Blockchain-Based Digital Credentials

28 FEBRUARY 2018
Agenda

• Initial Conception for Blockchain Credentials
• Project Plan and Timeline
• Tactical Steps to Deliver
• Next Steps
Overview

Workforce Partnerships

SandBox Collaborative

Learning Machine

Southern New Hampshire University

IMS Global Learning Consortium
Our Use Case

A compelling application of blockchain to higher education is the issuing and verification of digital credentials.

This pilot experiment seeks to explore what it takes to operationalize the distribution of blockchain-verified digital credentials, to test selected software, and to gather data on graduate behavior in claiming and sharing digital credentials.
Scope

- Using a ‘push’ model to issue blockchain credentials to a pilot population of SNHU graduates, which requires
  - Configuration of Learning Machine issuing environments
  - Visual design of a digital credential
  - Supporting metadata, with as much transcript-level data as possible
  - Issuance of at least one high-stakes, blockchain-verified digital credential to graduates

- Identification of recommendations & requirements for a full-scale implementation
- Collection of pilot data, including student adoption rate, sharing behavior, and satisfaction

Out-of-Scope

- Any custom software development or ITS integrations
- Student self-reporting/claiming of badges (‘pull’ model)
- Creation of an official transcript
- Use of additional vendors and other technology such as extended transcripts
Responsible Teams at SNHU

Workforce Partnerships Learning Solutions
Registrar
Institutional Advancement/Alumni
Marketing
Legal/Compliance
Communications/PR
Information Technology Systems
Getting Started

Determining Our “Partner”
Contract
Configuration
Project Timeline Overview

- **Start:** 7/2017

- September:
  - MSAs and contracts
  - Comm. analysis

- November:
  - Design Pilot

- January:
  - Configure systems
  - Learning Machine-centric Pilot
  - LM Reporting & Analytics

- March:

- May:

- July:
## Our Project Configuration Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Planned End</th>
<th>Actual End</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Machine configured <em>(sub-domain)</em></td>
<td>16-Feb-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1st issuing event:</strong> CFA BA (3) &amp; AA GST (1)</td>
<td><strong>March 2018</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target audience approved</td>
<td>Nov 2017</td>
<td>13-Nov-2017</td>
<td>Completed</td>
</tr>
<tr>
<td>Communication plan created</td>
<td>30-Nov 2017</td>
<td>15-Dec-2017</td>
<td>Completed</td>
</tr>
<tr>
<td>Alumni file extracted</td>
<td>05-Dec-2017</td>
<td>19-Dec-2017</td>
<td>Completed</td>
</tr>
<tr>
<td>Metadata file extracted, scrubbed, &amp; QA’d</td>
<td>19-Jan-2018</td>
<td>24-Jan-2018</td>
<td>Completed</td>
</tr>
<tr>
<td>Emails-to-students approved</td>
<td>31-Dec 2017</td>
<td>27-Dec-2017</td>
<td>Completed</td>
</tr>
<tr>
<td>Emails &amp; FAQs approved for use</td>
<td>16-Feb-2018</td>
<td></td>
<td>Tracking</td>
</tr>
<tr>
<td>Virtual Diplomas approved for use</td>
<td>16-Feb-2018</td>
<td></td>
<td>Tracking</td>
</tr>
<tr>
<td>Metadata presentation approved for use</td>
<td>16-Feb-2018</td>
<td></td>
<td>Tracking</td>
</tr>
<tr>
<td>Final testing within Learning Machine</td>
<td>19-Feb-2018</td>
<td></td>
<td>Not started</td>
</tr>
<tr>
<td>Issue credentials</td>
<td>March 2018</td>
<td></td>
<td>Not started</td>
</tr>
</tbody>
</table>
# Data Preparations

<table>
<thead>
<tr>
<th>Decisions</th>
<th>Collection</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unofficial Transcript</td>
<td>✌ Navigate Data Sources</td>
<td>Solve Problems</td>
</tr>
<tr>
<td>Include Courses and Competencies Mastered in the College for America Program</td>
<td>Use current data sources and transpose to meet platform requirements</td>
<td>Identify atypical student records and create systematic solutions</td>
</tr>
</tbody>
</table>

“This will take over 100 hours to pull”
## Digital Credentials in the Mobile App

### Credential

![Credential Image]

- **Bachelor of Arts**
  - Healthcare Management
  - Given at Manchester, New Hampshire this first day of February, two thousand and seventeen

- **Ben Dexter**
  - the Degree of Bachelor of Arts
  - Healthcare Management
  - Given at Manchester, New Hampshire this first day of February.

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### Metadata

![Metadata Image]

- **Additional Information**
  - Issuer: Southern New Hampshire University
  - Issue Date: Feb 16, 2018
  - Course Equivalents:
  - Competencies:
    - Spring 2015: CFA-HCM1 Can explain the five major functions of management CFA-HCM2 Can apply leading theories and models of management to healthcare CFA-HCM3 Can evaluate the strengths and weaknesses of different management styles in healthcare CFA-HCM4 Can apply common decision-making frameworks CFA-HCM5 Can identify and analyze common management problems in healthcare CFA-HCM6 Can communicate effectively with internal and external stakeholders CFA-USHS1 Can describe the basic structure, primary functions, and major stakeholders of the U.S.
Lessons Learned

Importance of communications plan
Late stage stakeholders - find the right people early
Accessibility (University Policy Requires ADA/508 Compliance for all vendors)
Privacy Policy
Large Scale Rollout will require Significant ITS Time and Resource Investment in Systems Integration
Lessons We Enthusiastically Await

What will people do with these?
Is there demand?
What will the data tell us?
How to use this to support additional projects?
  • Blockchain verified badges
  • Microcredentials
What’s Next

Targeting Mid-March Issuance
~1000 Graduates
Success through metrics
Claiming, Sharing, Satisfaction