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Bitcoin

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- Understand the ins and outs of the Bitcoin market
- Set up your Bitcoin wallet and get started
- Protect yourself against fraud and theft

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Bitcoin For Dummies®

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Introduction

Welcome to *Bitcoin For Dummies*! But just what is bitcoin? How can there be digital money? Is it, like, some kind of Internet money? Is it something you should even be concerned about, or indeed should you shy away from it? In the news, bitcoin coverage tends to be sketchy. You may have read articles about people losing their money, or using bitcoin for illicit purchases on the black market. Or you may have read amazing success stories of people and businesses flourishing by using it.

Fear not, dear readers. This book strips away the mystery and gets down to the facts. It patiently explains exactly what bitcoin is, discusses some of the possibilities this wonderfully disruptive yet inspirational technology holds, and lays out some of the potential benefits for all of us. Bitcoin could change our lives in a similar way that the Internet has done over the last few decades.

In short, this book tells you everything you need to know to get started. So what are you waiting for? Let's, um . . . get started!

About This Book

Bitcoin For Dummies tells you a bit about the history of this fascinating technology and explores bitcoin as a concept and product. We show you how to open a wallet so that you can safely store your own bitcoins. We even guide you through the process of obtaining some bitcoins. We demonstrate what you may do with those bitcoins and talk about the potential for earning money with them too. We touch upon regulatory and legal frameworks as they currently stand. We detail mining bitcoin and explain how you could become involved in that — and why it may not be worth it.

We also prop up the hood and take a good look underneath. We detail how transactions work within the bitcoin environment and delve deep into blockchain technology. We gaze into our crystal ball and speculate on how bitcoin and its blockchain system may develop in the future and how they may change many aspects of our lives. To round things off, we provide you with online resources to keep you up to date and help you become involved with the online community that is actively supporting bitcoin. Come on and join us. We think this will be one heck of a ride!

Foolish Assumptions

The only assumption we have about you, our reader, is that you are interested in learning some of the basics about this new form of currency. We hope you'll like what you read and will want to create your own wallet, start using bitcoin, and spread the word to friends and colleagues. But our basic assumption is that you've picked up this book because you want to find out more before jumping on board.

We also assume you have some basic experience with computers and the Internet. We figure you already know how to find your way around the Internet and how to take some simple steps to safeguard yourself online and protect your money. We don't expect you to be a tech expert who knows all there is to know about computing.

And that's because you don't need to be an expert to get started with bitcoin.

Icons Used in This Book

To help you pick out the information most useful to you, we've used a few graphical icons in the book to highlight key details. Whenever you see the following icons in the page margin, this is what you can expect from that paragraph:



We like to dispense our advice on a warm plate, ready for your consumption. This icon highlights our top tips for getting the best out of bitcoin and often includes insider knowledge to help you to achieve what you want as quickly and efficiently as possible.



When you see this icon on the page, we're speaking to you with our deep, velvety public information announcer voice: These are the most salient points to squirrel away in your brain for later use.



This icon warns you of common mistakes or pitfalls that could trip you up when it comes to bitcoin. We know you're going to use your common sense when it comes to money and online transactions, but from time to time we just like to tap you on the shoulder and say, "Pay attention and be careful." This icon is that tapping finger.



Online finances, the Internet, and bitcoin itself all have many weird and wonderfully specific ways of describing things, doing things, and generally flummoxing the unwise. Sometimes having a bit of slightly esoteric background knowledge helps, even if it's not directly related to getting the best from your bitcoin. This icon flags the parts you can safely skim over and not lose out by doing so.

Beyond the Book

But wait, there's more! We've not only put together a book that explores bitcoin, but we've also compiled some online bonus bits (at www.wiley.com/extras/bitcoin) to take things further:

- ✔ An online Part of Tens with tips on how bitcoin can help you.
- ✔ Two other online articles that cover certain aspects of bitcoin and banking, plus more about the blockchain.
- ✔ A handy e-cheat sheet (at www.dummies.com/cheatsheet/bitcoin) to keep important info handy at all times.

Where to Go from Here

As with all *For Dummies* books, you can start anywhere you like: Each chapter is designed to be as self-contained as possible. That said, we don't like to repeat ourselves too often, so you'll spot plenty of references to other chapters throughout.

If you're not sure where to begin and don't feel like engaging in the usual practice of "starting at the beginning," here are a couple suggestions:

- ✔ Chapter 9 is a great place to get started: Before you find out too much about bitcoin itself, this chapter will tell you whether bitcoin is used (and legal) in your country.
- ✔ If you want to plunge straight in and set up a bitcoin wallet, enabling you to acquire and spend bitcoin, flick through to Chapter 5.
- ✔ Chapter 10 is a good place for the level-headed to begin; it looks at bitcoin security, outlines the relative safety of using it, and suggests precautions you should consider taking.
- ✔ Chapter 12 provides you with some ready-made inspiration — it's all about what you can do with bitcoin once you have some. In other words, spend, spend, spend.

Having said that, you can certainly start at the very beginning . . . it's a pretty good place to start after all. Wherever you kick things off, we hope you enjoy and get something valuable from this book.

Part I
Bitcoin Basics



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In this part . . .

- ✔ Get familiar with the basics of what bitcoin is, how it came to be, and how it works.
- ✔ Find out how to obtain your own bitcoins and where to keep them once you have them — and where not to.
- ✔ Check out the advantages and disadvantages of bitcoin as a currency and a technological system.
- ✔ Read all about mining, funding, trading, and earning bitcoin.

Chapter 1

Introducing Bitcoin

In This Chapter

- ▶ Getting to know a bit about bitcoin
- ▶ Understanding how bitcoin benefits us all
- ▶ Staying safe and stashing your cash

So, bitcoin . . . you know it's a new form of money — a *digital currency*, to be exact — but just how does it work? Sit yourself down comfortably, and we will begin with the basics, the three major aspects of bitcoin:

- ✓ **Origin:** How it came to be
- ✓ **Technology:** How it works behind the scenes
- ✓ **Currency:** Using bitcoins as money

Exploring each of these aspects will help you understand bitcoin (or BTC, as it's sometimes known) and find out whether and how it can help you. Don't worry — we will stay top-level for now. Later chapters dig deeper.

Ready? Let's go.

The Origin of Bitcoin

The most important aspect of bitcoin may be the concept behind it. Bitcoin was created by developer Satoshi Nakamoto. Rather than trying to design a completely new payment method to overthrow the way we all pay for things online, Satoshi saw certain problems with existing payment systems and wanted to address them.

The concept of bitcoin is rather simple to explain: During the financial crisis of 2008, people from all over the world felt its debilitating economic effects. And at the time of this writing (early 2016), many are still feeling the effects in terms of the dwindling

value of their *fiat currency* (the currency approved by a country's government). As the global financial system teetered on the brink of collapse, many central banks engaged in *quantitative easing* — or in simple terms, turned on the printing presses. Central banks flooded the markets with liquidity and slashed interest rates to near zero in order to prevent a repeat of the Great Depression of the 1930s. The effect of this was large-scale fluctuations in fiat currencies and what has since been termed *currency wars* — a race to competitively devalue so that an economy can become more viable simply by its goods and services being cheaper than those of its neighbors and global competitors. The response of central banks around the world was the same as it always has been when these things happen: Governments had to bail out affected banks and they printed extra money, which further devalued the existing money supply.

In bailing out the banks, there was a net transfer of debt to the public purse, thus adding to future taxpayer liabilities. This created a sense of social injustice among some quarters. Aside from that, no one really knows what the long-term effects of quantitative easing will be. Perhaps inflation at some point in the future and a further devaluation of those fiat currencies who engaged in the schemes? What seemed clear is that central bankers, supposedly acting independent of governments, were taking many economies into the unknown and were prepared to devalue their fiat currencies at will just to keep the wheels turning. In doing so, they bailed out the very same institutions and bankers whose reckless behavior had brought about this crisis in the first place. The only other option would have been to let the whole system collapse and be purged, as for instance happened in Iceland. That country defaulted on its debt and endured great economic turmoil in the aftermath of that event.

Therein lies the genesis of bitcoin: a decentralized financial system taken out of the hands of a few elite global decision-makers.

Satoshi Nakamoto decided it was time for a new monetary system, one so different from the current financial infrastructure that you could even call it a disruptive force. Whether or not bitcoin was ever intended to completely replace the financial infrastructure remains unclear, but we do know that multiple banks are looking at the technology that powers bitcoin, because they see its potential and want to adopt this technological power for their own use. They are free to do so, of course, as the core bitcoin technology — known as a *blockchain* (much more on that in Chapter 7) — was open source from day one for everyone to see. Creating bitcoin as open source meant that anyone was allowed to come up with their own improvements and build platforms on top of it.