

Chapter 9

Blockchain Technology: Limitations and Future Possibilities

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ABSTRACT

Blockchain, as the name suggests, is a linear chain of blocks. It is a digital ledger that holds information on transactions taking place over the web. So every block contains data in the form of coding that is organized in a chronological manner. In 2004, a concept called “reusable proofs of work” was introduced by Hal Finney. In 2009, a mysterious white paper titled “Bitcoin: A Peer to Peer Electronic Cash System,” by visionary Satoshi Nakamoto gave birth to the concept of blockchain. This is a survey of blockchain technology that first provides a short introduction of the blockchain, discussing its advantages and followed by possible limitations and their possibilities for the future.

DOI: 10.4018/978-1-7998-2414-5.ch009

1. INTRODUCTION

1.1 Blockchain

There are numerous blockchain definitions by different authors, and as pointed out in (V. L. Lemieux, 2016), there is no single, internationally agreed definition; therefore, it is important to understand the main parts of the blockchain.

Don & Alex Tapscott gave definition of blockchain in 2016, ***“The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value”***.

Blockchain is a new technology, often referred to as the Internet of Value. Blockchain technology is known- how is a chain of “blocks” that incorporate data. It accommodates a continuously growing list of immutable blocks using a distributed database system. Blockchain permits a transparent way of communication and transaction for end-users and providers to connect directly without the need for agents. Blockchain has come to be one of the most talked-about technologies in the IT world. From a mere concept a few years ago, blockchain technology is already being used by companies in large-scale industrial implementations. Despite the technology that the innovation itself is progressive, there are certain boundaries of blockchain that have sprung up. These blockchain restrictions don’t make the technology less revolutionary, however, they have raised questions about its effectivity and reliability.

Figure 1. Blockchain Technology



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