



# Tru·Σ=GROUP

Enterprise Grade Blockchain Powered Data Integrity

[truedat.app](https://truedat.app)

[truecerts.co](https://truecerts.co)

Founder & CEO

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Princeton University

Researcher in AI, Blockchain,  
complexity theory, game  
theory



INDIAN  
INSTITUTE OF  
TECHNOLOGY  
KHARAGPUR





Problem

# Deepfakes

- ▶ Getting easier to generate fake videos, photos and audio
- ▶ Used to bully, blackmail and silence people
- ▶ Used in misinformation campaigns
- ▶ Creating socio-economic and political chaos
- ▶ Genuine videos can be potentially accused as fake
- ▶ Biggest and most relevant AI threat
- ▶ Potential dystopia

# Our Solution



Our camera app prevents media tampering by adding AI-powered watermarks and Blockchain timestamps



Our website uses AI, ML and computer vision techniques to detect Deepfakes

# More...

- ▶ Tamper-proof documents
  - ▶ Add tamper-proof fingerprints to any document
  - ▶ Track provenance as they are shared and distributed
- ▶ Preventing Fake products
  - ▶ Securely capture, store and authenticate a tamper-proof provenance of supply chain data
- ▶ Preventing hackers from covering up their trails
  - ▶ Cybersecurity
  - ▶ Video surveillance
- ▶ Preventing Fake credentials
  - ▶ Academic and employment credentials

# Our Technology

- ▶ TrueDAT AI platform
  - ▶ Video, photo and audio analysis platform
- ▶ EulerCoin
  - ▶ Our blockchain with efficient and tamper-proof time-stamping with minimum transaction fees and ASIC-resistant mining
- ▶ TrueCerts
  - ▶ Blockchain powered certification and verification platform.
- ▶ TrueDAT iOS app
  - ▶ Tamper-proof camera app built using our AI, Blockchain and certification platforms
- ▶ TrueAPI
  - ▶ Data integrity API for developers

# Customers



Journalists, Media  
companies



Insurance  
companies, Lawyers



Political campaign  
groups



Government  
agencies, law  
enforcement  
agencies



Camera  
manufacturers



Social media, e-  
commerce  
companies



manufacturing,  
supply chain  
companies



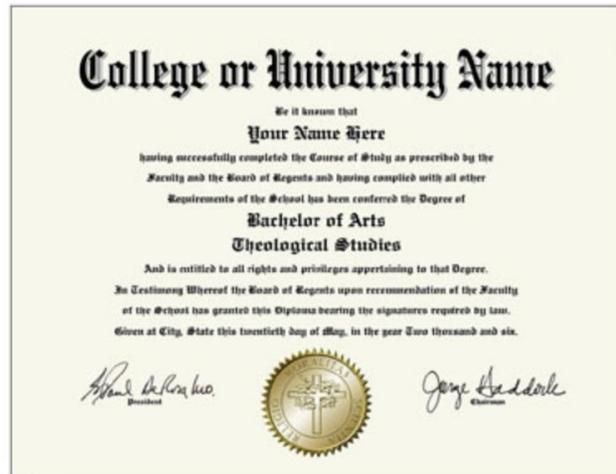
Universities, sports  
centers

# Global Problem

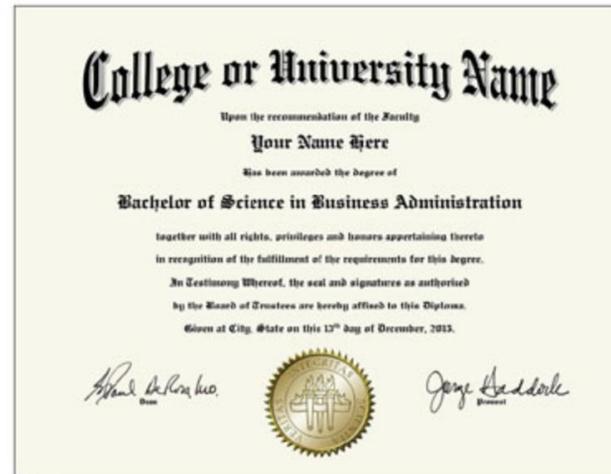
- ▶ More than 25% of academic achievements are falsified to potential employers
- ▶ Re-recruitment costs and losses in productivity are in billions of dollars worldwide
- ▶ Degree validation is done through a middle man
  - ▶ Risk of errors and corruption
  - ▶ High cost to the employers
  - ▶ High delays (2 to 3 months)

## FAKE COLLEGE DIPLOMAS ONLINE!

- Your choice of school, degree & graduation date for as low as **\$50**
- Printed on premium heavy weight 8.5" x 11" ivory linen paper
- Your choice of realistic, embossed gold raised foil seals!
- BEST quality and LOWEST prices since 2004 - [read our reviews!](#)
- Get a phony college Diploma **and** fake Transcript package for as little as **\$99**



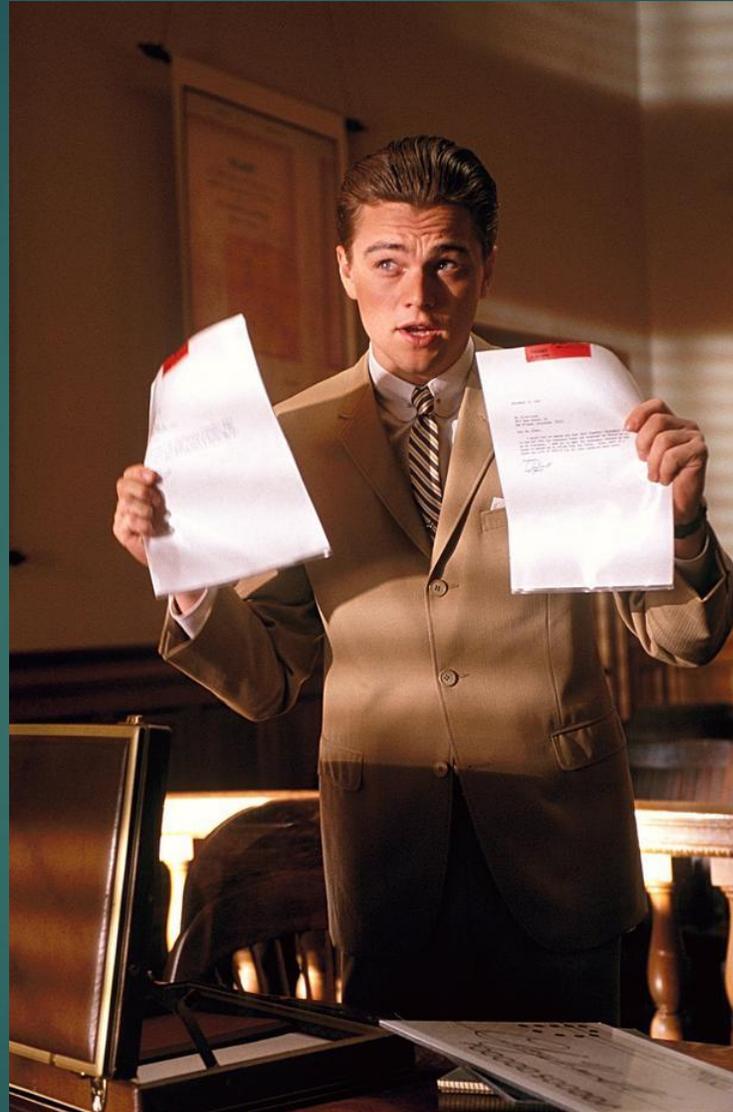
College/University style #1



College/University style #2

## Fraud in several industries

- Airlines
- Healthcare
- Technology
- Government
- Legal services

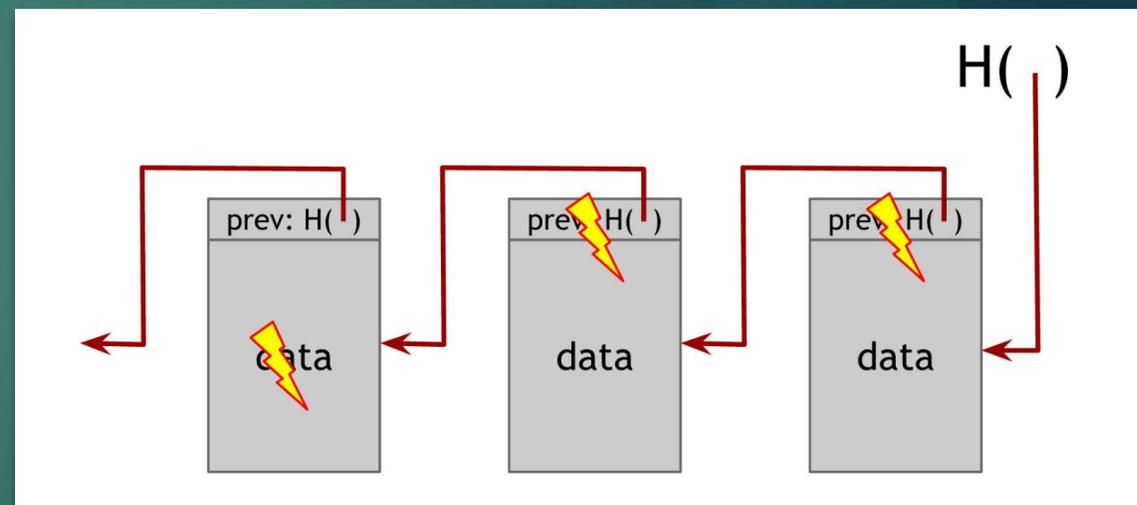


# Ideal Solution

- ▶ Tamper proof – Securely issue and validate certificates
- ▶ Efficient – Independently and instantly verifiable
- ▶ Interoperable – Universally consistent
- ▶ Learners control their data – Own, share and verify instantly

# Why Blockchain ?

- ▶ Secure
- ▶ Immutable
- ▶ Decentralized
- ▶ Interoperable
- ▶ Permission less



# Simple steps

- ▶ University issues a degree to their graduate and creates a digital certificate in a standard open format
- ▶ The certificate's hash is digitally signed by the university and stored securely on the blockchain
- ▶ Learners own their digital certificate
- ▶ Employers have access to the open P2P blockchain

# Why new Blockchain ?

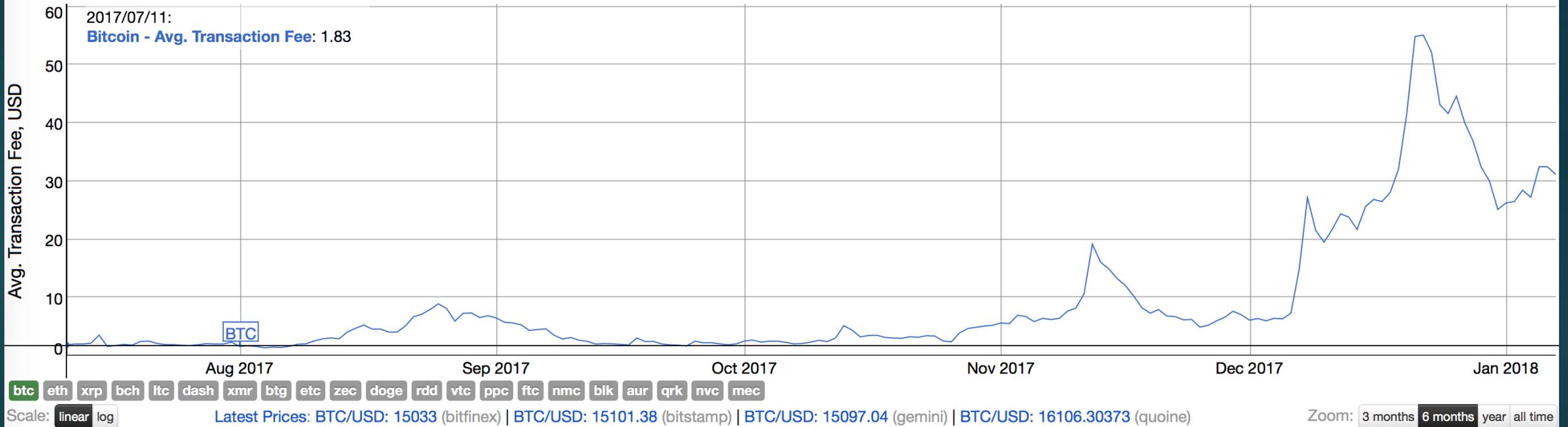
- ▶ Bitcoin / ETH transaction fees – expensive
- ▶ Bitcoin / ETH scalability – slow
- ▶ Bitcoin / ETH governance, regulatory issues and prices fluctuations
- ▶ Institutions and students have natural incentive to run mining nodes
- ▶ Simple verification – Each certificate is a unique transaction

# Bitcoin transaction fees

## Bitcoin Avg. Transaction Fee historical chart

Average transaction fee, USD

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# More...

- ▶ Transcripts, Work experience, Test scores, Professional Training, Internships, Extra curricular skills, Open Badges
- ▶ Real estate records, Car titles
- ▶ Marriage certificates, Birth / Death certificates
- ▶ Proof of existence
  - ▶ Police reports, DNA evidence, Supply chain authentication
  - ▶ Enterprise compliance data, Stock issuance

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companies



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Government  
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Camera  
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Social media, e-  
commerce  
companies



manufacturing,  
supply chain  
companies



Universities, sports  
centers

 /v1/hash/

OPTIONS

POST



Save hash to the blockchain.

Use **POST** <https://trueapi.co/v1/hash/> HTTP request. Assuming request has finished successfully, your data will be stored to selected blockchains.

## parameters:

- **hash** - a sha256 hash of your file.
- **blockchains** - a comma-separated list of blockchains to use. Currently supported: **eulercoin**, **eulercoin\_testnet**.

## Command-line example:

```
$ curl -X POST \  
  https://trueapi.co/v1/hash/ \  
  -d "hash=2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa7425e73043362938b9824&blockchains=eulercoin_testnet" \  
  --header "Accept: application/json; indent=4"
```

output:

```
{  
  "blockchains": {  
    "eulercoin_testnet": {  
      "transaction_hash": "586afa9bc302fe01c00c83b931e6699dbb064181818c35f4aae61c245b817c88",  
      "links": {  
        "transaction": "https://blockchain.testnet.eulercoin.org/tx/586afa9bc302fe01c00c83b931e6699dbb064181818c35f4aae61c245b817c88",  
      }  
    }  
  }  
}
```



Get status of your blockchain proof by proof.

While `POST /v1/hash/` guarantee you data will be saved to blockchain, this can be useful to verify that your data has been saved on selected blockchains at this moment of time, and check for additional information like block number and block hash.

## Command-line example:

```
$ curl -X GET \  
https://trueapi.co/v1/status/2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa742e73043362938b9824/ \  
--header "Accept: application/json; indent=4"
```

Output:

```
{  
  "blockchains": {  
    "eulercoin_testnet": {  
      "status": "ready",  
      "links": {  
        "transaction": "https://blockchain.testnet.eulercoin.org/tx/586afa9bc302fe01c00c83b931e6699dbb064181818c35f4aae61c245b817c88",  
        "block": "https://blockchain.testnet.eulercoin.org/block/0026318158dc24a791c8d8442f83edae579e582661d890d7fc8be36fcb8bb036"  
      },  
      "transaction_hash": "586afa9bc302fe01c00c83b931e6699dbb064181818c35f4aae61c245b817c88",  
      "block_height": 136789,  
      "block_hash": "0026318158dc24a791c8d8442f83edae579e582661d890d7fc8be36fcb8bb036",  
    }  
  }  
}
```



# Trust Simplified

## Our Mission

Prevent and detect data tampering, eliminate fraud and misinformation  
and save humanity from a potential dystopia

[truegroup.co](http://truegroup.co) [truedat.app](http://truedat.app) [truecerts.co](http://truecerts.co) [trueapi.co](http://trueapi.co) [eulercoin.org](http://eulercoin.org) [thisweekinfakes.com](http://thisweekinfakes.com)