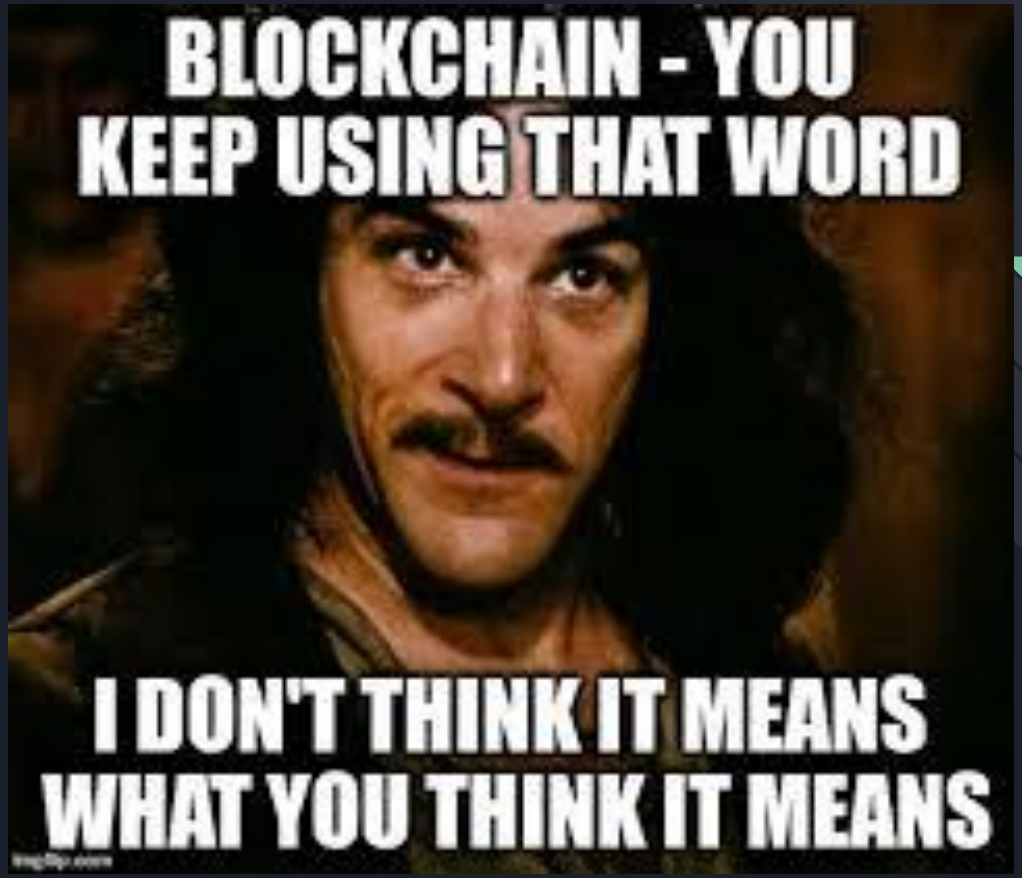
Implementing Blockchain As An Alternative to Academic Transcripts

Code Name: NULL

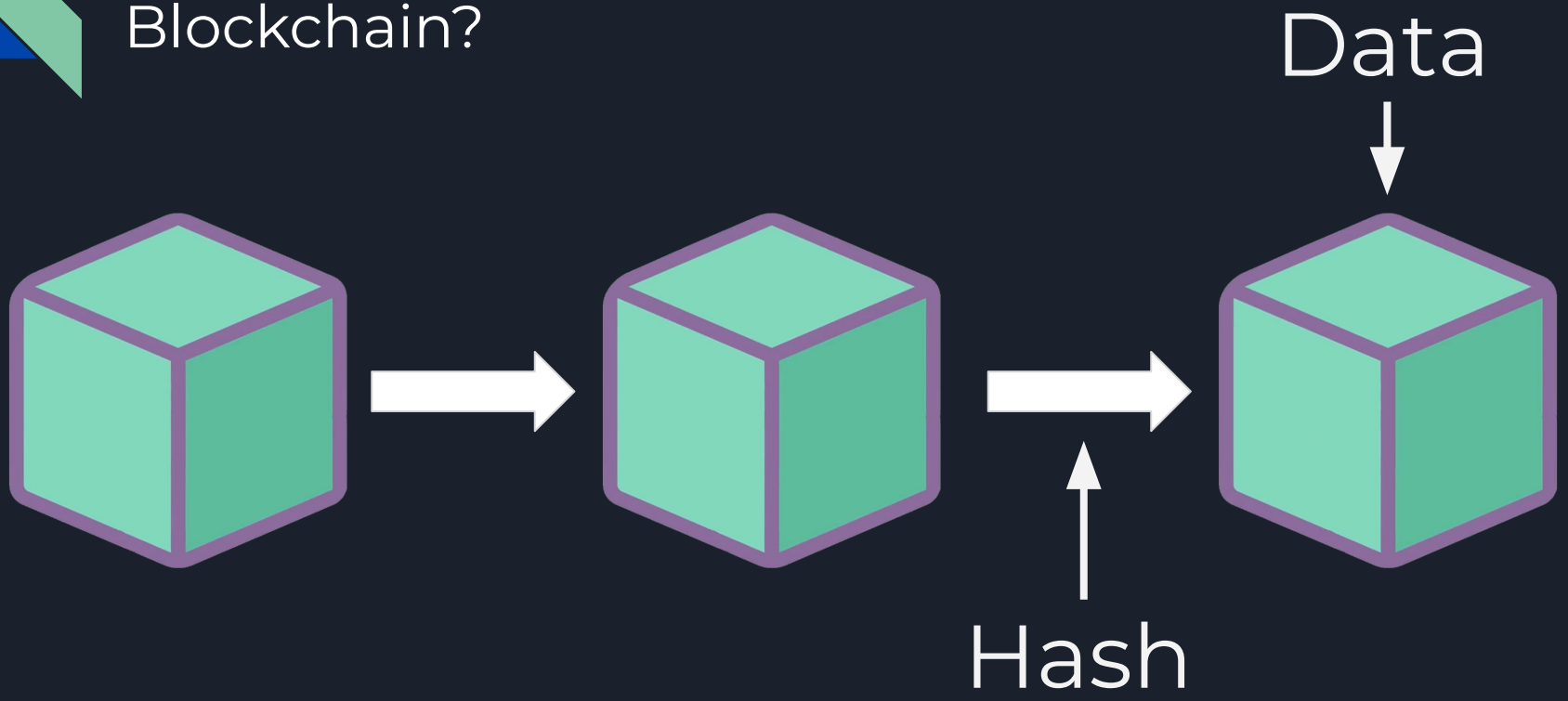
Overview

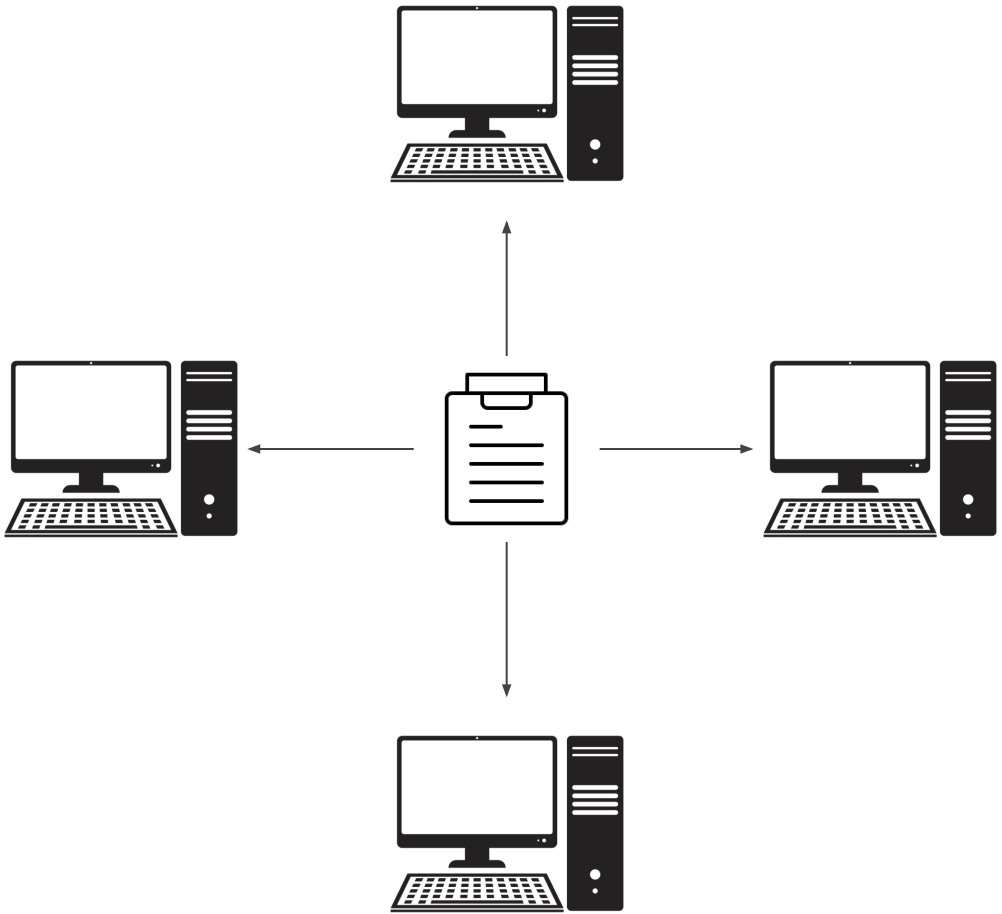
- What is a blockchain?
- Why the current transcript system is inefficient and costly
- How we plan to fix it

What is a blockchain?

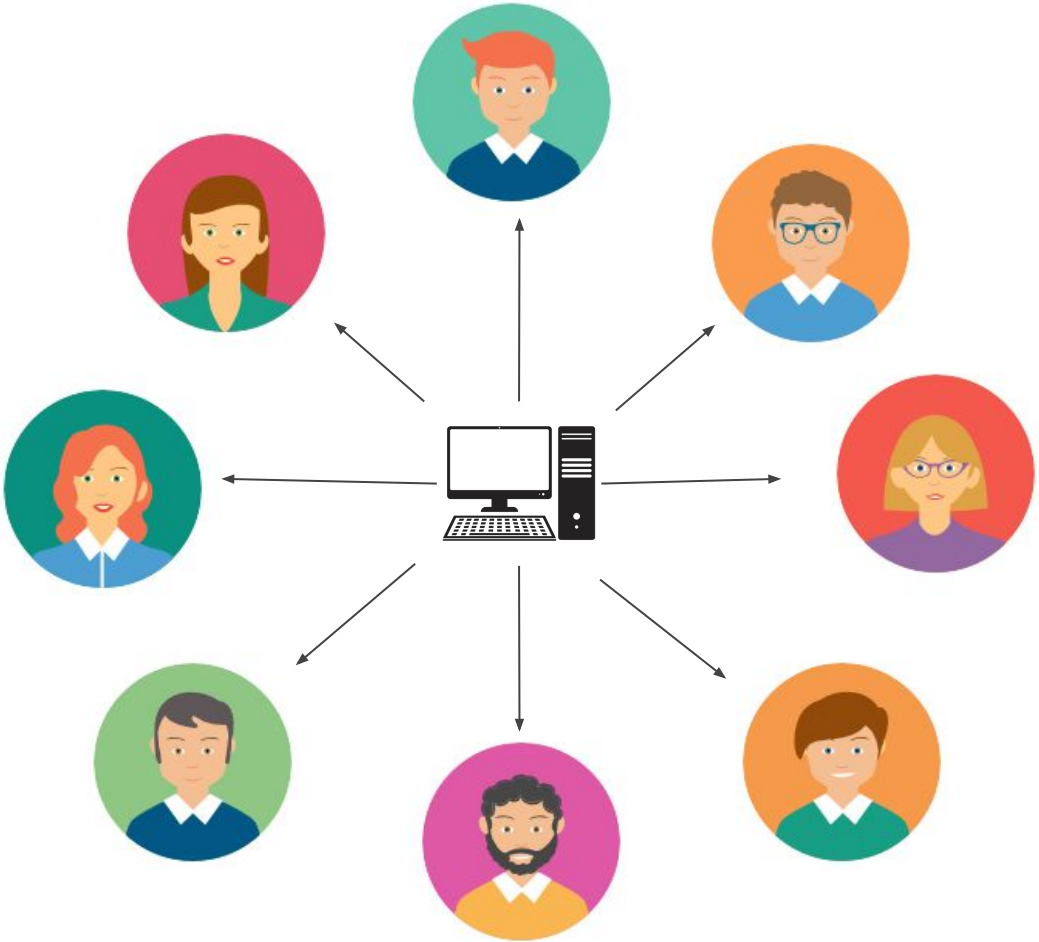


What is Blockchain?

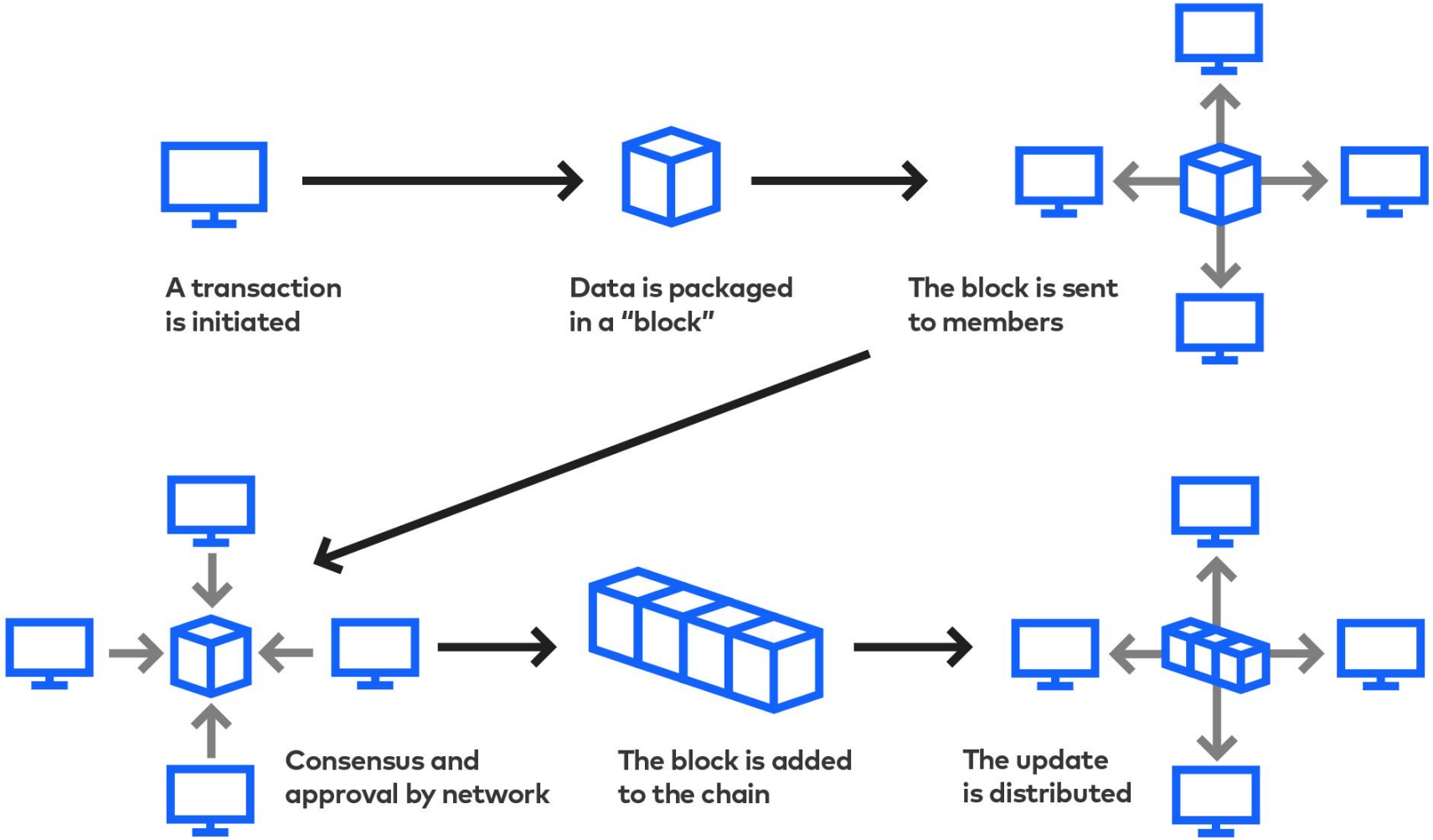




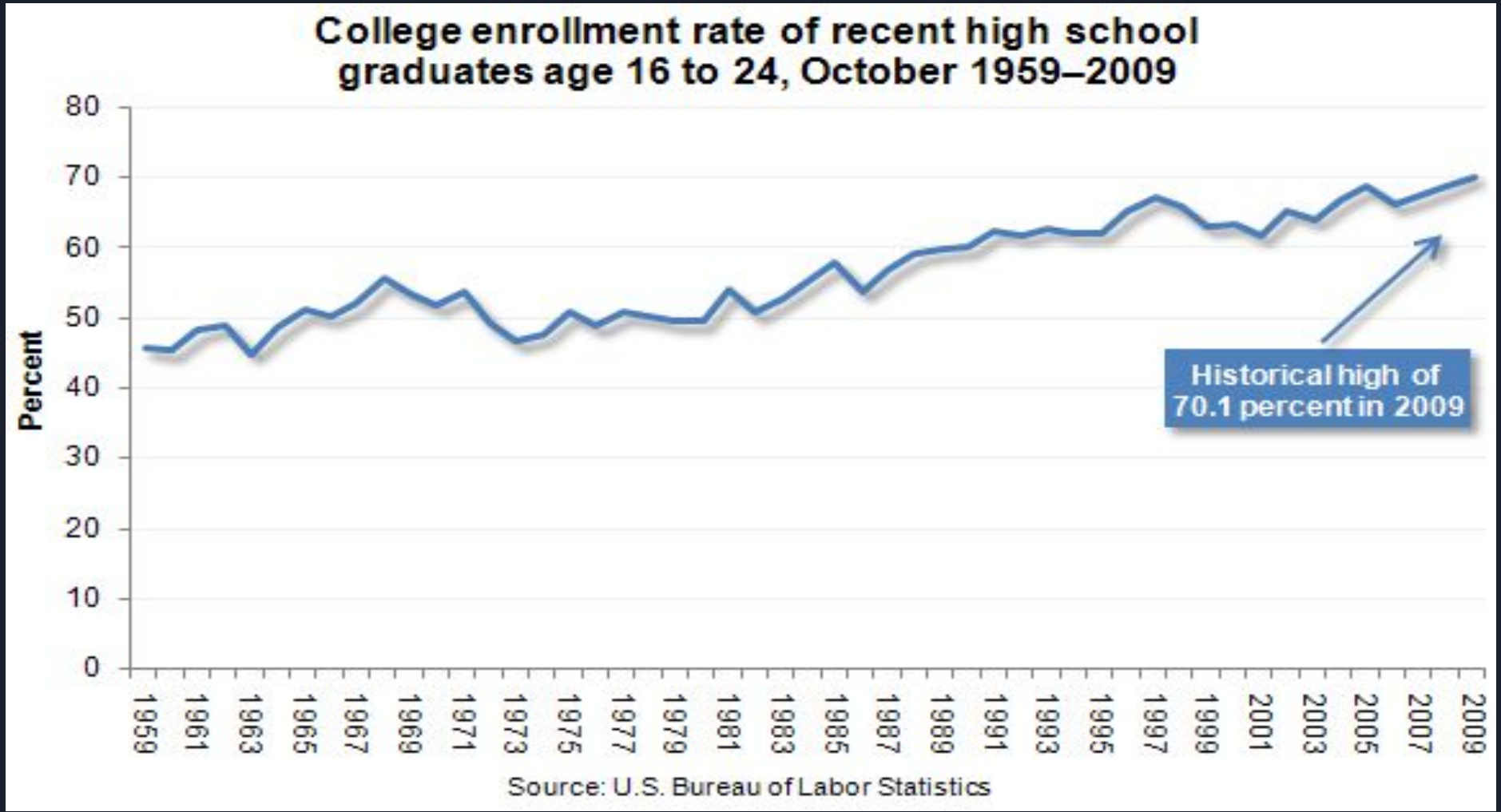
Distributed Network



Peer to Peer (P2P) Network


A transaction is initiated
Data is packaged in a "block"
The block is sent to members
Consensus and approval by network
The block is added to the chain
The update is distributed

Why the current system for transcripts is inefficient and costly


College enrollment rate of recent high school graduates age 16 to 24, October 1959–2009
Percent
80
70
60
50
40
30
20
10
0
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
Historical high of 70.1 percent in 2009
Source: U.S. Bureau of Labor Statistics

Why the current system is inefficient and costly

- Students need to pay fees to get their transcripts evaluated and cost goes up when applying to multiple institutions
- Official transcripts can get lost in the mail and a student will need to order them again then pay a fee
- Transfer students have to send in their transcripts at the beginning of the final year then once again at the end of the year
- Student records are decentralized so there is no quick and secure way to exchange records

Our Solution

Improving Accessibility and Security

Our Timeline

Step 1

Data Gathering

Student Record Requirements
How records are maintained

Step 2

Implement P2P Network

Basic request/response functions

Step 3

Implement Fundamental Structures

Step 4

Testing Node Interactions

Merge P2P and Blockchain Structures and begin tests

Step 5

Multiple Nodes

Scale upwards to test functionality

Step 6

Front End Development

Design UI for blockchain client