

## While You Read

- C. In order to remember information from Reading 2, annotate the text as you read. Remember, the aim is to be able to simply reread your annotations (rather than the full text) when you want to review.

## Frequently Asked Questions from the Bitcoin Website

### 1. What is Bitcoin?

Bitcoin is a consensus network that enables a new payment system and a completely digital money. It is the first decentralized peer-to-peer payment network that is powered by its users with no **central authority**. From a user perspective, Bitcoin is pretty much like cash for the Internet. Bitcoin can also be seen as the most prominent triple-entry bookkeeping system in existence.

### 2. Who created Bitcoin?

Bitcoin is the first implementation of a concept called *cryptocurrency*, which was first described in 1998 by Wei Dai on the cypherpunks' mailing list, suggesting the idea of a new form of money that uses cryptography to control its creation and **transactions**, rather than a central authority. The first Bitcoin specification and proof of concept was published in 2009 in a cryptography mailing list by Satoshi Nakamoto. Satoshi left the project in late 2010 without revealing much about himself. The community has since grown exponentially with many developers working on Bitcoin.

Satoshi's anonymity often raised unjustified concerns, many of which are linked to misunderstanding of the open-source nature of Bitcoin. The Bitcoin **protocol** and software are published openly and any developer around the world can review the code or make their own modified version of the Bitcoin software. Just like current developers, Satoshi's influence was limited to the changes he made being adopted by others and therefore, he did not control Bitcoin. As such, the identity of Bitcoin's inventor is probably as relevant today as the identity of the person who invented paper.

### 3. Who controls the Bitcoin network?

Nobody owns the Bitcoin network, much like no one owns the technology behind email. Bitcoin is controlled by all Bitcoin users around the world. While developers are improving the software, they can't force a change in the Bitcoin protocol because all users are free to choose what software and version they use. In order to stay compatible with each other, all users need to use software **complying** with the same rules. Bitcoin can only work correctly with a complete **consensus** among all users. Therefore, all users and developers have a strong incentive to protect this consensus.

### 4. How does Bitcoin work?

From a user perspective, Bitcoin is nothing more than a mobile app or computer program that provides a personal Bitcoin wallet and allows a user to send and receive bitcoins with them. This is how Bitcoin works for most users.

Behind the scenes, the Bitcoin network is sharing a public **ledger** called *the block chain*. This ledger contains every transaction ever processed, allowing a user's computer to verify the validity of each transaction. The authenticity of each transaction is protected by digital signatures corresponding to the sending addresses, allowing all users to

**complying** (v.): obeying a command or rule

**ledger** (n.): book in which a business's expenses and revenues are recorded

have full control over sending bitcoins from their own  
40 Bitcoin addresses. In addition, anyone can process transactions using the computing power of specialized hardware and earn a reward in bitcoins for this service. This is often called *mining*.

### 5. Is Bitcoin really used by people?

45 Yes. There are a growing number of businesses and individuals using Bitcoin. This includes brick and mortar businesses like restaurants, apartments, law firms, and popular online services such as Namecheap, WordPress, and Reddit. While Bitcoin remains a  
50 relatively new phenomenon, it is growing fast. At the end of August 2013, the value of all bitcoins in circulation exceeded US\$1.5 billion with millions of dollars worth of bitcoins exchanged daily.

### 6. How does one acquire bitcoins?

- 55 • Receive as payment for goods or services.
- Purchase bitcoins at a Bitcoin exchange.
- Exchange bitcoins with someone near you.
- Earn bitcoins through competitive mining.

### 7. How difficult is it to make a Bitcoin payment?

60 Bitcoin payments are easier to make than debit or credit card purchases, and can be received without a merchant account. Payments are made from a wallet application, either on your computer or smartphone, by entering the recipient's address and the payment amount, and pressing send. To make it easier to enter a recipient's address, many wallets can obtain the address by scanning a QR [quick response] code or  
65 touching two phones together with NFC [near-field communication] technology.

### 8. What are the advantages of Bitcoin?

- **Payment freedom** – It is possible to send and receive bitcoins anywhere in the world at any time. No bank holidays. No borders. No bureaucracy. Bitcoin allows its users to be in full control of their money.
- 70 • **Choose your own fees** – There is no fee to receive bitcoins, and many wallets let you control how large a fee to pay when spending. Higher fees can encourage faster confirmation of your transactions. Fees are unrelated to the amount transferred, so it's possible to send a hundred thousand bitcoins for the same fee it costs to send one bitcoin. Additionally, merchant processors exist to assist  
75 merchants in processing transactions, converting bitcoins to fiat currency and depositing funds directly into merchants' bank accounts daily. As these services are based on Bitcoin, they can be offered for much lower fees than with PayPal or credit card networks.
- 80 • **Fewer risks for merchants** – Bitcoin transactions are secure, irreversible, and do not contain customers' sensitive or personal information. This protects merchants from losses caused by fraud or fraudulent chargebacks, and there is no need for Payment Card Industry (PCI) compliance. Merchants can easily expand to



new markets where either credit cards are not available or fraud rates are unacceptably high. The net results are lower fees, larger markets, and fewer administrative costs.

- **Security and control** – Bitcoin users are in full control of their transactions; it is impossible for merchants to force unwanted or unnoticed charges as can happen with other payment methods. Bitcoin payments can be made without personal information tied to the transaction. This offers strong protection against identity theft. Bitcoin users can also protect their money with backup and encryption.
- **Transparent and neutral** – All information concerning the Bitcoin money supply itself is readily available on the block chain for anybody to verify and use in real time. No individual or organization can control or **manipulate** the Bitcoin protocol because it is cryptographically secure. This allows the core of Bitcoin to be trusted for being completely neutral, **transparent** and predictable.

**transparent** (adj.): easy to see through and understand

## 9. What are the disadvantages of Bitcoin?

- **Degree of acceptance** – Many people are still unaware of Bitcoin. Every day, more businesses accept bitcoins because they want the advantages of doing so, but the list remains small and still needs to grow in order to benefit from network effects.
- **Volatility** – The total value of bitcoins in circulation and the number of businesses using Bitcoin are still very small compared to what they could be. Therefore, relatively small events, trades, or business activities can significantly affect the price. In theory, this **volatility** will decrease as Bitcoin markets and the technology matures. Never before has the world seen a start-up currency, so it is truly difficult (and exciting) to imagine how it will play out.
- **Ongoing development** – Bitcoin software is still **in beta** with many incomplete features in active development. New tools, features, and services are being developed to make Bitcoin more secure and accessible to the masses. Some of these are still not ready for everyone. Most Bitcoin businesses are new and still offer no insurance. In general, Bitcoin is still in the process of maturing.

**in beta** (exp.): in trial form; not yet finalized

## 10. How are bitcoins created?

New bitcoins are generated by a competitive and decentralized process called *mining*. This process involves individuals who are rewarded by the network for their services. Bitcoin miners are processing transactions and securing the network using specialized hardware and are collecting new bitcoins in exchange.

[Because bitcoin is a triple-entry bookkeeping system, it requires three records of each transaction. The first two people who record a transaction are the buyer and the seller. However, before the money can change “wallets,” a third person must approve the transaction. This third person records the transaction (cryptographically) and is rewarded by a small fee, paid in bitcoins. These people are mining bitcoins. Once the third person recognizes the transfer, the money can change wallets.]

The Bitcoin protocol is designed in such a way that new bitcoins are created at a fixed rate. This makes Bitcoin mining a very competitive business. When more miners join the network, it becomes increasingly difficult to make a profit and miners must seek efficiency to cut their operating costs. No central authority or developer has any power to control or manipulate the system to increase its profits. Every Bitcoin node in the world will reject anything that does not comply with the rules it expects the system to follow.

**durability** (adj.): ability to remain in good condition after a lot of use

**fungibility** (adj.): exchangeability

**rule of thumb** (exp.): general principle that is good to follow

Bitcoins are created at a decreasing and predictable rate. The number of new bitcoins  
130 created each year is automatically halved over time until bitcoin issuance halts completely  
with a total of twenty-one million bitcoins in existence. At this point, Bitcoin miners  
will probably be supported exclusively by numerous small transaction fees.

### 11. Why do bitcoins have value?

Bitcoins have value because they are useful as a form of money. Bitcoin has the  
135 characteristics of money (**durability**, portability, **fungibility**, scarcity, divisibility, and  
recognizability) based on the properties of mathematics rather than relying on physical  
properties (like gold and silver) or trust in central authorities (like fiat currencies).  
In short, Bitcoin is backed by mathematics. With these attributes, all that is required  
140 can be measured by its growing base of users, merchants, and start-ups. As with all  
currency, bitcoins' value comes only and directly from people willing to accept them  
as payment.

### 12. What determines bitcoin's price?

The price of a bitcoin is determined by supply and demand. When demand for bitcoins  
145 increases, the price increases, and when demand falls, the price falls. There is only  
a limited number of bitcoins in circulation and new bitcoins are created at a predictable  
and decreasing rate, which means that demand must follow this level of inflation  
to keep the price **stable**. Because Bitcoin is still a relatively small market compared  
to what it could be, it doesn't take significant amounts of money to move the market  
150 price up or down, and thus the price of a bitcoin is still very volatile.

### 13. Can bitcoins become worthless?

Yes. History is littered with currencies that failed and are no longer used, such as  
the German mark during the Weimar Republic and, more recently, the Zimbabwean  
dollar. Although previous currency failures were typically due to hyperinflation of a  
155 kind that Bitcoin makes impossible, there is always potential for technical failures,  
competing currencies, political issues, and so on. As a basic **rule of thumb**, no  
currency should be considered absolutely safe from failures or hard times. Bitcoin  
has proven reliable for years since its inception and there is a lot of potential for  
Bitcoin to continue to grow. However, no one is in a position to predict what the future  
160 will be for Bitcoin.

(1814 words)

Bitcoin Project (2017). Frequently asked questions. Retrieved from <https://bitcoin.org/en/faq>

### After You Read

- D.** Compare your annotations with a partner's. Although your annotations will be different, it should be interesting to compare the main points. Use the comparison to confirm that you successfully annotated the main points. Share your opinion about Bitcoin with your partner. Do you have similar or differing opinions?
- E.** Still working with your partner, answer the following questions, referring only to your annotations. (The numbers in parentheses refer to the questions in the reading where you can find the answers.)



1 What are the main characteristics of Bitcoin? (questions 1 to 4)

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2 Who uses bitcoins, and how do they acquire them? (questions 5 and 6)

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3 List the advantages and disadvantages of bitcoins in the table below. (questions 7, 8, 9)

ADVANTAGES	DISADVANTAGES
<ul style="list-style-type: none"> <li>• <i>Bitcoin payments are easy to make.</i></li> </ul>	

4 To demonstrate your understanding of questions 10 to 13 in the reading, indicate if the statements below are true or false. When you are finished, compare your answers with a partner's.

STATEMENTS	TRUE	FALSE
a) The process of creating bitcoins is called mining.	✓	
b) The people who "mine" bitcoins acquire them by processing transactions for a fee (paid in bitcoins).		
c) The Bitcoin protocol can be hacked and manipulated for profit.		
d) The Bitcoin protocol is controlled by a central bank.		
e) The number of bitcoins is infinite.		
f) Bitcoins have value because people accept them as a form of exchange for goods and service.		
g) The value of a bitcoin is determined by supply and demand.		
h) The value of a bitcoin is stable.		
i) Bitcoins will continue to hold their value; they are a reliable investment.		



## READING 2

### Frequently Asked Questions from the Bitcoin Website

This reading is from the bitcoin website. Written in a Frequently Asked Questions format (question and answer), the text responds to all the practical questions people have about bitcoin currency.

#### VOCABULARY BUILD

Explore key words from Reading 2 while you build your knowledge of synonyms—an important strategy for developing your paraphrasing skills.

- A.** Read the sentences in column one. For each bold word or phrase, write the best synonym from the box in the second column; then think of at least one more synonym. When you are finished, you will have at least two synonyms for each key word or phrase. Confirm your answers with your class.

agreement   business deal   government control   influence   obtain  
plan of action   set of rules   steady

SENTENCES WITH KEY WORDS OR PHRASES	SYNONYMS
1 How does one <b>acquire</b> bitcoins?	<i>obtain, get, gain, earn</i>
2 Bitcoin is the first decentralized peer-to-peer payment network that is powered by its users with no <b>central authority</b> .	
3 Bitcoin can only work correctly with a complete <b>consensus</b> among all users.	
4 No central authority or developer has any power to <b>manipulate</b> the system to increase their profits.	
5 The Bitcoin <b>protocol</b> is designed in such a way that new bitcoins are created at a fixed rate.	
6 No one knows what the demand for bitcoins will be. This means the bitcoin price is not <b>stable</b> .	
7 Each <b>transaction</b> is protected by digital signatures corresponding to the sending addresses, allowing all users to have full control over sending bitcoins from their own Bitcoin addresses.	

#### Before You Read

- A.** If you were going to use bitcoin tomorrow to pay for a new computer, what questions would you have about the digital currency? With a small group of students, brainstorm a list of questions to which you would need answers before you used bitcoin.
- B.** Once you have finished, skim Reading 2 to identify which of your questions it asks and answers. Which of your questions are the same as the ones in Reading 2?

