



**BLOCKCHAIN SOLUTIONS**

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[www.vizidox.com](http://www.vizidox.com)

# Background

**3000 fake qualifications** sold by Axact in 2013 and 2014  
**215,000 fake qualifications** sold globally in 2015





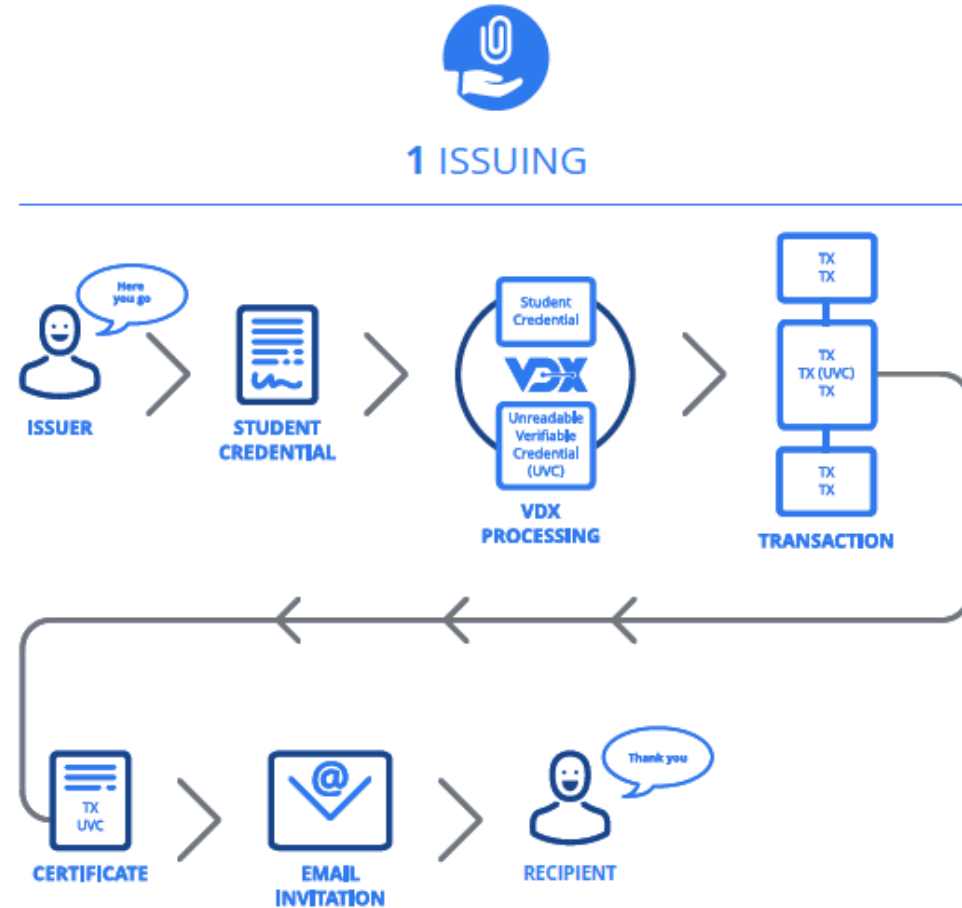
# About VDX



VDX provides **data management and tracking solutions** using **blockchain technology** to empower businesses and organisations.

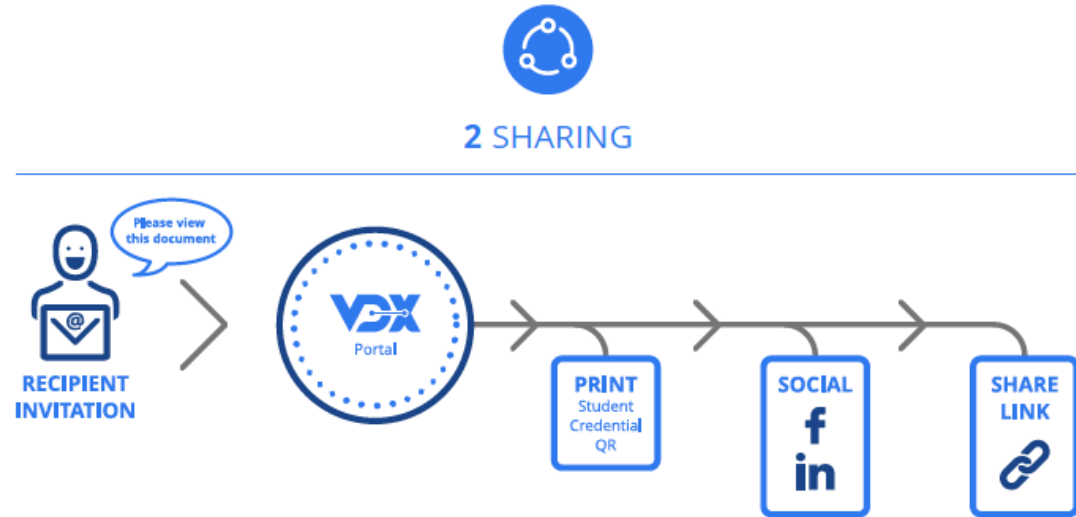
# The VDX Education Solution

## Issuing



# The VDX Education Solution

## Sharing

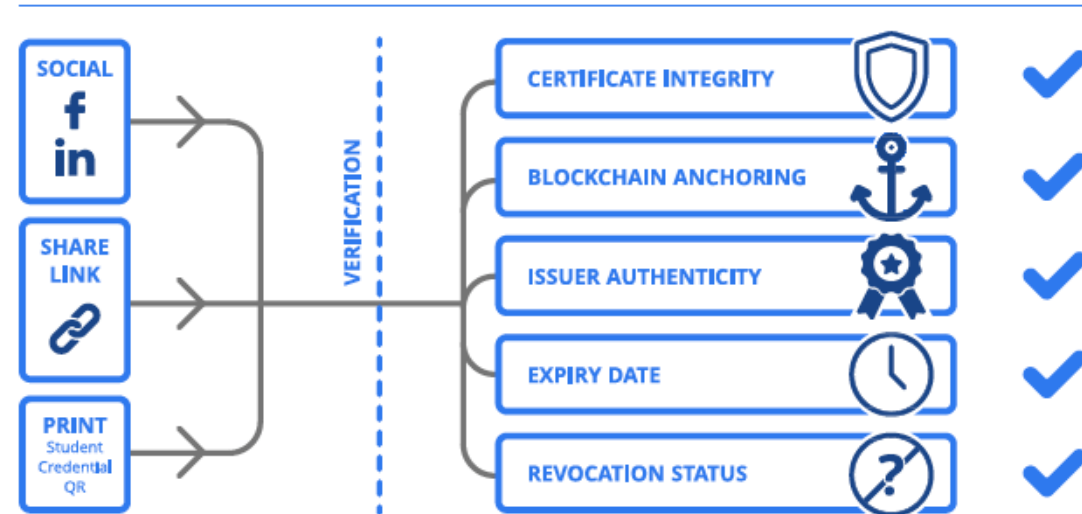


# The VDX Education Solution

Verifying



3 VERIFICATION





BLOCKCHAIN SOLUTIONS

Demonstration University - Abingdon - OX14 4RS

### Demonstration Transcript of Academic Record

Student Name: John Smith  
Date of Birth: 25 December 1990  
Student Number: 000000001  
NIC Student Number: 00000001  
Programme: Demonstration of Digital Academic Transcripts

Code	Title	Marks	Score	Grade
A00001	Demo Module 1	15	83	1
A00002	Demo Module 2	15	72	2:1
A00003	Demo Module 3	15	80	1
A00004	Demo Module 4	15	58	3
A00005	Demo Module 5	15	75	2:1
A00006	Demo Module 6	15	78	2:1
A00007	Demo Module 7	15	85	1
A00008	Demo Module 8	15	89	1

Total Marks: 120  
Average Score: 77.5

Awarded: Bachelor of Science in Digital Academic Transcripts  
Classification: HIGHER SECOND-CLASS HONOURS  
Awarded Date: 21<sup>st</sup> June 2019

Chief Registrar  
Demo Team  
Vizidox Solutions



This is an official Verifiable Digital Credential that has been secured using Digital Ledger Technology. To verify this document please [click here](#) and upload a copy to the portal. If presented with a printed file, please scan the QR code on the printed document.

### CERTIFICATE VERIFICATION

DEMONSTRATION TRANSCRIPT.PDF

Verification Step	Status
> Checking certificate integrity	PASSED
> Checking certificate is anchored to the blockchain	PASSED
<pre>{   "actual_root": "7158f189e95992bd42afe9adf0a4b7c6542b66d380b8d7ad7df04aa59525d2aa",   "certificate_root": "7158f189e95992bd42afe9adf0a4b7c6542b66d380b8d7ad7df04aa59525d2aa",   "tx_id": "493fbd1cf39b2a41dc3316e11ac6887c91e62c904eccc6f61e8e915c45a9f89c6",   "tx_url": "https://chain.so/tx/BTCTEST/493fbd1cf39b2a41dc3316e11ac6887c91e62c904eccc6f61e8e915c45a9f89c6",   "confirmations": "1476" }</pre>	
> Checking issuer authenticity	PASSED
> Checking file integrity	PASSED
> Checking expiry date	PASSED
> Checking revocation date	PASSED



# Ethical, Social and Sustainability Concerns

## Degree Fraud

- What is traditional degree fraud?
- Why has the adoption of digital degrees been so slow?
- Are there problems verifying digital certificates?
- What benefits did the blockchain bring?
- How can we be sure that the verification is legitimate?
- Concerns during the transition onto new technologies
  - Lack of trust and adoption
  - Interoperability with similar solutions (OpenCerts)
  - Is it safe to share your degree on social media?

# Ethical, Social and Sustainability Concerns

## Security Concerns

- How can something be transparent yet secure?
- Where is the data stored?
- Who can access the data on the blockchain?
- Can the data be manipulated?
  - On the blockchain
  - Off the blockchain
- Who controls my data (Public sharing)
- Misconception that private blockchains are more secure.

# Ethical, Social and Sustainability Concerns

## How can we trust VDX?

- Do we have to send VDX our data?
- Which blockchain do you use, how do we know it is safe?
- What if your company fails?
- Can anyone access the information on the blockchain?
- Can I change blockchain?
- Where problems most likely to occur?
  - Human
  - Bribery
  - Platform Hacking

# Ethical, Social and Sustainability Concerns

## Additional Questions Encountered

- Energy – Are blockchains energy efficient?
  - PoW
  - PoS
  - DAG (Tangle)
- I've heard Bitcoin uses more energy than Ireland
- How much energy is currently used without blockchain?

## Overview

- Is Blockchain good or bad?
- Is it safer than existing methods?
- Ultimately it is still in its infancy

### **What is important?**

- User friendly experiences
- Appropriate use cases
- Being open to feedback
- Reacting to and learning from experiences
- External collaborations



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Thank you

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