Race to the Top 3: Illinois Shared Learning Environment

Overview and LEA Expectations

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Speakers

- **Brandon Williams** – Projects Administrator, ISBE
- **Jonathan Furr** – Race to the Top Consultant
- **Jim Peterson** – CTO, Bloomington D87 and IlliniCloud
Agenda

- Illinois Shared Learning Environment (ISLE)
- Considerations & Expectations for Participating Districts
- Pilot District Perspective
- Q&A
Illinois Shared Learning Environment Overview
Illinois Shared Learning Environment (ISLE) – What is it?

- Early Learning
- K12 (Driven by SLC Technology)
  - Learning Maps
  - Dashboards
  - Portal
  - Curricular Support
- K12 (Other)
  - Illinois Priority Apps
  - Vendor-provided Apps
  - District-created Apps
- Post Secondary
- Work Force

P–20 Alignment
Using Longitudinal Data
ISLE Focus for RTTT3 Districts

Early Learning

K12 (Driven by SLC Technology)
- Learning Maps
- Dashboards
- Portal
- Curricular Support

K12 (Other)
- Illinois Priority Apps
- Vendor-provided Apps
- District-created Apps

Post Secondary

Work Force

P-20 Alignment
Using Longitudinal Data
Shared Learning Collaborative, LLC (SLC)

- Alliance of states, foundations, educators, content providers, developers and vendors
- Funded by Bill & Melinda Gates Foundation and Carnegie Corporation with support from CCSSO
- Temporary governing entity for project during design and development of the technology and long-term organizational model
- State representatives and other stakeholders will participate in technical advisory groups on a variety of issues (in development)

Consortium of Pilot States

- Phase 1: Colorado, Illinois, Massachusetts, New York, North Carolina
- Phase 2: Delaware, Georgia, Kentucky, Louisiana
Common Core State Standards present new opportunities

Rather than having different standards in each state, 45+ will now use the same common standards.

Economies of Scale: standards-aligned resources will grow exponentially.

Will allow teachers to access more effective instructional content and assessments.

Will support teachers in improving student achievement.

But data aggregation and interoperability challenges must be addressed.
# Shared Learning Collaborative

## What is the SLC Technology?

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<th><strong>What</strong></th>
<th><strong>Set of data, reporting, and identity/access management services for participating states and their districts, vendors and partners</strong></th>
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<td><strong>Challenge</strong></td>
<td><strong>Connecting disparate student data to the educational assessment and content tools to make it easier for teachers to create personalized instruction maps for each child mapping to the Common Core State Standards.</strong></td>
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| **Benefits** | • Help teachers provide richer, more engaging and personalized learning experiences  
• Create new innovation opportunities for a larger and more diverse field of vendors and content creators  
• States will maintain their ability to tailor the program to their existing systems, preferences and requirements |
Shared Learning Collaborative

Greater personalization requires improved interoperability between data, content, assessments and applications.
Ms. Harrison uses John’s prior record to determine: 

- **Reading Comprehension**

John does the assignment. Vendor app sends data to the SLC technology.

Ms. Harrison rates the assignment.

John’s experience becomes one more useful data point to inform learning for students like him.
The SLC technology collects and enables data from millions of Ms. Harrisons and Johns across districts... states... and most importantly, multi-state.
What the SLC technology will enable

What the SLC technology will include

Application Programming Interface (API)

Secure multi-tenant data store

Source systems data
(classroom, schools, districts, state)

Vendor Data

LRMI metadata schema

3rd Party App

Learning Map

Customizable Dashboards

Recommendation Engine Proof of Concept

3rd Party Data Management App

Illinois-specific Priority App

3rd Party App

3rd Party Grading App

3rd Party Data Management App

3rd Party Curriculum App

SLC Sponsored App TBD

SLC Sponsored App TBD

3rd Party App

3rd Party App

3rd Party App

3rd Party App

3rd Party App

3rd Party App

3rd Party App

3rd Party App
SLC Dashboard

- Presents data about students individually and by class, school, etc.

- District administrators can create lists and profile views with targeted data (special ed, assessment results, credits, etc.), and choose from data visualization options (scaled numeric value, or graphs)

- Much of the look and feel will be customizable
SLC Portal

SEA or LEA admins can include web apps on the portal page.

Admins may customize design elements in the portal.
What the SLC technology will enable

Application Programming Interface (API)
Secure multi-tenant data store
LRMI metadata
Source systems data (classroom, schools, districts, state)
Vendor Data

Third Party Apps / SLC API
- Application Programming Interface (API) strictly controls access by third-party applications to data within ISLE
- Broad effort to engage vendor community to make offerings “SLC-compatible”
- “Metadata” strategies to connect to universe of content and resources, based on needs of individual students or groups of students as identified through learning maps

Illinois-specific Priority Apps
- Collaboration tools
- IIRC/myIIRC
- Career planning & development
- Principal and teacher evaluation web-based supports
- Learning content repository
- STEM applications
- Assessment item bank
- Learning management system
Metadata schema
Aspiration: Faster discovery of relevant, Common Core-aligned resources

Data
It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light...

Metadata
Title: A Tale of Two Cities
Author: Charles Dickens
Publication Date: 1859
Pages: 400
Potato Salad Demo

Metadata schema
Aspiration: Faster discovery of relevant, Common Core-aligned resources
Learning Resource Metadata Initiative (LRMI) addresses those metadata properties that distinguish content deliberately used for learning.

Metadata schema
Aspiration: Faster discovery of relevant, Common Core-aligned resources
# ISLE with SLC Technology

## Value for Key Stakeholders

<table>
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<th><strong>Students</strong></th>
<th><strong>Teachers</strong></th>
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| - Easier identification of instructional content that adapts to their learning needs  
- Better understanding of their own academic progress and needs  
- More personalized support from teachers | - Clearer understanding of progress and needs of individual students, classes and cohorts  
- Access to instructional content that is relevant, aligned to the Common Core and easier to discover  
- Presentation of information in ways that are useful and actionable |

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<th><strong>Education leadership</strong></th>
<th><strong>Education tech and content providers</strong></th>
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| - Better visibility of programs and content that work  
- More efficient use of resources  
- Collaboration across LEAs and SEAs to aggregate demand and meet common needs (apps, content, services) | - Consolidated demand with common requirements across a greater number of customers  
- Decreased integration costs  
- More robust marketplace that lowers barriers for application developers and publishers of all sizes |
Illinois Shared Learning Environment (ISLE) – Who is it?

- State Agencies: ISBE, DCEO, ICCB, IBHE
- IlliniCloud
- Representatives of small rural school districts, mid-size districts, and Chicago Public Schools
- Regional offices of education/LTCs
- National Center for Supercomputing Applications (NCSA); Illinois Interactive Report Card (IIRC); Illinois workNet
- P–20 Council
- Early Learning Council
- Representatives of workforce development interests
What are the objectives for the ISLE consortium?

- Oversee the development of ISLE and deployment of SLC technology in Illinois
- Coordinate the project management structure needed for implementation, building off of existing assets like IlliniCloud, NCSA, IIRC, and Illinois workNet
- Support the “on-boarding” of Illinois users onto ISLE
- Transition to a long-term business and governance model in 2015
Considerations and Expectations for RTTT3 Participating Districts
RTTT3 Participating LEA Requirements

- Must leverage and utilize ISLE, participating in the post–pilot phase of implementation
  - Use of freely available ISLE resources only, focused on Standards Implementation and Educator Quality & Effectiveness RTTT3 strategy areas
- Link student data across local systems to create integrated learner profiles
- Embed ISLE learning maps as a central part of instructional practices
What level of ISLE use meets RTTT3 expectations?

- Expectation is a meaningful use of instructional applications, dashboards and supports that are freely available on ISLE, but extent will differ for each district

- Will require Participating LEAs to:
  - Map local data to SLI CEM
  - Implement a data integration strategy
  - Integrate LEA directory/identity system
  - Participate in PD and training needed for effective use
What supports will exist for local ISLE implementation?

- IlliniCloud/ISLE Consortium to support K–12 data integration activities
- Support from SLC multi-state resources
- Lessons from pilot will support broader implementation
How is ISLE funded at the multi-state and state level?

- Leverage the $100 million multi-state investment in the SLC
- $12 million state capital commitment
- RTTT3 funds allocated to professional development supports
- Re-allocate other state and federal funding streams
ISLE Costs at the District Level

- General cost categories:
  1. Data preparation/integration
  2. Application purchases
  3. Professional development for end-users
  4. Technology upgrades to support ISLE local implementation (broadband, laptops, tablet computers, etc.)

- The Participating LEA’s share of RTTT3 funds can be used for any of these costs
ISLE Costs at the District Level

- No annual fee to store data in ISLE and access its application environment
- The State capital commitment will be used to support data preparation/integration, but there will be local costs
- Use of freely available ISLE applications will meet all RTTT3 expectations. Districts may elect, at their discretion, to purchase other applications and services available through ISLE addressing local needs.
- The State, through the Center for School Improvement and LTCs, will support PD on ISLE. However, districts may determine additional PD is needed to support effective local implementation.
Data “ownership” and privacy protection

- SLC & ISLE recognize LEAs as the ultimate arbiter of who is able to view the LEA’s data
- Built to facilitate district control over data: LEAs may permit applications or ISBE to access data for specific purposes
- “Super Administrator” within the district controls permissions to use data
  - Can delegate a subset of the administrative privileges
  - Default principal and teacher roles within ISLE
  - Super Administrator can create custom roles via the administrative interface
- School districts may opt out of ISLE. Student data can be exported to LEA, and will be deleted from the data store.
Data Security

- ISLE data store will segregate each LEA’s data from that of other LEAs
- Will only accept API calls from approved applications that have been approved by the LEA
- Will utilize extensive industry-leading information security mechanisms
ISLE Time Frame

- Pilot of SLC Technology in Bloomington (D87) and McLean County (U5)
  - Alpha Release – June 2012
  - Version 1 Release – December 2012
- ISLE/SLC Expansion to RTTT3 Districts:
  - 2012: Outreach, requirements gathering, IT systems analysis
  - 2013: Data/technical integration
  - 2014: Initial ISLE launch in early 2014, full implementation in 14–15 SY
- Statewide Implementation: 14–15 SY and beyond
Data and Identity Integration

- SLC Core Entity Model
- Data Ingestion
- Identity integration
SLC Core Entity Model

- SLC Core Entity Model (CEM) includes various Domain, Association, and Descriptor types
  - Will use the Ed-Fi specification of the Common Education Data Standards (CEDS)
  - SLC CEM is fully described on the SLC website, under “Technical Specifications”:
    www.slcedu.org/technology/technical-specifications

- ISLE data store can also store “custom data” developed by an LEA/SEA not defined by the SLC CEM
Some data maintained by ISBE can be provided to ISLE data store: student identification and demographics, enrollment
- ISBE to minimize redundant reporting through SIS and to ISLE data store

Much of data needed to impact instruction maintained locally: Gradebook Entry, Bell Schedule, Student Academic Record, Student Attendance

- Participating LEAs must map local data to the SLC CEM
Data Ingestion

- ISLE will support various data ingestion approaches
  - Batch uploads, web-based submissions, SIF
  - Data ingestion specification available on SLC website

- The ISLE consortium, working closely with IlliniCloud, will develop processes and tools to support local integration with the SLI/ISLE data store

- SLC technologies will include data validation functions and provide error reports

✓ **Participating LEAs will need to identify and execute an integration strategy**
Identity System Integration

- Identity integration enables ISLE to reliably identify a user, and to establish what actions the user is permitted to take.
- Also facilitates Single Sign-On: sharing of identity information among applications.
- Each Participating LEA must have a directory that stores all user identities that will access ISLE.
  - ISLE will include a “State default” for LEAs that do not have an existing directory system.

✓ **Participating LEAs must integrate local directory/identity system with ISLE**
Pilot District Perspective
Bloomington District 87

- Pilot Districts Perspective
  - Extending data-driven efforts in the districts with SLI

- IlliniCloud Cooperative Perspective
  - Realizing mission – vendor neutral / standards based solutions to help reduce burden for K12
  - Providing the needed integration for SLI
  - Providing a cost-effective / sustainable solution for districts looking to on-ramp
  - Partnering in the governance, development, and operations of ISLE to make K12 projects successful
Where I can find more information?

Shared Learning Collaborative
www.slcedu.org

IlliniCloud
www.illinicloud.org

ISBE RTTT3 Information
http://www.isbe.net/racetothetop/PDF/phase3_appendices.pdf

Brandon Williams – ISBE Project Administrator
bwilliam@isbe.net
Q & A