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Data Governance and Data Literacy: Keys to Knowing Your Data

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Technology And Analytics

5 Pillars for Democratizing Data at Your Organization

by Hippolyte Lefebvre, Christine Legner and Elizabeth A. Teracino

November 24, 2023

By Ray S



Winds of Change in Higher Ed to Become a Hurricane in 2025

A number of factors are converging to create a huge storm. Generative AI advances, massive federal policy shifts, broad societal and economic changes, and the demographic cliff combine to create uncertainty today and change tomorrow.

By Ray Schroeder

AI Will Shake Up Higher Ed. Are Colleges Ready?

A lot rides on the answer.



Al policy will gain a stronger foothold



Technology And Analytics

5 Pillars for Democratizing Data at Your Organization

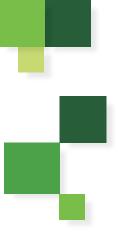
by Hippolyte Lefebvre, Christine Legner and Elizabeth A. Teracino

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Why are AI and Data
Democratization shown up
as trends?
Recognize value of
Knowing Your Data

KEYS?

Data Governance and Data Literacy



Reporting System

- Well governed
- Limited in Scope
- Not Timely

Transactional System

- Timely
- Large Scope
- Not designed for analysis



Data Democratization

Access for all

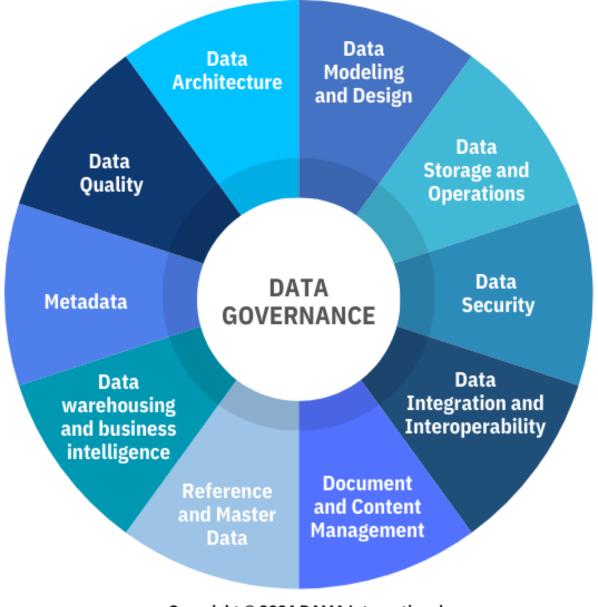
Across 10 Colleges and District *2,663 Views *Complaints of conflicting numbers





Data Governance

- "the exercise of authority and control (planning, monitoring, and enforcement) over the management of data assets."
- decision rules/policies/process that govern access permissions to data
 - * who can do
 - * what
 - in what way
 - with institutional data



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Data Use Challenges for Higher Education

- Borgman and Brand, 2022²
- Can't compete in the marketplace for talent
- Integrating systems
 - Struggle to have expertise to build and sustain open source then buying corporate products that don't make data accessible
- Need BETTER not more data
- Data Rich so much data!!!



Data Poor – Lack of infrastructure thinking

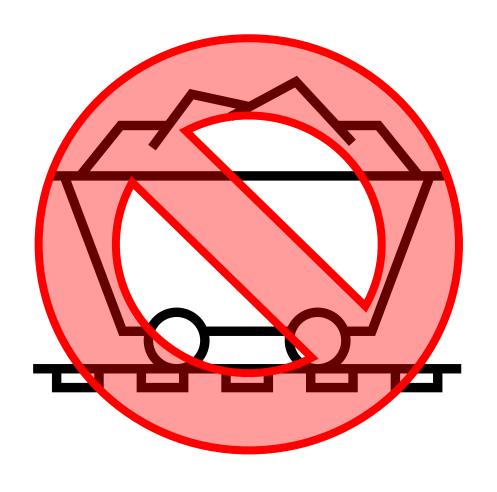


Hard conversations around data governance



IDATA SUMMIT





- Remember this is INSTITUTIONAL DATA
- Data Stewards (not data owners)
- Accessible, secure, and accurate

DATA SECURITY



GIGO

- Transactional vs reporting system differences
- Humans vs finances
- Go to the SOURCE don't start by coding around it
- Within these constraints, where do we focus our time?
 - Compliance and money
 - Low hanging fruit opportunities
 - Identifying issues on submission to reporting systems
 - Web service to provide auto correct/suggestion e.g. Address verification
 - Integration pain points
- Will sometimes determine it's not worth fixing but don't start from that position
- DATA QUALITY



Data Glossary

- Glossary vs dictionary (My soapbox!)
- Helps ensure we're all talking about the same thing
- Well curated glossary provides power
 - Helps manage scope
 - What is a building?
- METADATA

Headcount Example

Data Glossary definition: An unduplicated count of students at each college or, when viewing district-wide, across the ten colleges, by term, academic year or fiscal year. Headcount can be captured as of the census date, 45 days from the start of the term, or as of the end of the term. This metric is used in the annual Governing Board Monitoring Report and is based on methodology from the PDP.

Why do reports that say Headcount show different numbers for the same time period?

Working definition: Count of head in seat at point in time.





- Domain general
- Domain specific
- Data scientist
 - General and specific working with DATA
 - What about education?

- Context dependent
 - "University infrastructures must accommodate a complex array of stakeholders, missions, data resources, and time horizons." Making comparisons to other industries useless.
 Borgman and Brand, 2022
 - Where you are





- "Full-time equivalent student" means student enrollment for fifteen community college semester credit units per semester. (ARS 15-101)
- 45th day
 - For the basic actual full-time equivalent student enrollment, add the number of full-time equivalent students enrolled as of forty-five days after classes begin in the fall semester to the number of full-time equivalent students enrolled as of forty-five days after classes begin in the spring semester, not including additional short-term classes, and divide the sum by two. (ARS 15-1466.01)
- Withdrawals

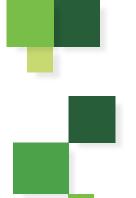






- In Arizona
 - For state reporting
 - Allocating funds amongst the colleges in the district
- Doesn't represent tuition revenue or attempted hours
- No meaningful comparison to anything outside of Arizona





Public Data

FAST FACTS





Reading the Data

- Summing two different time periods together OR summing across subsets assuming distinct individuals
- Student Intent

Communicating with Data

- Clarity on definitions (Data Glossary connection)
- Feedback from stakeholders about continuing to meet needs





- Artificial Intelligence/Machine Learning
 - Struggle implementing like data democratization
 - Two reasons (Data Governance and Data Literacy)

"Al is worthless without quality data—which is a rare commodity in any organization. So far, we've gotten away with bad, unclean data by building work-arounds." (Educause)

 Also worthless without people who can understand what the data mean and how to act on that



