Finished in a Flash
‘Fast-track’ construction saves time, but may pack hidden campus costs. 34

5 REASONS TO SWITCH TO VIRTUAL SERVERS
The greatest thing since sliced bread? 28

FROM DATA TO INFORMATION
Harnessing the power of Business Intelligence. 24

TRIAL AVERTED
Princeton settles long-running endowment lawsuit. 8

COMING ATTRACTION
International students flock to U.S. 11
At Baruch College (N.Y.) and other institutions, BI software can open the door to the value of existing data to aid in decision-making.
A DECADE AGO, DATA AT FLORIDA STATE University was dumped into so many disparate silos that any kind of timely strategic comparison was impossible. From enrollment and financial aid to student information and housing, the various tiny bits of information that told the institution’s story couldn’t be retrieved and presented well without days and days of work.

“Historically we had programmers, and we could ask them some specific questions, and they’d go off, and if we were lucky they’d come back sometime in our lifetime with the answer to our questions,” recalls Richard Burnett, FSU’s director of student information management. “Or else we had a number of fixed reports that we’d been using for years to track where we were and plan strategically off of them. That’s not very flexible.”

In about 2000, seeking more integrated data warehousing and swifter reporting capability, the university became an early higher-education investor in business intelligence (BI) tools—software and web-based applications that allow leaders to visualize the data stored in various systems and turn it into usable, analyzable information.

Thanks to a solution from SAP, standardized data is now available to campus leaders in a matter of minutes. And FSU officials are able more nimbly to make decisions based on the strategic direction its leaders had set. In the case of enrollment, that meant focusing on students with the academic skills to stay in school, and not spending resources pursuing what Burnett calls “a lot of dead ends.” He adds that BI’s “primary value is to be more efficient and give greater return on our investment in terms of our activities.”

The Pressure of Productivity

Only within the last decade, says industry analyst Nicole Engelbert of Datamonitor, has higher education begun effectively exploiting BI solutions. Even then, it was something of a luxury reserved for the largest institutions. But external trends have made BI much more attractive to a wider range of IHEs. “Institutions are under a lot of pressure from a productivity and efficiency perspective,” she says. “There’s a lot of push for accountability—from the federal government, state governments in some cases, accrediting bodies, even from the U.S. News & World Report. ... That’s pushed high-level decision-makers to think, ‘How can we do better? How do we know if we’re doing better, and what should we do to do better?’”

Existing enterprise resource planning systems were inadequate in examining data, she adds. They couldn’t supplement their reporting capabilities with insights into the various factors that impacted institutional trends and help steer campus leaders to a response.

IT vendors stepped in with a new suite of solutions. “Business intelligence is a way to visualize data that exists in a variety of systems around the institution, allowing for a snapshot in time of the state of the institution and giving you a good sense of where you...
are at the moment,” says Dan Silverburg, director of marketing for higher education at one of those vendors, SPSS.

One of BI’s most useful features is its ability to standardize data from across an institution. This may seem basic, but administrators say that before utilizing BI, they never had a full picture of where their institutions were. “Different departments were coming up with different numbers for the same thing,” says Lynn Hamre, chief information officer at The College of St. Scholastica (Minn). “We couldn’t do historical trend analysis, we couldn’t do cross-campus reporting. It was ending up doing most of the custom reporting, and the IT staff just couldn’t continue to maintain the existing warehouses or meet the changing needs of our customers.”

Thanks to a BI tool from SunGard, Hamre says, for the first time administrators “can easily and on their own go in and make informed decisions on how to do the business of the institution. They don’t have to ask anyone, they don’t have to wonder how accurate the information is. When we are sitting in executive team [meetings] doing strategic planning, we know where we go for our data. We don’t have to sit and wait for it.”

Lifting the Data Fog

Users say that having all data in a single form and in a single, accessible place allows them to see, for the first time, that clean data delivers clearer solutions. “If not putting in a field has no effect, then who cares?” asks Dan Thomas, director of database services at the University of Miami, which uses a solution from MicroStrategy.

“But if you see the effect in your own report of not having the data that you need properly coded or properly collected, it really changes the relationship of the user to the data they’re dealing with.”

That, in turn, removes much of the guesswork from decision-making and enables campus leaders to move forward with strategies and tactics more firmly grounded in reality. For example, before implementing a BI solution about three years ago, City University of New York’s Baruch College was “in a data fog,” says Jimmy Jung, manager of enrollment services and interim director of undergraduate admissions. “We didn’t know where to get the data or what data was accurate. People were just presenting stuff all over the place, and a lot of intuition and guesswork was involved.”

Armed with the consistent data its BI solution delivered, Baruch administrators began seeking ways to improve retention rates. They opted to purchase SPSS’s predictive analytics product, which the company claims extends BI by allowing users not simply to harness and customize data but also to foresee future trends. In Baruch’s case, that meant analyzing add/drop information and class failure patterns to identify at-risk students and direct them to support services.

“For the first time, we had a common data set, data that officers could draw from and use and that there would be no confusion about,” says Jung. “At every high-level planning meeting we go to, it’s expected that we present data to back up any actions or planning.”

The implications of such data clarity are numerous. As Andrew McAusland, associate vice president of instructional and information technology services at Concordia University in Montreal points out, within seconds he can determine how many male students between the ages of 19 and 23 are slated to be taking an education class on the fifth floor of a teaching building between 8:45 and 10 p.m. “Being able to drill down and answer questions like that can be of value,” he says. “If we have an emergency in a building, we can locate how many people are supposed to be there. We can do all sorts of cross-related information mining, which is different than data mining. You are asking for an explicit answer to a question that might not have been asked before. The business intelligence model, if properly set up, will be able to give you that information.” Blink Logic is the BI solution provider for Concordia.

A diverse array of campus officials has found these tools useful. Daily monitoring of recruitment data, once an impossibility, allows enrollment managers to fine-tune financial-aid tactics, attracting more first-choice prospects and saving their schools scholarship money. Academic affairs leaders can keep more accurate track of faculty teaching workloads and research activities. Faculty members conducting research can see how long grant funding will last.

“You can better project what your research inflow will be, and you also can better project what your cost-sharing allocations will be on the research side,” says Ora Fish, acting director of integrated administrative computing services at Rensselaer Polytechnic Institute (N.Y.), which has implemented an Oracle BI solution. “We can be more efficient in terms of distributing the teaching and the research load on the faculty side.”

Putting that data in the hands of users frees them up to do more strategically important work than simply running reports. “I don’t want to be the owner of the data,” says Suzanne DeBlanc, director of
data management at San Jacinto College (Texas), which uses a BI solution from Information Builders. Administrators across campus should be the data owners; they know their own numbers best.

Words of Advice
As with any major campuswide initiative, users say it's vital to have a vocal advocate in a leadership role to secure buy-in for a successful BI implementation. Burnette says it should be someone with the creativity and vision to leverage “resources that are tapped for purposes of being strategic and resources that are analytical.”

Other counsel offered by those who have deployed BI solutions:
• Buy from firms that are aware of how long BI can take to implement. “Look for vendors that have mitigated some of that pain—through highly evolved sources for the implementation, through pre-built data models and modules for specific areas of the institution, such as recruitment, retention, or advancement, [and through] report templates,” advises Engelbert. “All of these things together reduce the time to deployment.”
• Make sure the new tools integrate with other institutional strategic means. “I would never suggest that just business intelligence is the only approach,” says Serge Herzog, director of institutional analysis at the University of Nevada-Reno, “but I do believe it is a critical approach, particularly in this time of limited resources.”
• Cleanse your data sooner rather than later. “Opening up the hood on all of your transactional, interactional, pedagogical data can be a bit overwhelming,” says Engelbert. “It can also be really, really ugly. Nothing is named how you think it should be named, and data quality can often be a mess.”
• Do your homework by reaching out to other schools, and get the right tool for your particular situation. “You need to really look at what your needs are,” Hamre says. “We thought [what we purchased] was the right tool for us, but other organizations with different technology staffing levels or different needs might find a different tool that works for them.”
• Create the right governance structure. It should be staffed with high-level decision-makers who can define the different data elements your institution needs to use the tools correctly.
• Be specific. “You need to draw some sort of a corral around this,” says Jim McGlothlin, vice president of higher education applications strategic programs at Oracle. “You need to pick a specific project, certain kinds of questions that you want to answer, limit the number of data inputs, limit the number of where it could go kind of off, take it in stages.”
• Understand that BI is not just a technical solution. “Technology plays a very important role,” Fish says, “but what’s even more important is to make sure that you bring along the business users and for them to understand that they will have to play a very important role in understanding that technology without real penetration, without real usage, will not cut it, especially for higher ed.”

The great appeal of business intelligence, say users, is its versatility. By turning esoteric data into usable information, BI puts more resources into the hands of those responsible for stewarding institutions. “The more information you can push to the pertinent party, the more value it has, whether it seems trivial at the time or not,” McAusland says.

Valuable information also leads to better decisions, allowing higher ed leaders to wring more out of less. “It allows us to deploy our resources more cost-effectively,” notes Herzog. “The University of Nevada-Reno has developed at-risk student forecasting models to improve student retention. ‘We have limited resources in terms of our student assistance program, and we want to make sure that we engage the right students and are not spending time on students that really don’t need the help.”

Resources
Blink Logic, www.blinklogic.com
Datamonitor, www.datamonitor.com
IBM, www.ibm.com
Information Builders, www.informationbuilders.com
Jaspersoft, www.jaspersoft.com
Jenzabar, www.jenzabar.com
MicroStrategy, www.microstrategy.com
Oracle, www.oracle.com
Pentaho, www.pentaho.com
SAP, www.sap.com/usa
SPSS, www.spss.com

Serge Herzog heads up institutional analysis efforts at the University of Nevada-Reno (left), which uses predictive analytics software from SPSS.

Thomas W. Durso, formerly the director of communications at Saint Joseph's University in Philadelphia, is a Glenside, Pa.-based writer.