
• What areas are you interested in data integration and/or tools and application development?
  – Academic and/or career planning
  – Program development
  – Program assessment
  – Student tracking
  – Other?

• If you are a funder, what investments have you made for educational data integration? Have you funded the development of any tools or applications? If yes, what tools? How many schools, states or systems does your investment support?

• If you are a practitioner, what data are you trying to integrate, and why?
## 2014 Higher Education Technology Landscape

**A Student Lifecycle Framework and Categorization of Technology Providers**

<table>
<thead>
<tr>
<th>Admissions &amp; Emrolment</th>
<th>Student Success &amp; Instruction</th>
<th>Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT</td>
<td>Pearson</td>
<td>edWeb</td>
</tr>
<tr>
<td>comEd</td>
<td>Pearson</td>
<td>edWeb</td>
</tr>
<tr>
<td>CoursePro</td>
<td>Pearson</td>
<td>edWeb</td>
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<tr>
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<td>Pearson</td>
<td>edWeb</td>
</tr>
<tr>
<td>CampusLIVE</td>
<td>Pearson</td>
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</tr>
</tbody>
</table>

**Institutional/Enterprise Backbone**

<table>
<thead>
<tr>
<th>Professional Services</th>
<th>Deloitte</th>
<th>IBM</th>
<th>Microsoft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deloitte</td>
<td>IBM</td>
<td>Microsoft</td>
<td></td>
</tr>
</tbody>
</table>

**Eduventures**

Mr. Potato Head

Picasso Sculpts Van Gogh

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TRANSFORMATION AGENDA
SCALING INNOVATIONS FOR STUDENT SUCCESS

MASSACHUSETTS COMMUNITY COLLEGES

KEY PARTNERS
+ Massachusetts Executive Office of Labor & Workforce Development
+ Massachusetts Executive Office of Housing & Economic Development
+ Massachusetts Department of Career Services
+ Massachusetts Department of Elementary & Secondary Education
+ Massachusetts Department of Higher Education
+ One-Stop Career Centers
+ Massachusetts Workforce Investment Board Association
+ Industry Representatives
Transformation Agenda Mission

INNOVATIVE STUDENT SUPPORTS

NEW PROGRAM DESIGN & ACCELERATED CAREER PATHWAYS

LEVERAGE TECHNOLOGY
The Challenge

DATA SILOS IN MASSACHUSETTS

- 15 Community Colleges
- 4 Student Information Systems
- 15 Learning Management Systems
- 33 Career Centers
- 2 State Agencies
Point-to-Point Integration
This can’t scale!

**HOW CAN WE RETHINK EXISTING PROCESSES?**

[Diagram of interconnected symbols with a central 'Student']

(telephone pole image)
National Challenges

SIS SILOS

- SIS are the most customized of institutional enterprise systems
- **87%** of institutions maintain at least some SIS customization
- SIS rank among the oldest institutional enterprise systems at an average **13 years old**

Enabling Digital eXchange

Digital eXchange

Federated Program Search
Shared Case Management
Guided Pathways, Scheduling
Labor Analysis
Predictive Analytics

College A
College B
Career Center
Dept. of Ed
Case Study #1

PROOF OF CONCEPT

• Federated Student Information System (SIS) integration
Proof of Concept Application

FEDERATED PROGRAM SEARCH

Federated Program Search App

Digital eXchange

Quinsigamond Community College
  Jenzabar SIS

Middlesex Community College
  Banner SIS

Bristol Community College
  Banner SIS

Mass Dept. of Higher Education
  HEIRS Longitudinal Database
Demo

FEDERATED PROGRAM SEARCH
**Find the program to get the job I want...**

<table>
<thead>
<tr>
<th>SOC</th>
<th>OCCUPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-1072</td>
<td>Nursing Instructors and Teachers, Postsecondary</td>
</tr>
<tr>
<td>29-1141</td>
<td>Registered Nurses</td>
</tr>
</tbody>
</table>

**Showing 13 Results for Nursing**

**Middlesex Community College**
- Nursing
- Nursing Evening
- Nursing Day

**Quinsigamond Community College**
- Perioperative Nursing Ct
- Nurse Education Evening
- Nurse Ed Adv Place LPN
- Nurse Ed Param Adv Place
- Nurse Education
- Nurse Education

- Nurse Anesthetists
- Nurse Midwives
- Nurse Practitioners
- Licensed Practical and Licensed Vocational Nurses
Bring to Scale
FEDERATED PROGRAM SEARCH
Case Study #2

PREDICTIVE ANALYTICS TOOLS
Case Study – Trajectory Analytics

CURRENT STATE

Tennessee Board of Regents
Case Study – Trajectory Analytics

INSERTING DX INTEGRATION

Tennessee Board of Regents
Case Study – Trajectory Analytics

DEPLOY FOR QCC

Quinsigamond Community College
Case Study – Trajectory Analytics
WRAP UP
Contact Us

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Associate Director
Strategic Education Initiatives, Office of Digital Learning
Massachusetts Institute of Technology
Credits

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