DATA ANALYSIS FOR COLLEGES: A MISSED OPPORTUNITY

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Steady, staid, and with a publication dating back to 1843, The Economist isn't exactly known for its shock-jock headlines and click-bait articles. That's why its cover story rocked the business world to its foundations **back on May 6, 2017**, when it declared **"The world's most valuable resource is no longer oil, but data."** A particularly bold statement considering data is being created every second of every day while there is a very finite, every-dwindling supply of oil in the world despite our ongoing dependence on it.

Five years later, it's hard to imagine a world without the power of data. It permeates every industry on Earth, influences decision-making at every level, and guides planning and forecasting from the CEO's office down to the route the custodians take to collect garbage most efficiently on Friday at 5 p.m.

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Data collection has been at colleges since their inception, but the recent challenge of data silos has been impacting higher education from the student experience to administration to alumni. There are four challenges facing higher education institutions today:

- Modernize and Secure the Academy: The landscape of higher education is changing. Ivy-covered walls may dominate pop culture, but in reality many students have been taking advantage of online programs, even before COVID-19. Schools have had to adapt to dwindling student populations, more competition, and fewer resources in order to stay operational.
- Turn Data into Wisdom: The three main inflows of data – student applications, student enrollment, and alumni – are often housed in three separate systems, making data aggregation and subsequent informed improvements an arduous, manual task (and likely overlooked as a result).
- Enrich the Student Experience: How do you keep your students year over year and progress them to graduation? This question, so simplistic in its appearance, is mission critical when it comes to the running of higher education.
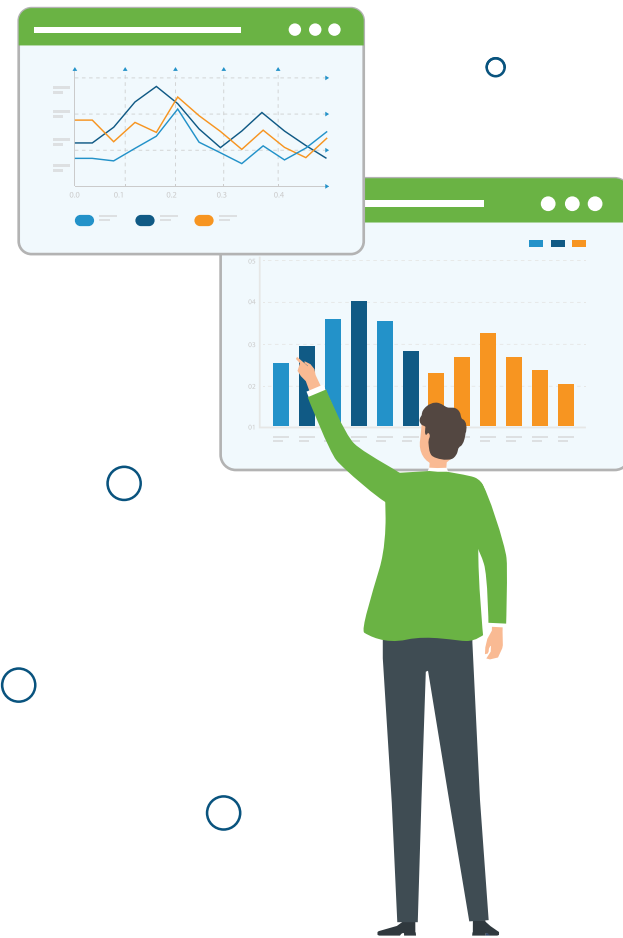
- Empower Researchers and Accelerate Research: Research is revenue for colleges and universities. Providing your research staff with agile, data-rich systems creates an environment where research is more productive.

Data silos have challenged people and organizations since data began being captured. Older ERP solutions can lack the ability to integrate data from multiple points in multiple systems and analyze it collectively to make data-driven decisions. Recognizing that a rip-and-replace of ERP systems like PeopleSoft may not be a viable option – financially or simply because they're operating just like they should so why get rid of something that works – there are still options available for colleges and universities to bring their data together and draw insights.

THERE ARE TWO CRITICAL
PIECES FOR DATA EVOLUTION:

FORM THE BIG PICTURE

Whether you are using PeopleSoft for all functionality of your campus ERP or a hybrid featuring some software as a service (SaaS) application, the biggest pain point you are facing is typically not in the collection but in the utilization of data. A good visualization of this is asking four different vendors to assemble supplies to build an entire neighborhood. One brings lumber, one brings bricks, one brings pipes, and one brings steel. They all have the neighborhood's location written down, but each parks their truck at a different corner of the neighborhood. All of them have a giant sealed box of materials – your data – but no one thought of how to get the supplies in the same location or brought the proper tools to put the raw materials together to build the houses. Your collection is top drawer for individual practices, but integration and collaboration are just words at this point in the game. Having a commonality, such as hosting environments on cloud systems such as Amazon Web Services (AWS), lets you begin to piece the puzzle together in a central location.

CREATE A COMMON ENVIRONMENT

A challenge especially experienced by colleges of 5,000 or less students is a lack of a common environment where all their data can be coalesced, parsed, analyzed, and blended together for use at any time. This so-called "data lake" can be had without additional back-office software. For example, AWS offers a tailormade cloud environment specifically for higher education that is custom-built to find patterns in massive sets of data, provide data security to comply with all existing laws of privacy for personal information, and perhaps most importantly, put your data through the paces using sophisticated Machine Learning (ML) to detect patterns and trends, identify areas of concern or weakness, and suggest courses of action accordingly. The data warehouses of old are too much like an actual warehouse – enormous, confusing, and you must already know everything about its layout to be able to find anything without wasting hours searching. The concept of a data lake is one where data can be stored "as is" without needing to first structure it. Different iterations can be run on the data, anything from visualizations to analytics to Big Data processing at the same time by multiple users from multiple departments.

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FOUR STEPS FORWARD
TO IMPLEMENTATION

The final step to data consolidation will be to develop the roadmap that reflects strategic moves to make to minimize disruption to existing systems and teams:

1. PRIORITIZING CHALLENGES

Decide whichaspects of your college's ERP are most in need of new solutions to maximize the data being collected. Just like data, this decision can't exist in a silo – work collaboratively with departments to identify the pain points that are most pressing.

2. PROTECTION OF THE COLLECTION

The biggest two areas of focus at a college are the students and the staff, and while both have enormous tracts of data to collect and share, most of that data is personal information that can only be collected, used, and stored according to a very specific group of rules and regulations. As people grow more and more aware of just how large of a data footprint they are leaving online, they also have begun to be defensive and protective of what parts of their information are used in any circumstance. Your data collection mechanisms must be respective and law-abiding when it comes to these areas. It might mean sending out new without needing to first structure it. Different iterations agreements to staff and students about how you are collecting their data and what the end-use of that collection is. can be run on the data, anything from visualizations to analytics to Big Data processing at the same time by multiple users from multiple departments

3. ANALYSIS BEGETS ACTION

When you begin building your dashboards and automating reporting, first think of the challenges you are solving and the questions you are answering. Duplicating dashboards that already exist but don't create actionable insights will create the same lack of results. Configure your solution to create answers, not questions.

4. TEST TO SATISFACTION

Remember that technology is a tool, not the answer in itself. Be sure to test your integrations and configurations in simulations, field testing, beta testing, or however your institution finds the flaws before going live, when the eyes of not just users but also senior leadership will be on it.

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IF YOU **RECOGNIZE**

the value in getting your data to talk across silos but don't know where to start or have the bandwidth to do it alone, reach out. Our talented ERP and AWS teams are here to consult with you and are ready to do the heavy lifting needed.

Email us today at info@erpa.com.

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