



Unifying Data for Institutional Research: Tarleton State + Databricks Case Study

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“In the absence of mature, agentic AI, educational technologies have calcified into monolithic, institution-centric applications — bloated systems optimized for compliance and control, not for the learner... The result has been data trapped in silos, fragmented workflows, and missed opportunities to support the student holistically.”



“TechEd flips the model. It starts with the learner, designing technology as an open, interoperable network that moves with them across institutions, jobs, and life stages. In TechEd, data is portable and verifiable, knowledge is continuously updated, and AI agents help connect people, resources, and opportunities in real time.”

From EdTech to TechEd: The next chapter in learning's evolution



Lev Gonick ✓
Enterprise CIO Arizona State University

August 19, 2025



Large Online University

Use AI to surface priority students in near real time and automate post-meeting summarization and follow-ups

Challenge

Fragmented data across systems (PeopleSoft, Salesforce, Canvas) created batch delays and limited timely insights for Student 360 and coaching workflows.

Decentralized governance and data quality gaps reduced trust and slowed operations across teams at enterprise scale.

Caseload and engagement signals not unified, making it hard to rank students and trigger proactive outreach effectively.

Solution

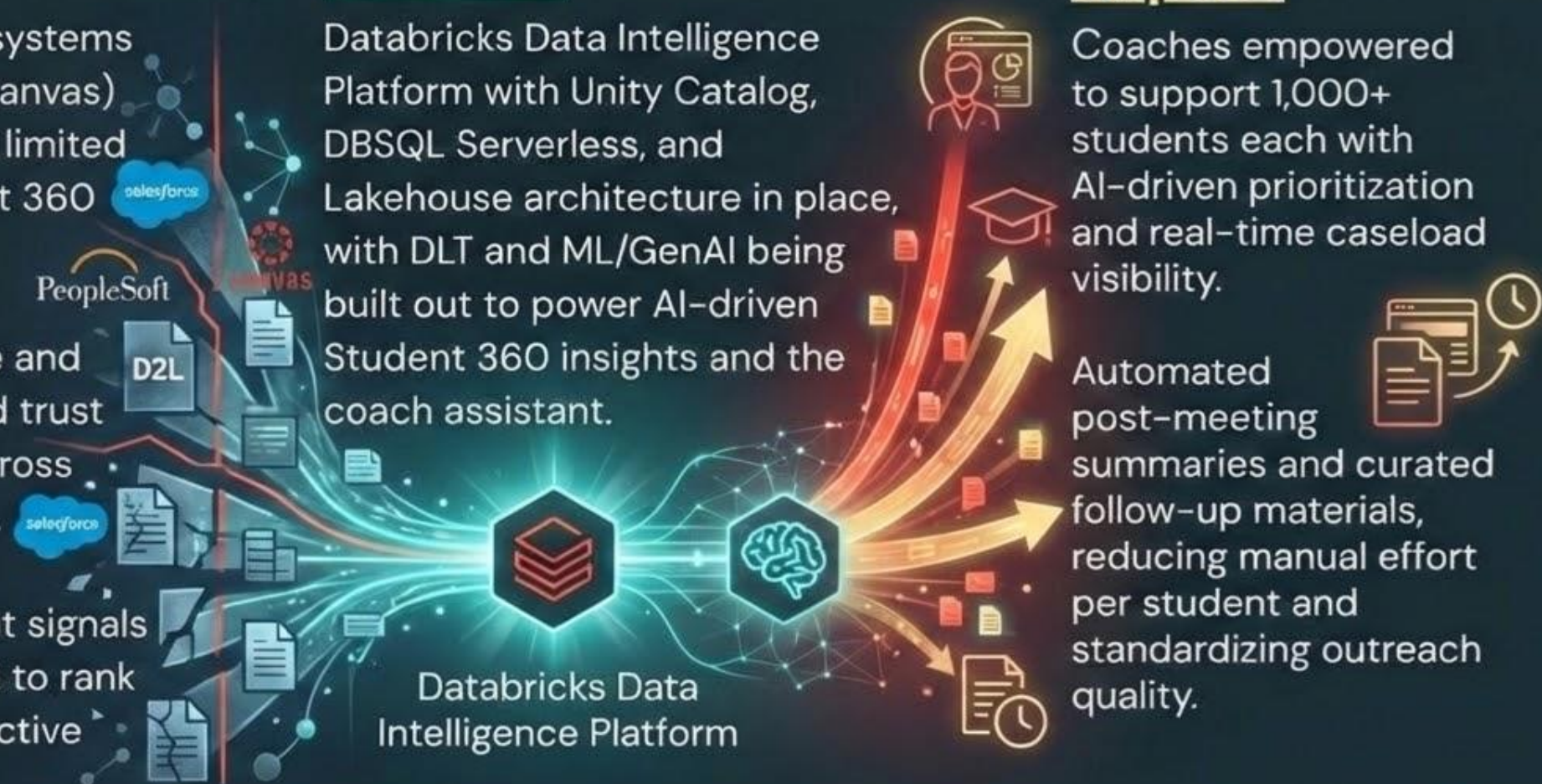
Databricks Data Intelligence Platform with Unity Catalog, DBSQL Serverless, and Lakehouse architecture in place, with DLT and ML/GenAI being built out to power AI-driven Student 360 insights and the coach assistant.

Databricks Data Intelligence Platform

Impact

Coaches empowered to support 1,000+ students each with AI-driven prioritization and real-time caseload visibility.

Automated post-meeting summaries and curated follow-up materials, reducing manual effort per student and standardizing outreach quality.



"First, analytics must be explicitly **anchored to strategic decisions**, not just abstract metrics."

"Second, institutions must move from siloed analytics to integrated enterprise insight. Enrollment, finance, student success, workforce outcomes, and operations should no longer be analyzed independently. **An effective analytics strategy must emphasize integration, linking student flows to revenue, costs to outcomes,** and short-term decisions to long-term risk."

"Third, **governance and trust are non-negotiable**. High-stakes decisions demand analytics that is transparent, documented, and ethically grounded. A strong analytics strategy includes clear ownership of metrics, shared definitions, and review processes that make assumptions visible."

FEATURED

01.22.26



Higher Education Trends and Implications for Institutional Research Professionals

by Henry Y. Zheng, Vice Provost for Institutional Effectiveness and Planning, Carnegie Mellon University



databricks Lakehouse Platform

Data
Warehousing

Data
Engineering

Data Science,
ML & AI

Apps

Unity Catalog

Fine-grained governance for data and AI

Delta Lake

Data reliability and performance

Cloud Data Lake

All structured and unstructured data



Databricks Lakehouse Platform

Simple

Unify your data warehousing and AI use cases on a single platform

Open

Built on open source and open standards

Unified

One consistent platform across all data processes

Databricks Unity Catalog

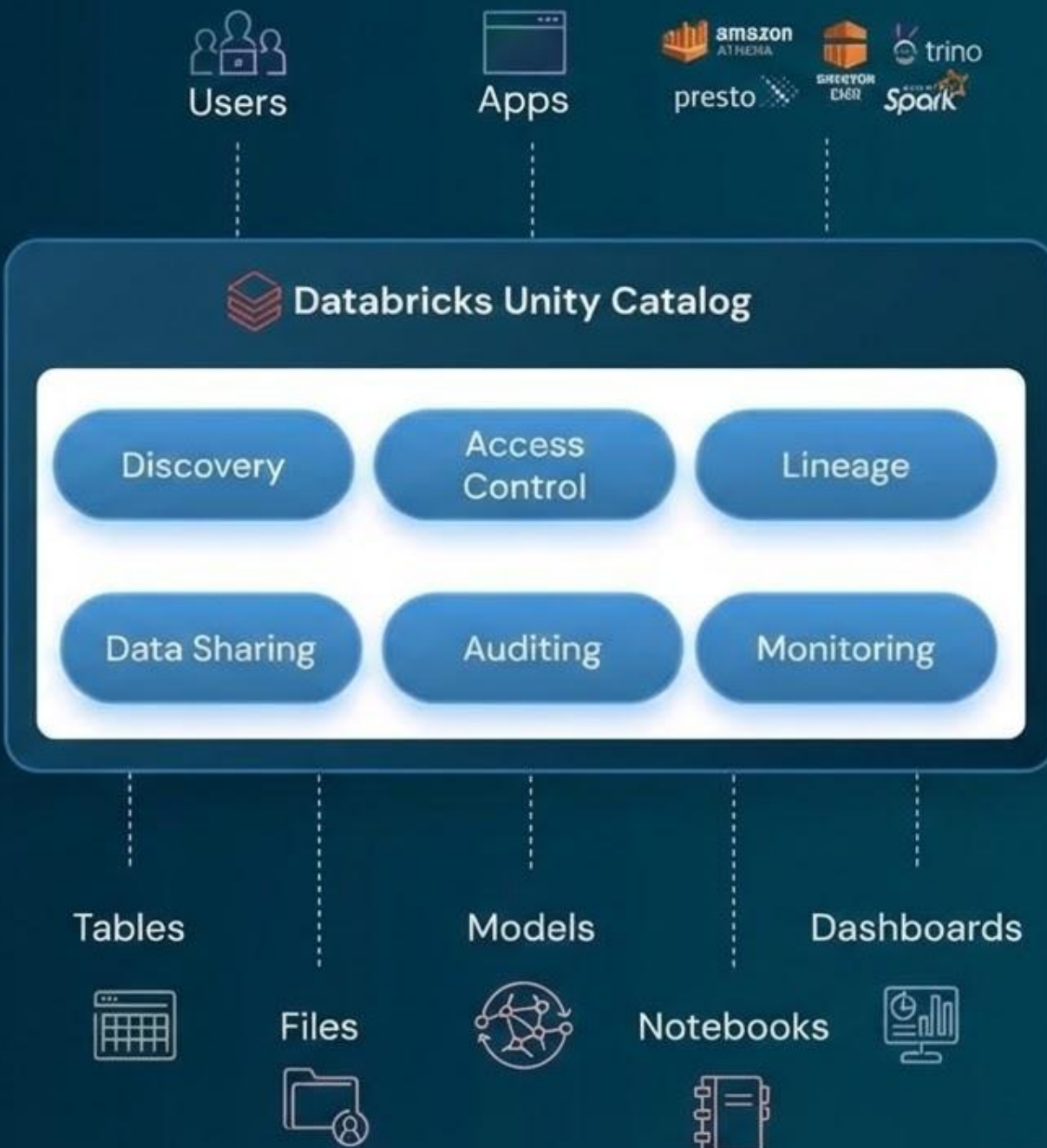
Unified and open governance for data & AI

Unified visibility into data and AI

Simple permission model for data and AI

AI-powered monitoring and observability

Open data access and sharing



DATA



AI



Agent serving



Vector search



Model fine-tuning



Guardrails & LLM judges



Model evaluation



Lineage & tracing



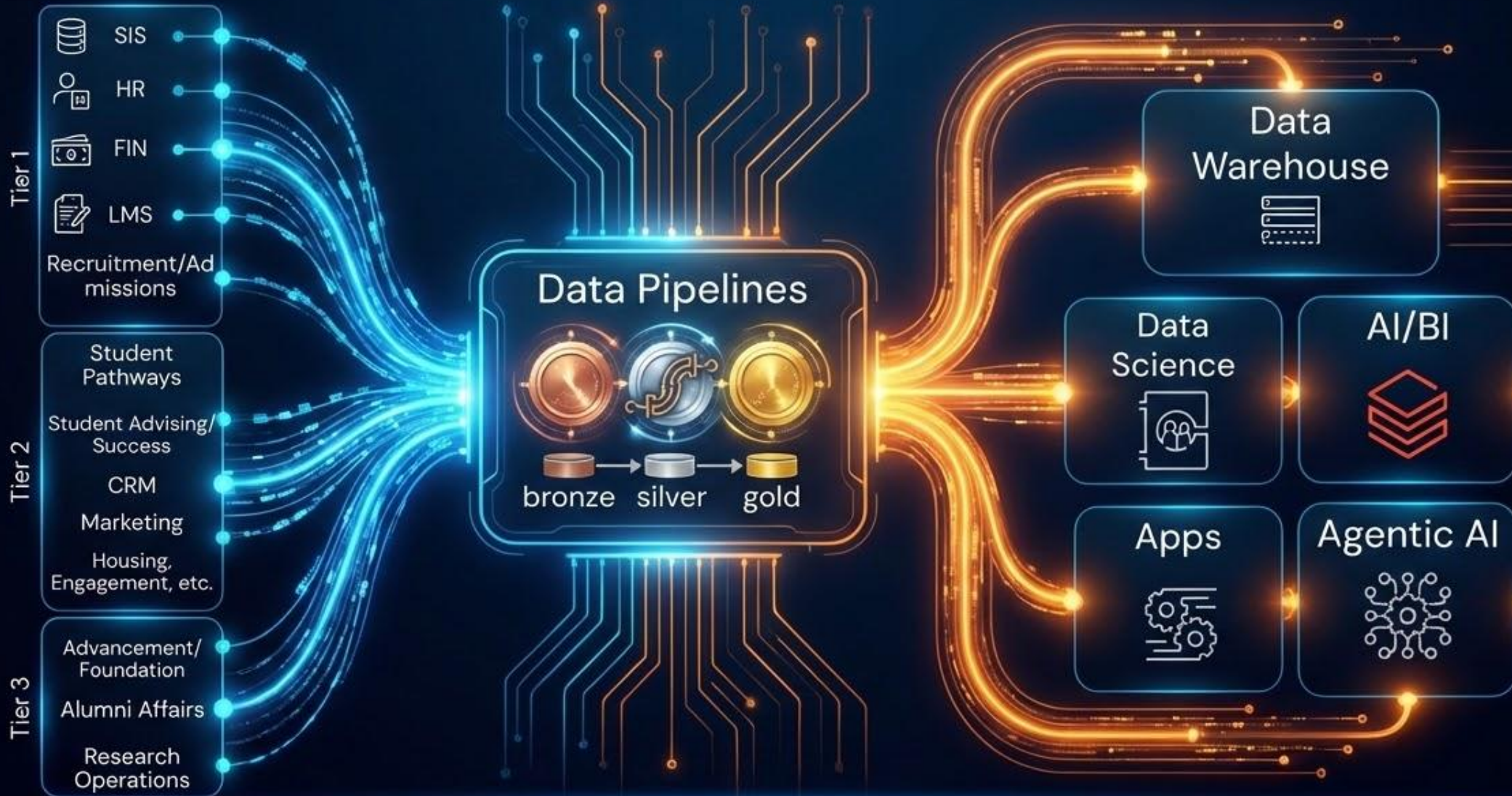
MLOps / LLM Ops



Model governance



Enterprise Data Democratization



Centralized Data Governance with Unity Catalog



databricks

The data and AI company



20,000+
global customers



\$100B+
recent valuation



5B+
run rate revenue



Inventor of the
lakehouse
and pioneer of
generative AI



Analyst-recognized leader

Gartner MQ Data Science and Machine Learning Platforms 
Forrester Wave for Data Management for Analytics 
IDC MarketScape for Analytic Stream Processing Software 
ISG Agentic and Generative AI Buyers Guide 



Creator of:



mlflow



Databricks Recognized as a Leader Across Markets



Building a Smarter Education Ecosystem



20,000+ customers including every DoD service branch, >300 government entities and 200+ HiEd, K12 and Ed Tech organizations

Certifications include:

- 🔗 FedRAMP—Moderate
- 🔗 FedRAMP—High
- 🔗 IL5, IL6—DoD
- 🔗 ICD-503—Intelligence

Deloitte Resultant INFINITIVE
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See the whole picture:

Connect admissions, academics, finances, student life, and outcomes so we see the **whole student** and **whole institution**, not separate reports.



? Ask better questions:

Move from “What is our retention rate?” to “Which students are at risk, why, and **what changes in courses, aid, or support would help most?**”



Integrated Data + AI

Accelerate insight:

Routinely weeks of manual report building with **conversational questions** to AI that return explanations, visuals, and scenarios in minutes.



Understand interconnections:

Reveal how decisions about programs, staffing, and student support **ripple across success, equity, margins, and long-term alumni engagement.**

Guide strategic choices:

Routinely answer complex, mission-critical questions - **what to grow, redesign, or protect** - using one trusted, integrated view of our data.





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Operations



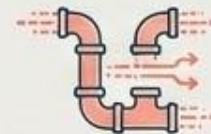
Integrated AI development and MLOps with strong privacy and security controls to **move from experiments to production responsibly**.



Integrated Data + AI



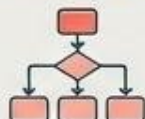
Pipelines



Reliable, scalable data engineering for batch and streaming to **deliver trusted, real-time data to every team**.



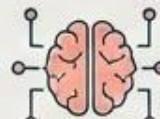
Governance



Intelligent, centralized governance **across data and AI for security, compliance and consistent business semantics**.



Intelligence



A data intelligence layer that **understands your enterprise's data** and language to democratize access via natural-language experiences.

