There's a new technology to store and manage data across the internet and other computing networks, it's called blockchain or distributed ledger technology, DLT, and it was created as a result of the introduction of the Bitcoin cryptocurrency. Today, the application of blockchain and its potential far exceed its genesis in Bitcoin. It supports not just digital money and trusted data movement and storage, but the exchange of value, an internet of value.

At a fundamental level, it's not complex technology but it can enable complex solutions. It can help solve some difficult computing challenges around security and it introduces capabilities that are disruptive to the status quo. For example, Bitcoin effectively eliminates the need for banks and a whole host of financial middle men, that's disruptive. Taken further, blockchain technology can be used as a foundation for a new generation of software that distributes code and enables transactions between individuals and machines without the need for complex server infrastructure.

It's a peer-to-peer network architecture meaning that all participants are equal in their role on the network and its topology is flat, in other words, unlike for example a client's server, it is without hierarchy. Just as the internet enabled new services such as the World Wide Web, email, and FGP and all the benefits those solutions have created, it is increasingly apparent that the blockchain will enable new computing platforms that ride on top of it too, such as Ethereum, Rootstock, and Tezos.

Blockchain forces us to think differently about technology and it presents exciting opportunities in a significant number of use cases and industries.

In the blockchain, hashes are used as identifiers for blocks, transactions, and addresses. The hashing algorithm used in the blockchain is called SHA-256. SHA, which stands for Secure Hash Algorithm, generates an almost unique fixed-size 256-bit hash. Our final term is mining. Let's think of mining in a traditional context. Whether it is mining for coal, gold, or oil, we could all agree it requires a significant amount of resources in terms of money, equipment, people, and time.