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(57) Abstract:

This research investigates the application of blockchain technology to enhance motivation and collaborative learning in Higher Education Institutions (HEIs). Blockchain's core features—decentralization, security, integrity, anonymity, and encryption—offer a reliable foundation for developing innovative educational systems. One such innovation is a blockchain-based rewards program that incentivizes students for positive behavior and achievements. Through a consensus-driven mechanism, smart contracts are utilized to reward students, professors, and institutions with tokens for participating in college events, volunteering, and academic accomplishments. This approach not only promotes active student engagement but also fosters peer-to-peer interaction between less-informed learners and experienced mentors. By integrating blockchain technology into the educational framework, the system ensures transparency, security, and equitable recognition of achievements. The ultimate goal of this program is to cultivate a collaborative learning environment while encouraging students to pursue academic success and personal development. This research demonstrates how blockchain can transform traditional educational practices, driving higher participation, motivation, and learning outcomes in higher education institutions.

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