

# An Update on Bitcoin as a Digital Currency



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## INTRODUCTION

“The Evolution of Virtual Currencies: Analyzing the Case of Bitcoin,” a manuscript co-authored by Cecilia G. Manrique with Gabriel G. Manrique was recently published as a chapter in the book *Information and Communication Technologies in Public Administration*. It was written at the height of the recent bitcoin controversy when its value (in relation to the US dollar) underwent wild swings. It has been more than a year since the research for that chapter was conducted, and much has transpired since then affecting bitcoin’s acceptability as a virtual currency. It is the purpose of this paper to present an update on the status of bitcoin as a currency and to determine its stability and ability to become a real one.

This chapter will consist of four parts: a background based on a previous work, a review of what has been written about the topic to date, an update on the current status of bitcoin, and a future trends outlook on the acceptability of bitcoin as a currency. It is the purpose of this entry to shed further light on what has transpired regarding bitcoin since its very volatile and controversial period in 2013-2014 and to extrapolate on its possible future directions. Much of the controversy surrounding bitcoin at that time stemmed from several factors: its level of acceptability as a medium of exchange which is a crucial element for any aspiring currency, real or virtual; its various uses some of which had been said to facilitate criminal enterprises such as Silk Road; and its lack of stability raising questions about its suitability as a store of value. In its early stages,

bitcoin was applauded as a new and innovative currency because it could serve as a medium of exchange and a store of value with no bank and government intervention. By 2013 however, its reputation and seeming potential were ravaged by scandal, theft and turbulent prices. Has anything changed since then to restore the luster of bitcoin?

## BACKGROUND

This encyclopedia entry comes on the heels of a recently published chapter entitled “The Evolution of Virtual Currencies: Analyzing the Case of Bitcoin” published in the book *Information and Communication Technologies in Public Administration*. The research and writing for it took place at the height of the bitcoin controversy. At that time in 2013-2014 the value of bitcoin skyrocketed and waned at such a volatile rate that it made for good fodder to many newspaper and magazine articles. In the month leading to bitcoin reaching its highest value

vis-à-vis the US dollar of \$1147 on December 4, 2013, bitcoin tripled in value only to decline to \$830 a month later, a decline in value of more than a quarter. By early April 2014 bitcoin had lost another 47%. As of this writing, bitcoin’s value seems to have settled in the \$250 range (BPI, 2015).

The Manrique and Manrique chapter took a look at the evolution of virtual currencies and focused attention upon bitcoin. It studied the case of bitcoin in terms of its potential as a legal tender taking into consideration the various char-

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acteristics that make for what would constitute legal tender in society. The positive and negative impacts of transacting in bitcoin were laid out. A description of the international exchanges that bitcoin engendered was also provided. But more importantly the chapter explored the direction that regulation might take. At that time regulatory agencies and groups were just at the early stages of “thinking about” what needs to be done and were not ready to recommend, let alone enact, rules on virtual currency including the regulation of bitcoin. Thus the chapter concluded with some of the areas of research that would provide fertile fields for further research (Manrique & Manrique, 2015).

## **Literature Review**

As a result of the expansion of, and accompanying controversies associated with virtual currencies in general and bitcoin in particular, many books about virtual currencies have been written and reviewed. A discussion of a few of those books and articles will take place in the next few paragraphs.

Bitcoin as a payment network or digital currency was said to have been developed by a person (or group) that goes by the name of Satoshi Nakamoto. A 2008 work attributed to him laid the groundwork for the first specification and proof of what the bitcoin concept was all about. (Nakamoto, 2008) If one were interested in the technology behind bitcoin one can consult the work by Menezes, et.al, which is a handbook on cryptography describing the process of turning ordinary information into hidden language that needs some code to decode it and make it readable again. Although it does not apply the theory to bitcoin since it was written before the conceptualization of bitcoin itself the reader will gain an understanding of the technology that goes into the way transactions are undertaken using virtual currency (Menezes, 1996)

It is estimated that in 2014 alone about 200 pieces had been written about cryptocurrency and that dozens more will have appeared in 2015.

Many of them are geared towards the basics of understanding the bitcoin phenomenon because they are “befuddled” (Barski, 2014) while others are written for the beginner who would like to dabble in bitcoin transacting. (Franco, 2014) Several column pieces have been published by the Wall Street Journal and the Economist over the past year that give one a good impression of the direction the discussion has been going. And a television special on bitcoin was hosted by Morgan Spurlock as recently as early 2015. The Spurlock television special takes a very elementary look at bitcoin and provides background but not much more to the serious researcher. It serves the purpose of exposing the general public to the existence of virtual currencies, their uses and the possibility of adoption in the foreseeable future. Thus it serves an educational purpose by bringing a new and innovative topic to the attention of the ordinary citizen. (Spurlock, 2015)

Two of the books that have been written about bitcoin are entitled *Digital Gold* written by Nathaniel Popper and *The Age of Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order* by Paul Vigna and Michael Casey, two writers whose articles in the Wall Street Journal served as sources for much of the research that went into the original Manrique and Manrique chapter.

David Kushner’s review of *Digital Gold* in the Wall Street Journal takes a look at the nefarious characters that Nathaniel Popper writes about in his “inside story” about the misfits and millionaires who have tried repeatedly and extensively to re-invent money with their support of virtual currencies but more specifically of bitcoin. Kushner wrote that the cast of characters portrayed by Popper may have a tendency to turn off readers to the possibilities of virtual currencies because the portrayals tend to focus on the machinations of the bitcoin underworld. Prominent among the characters accounted for in the book is Ross Ulbricht who was responsible for building Silk Road. Silk Road is considered by many as the largest black market site on the web where transactions

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