



A NUVENTIVE POSITION PAPER

The Human Element

Closing the Critical Last Mile for AI, BI, and Improvement



Outcomes matter. Your key initiatives – and those they impact - matter. Can your data help you turn these priorities into progress?

Every day, across your institution, key initiatives are in the works to improve the lives and outcomes of students, the performance of your organization, and your impact on the broader world. Data from artificial intelligence (AI) and business intelligence (BI) solutions are powerful assets, surely. However, in many cases, data means little unless it is tied to priorities and outcomes in a way that is accessible and usable by humans in the moment when decisions are being made.

One of the highlights in working in higher education is that there are so many brilliant people on the campus, with incredible knowledge and a passion for improving their students' success, their institution, and their fields. Recent research shows they're hungry for better use of data. According to the *2023 Higher Education Trend Watch* report from EDUCAUSE, "more calls for data-informed decision-making and reporting" is among the top trends at higher education institutions at all levels.

Today, there is unprecedented potential to bring their best thinking together with the best information in a way that is consistent, scalable, and designed to foster continuous progress. That potential is brought about through "data-informed improvement" technology.

This paper will explore the concept of closing the metaphorical "last mile" between data systems and your people's best thinking to support truly data-informed institutional improvement.

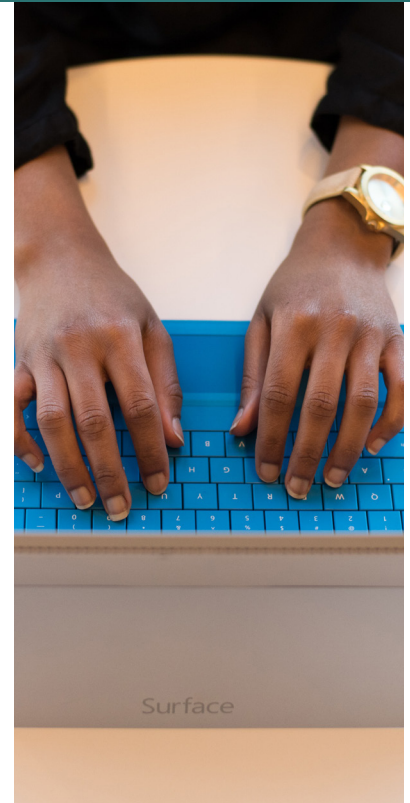
Higher education decision-making and the role of information

In the EDUCAUSE report noted above, institutions are striving to implement more and better technological tools to foster a culture of data-informed decision-making.

AI has emerged as the latest contender against the surge of pressures facing higher education leadership, following years of increased investment in BI and data infrastructure. Arguably, in some cases, decisions could be fully automated, such as course scheduling or fraud detection. Most others, however, require some level of human engagement, analysis, and application of ethics policies.

AI and BI can indeed be powerful contributors to human decision-making. For example, an AI system could process BI data, highlight trends, and provide recommendations. Faculty and staff would ultimately make the decision informed by the data as well as their own expertise and judgement.

A key question, sometimes overlooked, is how the data is provided in the context of the decisions being made. Results from BI and AI solutions can be presented in many forms. In enterprise-scale situations, these are often written or visual formats. Without a "navigation system" that closes the last mile between systems and the actual humans who are responsible for delivering improvement at their institutions, the result is yet another disconnected silo of information that is challenging to find when needed.



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Mission-critical priorities demand *targeted support solutions*

If the goal is to pull together information to support the best human thinking to make decisions, AI and BI can only help your stakeholders navigate to a certain extent. Consider their “destinations”:

- + Organizations need to see how initiatives they pursue roll up to the highest-level strategic goals (growth, profitability, sustainability, etc.)
- + Executives need to see at a high level what’s working, and what isn’t - across a host of interconnected initiatives.
- + Stakeholders need to see how they stand on their areas and where to go for examples of effective practice.
- + Everyone wants to see how their work is contributing to the bigger picture – especially important in the face of the Great Resignation.

In his white paper, *Leading in Turbulent Times: In Search of a Navigation System for This Critical Moment in the History of U.S. Higher Education*, Dr. Brent D. Ruben, founding president of The Network for Change and Continuous Innovation (NCCI), states, “The navigation system should be one that encourages leaders to consider fundamental questions, aggregates information needed to provide relevant answers, helps leaders identify possible destinations and distances, allows for entry of selected goals and waypoints, suggests alternative routes, and assists leaders throughout the institution with strategy development and planning. The navigation system should help track and report progress on travels, warn of roadblocks and necessary re-routings from the preset course, identify alternative paths when impediments arise, and provide periodic reminders of the values that define where true north lies. Finally, they need a system that comes with options for both personal and institutional guidance.”

As you examine your initiatives, you might explore these questions:

- + Do you have the capacity to deliver improvement at scale across your organization?
- + Do you have the capacity to achieve more now by effectively using the information resources at hand in your BI, AI, and other systems?
- + How can you enhance the value of the AI you’re already investing in through vendors or through on-campus development?
- + Can you support the learning culture needed to adapt as conditions (undoubtedly, perpetually) change?

Make data so easy to use that *people actually use it*

Accessing and presenting information in context of the problem being solved is frequently a significant issue. Stakeholders are plagued by not knowing what information is in which tool, who “owns” the tool or how to access it. By implementing a modern solution for data-informed improvement, such as Nuventive, organizations can:

- + Achieve more now, by getting the right information to the right people at the moment of greatest impact;
- + Improve faster by quickly identifying what’s working and what isn’t, across multiple, interconnected initiatives; and
- + Adapt to change by building the capacity of a learning organization to capture and share effective practices.

Nuventive uniquely addresses the people side of data-informed improvement, tying information to the outcomes that matter to the institution and to the individual using it. The software makes information resources far easier to use, with instructions and guidance where the individual and desired outcome intersect at the actual point of decision-making. It also builds in a feedback loop on the usefulness of the information itself, including the AI you’ve developed on-campus or purchased from third-party vendors. As such, Nuventive helps you foster continuous improvement at the information asset level as well as at the initiative level.

The Nuventive Improvement Platform solution:

- + Unites traditionally siloed planning, measurement, and outcomes information on a single screen. The resulting display presents qualitative and quantitative insights together, in the context of the question at hand, at scale.
- + Interconnects plans so you can see how individual initiatives are impacting your institution's most strategic goals. Nuventive can help you drive progress for any transformation, such as strategic plans; learning outcomes: administrative outcomes; diversity, equity, and inclusion; digital transformation; program review, general education; student success, sustainability, workforce education, and much more.
- + Organizes and tags information by business purpose, regardless of its source – AI, BI, file sharing systems, and virtually anything with a URL. For example, data tagged for graduation rates could surface from BI and AI sources, stories on journalistic web sites, and association reports. This reduces friction by preventing decision-makers from having to chase down owners and log-ins by delivering secure, SOC 2 Type II compliant, permission-based access to the right information when it's needed.
- + Makes progress toward business objectives visible at every level. From the faculty to the board, everyone can see – and drill into – interactive dashboards tied to actions and outcomes, supported by live information for better decision-making.
- + Empowers faculty and staff to discover, disseminate and improve effective practices across common situations. Nuventive supports delivery of continuous improvement by enabling institutions to distribute problems and share examples of what's working, with actionable suggestions and whom to contact for more insights.

Fostering a culture of data-informed improvement

While the concept of a data-informed culture is not new, the expanded concept of building a sustainable culture of data-informed improvement is gaining new momentum in higher education. With a continuous feedback loop and a platform to give faculty and staff the best information to make decisions, institutions can achieve more, improve faster and adapt better.

About Nuventive

Nuventive enables higher education institutions to turn their priorities into progress through the better use of information. Its cloud-based data-informed improvement platform brings business process and information together to support any improvement initiative, including overall strategy; accreditation; student success; diversity, equity, and inclusion; learning outcomes; general education; administrative outcomes; program review; workforce education; and sustainability. Nuventive is headquartered in Pittsburgh, Pennsylvania with distribution in North America, Europe, and Asia-Pacific regions.

For more information on how your institution can benefit from data-informed improvement, contact learnmore@nuventive.com, visit www.datainformedimprovement.com, or visit www.nuventive.com.

