

The buzzword of the moment is blockchain, and it has every financial news outlet in a bit of a tizzy. As everyone tries to wrap their heads around cryptocurrency, the market capitalization is growing at an utterly unprecedented rate. The money is pouring in, but what is the blockchain and why is it valuable?

### **What is a blockchain?**

The blockchain is a decentralized, distributed, public ledger. Let's unpack this by looking at the way the banking system is currently run.

When you go to the bank to deposit \$100, what happens? You give the teller paper money, they type numbers into the screen, and your paper money is represented by digits on a computer. The bank uses an account system that tracks each person, how much they have, and how much they've deposited or withdrawn from that account. This is a ledger.

These numbers are stored in your local bank. Theoretically, a bank employee with high enough clearance can simply change these numbers whenever they want. Likewise, if a sophisticated enough malicious actor hacked a bank, they could change all of the numbers on the ledger for personal gain. Herein lies the problem of centralization. When all your money is in one location and many people you don't know have access to the keys, how do you know your money is safe?

The blockchain fixes this issue. Instead of one centralized location having private access to the ledger, every computer in the world has access. Instead of keeping track of individual accounts, the blockchain keeps track of transactions. Not just some transactions, mind you, *every* transaction. They are recorded chronologically on blocks of data, and once the decentralized network of 'miners' (covered in part two) confirms a block, the transactions on that block are permanent, irreversible, unhackable, and visible to everyone who wants to see.

### **What value does it have?**

The ability to have a trustless economy, one in which you don't need to go through a third party to pay someone (as you do today with credit cards and banks), is useful in many different industries. Social engagement with money will be made easier.

One particularly interesting use is in marketing. Studies show that gamification strategies can increase brand engagement by 100% to 150%. Using a cryptocurrency or a utility token as a reward for engaging with a company online through an automated contest or a raffle is an excellent way to get your brand in front of customers.

There are many other use cases for the blockchain. In the next article, we will discuss mining, smart contracts, tokenization, and other ways this disruptive new technology is poised to change the world.