



Chapter 11

Blockchain for Student Experience

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ABSTRACT

The chapter aims to unveil blockchain's impact on student experience. As per the literature, blockchain benefits education through: smart contracts for tasks, curriculum, and documents; affordability and wider access; self-data analysis; safety; improved classroom efficacy; enhanced trust between recruiters and candidates; streamlined payments; clear new requirements; transparent credentials; new digital asset exchange; practical application of class knowledge; added credentials; training delivery; heightened visibility; accountability through smart contracts; lowered degree costs; research publication; innate student information processing; transparent transcripts; and cost-effectiveness. These advantages enhance student (customer) experience. For learners and educators, blockchain offers novel avenues in assessment, activity management, and progress tracking in education.

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INTRODUCTION

The collection, storage, and analysis of data on every pupil's educational pursuit is a major challenge for today's schools. Student performance in the classroom, as well as other relevant information such as portfolios and learning outcomes, is included (Purohit, 2022). In today's globalized university education system, quality is measured not only by the number of employees on staff, the amount of money, infrastructure, devices, scientific studies and training resources obtainable or obtained, but also by level of technological exposure and the level of technology put in place to drive, facilitate, and support decent education and the entire network. Recently, blockchain has been discussed as a data storage opportunity that can generate significant, beneficial impact in previously unexplored industries like manufacturing (Angrish, et al., 2018), healthcare (Agbo, et al., 2019), and education (Bartolomé, et al., 2017), building on the extensive discussion of blockchain as the foundation technology behind cryptocurrencies shown in Yuan and Wang's (2018) study. Many schools and universities want to improve their students' experiences by providing better online learning tools. Even if the bulk of instruction is still conducted in conventional face-to-face classrooms, supplementing traditional instruction with online resources, activities, courses, and feedback has been shown to boost student progress and satisfaction (Abuhassna et al., 2020). Even while the implementation of blockchain technology in academic settings is still in its infancy, it has opened up new possibilities. Blockchain technology's speed and security will help educators of all levels (Originstamp, 2023). Using the blockchain, students will be able to check the legitimacy of their records and prevent their data from falling into the wrong hands.

At the moment, blockchain is mostly used by universities for archiving and sharing academic credentials and information. Researchers, however, think the technology has the potential to radically alter the educational landscape by, among other things, making lifelong learning more accessible, streamlining the work of teachers through the use of smart contracts, and giving students control over their own transcripts and other academic documents. Despite the exciting potential, widespread implementation of blockchain in the education industry faces obstacles like data security, scalability, and cost (Liu & Ot, 2017). The institution's ability to centrally manage such data across departments is crucial to boosting retention and graduation rates. There is a lot of intriguing experimentation and innovation happening with the usage of blockchain in academic settings, despite the fact that this use of blockchain technology is still in its infancy (Purohit, 2022). Increased security and efficiency in today's classrooms are just two of the many areas where blockchain technology might be useful. The requirement to accommodate for variations in learner styles (Liu & Ot, 2017) and to conform to the accrediting standards of current educational

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