



# Unizin, Learning Analytics and UMN

**Proposal to Assess Unizin's Value  
for Learning Analytics  
September 19, 2016**

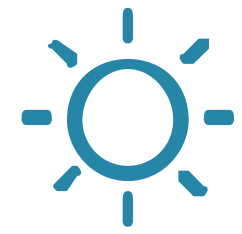
*Lincoln Kallsen, Director, Institutional Analysis  
Donalee Attardo, Director, Academic Technology*



UNIVERSITY OF MINNESOTA  
**Driven to Discover<sup>SM</sup>**

# Charge

Develop and execute an achievable pilot for learning analytics using Unizin products and philosophies



## Assist

Assist in the May  
2017 Unizin renewal  
decision



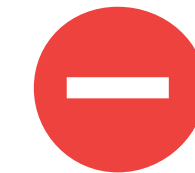
## Advance

Incrementally advance  
the University's  
understanding and use  
of learning analytics



## Compare

Outline and compare  
UMN options to move  
learning analytics  
forward



## Not

*Organize and solve  
the University's  
long-term learning  
analytics strategy*

## Goals



# What is Unizin?

University-owned and directed consortium



# Unizin Goals

Working together to improve the learning experience with technology



Help direct the future of digital education, teaching technology, learning analytics, and advising



Create the learning ecosystem of the 21st century

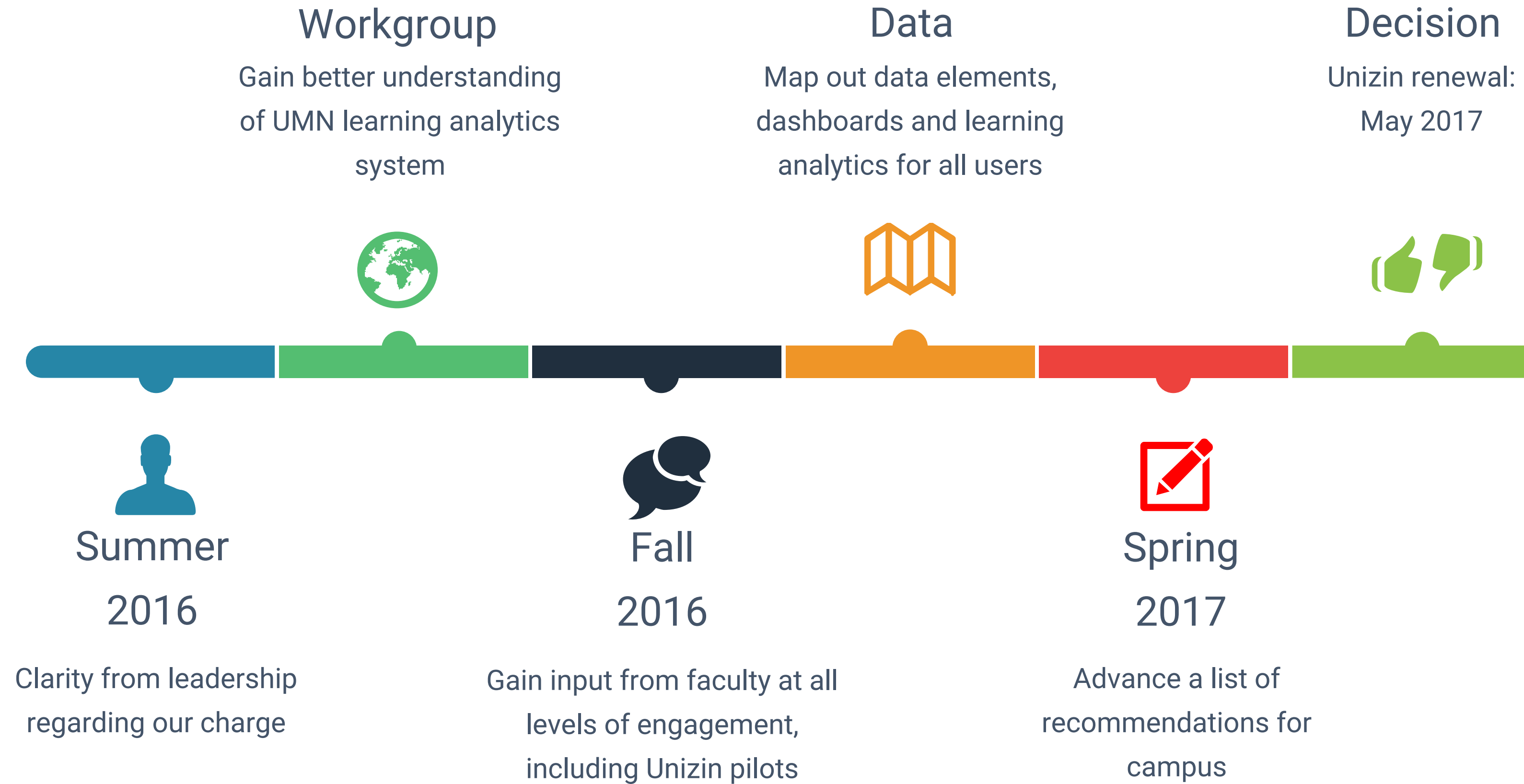


Keep control of our intellectual property and data



Save money for institutions and ultimately students

# Unizin Learning Analytics Assessment Timeline



# UMN Learning Analytics

## Perspectives and Confusion

What	Audience/Unit of Analysis	Tools	Time horizon
Learning dashboards	Student	Canvas	Real-time
Early alert systems	Course	Moodle	Daily updates
Course management systems	Curriculum	APLUS	Mid-term alerts
Predictive modeling	Faculty	Campus Labs	Summative analysis end of semester
Pedagogy improvement	Advisors	Grad Planner	Multi-year curriculum analysis
Education data mining	Academic leadership	Library data	Multi-year student success improvement
	Multi-institutional trends	ASR student degree progress	
		In-class tools	
		EAB	

# Our Assumptions

UMN wants to develop the capability to explore and leverage analytics.

01

02

UMN can achieve learning analytics goals without Unizin, though it may take longer.

Content and Learning Platform goals/needs exist independently of their potential contributions to supporting learning analytics.

03

04

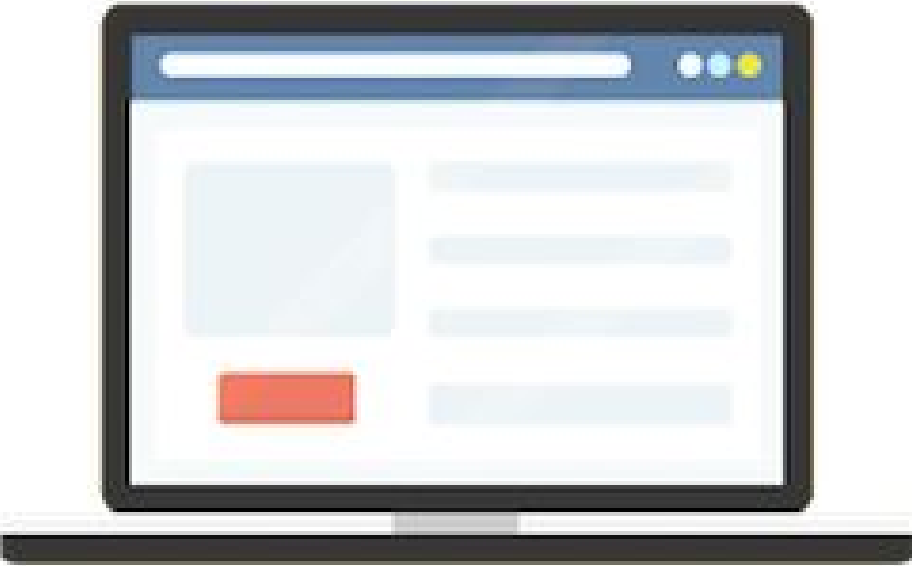
Unizin may bring significant value to UMN at this time in the area of learning analytics.

# Unizin Efforts



## Content

Production and Collaboration



## Learning Environment

Course Material Delivery and Insights



## Analytics

Data Integrations and Data Warehousing



# UMN Canvas Pilot

Campus	Fall 2015 and Spring 2016 (2 semesters' total)		Fall 2016 (projected)	
	Instructors	Students	Instructors	Students
<b>Crookston</b>	6	122	5	101
<b>Duluth</b>	9	292	9	292
<b>Morris</b>	7	168	7	168
<b>Rochester</b>			1	40
<b>Twin Cities</b>	68	2,382	44	2,919
	<b>90</b>	<b>2,964</b>	<b>66</b>	<b>3,520</b>



# Decision Points

All Decisions are "Independent"

Content



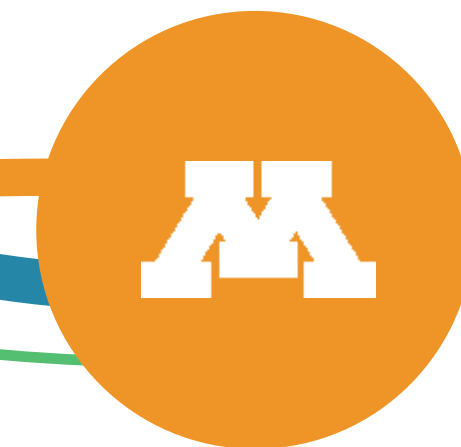
Unizin  
Services/Products

Learning Platform  
(Canvas or Moodle)



Vendor  
Solutions

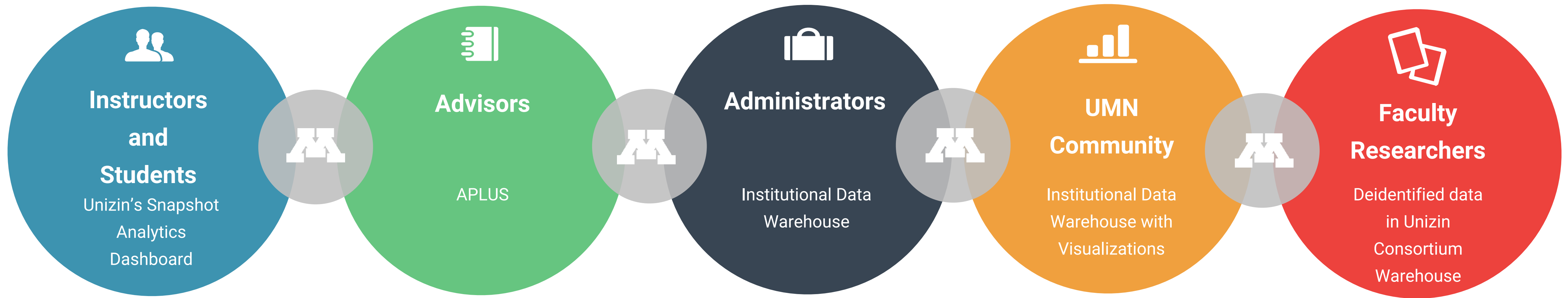
Analytics and Data  
Warehousing



UMN  
Developed  
Services

# Benefiting the UMN Community

## Tools for Using Learning Analytics



# Unizin Pilots

UMN Planned Evaluations

- Instructors and students
- Comparison with current Library tools

*Content Studio* 1

- Instructors and students

*Snapshot Dashboard* 1

- Instructors and students

*Engage Online Textbook Platform* 2

- Instructors and students
- Detailed evaluation and comparison with Moodle

*Canvas Learning Management System* 3

# Proposal for 2016-17

## Questions to Answer



Several courses will pilot the Unizin *Snapshot* learning analytics dashboard.



Confirm that we can integrate data from Canvas with APLUS in the same way it is currently done with Moodle.



Develop a proof of concept to create a common data layer populated by data from PeopleSoft, Canvas, and APLUS.



Define and report on technical and policy issues.



Pilot a visualization solution, such as Tableau.

Are *Snapshot* dashboards useful and impactful for students and faculty?

Does Canvas work with APLUS? Is it easier or harder to work with than Moodle in this area? Is the data better or worse than Moodle's?

For UMN's data needs, can we successfully combine Canvas data with other institutional data to create a simple but relevant common data layer to help assess learning or student success outcomes?

What are the technical and policy questions or barriers for using these data in a multi-institutional consortium format?

Can we provide rapid and useful visualization of these data?

# Snapshot Dashboards within Canvas

Planned for Fall 2016 Pilot

**Unizin Snapshot** Section Outcomes **Student Monitoring** Course Materials

**Introduction to Psychology**  
PSY 100 / Section #1010 / 45 students

100-82 81-61 60-34 78% section grade avg

Filter by student name Filters Sort by Grades (ASC)

Student Name	Current Grade
Byrd, Rosetta	34%
Powell, Esther	39%
Klein, Zachary	42%
Hughes, Lucas	45%
Medina, Dylan	45%
Conner, Nelle	50%
Thomas, Hulda	51%
Rodriguez, Aiden	59%
Hines, Isaiah	61%
Lamb, Cynthia	71%
Pearson, Rebecca	72%
Glover, Elsie	79%
Simon, Hulda	81%
Holloway, Ricky	81%
Ford, Don	82%

**Unizin Snapshot** Section Outcomes **Student Monitoring** Course Materials

**Introduction to Psychology**  
PSY 100 / Section #1010 / 45 students

78% section grade avg

### Overall reading activity

Number of pages vs Term week

Term week	Section avg
1	80
2	180
3	150
4	100
5	140
6	90
7	110
8	190
9	190

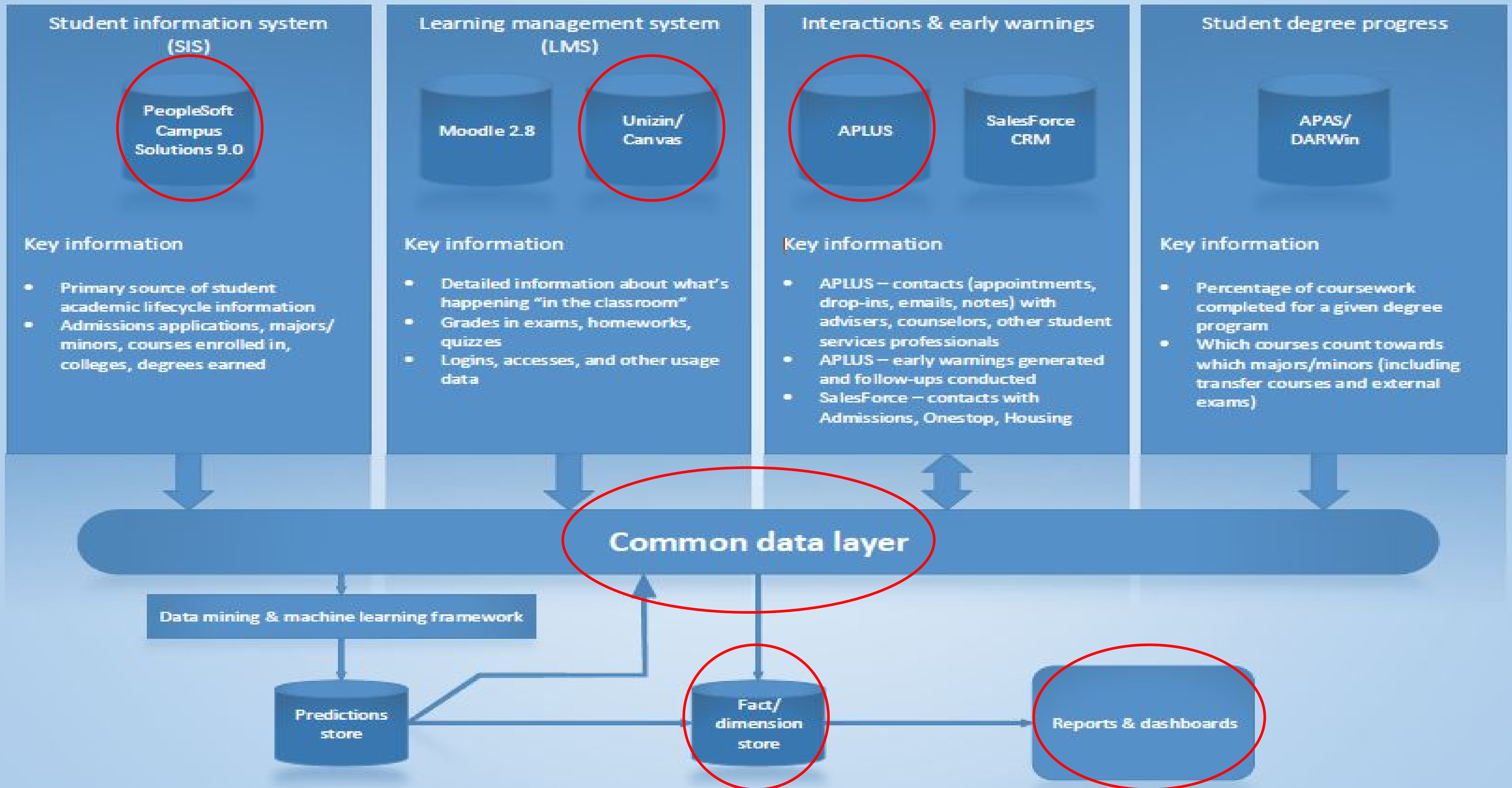
### 4 Materials

Sort by Most read

- Public Speaking and Responsibility in a Changing World**
- What Your Third Grader Needs to Know**
- Charlotte Mason's Original Homeschooling Series**
- One World Schoolhouse**

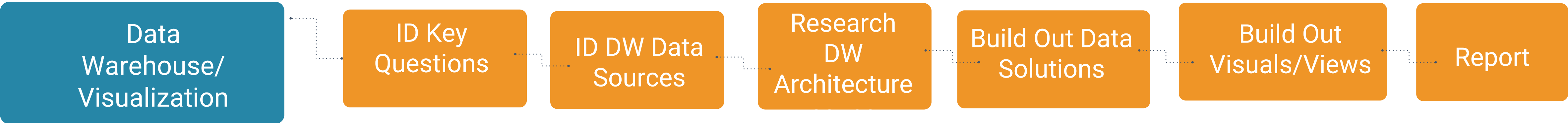
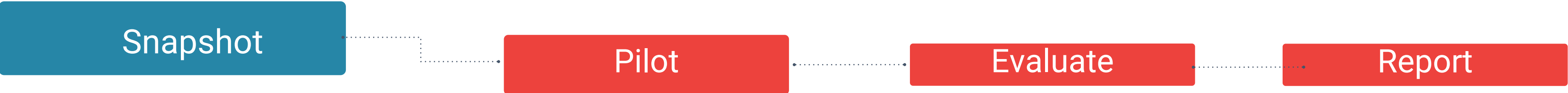
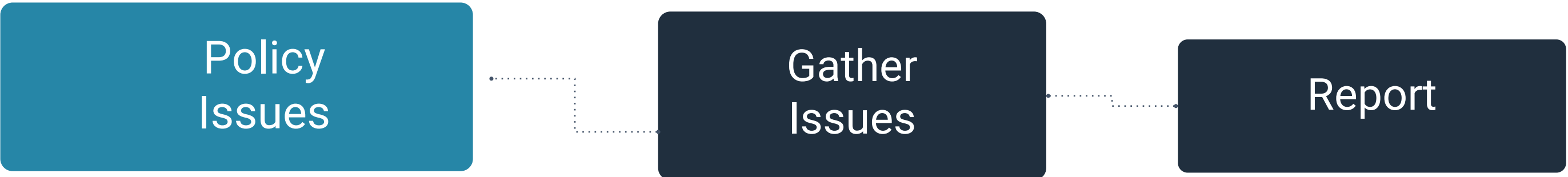
Number of pages vs Chapter name





# Project Stages

9/2016 through 4/2017





# UMN Teams

(Illustrative Team Members)

Snapshot Pilot	Canvas→APLUS	Common Data Layer	Unizin IDW	Visualization
<ul style="list-style-type: none"> <li>● Drew LaChapelle (OIT)</li> <li>● Jeff Kerzner (OIT)</li> <li>● Alison Link (CLA)</li> <li>● Helen Mongan-Rallis (faculty - UMD/Education)</li> <li>● Lauren Marsh (ATSS)</li> <li>● Shane Nackerud (Libraries)</li> <li>● Mary Jetter (CEI)</li> </ul>	<ul style="list-style-type: none"> <li>● Colin DeLong (CLA)</li> <li>● Jeff Weber (OIT)</li> <li>● Chris Scruton (OIT)</li> <li>● Eric Perrino (CLA)</li> <li>● Drew LaChapelle (OIT)</li> <li>● Colin Campbell (OIT)</li> </ul>	<ul style="list-style-type: none"> <li>● Colin DeLong (CLA)</li> <li>● Mark Skweres (OIT)</li> <li>● Brian Krupski (OIT)</li> <li>● Peter Radcliffe (OUE)</li> <li>● Shane Nackerud (UL)</li> <li>● Others TBD</li> </ul>	<ul style="list-style-type: none"> <li>● Mark Skweres (OIT)</li> <li>● ASR?</li> <li>● Research Data Management iCoP?</li> </ul>	<ul style="list-style-type: none"> <li>● People who know Tableau</li> </ul>
<ul style="list-style-type: none"> <li>● Are Snapshot dashboards useful and impactful for students and faculty?</li> </ul>	<ul style="list-style-type: none"> <li>● Will Canvas work with APLUS?</li> <li>● Is the data better or worse than Moodle?</li> </ul>	<ul style="list-style-type: none"> <li>● Can we combine Canvas data with other UMN data to create a common data layer to help assess learning or student success outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>● What are the technical and policy questions or barriers for using these data in a multi-institutional consortium format?</li> </ul>	<ul style="list-style-type: none"> <li>● Can we provide useful visualization of these data?</li> </ul>



# Bigger Questions

## For the Longer Term



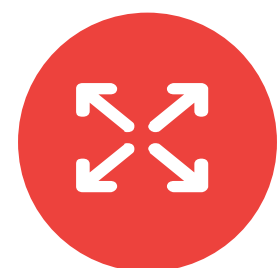
### Ethics

What is appropriate and ethical use of the data?



### Quality

What is needed to enhance data quality, including training and support resources?



### Research

What value can faculty researchers get from use of Unizin's consortium deidentified data warehouse?



### Students

How do we use predictive analytics in interacting with students?



### Leadership

What is the University's leadership structure for driving the future strategic directions in this area?



# Faculty Participation

## Leveraging UMN Faculty Expertise



### Communities of Practice

UMN Faculty Learning Analytics Call-Out; Unizin Learning Analytics Community of Practice



### Pilot Participation

Canvas LMS; Unizin Snapshot; Unizin Engage; Unizin Content Studio



### Advisory Group

Academic Technology Faculty Advisory Group (ULTA)



# Do You Approve?

Fall 2016 - April 2017

## The Goals



- Advance UMN’s understanding and use of learning analytics
- Compare UMN options to move learning analytics forward
- Assist in 2017 Unizin renewal decision

## The Plan



- Pilot Unizin’s Snapshot learning analytics dashboard in Canvas
- Compare Moodle/Canvas data to plan for use in APLUS
- Research and design data warehouse solution for learning analytics
- Gather and report on data policy issues related to learning analytics

## The Staff



- 3.25 additional IT staff (some temporary contract staff, some UMN staff)
- Project lead time for subject matter expert in CLA
- For UMN staff, current work priorities to be delayed

Questions?

