

Chapter 37

Optimizing and Enhancing Digital Marketing Techniques in Intellectual Big Data Analytics

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ABSTRACT

The authors in this chapter show the essence, dignity, current state, and development prospects of avatar-based management using blockchain technology for improving implementation of economic solutions in the digital economy of Russia. The purpose of this chapter is not to review the existing published work on avatar-based models for policy advice, but to try an assessment of the merits and problems of avatar-based models as a solid basis for economic policy advice that is mainly based on the work and experience within the recently finished projects Triple H Avatar, an avatar-based software platform for HHH University, Sydney, Australia. The agenda of this project was to develop an avatar-based closed model with strong empirical grounding and micro-foundations that provides a uniform platform to address issues in different areas of digital economic and creating new tools to improve blockchain technology using the intelligent visualization techniques for big data analytic.

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INTRODUCTION

Management in Digital Economy is concerned with the design, execution, monitoring, and improvement of business processes. Systems that support the enactment and execution of processes have extensively been used by companies to streamline and automate intra-organizational processes. Yet, for inter-organizational processes, challenges of joint design and a lack of mutual trust have hampered a broader uptake. Emerging blockchain technology has the potential to drastically change the environment in which inter-organizational processes are able to operate. Blockchains offer a way to execute processes in a trustworthy manner even in a network without any mutual trust between nodes. Key aspects are specific algorithms that lead to consensus among the nodes and market mechanisms that motivate the nodes to progress the network. Through these capabilities, this technology has the potential to shift the discourse in management research about how systems might enable the enactment, execution, monitoring or improvement of business process within or across business networks. By using blockchain technology, untrusted parties can establish trust in the truthful execution of the code. Smart contracts can be used to implement business collaborations in general and inter-organizational business processes in particular. The potential of blockchain-based distributed ledgers to enable collaboration in open environments has been successfully tested in diverse fields ranging from diamonds trading to securities settlement (Mendling, J. et al, 2018).

But at this stage, it has to be noted that blockchain technology still faces numerous general technological challenges. In this article, we describe what we believe are the main new challenges and opportunities of blockchain technology for Digital Economy in Russia. A our study in Russia by found that a majority of these challenges have not been addressed by the Russian research community, albeit we note that blockchain developer communities actively discuss some of these challenges and suggest a myriad of potential solutions. Some of them can be addressed by using private or consortium blockchain instead of a fully open network. In general, the technological challenges are limited at this point, in terms of both developer support (lack of adequate tooling) and end-user support (hard to use and understand). Our recent advances on developer support include efforts by of the towards model-driven development of blockchain applications sliding mode in intellectual control and communication, help the technological challenges and created tools (Mkrttchian & Aleshina, 2017).

BACKGROUND

We are the first to identify the application potential of blockchain technology to sliding mode in intellectual control and communication, for help the technological challenges and created tools. A our proposal to support inter-organizational processes through blockchain technology is described by: large parts of the control flow and business logic of inter-organizational business processes can be compiled from process models into smart contracts which ensure the joint process is correctly executed. So-called trigger components allow connecting these inter-organizational process implementations to Web services and internal process implementations. These triggers serve as a bridge between the blockchain and enterprise applications. The concept enables the optional implementation of intellectual control and built-in escrow management at defined points within the process, where this is desired and feasible (Mendling, et al, 2018).

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