Leveraging a Data Governance Framework to Appropriately Use Learning Analytics

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Learning Analytics Center of Excellence (LACE)
Who we are

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- Dan Voeks, Institutional Policy Analyst and Data Steward
- Kari Jordahl, Learning Analytics Program Manager
- Shannon Harris, Teaching & Learning Data Analyst

Learning Analytics Center of Excellence (LACE) at the University of Wisconsin-Madison
Our discussion today

• Share our strategy and background
• Teaching & Learning Data Domain
• Data governance as a process
• Cultural efforts - ethics & communication
• Discussion - what is your institution doing?
Strategy & Background

Setting the stage for data governance
Data Empowered Educational Practices (DEEP)

UW-Madison can enhance student learning by drawing on data to empower key educational practices before, during, and after a course.

- UW is a large, R-1 de-centralized institution
  - Expanding digital tool ecosystem - increasing complexity
- Data governance is important to ensure processes and tools are implemented appropriately
- DEEP framework includes academic planning, learning analytics, student assessment, and more
Our definition of learning analytics

“Learning analytics is the undertaking of activities that generate actionable data from the learning environment designed to improve student outcomes by informing structure, content, delivery, or support of the learning environment.”
Learning analytics is not a tool.

It’s a complex organizational change process.
Organizational Change Model for Learning Analytics

- TECHNOLOGY
- CULTURE
  - Leadership, Partnerships, Community, Values & Skills
- PROCESS / WORKFLOW
- POLICY

Ideally

Reality
LA exploration begins

- Tool exploration - LA toolchest piloted (4 tools)
- Learning Analytics Roadmap Committee established

Learning Analytics 5-Year Roadmap created

Faculty engagement for instructor dashboard

2017

2018

T&L Data Domain established

Data steward appointed

LA definition for UW-Madison approved

LA Data Use Subcommittee appointed

Adopted framework for organizational change

2019 - 2020

LA Guiding Principles established

Instructor dashboard rolled out enterprise-wide

Advisor engagement begins

2021

T&L Data Domain definition adopted by Data Governance Council

Advisor dashboard designed, developed, and piloted

Student engagement begins

Our journey...
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Beware the Kraken…

Data governance protects all of us…
There is no big EASY button….

Data governance helps us navigate
Teaching & Learning Data Governance
Roadmap (Nautical Chart?) for Discussion

- Our T&L Data Governance journey
- Key concepts, roles
- Institutional Data Policy (est. 2021)
- Data Governance & Learning Analytics
What can we do with data?
What should we do with data?

Current strategic priorities for using Teaching & Learning data:

- Equitable student success
- General education
Features of Data Governance Programs

- **Strategy**: Define, communicate, & facilitate institutional goals/objectives for data
- **Policy**: Set & implement policies related to data access, usage, security, & quality
- **Standards & Quality**: Define & implement standards
- **Oversight**: Provide direction, audit, & drive resolution of issues
- **Compliance**: Ensure organization meets its legal & regulatory requirements
UW Institutional Data Policy in 30 Seconds

Establishes principles, expectations, rules & consequences with 12 broad, high-level policy statements

ALL institutional Data (regardless of medium or location)

ALL IT Systems and ALL individuals handling institutional data

Defines key roles & terms

Terms: Institutional Data, Protected Data, Data Domain, System of Record

Roles: Data Trustee, Institutional Data Steward, Data System Custodian

Foundational - University-level Policy

Baseline for development of detailed standards & procedures

Establishes principles, expectations, rules & consequences with 12 broad, high-level policy statements
What is Institutional Data?

“Institutional data is information, regardless of medium, generated, collected, stored, maintained, transmitted, enhanced, or recorded by or for the university to conduct university business.

It includes data used for planning, managing, operating, controlling, or auditing university functions, operations, and mission.

It does not include data generated by research, or data owned or generated by a party outside the university when used in research, conducted at the university, under the auspices of the university, or with university resources.”
Data Governance across UW Data Domains

- Academic Planning
- Core Person
- Facilities
- Enrollment Management
- Finance
- Human Resources
- Information Technology
- Research Administration
- Research Compliance
- Teaching & Learning - Advising, Assessment, Career Services, Teaching & Learning
Teaching & Learning Data Domain

- Data Domains at UW-Madison are defined qualitatively and are not determined by boundaries of IT systems.
- Domains can and do overlap
  - In these cases, multiple stewards share joint responsibility
- Four T&L Steward areas
  - Advising, Assessment, Career Services, Teaching and Learning
- “Teaching and Learning Data”:
  - “Institutional Data created or stored as a result of UW-Madison students, faculty, staff or contracted service providers performing teaching activities or learning activities by any means, including (but not limited to) through the use of information technology systems.”
Data Classifications

Data classifications:

- allow us to manage our data
- facilitate our ability to provide access
Where are you in your journey?

How is teaching and learning data governed at your institution?

Who would you contact if you had a question about teaching and learning data at your institution?
Charting a Course Through Data Policy

- Identify Institutional Data
- Analyze Business Purpose of Disclosure
- Classify Institutional Data
- Analyze Policy and Regulatory Context
- Authorize (or Prohibit) Disclosure
- Use Data!
Data Governance and Learning Analytics

Learner Engagement Analytics Dashboard (LEAD)

Learning Activity View for Advisors (LAVA)

De-identified data set for campus researchers
Cultural Change Efforts
Learning analytics is not a tool.

It’s a complex organizational change process.
Cultural change

- Communication
- Community events & programs
- Engagement with LA stakeholders
- Training and outreach
Cultural change

Communication

Syllabus statement about LA
Student data transparency website
Newsletter & teams communications
Learning Analytics Guiding Principles

UW-Madison Teaching and Learning Data Transparency Statement

UW-Madison operates a number of central IT systems and services that enable teaching, learning, and assessment in courses, including: Kaltura, UnionEngage, Direct Evidence of Student Learning and more. Data is collected related to student learning activities.

What Teaching and Learning Data Are Collected

In addition to the personally identifiable information used to grant student access to online systems and materials, digital teaching and learning systems generate or collect additional information including the following:

- **Student Access Logging** – including date and time of access, length of access, sessions, devices used, and date and time of work submissions.
- **Student Work Submissions and Interactive Activity Records** – logs of online quizzes and exams, as well as individual scores associated with the assessment.

How We Use Teaching and Learning Data

UW-Madison's use of teaching and learning data is described broadly by institutional data (including teaching and learning data) are protected by institutional policies.

Greetings,

We hope the semester has launched safely and smoothly for you, and welcome back! We have a few updates and some upcoming events to share with you.

**Learner Engagement Analytics Dashboard (LEAD)**

NEW! Additional instructor roles can now access LEAD. The Learner Engagement Analytics Dashboard (LEAD) is a course-level dashboard, available for instructors teaching for-credit courses, and consists of three different visualizations with numerous filters. Beginning this fall, LEAD can now be accessed by additional instructor roles.
Ethical Considerations ~ Guiding Principles

At UW Madison we believe students are real and diverse individuals, and not just their data or information.
The Learning Analytics Data Use Subcommittee included this preamble to the guiding principles:

Students are real and diverse individuals, and not just their data or information. These principles aim to uphold the dignity of students while ensuring learning analytics are used to improve educational outcomes:

- Beneficence
- Transparency
- Privacy and confidentiality
- Minimization of adverse impacts
Cultural change

LA Community of Practice
LA Speaker Series
Faculty fellowships on LA

Community events & programs

<table>
<thead>
<tr>
<th>Dates 2021-22</th>
<th>LA CoP topic</th>
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<tbody>
<tr>
<td>Oct 8</td>
<td>Canvas Analytics/New Analytics - explore your own course</td>
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<tr>
<td>Nov 12</td>
<td>Are you using LA? How? FAQs about LA/How/are you using LA? FAQs</td>
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<tr>
<td>Dec 10</td>
<td>Kaltura Analytics</td>
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<tr>
<td>Jan 14</td>
<td>Course Design and LA (Course review, reflection, planning for spring semester)</td>
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<tr>
<td>Feb 11</td>
<td>Identify Struggling Students</td>
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<tr>
<td>Mar 11</td>
<td>DESL (Direct Evidence of Student Learning)</td>
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<tr>
<td>April 8</td>
<td>Reading data visualizations (that someone else created)</td>
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<tr>
<td>May 13</td>
<td>Spring LA Conference Recaps/Highlights</td>
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Are students doing the online reading?

When are students accessing my course materials?
Should I change how or when I make materials available?

How can I provide individualized learning, for both high-achievers and students who may need more support?
Cultural change

Engagement with LA stakeholders

Participatory development/exploration of tools with instructors, advisors and students

Pilot programs and tools
Cultural change

Training & Outreach

- Regular workshops for tools
- Consultations around learning analytics
- Connecting with other groups and communities
Where are you in your journey?

How does your institution work on cultural change efforts on campus? Communicate/inform stakeholders about data use, LA, etc?

What other questions do you have?
Thank You!