a number of questions however, including how these systems will reform governance techniques themselves. The UK government should consider how best to utilise and regulate these technologies for society.



APPG Blockchain Partners and Sponsors



Event Partner:

