Blockchain

Blockchain is a technology that functions as a public, distributed, unchangeable ledger. Best known as the foundation of Bitcoin, the technology provides opportunities for many industries, including higher education, to rethink how certain systems might be reimagined. A blockchain-based transcript, for instance, could provide colleges and universities, students, faculty, and employers a more efficient, more accurate way to store and share authoritative records of student learning. The resources below explain the blockchain and its implications for education.

The Blockchain for Education: An Introduction (2016)

This blog post provides an overview of the history of the blockchain and the technology that underlies it; a rundown of the current activity surrounding the blockchain; and a pragmatic perspective on what the blockchain might mean for higher education.

How Blockchain Will Disrupt the Higher Education Transcript (2016)

Read this article to learn how the blockchain could change how higher education handles transcripts, as well as the blockchain’s potential to generate new means of generating and recognizing credentials by enabling social capital around learning.

The Future of the Web Looks a Lot Like Bitcoin (2015)

For a thorough description of how the blockchain works, check out this article that breaks it down for a lay understanding. Explaining why blockchain technology is widely thought to be virtually unhackable, the author suggests that it could one day transform how most Internet activities take place.

What We Learned from Designing an Academic Certificates System on the Blockchain (2016)

The MIT Media Lab has been working on an open-source, blockchain-based system for digital credentials. This article details the work they’ve done to develop the technology, including addressing policy and privacy matters, and includes links to the code, documentation, and example implementations.


This article provides a high-level description of the blockchain, how it works, and some of its possible implications for higher education, including as a platform for digital badges. The author reminds us that blockchain implementations in education remain experimental and that more work is yet to come.

Understand the Blockchain in Two Minutes (2016)

While not specific to education, this short video explains the blockchain in straightforward terms. It focuses on the use of the blockchain as the foundation for the cryptocurrency Bitcoin, and it touches on other areas that could be affected by the technology.

The Future of Blockchain Technologies in Higher Education (2016)

A member of the staff of Charles Sturt University in Australia offers a literature review of blockchain technology, a report into the current uses of the blockchain in various industries, and a case study that highlights uses for the technology in higher education.