Blockchain and Preventing Academic Corruption

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Value of Credentials

- Dallas reports that **43% of jobs** require a credential beyond high school.

- Credentials create **access** to a living wage jobs, kick-start careers & college.

- But the high value of credentials **entice** people to generate of **fraudulent credentials**.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Typical Entry Level Education</th>
<th>Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer User Support Specialists</td>
<td>Industry Recognized Credential</td>
<td>$48,660</td>
</tr>
<tr>
<td>Electrical and Electronic Repairers, Commercial and Industrial Equipment</td>
<td>Postsecondary Nondegree Award</td>
<td>$56,070</td>
</tr>
<tr>
<td>Dental Hygienists</td>
<td>Associate’s Degree</td>
<td>$79,560</td>
</tr>
<tr>
<td>Construction Managers</td>
<td>Bachelor’s Degree</td>
<td>$95,970</td>
</tr>
<tr>
<td>Surgical Technologists</td>
<td>Postsecondary Nondegree Award</td>
<td>$49,760</td>
</tr>
<tr>
<td>Respiratory Therapists</td>
<td>Associate’s Degree</td>
<td>$61,760</td>
</tr>
<tr>
<td>Magnetic Resonance Imaging (MRI) Technologists</td>
<td>Associate’s Degree</td>
<td>$70,230</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>Bachelor’s Degree</td>
<td>$73,760</td>
</tr>
</tbody>
</table>
Examples of Vulnerabilities

Absence of Trusted verification leaves room for misrepresentation, corruption and tragedy.

Lawsuit: Dallas ISD’s Failures Allowed Man to Pose as Teen, Prey on 14-Year-Old Girl

- Sexual assault of a 14-year-old girl
- Illegal engagement with minors
- Three charges of tampering with a government record
- Lawsuit filed to hold School district responsible
Fraudulent Diploma Production

In August 2018, Melissa Howard, a candidate for the Florida House, whose campaign was derailed after it was discovered that she falsely produced a diploma from the Miami University in Ohio.
Embellishing Credentials

In late 2018, an investigation revealed that Sr. State Dept. Staffer, Mina Chang had not received her bachelor's degree from Harvard Business School.
CHEA Report Raises Awareness

“Policies and Actions of Accreditation and Quality Assurance Bodies to Counter Corruption in Higher Education” (PAAQABCCHE)

Fraud and Corruption undermined the following eight areas:

- Regulation
- Governance (undeserved degrees)
- Perceptions of quality
- Teaching
- Admissions & recruitment
- Student assessment
- Credentials & qualifications
- Research & academic publishing
“Key Places” in Data Lifecycle Where the Greatest Risk for Fraud Occur

Student achievement data is spread over many disparate islands of academic records.
Institutional Closures, Mergers & Start-ups Present Opportunities for Fraud & Misrepresentation

A verified credential solution can increase integrity by:

- helping eliminate diploma mills and **false degrees**.
- offering students the opportunity to store and **share their own records**.
- providing complete reports.
- having the ability to **access records** of closed institutions.

Accurate Trusted Records
Makes it Easier to Apply for Colleges & Jobs

STORE
Secure home to life-long learning and professional achievements such as academic records, industry certifications, professional badges and more.

SHARE
Allows instant and secure sharing of records. Shared records are instantly verifiable without need to contact creator of the record (i.e. academic institution).

MATCH
Allows schools, colleges and businesses to securely match users and needs.
Blockchain Technology Ensures Trust:

- Allows transactions to be gathered into blocks and recorded.
- Cryptographically chains the blocks in sequence to a ledger.
- Allows the ledger to be accessed by multiple servers.
Cryptographically Chains the Blocks in Sequence to a Ledger

Block 1
00101001001
01010010101

Block 2
10010110101
00101001010

Block 3
01000100101
10010111010

Block 4
11101000110
11001010101
Allows the Ledger to be Accessed by Multiple Entities

Centralized Database

Private Distributed Ledger

UNT | Dallas

DCCCD

accenture

DCCCD
Allows the Ledger to be Accessed by Multiple Entities

Centralized Database

**DALLAS**

**DCCCD**

**accenture**

Private Distributed Ledger

**DCCCD**

**DALLAS COUNTY PROMISE**

**accenture**

**DCCCD**
Benefits of Blockchain

**Faster Verification**
Not dependent on institutions or people being available

**Increased Network Capacity**
More capable and reliable than traditional networks

**Secure**
GLC blockchain builds encryption into all processes

**Immutable**
Transactions cannot be changed once they are written to the blockchain

**Decentralized**
No individual has authority over the system

**Shared and distributed**
Blockchain increases transparency while reducing opportunities for fraud

Source: “101 Blockchains”, 101blockchains.com
Increases Trust in These Areas

- **Governance** (undeserved degrees) – Increase integrity, eliminate diploma mills and false degrees; get complete reports

- **Perceptions of quality**

- **Admissions & recruitment** – validate person doing work really did work

- **Student assessment** – immutable student records

- **Credentials & qualifications** – track lifelong achievements in single place – verified Linkedin
Students “grant consent” to their academic credentials.

Credentials instantly trusted and verified.

Partners may issue credentials including badges, industry-based certifications, and degrees.

Students may share evidence of learning with others without intermediaries in the verification process.

Scalable locally, regionally, nationally, and globally.
Career Connected Learner Network
GreenLight at DCCCD

- Over 1.75M unique student records on the GreenLight platform.

- Over 17,000 students now control their academic records and have shared their trusted credentials with over 500 colleges nationwide.
GreenLight instantly delivers **unified** and trusted learning records.

GreenLight allows for **instant access** to verified records.

**Speed Up & Simplify**

**Applicant Record Processing**
GreenLight helps colleges **expand** their partnerships with high schools through dual degree programs.

Greenlight helps **speed up the enrollment process** because the multistep process is eliminated.

GreenLight gives colleges more **opportunities to discover and enroll** qualified students.

**Enroll More Qualified Students**
GreenLight gives transparency into credits earned and needed for a degree to students, two-year and four-year colleges.

Degree-granting institutions can award more degrees through GreenLight’s automated alerts.
GreenLight opens more doors for internships, apprenticeships and employment by making it possible for employers to find students excelling in specific courses, programs or areas of interest.

GreenLight verified records enable faster hiring decisions.
Growing Network

More than 17,000 students have shared their records with more than 500 academic institutions nationwide.

- 80,000 students currently enrolled
- 1.7m alumni records
Thank You