Research Proposal On Challenges of using blockchain in higher education

Contributions

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INTRODUCTION

Blockchain is a new technology that revolutionize society in fields like finance, healthcare, and education. Blockchain technology can benefit in the education section but still resist by some Higher Education Institutions (HEIs) as there are many challengers that needed to overcome for it to be widely use in society

Problem Statement

1) Given that blockchain technology act as a records of ledger, if a certification with unnoticed error to be recorded in the system there is no way to reverse the recorded certification in the system. This can cause many problems for the holders of the certificate.

2) Since blockchain system relies on 3rd party to keep a record of the ledger, it would breach many privacy issue because they are dealing with a sensitive data. The data are open to anyone with access to blockchain even if they are well encrypted.

3) Blockchain system uses miners to validate the ledger and it uses a lot of energy to maintain it. It wouldn't be cost efficient to implement the blockchain system in the long run.

Motivation of the research Problem

To identify what are the flaws that are significant in order for the blockchain technology can be comply with Higher Education Institutions (HEIs) regulation.

RESEARCH QUESTIONS

- Can Blockchain technology become a new trigger in education arena?
- What are the challenges of using Blockchain in the education sector?
- What are the potentials of Blockchain technology in education?

HYPOTHESES

- Blockchain technology will bring a huge impact to education.
- Security issue is one of the main challenges of using Blockchain technology in education.
- Blockchain technology improve data management.

RESEARCH OBJECTIVES

- Find out the impact of Blockchain technology towards education.
- Declare challenges of using Blockchain technology in education.
- List out potential of Blockchain technology in education.

LITERATURE REVIEW SUMMARY

Overview: reviewed six key research papers

Common Themes:
- **Technological Issues**
- **Organisational Challenges**
- **Environmental Challenges**

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Key Benefits:
- **Enhanced data security, transparency, and efficiency in managing educational records.**
- **Blockchain can streamline digital certificates and knowledge sharing.**

Conclusion: offers multiple promising benefits but significant barriers need to be addressed before widespread adoption in education

Research Methodology

Data Collection Methods:

- Literature review
- Interviews
- Bibliometric Analysis

Evaluation Metrics:

- Technological integration
- Organizational readiness
- Legal and regulatory factors

Analysis Techniques:
Qualitative, Descriptive and Thematic analysis

Research Focus:

- Organizational and Environmental Barriers
- Cultural Influence
- Sustainability

RESEARCH ACTIVITIES

Project Milestones	Duration (Weeks)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Identify the research problem	1	■						
Formulating Research Questions and Hypotheses	1		■					
Research past research papers (2021 - 2024)	1			■				
Develop survey questionnaire	1				■			
Conduct surveys	1					■		
Data analysis and calculation	2					■		
Conclusion	1						■	
Report writing	1							■

Expected Results

- Challenges In Correcting Blockchain Records
- Privacy Concerns with Third-Party Reliance
- Cost and Sustainability Issues

IMPACTS

- For Educational Institutions
- Policy and Regulation
- Technological Innovation
- Cost and Operational Efficiency

THANKYOU