

BOOK REVIEW

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UNBLOCKING THE BLOCKCHAIN – A FRIENDLY GUIDE TO THE ETHEREUM PLATFORM

ETHEREUM: Blockchains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations

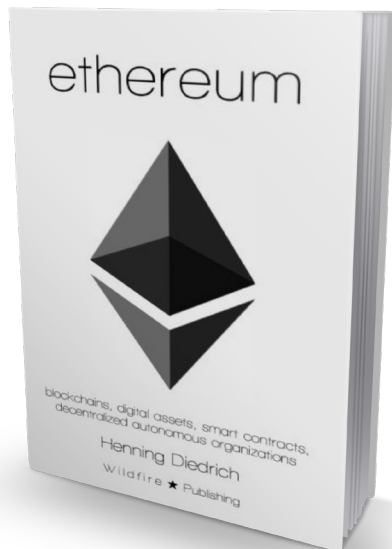
Henning Diedrich. Sydney, Australia: Wildfire Publishing, 2016. 346 p.

One of the many applications of the blockchain technology, the Bitcoin cryptocurrency, earned extensive media coverage when it hit its all-time high, nearly US\$ 20,000, in 2017 (Wilkes & Sano, 2018). However, does the public, who is just beginning to learn about this technology, really know what blockchain is? Does it know about its possible applications? It is therefore necessary to understand that this technology is not limited to the Bitcoin platform's cryptocurrency, although Bitcoin has been responsible for popularizing it. If blockchain is expected to have a wide range of applications nowadays, the credit should go to another platform. The Ethereum platform emerges as a more dynamic environment for the development of new uses, and this book is dedicated specifically to it.

Thus, by using non-technical, beginner-friendly language, the author of *Ethereum: Blockchains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations* conducts a comprehensive discussion about the blockchain technology's potential applications in the Ethereum platform. To that end, the book's author, Henning Diedrich, uses his knowledge as a software architect who leads the IBM strategical blockchain group.

The book is comprised of small chapters focusing on specific subjects or terms related to blockchain and the Ethereum platform, each connecting to the next to build up three main blocks of subjects in addition to the introduction. In the Introduction, the author presents blockchain as a technology that may change reality as we know it. Diedrich opens the book with a reference to pop culture, i.e., the choice that 1999 film *The Matrix*'s main character must make between the blue pill, which represents a safe, limited permanence in the known reality, and the red pill representing a hard, exciting pathway into a new reality. He therefore invites the reader to understand the new reality that blockchain can offer.

The first block presents the Ethereum platform and its main applications, as well as a comparison with the other competing platforms, such as that of Bitcoin. Its creator, Vitalik Buterin, developed the platform based on a comfortable programming language, thus allowing the user to do everything that could be done in other platforms and more. That is because Ethereum focuses on the so-called smart contracts, i.e., auto-execution protocols activated only when a condition is met. For example, in a contract, each company involved in manufacturing a product can receive a preset amount



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after its sale, by means of its own digital coin, the Ether, which would already be included in the contracts. This strategy allows including a complex series of conditions into a single contract, such as delivery and quality conditions, among others.

The second block provides an extensive explanation about blockchain. In the author's view, trying to define this technology in a way everyone agrees with would be impossible. However, a few characteristics are common to all definitions. For example, data transaction should be decentralized and cryptographically stored in various computers. This prevents information from being lost or changed, thus providing transparency and security. Because all users can check all transactions in the network, none of those transactions are anonymous or confidential to any user of the same network.

The third block discusses three topics. In the first one, denominated Warnings, the Ethereum platform's main hindrances are presented. The second, denominated Context, looks into the history of Bitcoin, the Ethereum platform and its applications, as well as other aspects. The third, denominated Epilogue, shows the author's take on how blockchain is being promoted by the media, in addition to future prospects – at times, overly optimistic, in his view – of its impact on economic and social relationships.

According to Diedrich, none of today's platforms is prepared for what will be required of them in the future. While Ethereum is considered the most dynamic, it has significant speed, capacity and scalability limitations. Therefore, the author believes that the current versions are a step forward towards developing other, more mature ones. Recently, a new version of the platform was announced, the Ethereum 2.0, to be launched in 2020 with the promise to increase transaction speed and scalability (Dimitrov, 2019). This could be the “step forward” the author expects.

This book may be evaluated regarding both its form and content. The form shows Diedrich's concern with providing a comprehensive review of the terms and concepts the reader may come across in a discussion on the subject. That is why the book is comprised of an extensive collection of terms, which

resembles a small “encyclopedia” of blockchain. While it may be useful in terms of access to initial understanding, the form compromises the narrative's progression. In the second and third blocks, this becomes particularly challenging, since the terms are independent and, therefore, the connection between them grows fragile as the reading advances.

As for the content, Diedrich argues that blockchain is not an exaggerated fad. The technology has the potential to bring about changes, and the Ethereum platform is the most advanced to date. However, the book provides few practical examples of how organizations are implementing this technology, and what the outcomes are. In a complementary view, the book *The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology*, by William Mougayar (2016), shows the reader many companies that have applied blockchain, such as Paypal and Applepay, as well as their outcomes.

Despite these limitations, the book provides the reader with an enthusiastic guide. To the newcomer, it explains the various new terms that emerge in this discussion. To those already familiar with the subject, the book is an opportunity to read the optimistic reflections of an expert in the technology. Thus, Diedrich's goal for his book is not to exhaust the subject of blockchain, quite the opposite. All the time, he means for it to be an entrance to a huge discussion in course. Using his words, “take the red pill” and enjoy this new reality that unfolds.

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AUTHORS' CONTRIBUTIONS

The authors declare that they participated in all stages of development of the manuscript. From the conceptualization and theoretical-methodological approach, the theoretical review (literature survey), and finally, writing and final review the article.