

Unizin

Amin Qazi, Unizin



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UNIZIN IS



Colorado
State
University

UF
UNIVERSITY of
FLORIDA

M
UNIVERSITY OF
MICHIGAN

Ψ

INDIANA UNIVERSITY



Oregon State
University

THE 
UNIVERSITY
OF IOWA



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

PennState


O

THE OHIO STATE
UNIVERSITY

M

UNIVERSITY
OF MINNESOTA



Unizin



UNIVERSITY OF
Nebraska
Lincoln



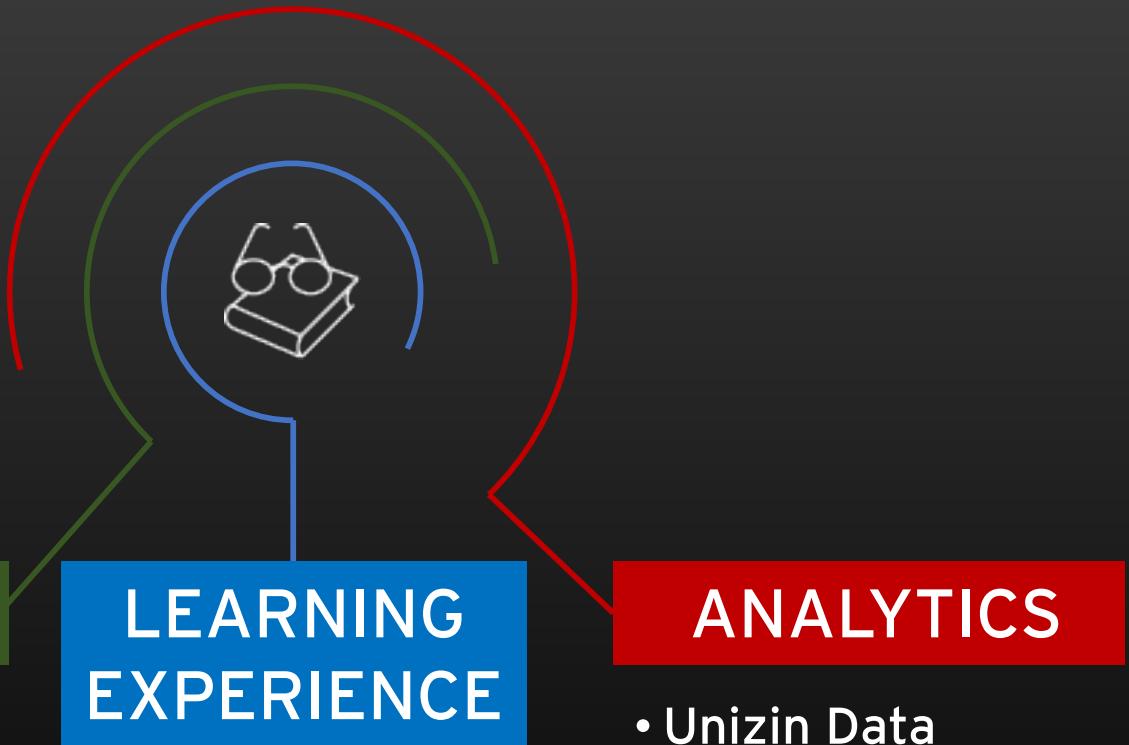
UNIZIN IS



- A consortium of universities working together to shape educational technologies and practices
- Professional staff who manage learning technology solutions to meet the goals of the institutions
- 100% university-controlled & funded



WE ARE BUILDING A LEARNING ENVIRONMENT



Course-contextual:
• OER
• Institutional repositories
• Commercial
• Faculty-authored

- Canvas
- Unizin Engage
- Open edX

- Unizin Data Platform
- Data dashboards
- Research tools

DATA TODAY



Data is everywhere and nowhere. It is scattered. It is slow.

And the warehouse(s) built to house it doesn't include all T&L data.



VENDORS TODAY



Transform, aggregate and organize institutional data into proprietary data models for use with proprietary tools.

Report from analytics performed with proprietary, black box algorithms.



LOCAL SOLUTIONS TODAY



Investments occurring, but innovating
is getting harder and harder.

Working in silos and often
misinterpret or misuse data because
the users do not understand the
context.



OUR MEMBERS

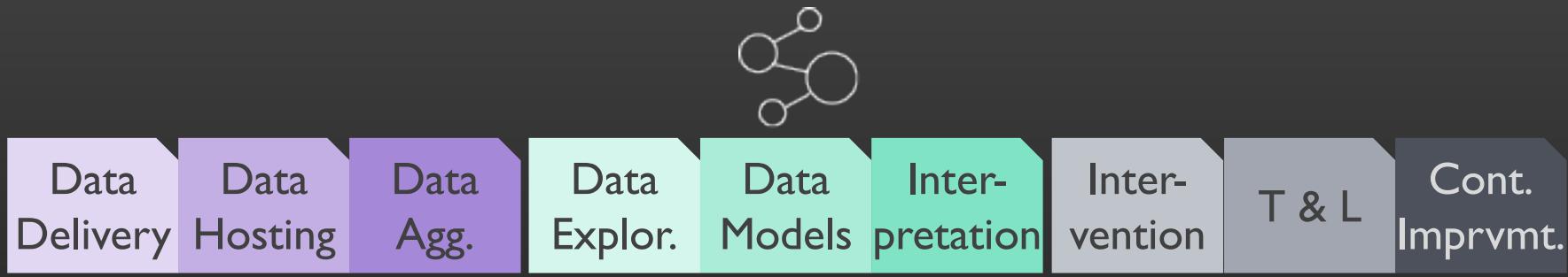


Value a flexible ecosystem that meets the needs of local imperatives, the sequence and the urgency of their goals

- Learning analytics
- Data capture and access
- Persistence in majors (STEM)
- Teaching/learning tools, integration
- Tool innovation and diffusion
- Content authoring
- Content distribution



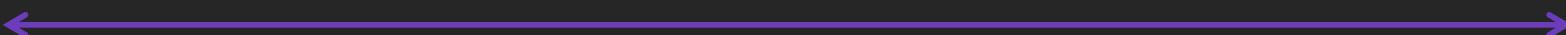
FUNCTIONS & SKILLSETS



Access

Insights

Actions



descriptive

Warehousing

Business
Intelligence

Reporting

Histograms

OLAP

...

predictive

Regression

Random Forest

Support Vector Machines

Markov Chains

Text Mining

Natural Language Processing

prescriptive

Bayesian
Inference

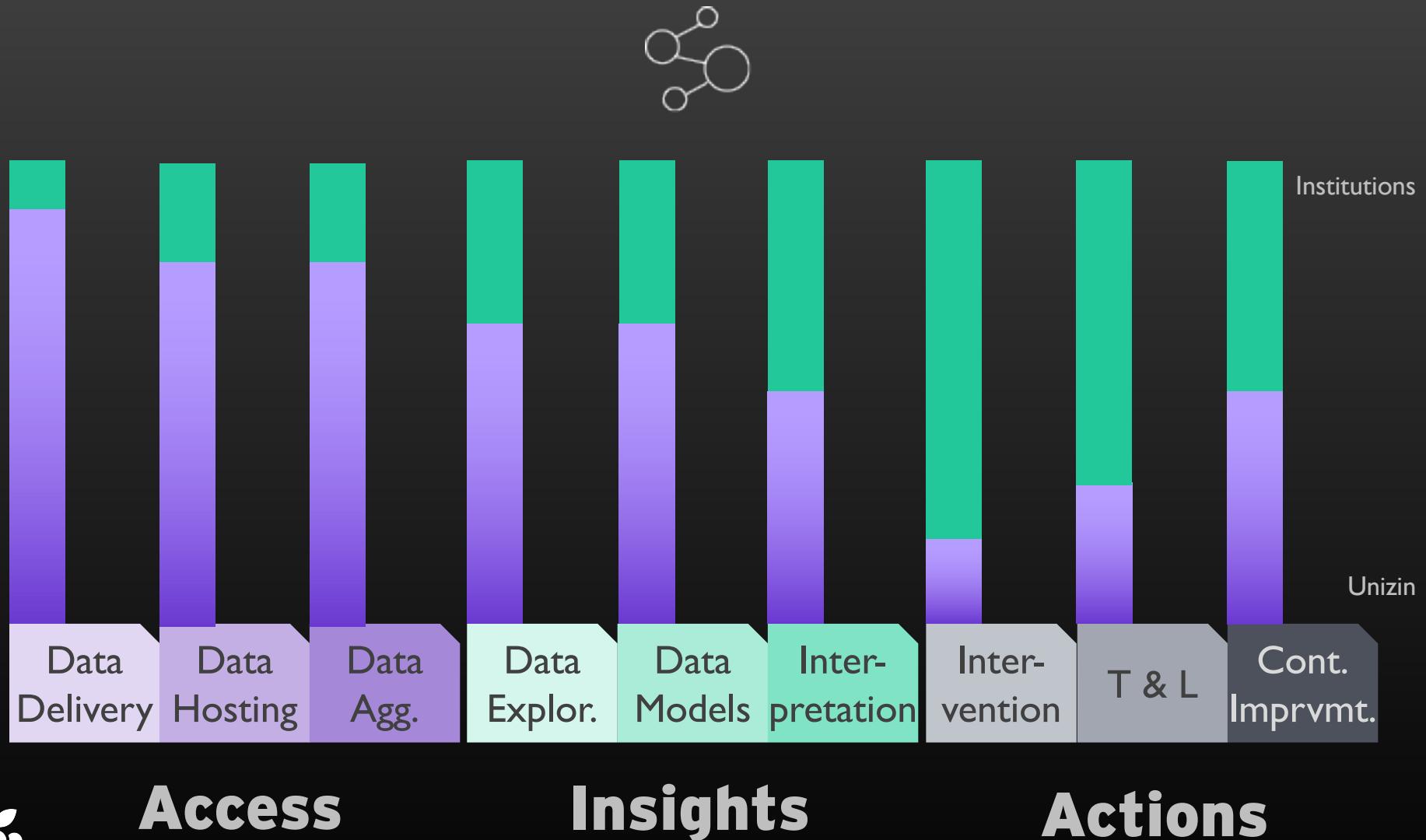
Pedagogy

Student
Interventions

Engagement



COOPERATIVE APPROACH



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how?

COMMON DATA MODEL



Standard for representing data across
the teaching and learning ecosystem

Normalize data from a wide range of
systems, tools, and applications



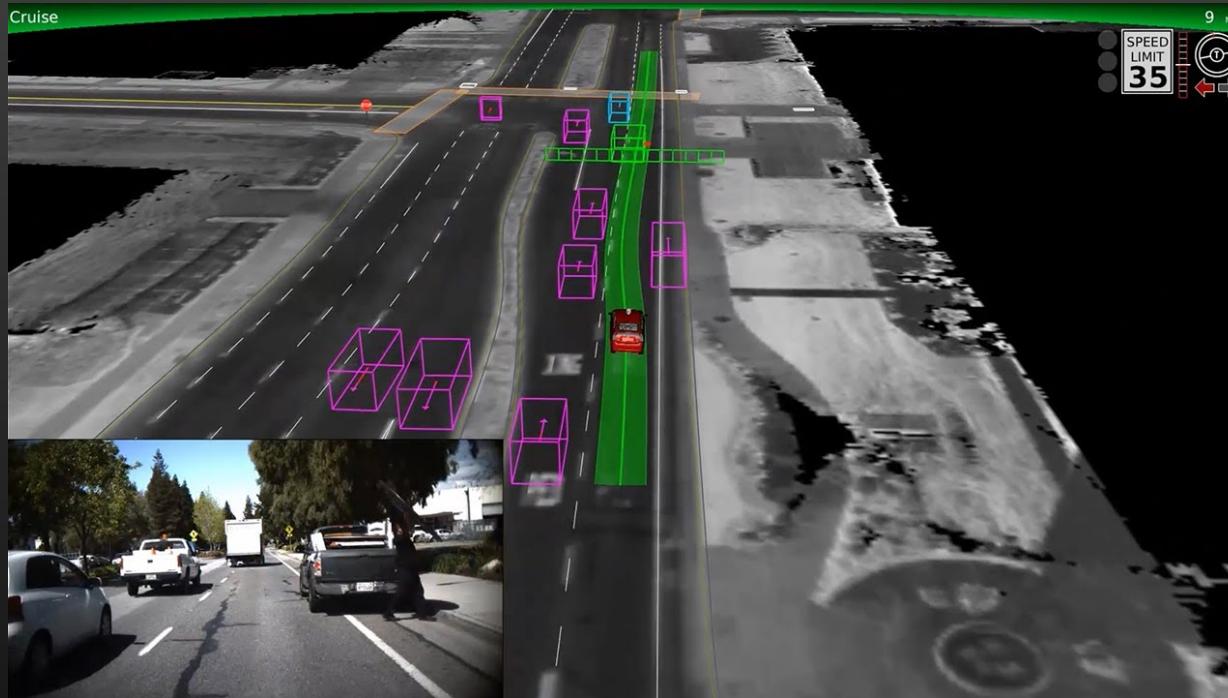
UNIZIN DATA PLATFORM



1. Leverage economies of scale in a secure data enclave governed by the member institutions
2. Evolve common data integration standards and practices from multiple data sources tied to student learning outcomes
3. Participate in the creation of the world's largest learning laboratory at a pace that matches institutional desire and readiness



TECHNOLOGY IS CHANGING



Data processing will be different because context matters more than ever.



DATA & ANALYTICS SERVICES



Interaction Data

Institutional Data Store

de-identified
data subset

Unizin Learning Laboratory

Members own all data and may assert permissions

Extraction of institutional data by Members

Data may be enriched from institutional sources

Aggregated data sets to enable research and analysis

Access to de-identified or anonymized data from across the consortium



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Under Complete Institutional Control by Each Member

LOCAL INSIGHTS



Virtuous ecosystems where dashboards inform other connected tools

- online practice tools that, in an informed way, provide students with opportunities to practice the parts of the course where they struggle

Also, an opportunity to feed student performance data into course and program design



COURSE MONITOR



Data visualization of student performance for faculty, students and advisors



Section Outcomes

Student Monitoring



2016SP-BIO-101-001

2016SP-BIO-101-001 / Section #1 / 49 students

57-67

68-88

91-100

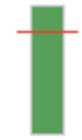
79.2% average score

Roberts,
Jesse

100.4 %
current grade



Assignments



Quizzes



Submissions

Murphy,
Ann

100.1 %
current grade



Assignments



Quizzes



Submissions

Allen,
Jimmy

97.6 %
current grade



Assignments



Quizzes



Submissions

Williams,

97.6 %

Campbell,

96.9 %

Diaz,

95.6 %

COURSE MONITOR



Demographic Data

Performance Data

Curricular Path Data

Instructional Activity

Student Behavioral Data



Opportunity to answer important research questions and to power the teaching, learning, advising, and instructional design quality journeys.



WHAT IS A MONITOR?



A automated task that watches metrics of incoming teaching and learning data and, per criteria, takes action.

- Instructor, Advisor or Department-defined
- Monitors watch courses, people, and even actions, either in absolute or historical comparisons



COURSE MONITOR 2018



- Email action from student monitoring view
- Locally-configurable monitors
- Module-driven views and monitors
- Institutional monitors
- Vendor integration



UNIZIN & VENDORS



Institutional control of data, openness and transparency of tools and conformance to standards to allow a versatile and nimble ecosystem is key to the success of data-informed organizations.



UNIZIN & LOCAL SOLUTIONS



The opportunity to store, yet augment, data to improve teaching and learning is more compelling as those data sets become richer and larger; time-value of data.

Data-informed applications can be built more quickly when built atop a standard model and architecture.



UNIZIN & CONSORTIAL DATA



Most academic institutions have not truly grasped the real value, both in the monetized and mission critical senses, of data and the power of creating large data sets with other institutions.

New models and insights can be shared more readily.



RICHER DATA LEADS TO RICHER INSIGHTS



The Unizin consortium will:

- Operate the academy's largest and richest collections of curated data across multiple universities
- Aggregate those data sources into a rigorously managed platform
- Enable the discovery of insights that would not be possible at any single institution

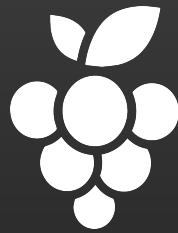




Data is the key to reaching the next horizon of teaching and learning.

If we collaborate to control our data and content, what can we do?





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