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# Blockchain in education management: present and future applications

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## Abstract

**Purpose** – This paper aims to provide a systematic literature review on blockchain technology in education to offer a detailed understanding of the present scenario in terms of benefits, barriers, present blockchain technology application and future areas where blockchain technology can be implemented in the other fields of education.

**Design/methodology/approach** – A bibliometric analysis is conducted on for data in the publications, journals, authors and citations were collected, and examined by applying bibliometric measures. The data was collected from SCOPUS database on the topic “Blockchain Technology in Education”. The following research questions guided this systematic literature review (SLR: How blockchain technology has been defined in educational settings? How were the technology examined (i.e. the methodology)? What were the results of using this technology in an education system?

**Findings** – The study identifies the benefits, barriers and present application of blockchain technology in education. The analysis shows that blockchain technology in education is still a young discipline, but has a lot of potential to benefits the educational sector at large.

**Practical implications** – This research provides a groundwork for education institutions, the policymakers and researchers to explore other areas where blockchain technology can be implemented, though this research has also suggested some prospective uses of blockchain technology in different functions of an education system, more application can be brought into the education system to exploit the potential of blockchain technology.

**Originality/value** – The paper discusses the application of blockchain technology in education with the help of bibliometric analysis. This is one of the first known studies to review the blockchain technology by identifying its benefits, barriers, present blockchain technology application. Based on the analysis, future application areas are also identified.

**Keywords** Systematic review, Education, Blockchain technology, Blockchain application

**Paper type** Literature review



## 1. Introduction

Blockchain was first used to a peer-to-peer ledger for record-keeping of the transactions of Bitcoin cryptocurrency. A blockchain transaction in the public ledger contains a verifiable record and once the information entered, it cannot be altered or erased in the future. The

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