

# Decoding the Hype: How to Effectively Integrate GenAI in Your Analytics Strategy

November 12, 2024

# Agenda

- Introductions
- AI today
- Challenges & weaknesses of the current models
- Semantic layer – an introduction & review
- Demos
- What's next
- Q&A



**Darren Catalano**  
CEO



**Tom Andriola**  
Vice Chancellor, Information  
Technology and Data &  
Chief Digital Officer



**Mike Sharkey**  
Executive Director of Data  
and Analysis, Enterprise  
Technology



**Craig Rudick**  
Director of Product  
Strategy and Data  
Scientist

## National Recognitions



# Advancing Social Mobility and the California Dream



### #1 University

doing the most for  
the American dream

**The New York Times**

2017 College Access Index

©2017 The New York Times Company. All rights reserved. Used under license.



**Public University**  
for upward  
social mobility

— U.S. News & World Report

**#3** in the nation for  
**Diversity**

— The Wall Street Journal/Times  
Higher Education  
2022 College Rankings



## ASU at a glance

# 181,000

Unique students enrolled at ASU across all sessions of fall 2023, spring 2024 and summer 2024

#1 in Innovation ten years running

5,600+ faculty members and 12,000+ employees

5 campuses across Arizona + campuses in Los Angeles, Washington D.C. and ASU Global

17 colleges and schools offering 350+ academic undergraduate and 450 graduate programs and majors

### ASU Charter

ASU is a **comprehensive public research university**, measured not by whom it excludes, but by whom it **includes** and how they **succeed**; advancing research and discovery of **public value**; and assuming **fundamental responsibility** for the **economic, social, cultural and overall health** of the communities it serves.

# HelioCampus Institutional Performance Management Solutions



**Data  
Analytics**



**Assessment  
& Credentialing**



**Financial  
Intelligence**



# AI Today



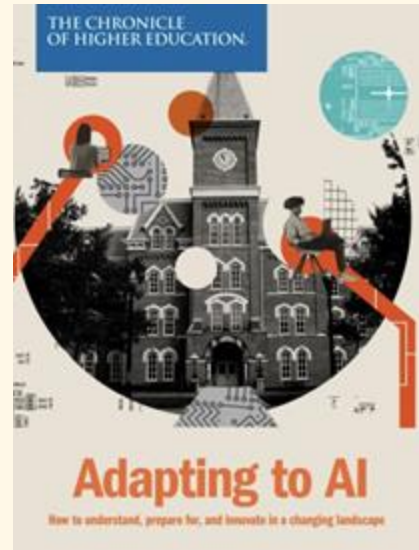
# AI in the News: Higher Ed Edition



## Adapting to AI

**Can We Trust AI in Qualitative Research?**

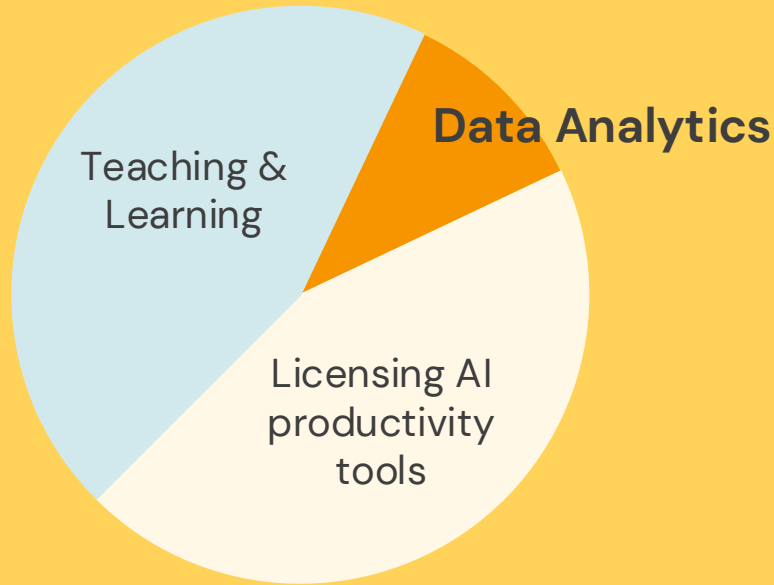
**How will the rise of AI in the workplace impact liberal arts education?**



**Most Campus Tech Leaders Say  
Higher Ed Is Unprepared for AI's Rise**

**How AI Is Changing Higher Education**

## The evolving role of AI today



**Early adoption of generative AI tools** in higher education has focused on teaching & learning activities, and licensing of AI productivity tools.

Generative AI tools for **data analytics** to support student success, financial aid leveraging, tuition revenue analysis, and other institutional initiatives are **growing in importance**.

# A Paradigm Shift is Coming

## Before GenAI:

- Data analysis and dashboard building require specialized skills
- IR & IT highly involved in basic requests

## With GenAI:

- Anyone can interact with and interrogate data
- Frees up IR/IT for more strategic tasks



How are you **thinking** about AI  
at your institution?



# Challenges & Weaknesses

# Challenges



**Context**



**Transparency**

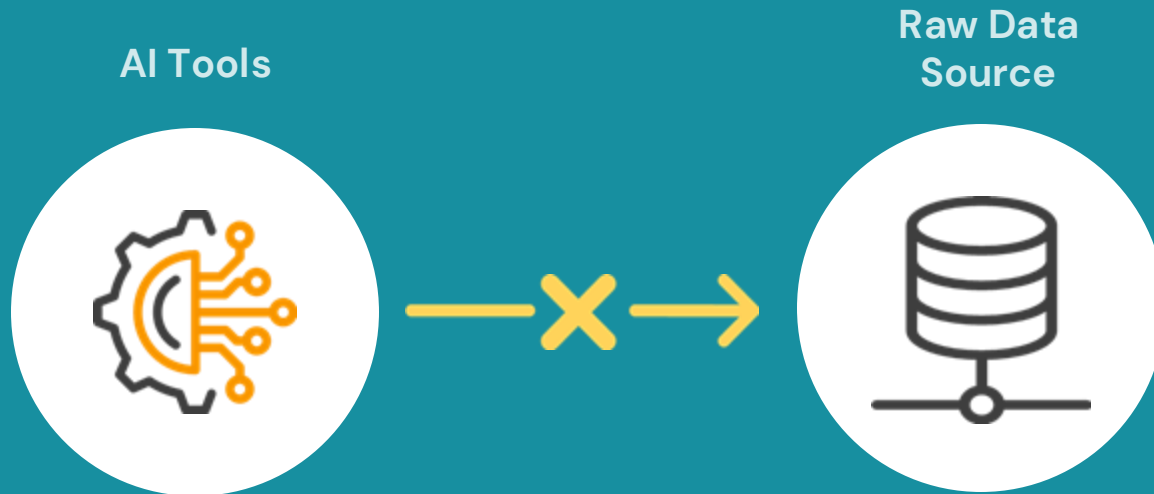


**Consistency**



**Scope**

What do  
people think  
about when  
they think  
about AI?



---

**Questions to consider:**

How to enable text Q&A on  
your data? How well does it  
really work?

How will it change things?  
What do we need to do to  
enable it?



# Critical Building Blocks for GenAI in Analytics



**Data Engineering**



**Data Modeling**

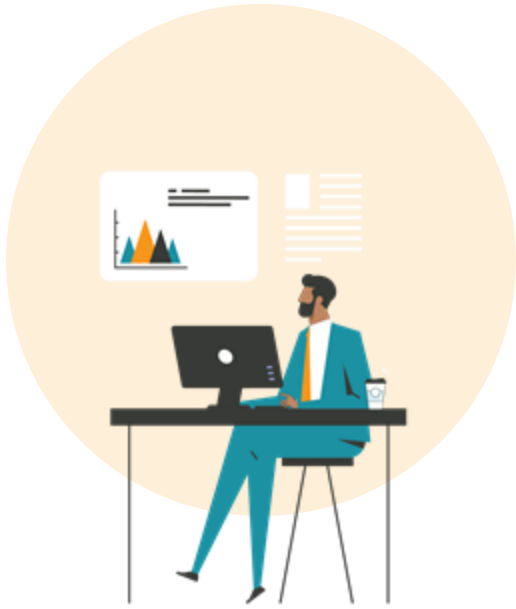


**Data Governance**



**Data Observability**

How are you overcoming these  
challenges?

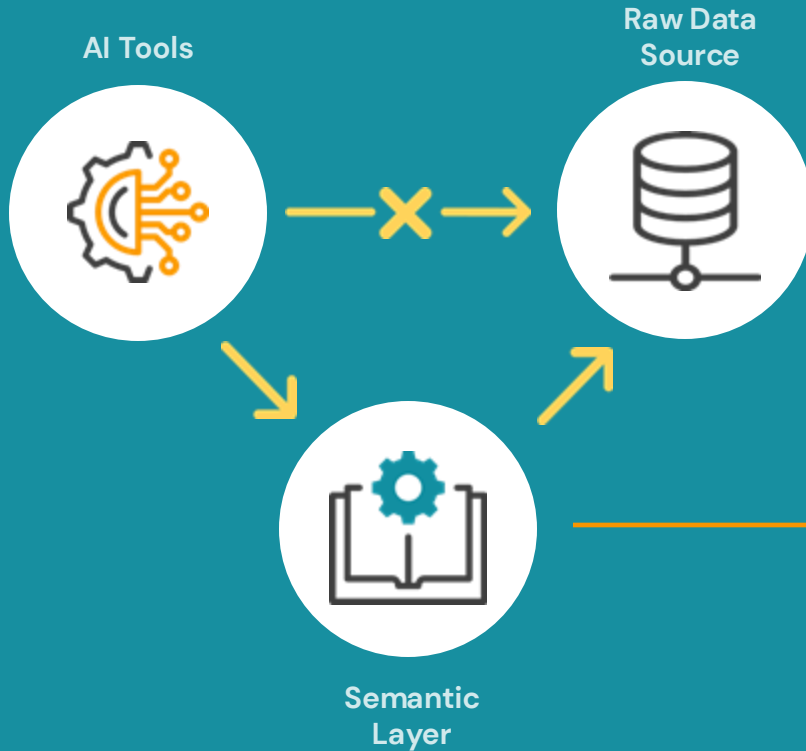


# Semantic Layer



# AI tools don't have the institutional knowledge to put your data in the proper context.

The **Semantic Layer** acts as an instruction manual that guides the AI to apply your data definitions and business practices, allowing the data to be used and interpreted correctly.



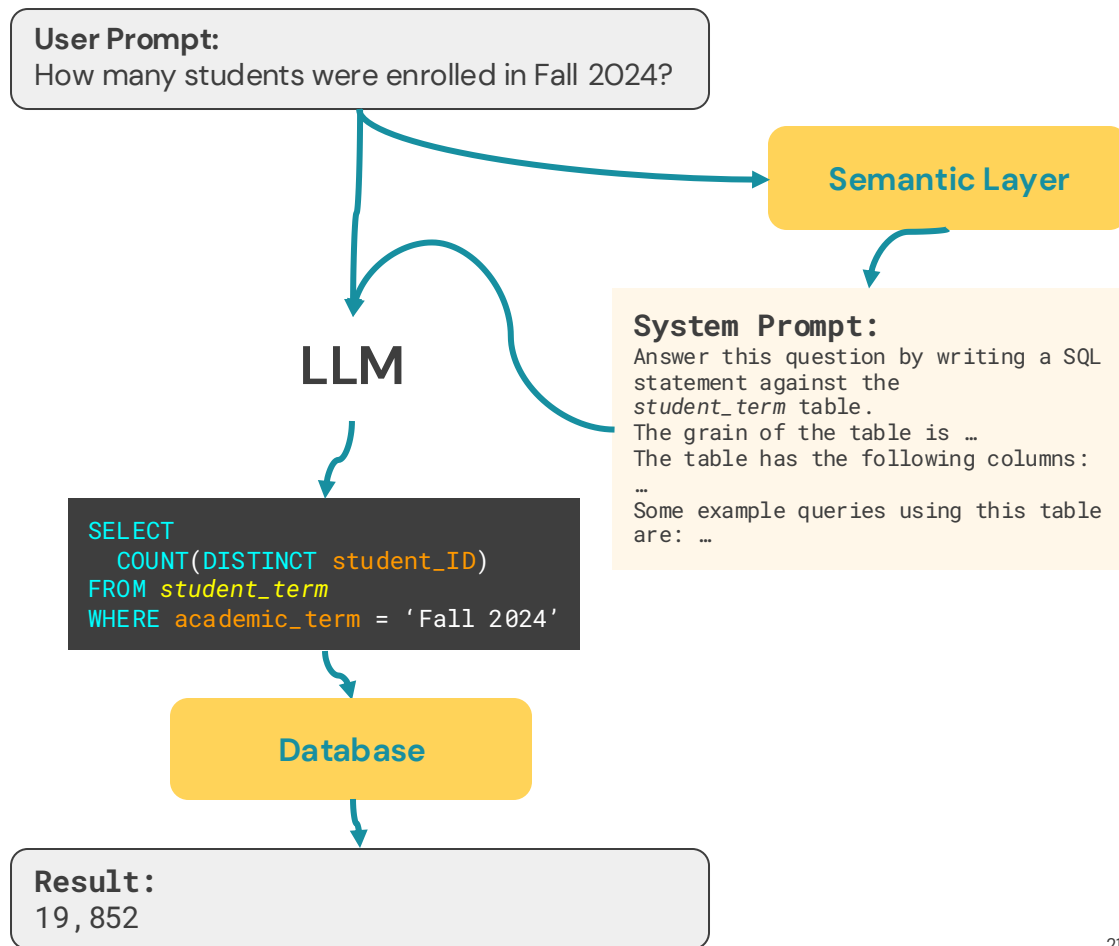
### Existing best practices for humans to interpret the data:

- Data tables organized at the unit-of-analysis.
- Encoded business rules with clear titles.
- Data dictionary entries to describe each field.

### AI-specific practices to optimize for generative AI tools:

- Prompt engineering & pre-processing
- AI-model optimization (e.g., RAG)
- Sample queries

The **Semantic Layer** needs to be **optimized for GenAI** tools, and is necessary for any LLM-based reporting tool to return accurate and consistent results.





# Demo

HelioCampus Semantic Layer





# Demo

ASU Facts

How are you planning for tomorrow?  
Any early success or rollout  
strategies?

The slide features a light gray background with a white top section. A large yellow circle is centered, containing the text "Q&A". To its left is an orange semi-circle, and to its right is a teal circle. The text "Q&A" is in a dark gray, sans-serif font.

Q&A



# Thank you

# HelioCAMPUS

High stakes. Higher education.