In 2001, not long after the creation of EDUCAUSE itself, EDUCAUSE Review published “The Answer is Still Technology—Strategic Technology.” In the article, Milton D. Glick makes the case for the strategic potential of technology, concluding that the real value “is not technology per se but the strategic use of technology.” Based on a small survey of provosts, the article includes a “report card” on the strategic use of technology, and the scores weren’t high. In fact, half the grades were Ds, and “teaching and learning” managed an “incomplete.” In so very many ways, this article expresses hopes, dreams, exasperations, and impatience that could just as easily be quoted in 2018. One theme—that “information technology must be at the table when key decisions . . . take place”—has been repeated every year since. In conclusion, Glick argued: “Traditional higher education may be at an inflection point”—suggesting that the move to more strategic IT will be dramatic. As we continue the 20th anniversary year of EDUCAUSE, now seems a perfect time to consider whether information technology is finally acknowledged (and used) as a strategic asset or whether this realization continues to be an elusive milestone following an anticipated inflection point that somehow never seems to happen.
When it comes to broad, demonstrable acceptance of information technology as a strategic asset, there are—as we say in higher education—“pockets of excellence,” especially colleges and universities that have taken on major digital transformation initiatives with vision from the top and buy-in throughout the organization. On the other hand, some evidence suggests that we may actually be moving in the opposite direction. For example, in the 2017 Campus Computing Survey, the percentage of respondents who say that “senior academic leadership understands the strategic value of institutional investments in IT” declined by 10 percent from the previous year. Likewise, the 2017 Leadership Board for CIOs survey reports that board-level involvement in IT governance experienced a “significant drop,” from 26 percent to 17 percent—the lowest level of board engagement in four years.

Our Utility-Focused History
In the history of higher education information technology, a very well-worn witticism is the saying that no one knows information technology exists until something breaks. Dartmouth College Vice President and CIO Mitch Davis suggests that this legacy view expects information technology to be “silently awesome.” On the one hand, it’s surely a badge of honor to be the unsung hero who keeps everything going with duct tape and cat-5 cables, but working brilliantly in the background isn’t sufficient today. As Southern New Hampshire University (SNHU) President Paul LeBlanc wrote in EDUCAUSE Review, “The IT organization must be good at the science and sound practice—its foundational work—but to successfully face the challenges ahead, the organization must also help lead the way with a creativity and inventiveness it has not always volunteered or even asked to provide.”

LeBlanc thinks of technology functioning at three levels:
1. Technology that allows us to do what we have been doing, but do it better
2. Technology that allows us to do what we have been doing, but do it less expensively
3. Technology that allows us to reinvent what we do

I would argue that we started to move away from a pure utility perspective in 1999, as we were overwhelmed with worry about the Y2K bug. Y2K created a great deal of hand-wringing and put any number of consultants’ children through college, with $100 billion spent in the United States alone. It was a great relief when our CPU clocks turned over to 1/1/2000 without planes falling from the sky or other disasters caused by major software glitches. However, the story that sticks from Y2K is not that technology is dangerous but, rather, that it is all around us. As the chairman of the President’s Council on Y2K, John Koskinen, noted in 1998: “These chips are everywhere.”

Thanks to the steps taken in advance, the Y2K apocalypse never came to pass, but what was realized was the degree to which technology had become critical and ubiquitous—though still largely invisible.

As EDUCAUSE looks to our next twenty years, LeBlanc’s idea of reinvention involves a transformational capability that requires so much more than technology working well in the background. It

Making the Case: Curves Ahead

Brad Wheeler, CIO and Professor, Indiana University

I am deeply concerned about the (mostly) diminishing influence of the CIO role in the executive leadership ranks at many colleges and universities. For context, three curves are indisputable for the decade ahead. The effect of each curve on a particular institution will be somewhat mediated by its wisdom in IT operations and strategy:

1. Higher education will face an overcapacity problem by the end of the next decade as the number of graduating high school seniors falls off precipitously in 2026 and as additional substitutes arise for residential education—particularly for post-graduate education.
2. Almost everything foreseeable regarding our mission of research and education will become more technologically-intensive—more dependent on commodity, specialized, advanced, and integrated technologies to achieve that mission within costs that our revenues can sustain.
3. Colleges and universities are not innovating quickly enough or deeply enough with our economic costs and delivery models in the increasingly competitive space of overcapacity, downward price pressures, consumer flight to quality, and efficient substitutes for what we do.

Add to these three inexorable curves the fact that bond-rating agencies are already turning negative on the outlook for our enterprise, and the challenge is clear.

We may well adapt. I am bullish on the ability of the academy to adapt and reinvent itself, as it has done over the millennia. But the pressure to do so this time will become immense and will be measured in years rather than half-centuries. Therein is the essential role for the skilled CIO to work both operationally and strategically to help navigate each institution through the curves ahead.

Note
requires a campus culture that understands the strategic value of information technology, and it requires an IT operation that thinks far beyond operational/utility foundations. In short, what got us here is a powerful and important utility legacy that can never be ignored, but today we need more.

This tension between utility IT and strategic IT has been a persistent theme in our community, like a tune you just can't get out of your head. At the 2010 EDUCAUSE Annual Conference, Brad Wheeler and Brian Voss famously debated the dichotomy as it applies to the role of the CIO: is the role one of plumber or strategist? Four years later, Voss talked about how the schism had actually intensified, rather than diminished. He shared his story of how, poised to launch a focus on strategic transformation at his campus, he was forced instead to put on “waders” and grab a “plunger” as the result of a security incident. He concluded, “When plumbing always overwhelms strategizing—when fires always cause a stoppage in our plans to build a sprinkler system—this may be fracturing our profession.” As Voss and Wheeler agreed in their earlier debate, the successful IT leader must be a master of both plumbing and strategy.

**Our Strategy-Focused Future**

Whether or not those we work with acknowledge the thoroughly strategic nature of higher education information technology, currently emerging technologies make it irrefutably clear that technology is silently awesome, is ubiquitous, and is an institutional differentiator that requires the highest level of strategic consideration. In fact, even a cursory review of the most intractable challenges facing higher education in 2018 points to the promise of technology to gain traction and make a strategic difference at the highest level:

- **Student Retention and Completion.** Traction: advanced learning spaces; more intense engagement and experiential learning made possible with emerging augmented reality, virtual reality, and mixed reality innovations.
- **Student Affordability.** Traction: reduced time-to-completion; open educational resources; and institutional cost reductions through at-scale, technology-enabled efficiencies.
- **Financial Viability.** Traction: improved sustainability through adoption of new business models (e.g., as done at Southern New Hampshire University and Arizona State University).

Beyond these wicked challenges, perhaps the most worrisome crisis in US higher education is the negative perception held by students, parents, and communities. Although technology innovation alone is unlikely to change these perceptions dramatically, deploying technology that reimagines and enhances the student experience and changing student success outcomes in the ways described above have the potential to make a substantial difference—from prospecting for students through interacting with alumni.

Findings from the 2016 EDUCAUSE Center for Analysis and Research (ECAR) studies of undergraduate students clearly demonstrate that students desire more technology and that technology helps them learn (see figure 1). In the 2017 study, at least 80 percent of students report that each of the student success technologies listed in the survey is at least moderately useful. About 6 in 10 students wish their instructors used lecture capture, early-alert systems, and free, web-based supplemental content more often. Technology offers perhaps the brightest hopes for moving some of the hardest-to-move needles in higher education, including student engagement and (timely) success. For this reason, among others, student success was the #2 issue in both the 2017 and the 2018 EDUCAUSE “Top 10 IT Issues” lists, behind only information security in both years.

And of course, students and parents are the least happy when students start college but don’t finish. With funding provided by the Bill & Melinda Gates Foundation, EDUCAUSE has worked, since 2015, with colleges and universities that are implementing technology-assisted advising tools. Many of these tools have produced concrete results, such as a 3.6 percent increase in overall retention at Colorado State University since 2006 and a 10.5 percent increase in retention at Northeast Wisconsin Technical College. Technology can be incorporated into initiatives and programs to increase retention and completion, reduce time-to-completion, and decrease withdraw rates. There is no better example of strategic technology that supports institutional goals than programs that directly contribute to improved student success and timely completion.

Needless to say, we want to advance

**Figure 1. How Technology Helps Students Learn**

Percentage of students who say that technology has helped them:

- Ask instructors questions: 79%
- Engage in the learning process: 71%
- Work with other students on class projects: 69%
- Participate in group activities: 65%

Source: “Student Study 2016” [infographic], EDUCAUSE.
Making the Case: Technology-Enabled Student Success

Michael Crow, President, Arizona State University

SU President Michael Crow has been adamant about the ways technology innovation, integrated platforms, and analytics can contribute to student success. In an interview in 2016, he talked about what he was seeing in higher education, including “all of this hesitancy about the integrated, aggregated tools—both software and hardware—that we now have available to us.” He added: “These tools have moved so far forward that they are now unbelievably powerful in changing student outcomes. They can expand. They can enhance. They can individualize. They can do all these things that even a few years ago they couldn’t do. You hear people saying: ‘It’s too hard. It’s too expensive. We can’t do that.’ The fact is that they don’t want to do that—it’s all excuses. We need to get about the business of integrating technology-based learning platforms as enhancements of our faculty and enhancements of our instructional environment.”

These statements were a reinforcement of his thoughts from a 2012 interview, in which he discussed the use of analytics: “I think the number-one thing we need to do is to focus on our own performance and the need to enhance student success. There are no more excuses. If you use these analytical tools, you will know where you are, you will know what you’re doing, you will know if what you are doing is working or not, and therefore you will know whether or not you need to be doing new things customized to fit your particular school or your particular demographic to be successful. We are underutilizing these tools.”

Notes

student success because it is our mission, but technology-enabled student success programs could also generate net revenue averaging $1 million annually per institution (after factoring in the cost to educate the additional students retained). During difficult financial periods, helping students achieve their dreams while also generating revenue makes the strongest of all cases for strategic IT.

The best stories we have to tell about the strategic nature of higher education information technology are these powerful narratives about proven results and the future promise of technology to make a positive measureable difference in priority areas across our institutions. Of course, there’s an altogether opposite way of underscoring the strategic nature of technology: acknowledging the degree to which an IT failure or information security incident could imperil an institution’s reputation and finances. This is, naturally, why information security has easily earned the #1 spot in the EDUCAUSE Top 10 IT Issues list for the last three years. The risks are strategic and intense, and they will surely grow in the years ahead given weaponized artificial intelligence, video “deepfakes,” and “the coming quantum computing apocalypse.”

Just as information security risks are strategic and institution-wide, so are the solutions. EDUCAUSE research breaks down where responsibility for information security practices lies (see figure 2). No doubt, central IT bears the lion’s share of responsibility, but not all of it. And in a risk profile in which

Figure 2. Responsibility for Information Security Practices

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data privacy</td>
<td>80%</td>
</tr>
<tr>
<td>Information security compliance</td>
<td>75%</td>
</tr>
<tr>
<td>Information security risk mgmt</td>
<td>60%</td>
</tr>
<tr>
<td>Training and awareness</td>
<td>50%</td>
</tr>
<tr>
<td>Data security</td>
<td>25%</td>
</tr>
<tr>
<td>Information security policy</td>
<td>20%</td>
</tr>
<tr>
<td>Configuration mgmt</td>
<td>15%</td>
</tr>
<tr>
<td>Incident mgmt</td>
<td>10%</td>
</tr>
<tr>
<td>Security software procurement</td>
<td>5%</td>
</tr>
<tr>
<td>Monitoring</td>
<td>0%</td>
</tr>
<tr>
<td>Identity mgmt</td>
<td>0%</td>
</tr>
<tr>
<td>Network security</td>
<td>0%</td>
</tr>
</tbody>
</table>

Making the Case: Information Security
Cheryl Washington, Chief Information Security Officer, University of California, Davis

Data is an institutional asset. Similar to financial assets, data can produce value for an institution or create a positive return, such as improving student success. Information security is an institution-wide challenge, and the IT organization alone cannot effectively protect the entire campus. Because of this interdependence, IT leaders must form alliances with other stakeholders to identify data that has strategic value to the institution and ensure that this data is protected and made available to decision makers when it is needed.

As at most other institutions, at the University of California, Davis, information security is a shared responsibility. Data is amassed, used, and managed by different stakeholders throughout the university. The IT organization clearly plays an important role in protecting the institution’s information assets, but it depends on others. For example, vendors present security risks that require vigilance from the procurement office, and training across all campus stakeholders is necessary—not just in the IT or any other single unit. We work at an institution-wide, strategic level to meet the information security needs of our large and diverse campus. The challenge becomes manageable only when we operate in this way and only when the IT organization is viewed as a strategic partner that works directly with stakeholders throughout the lifecycle of a project or service.

Both a crucial strategic asset and a critical strategic risk, information technology needs to have an equally significant role in the decision-making and decision-shaping of our colleges and universities.

Barriers
Getting to the Table
For those of us who work every day to strengthen higher education through the appropriate use of technology, the strategic nature of technology is not in doubt. Certain institutions not only have invested in strategic technology but have built it into the vision of the institution. In some cases, explicit “digital transformation” initiatives are accelerating the investment and the results; in other cases, strong connections across the C-suite or with the campus president or chancellor are making the difference.

Certainly, CIOs can lead effectively from anywhere in an institution; conversely, a CIO can take a seat at the CEO’s table and contribute little. However, it’s reasonable to ask whether much has changed in the last decade or so. And in fact, the place settings at the strategic table have not changed a great deal. According to the latest EDUCAUSE Core Data Service (CDS) data (2016), 32 percent of senior IT leaders report to the chancellor/president/CEO, hardly changing from 30 percent in 2003. When we look at the percentage of senior IT leaders who sit on the cabinet—arguably the most relevant, important “table” at which to have a seat—the situation is slightly better. In 2016, 55 percent had a place on the cabinet, up from 44 percent in 2003 (but decreasing from 57 percent two years before).

The case for having the IT leader sit on the CEO’s cabinet is a strong one. The EDUCAUSE 2016 IT workforce study tells us that when CIOs serve on the cabinet, they are far more likely to discuss the broader IT implications with executives and to shape institutional strategic directions, including those academic directions for which technology offers such promise. Gartner research notes the disconnection that results when nearly 60 percent of higher education CIOs “expect digital transformation to have a major impact on the institution business model within 10 years” and yet “only 55% have a seat at the executive table.” Gartner analyst Jan-Martin Lowendahl sees it as critical that presidents’ cabinets include CIOs and that digital strategy be incorporated into institutional strategic planning, rather than exist as a separate plan or strategy: “It boils down to two
or nineteen years, I led the IT organization that served (and still serves) Hawai‘i’s sole “R1” research university (University of Hawai‘i at Mānoa) and our unique University of Hawai‘i (UH) system comprising all public community colleges and universities in the state. Along the way, I had formal reporting lines to seven different individuals including heads of administration, finance, and academics and also CEOs. During that period, we had four heads of the UH System and seven heads of UH Mānoa.

As a CIO, I was in many discussions in which we debated and bemoaned our reporting lines and cabinet status. I’d offer three thoughts for reflection:

1. Learn what you can where you are. As one example, I learned about planning and institutional research when I reported to the senior administrator who led those areas. And I learned more about budget, procurement, HR, and financial management sitting in the room with those leaders under a chief administration and finance officer. All that I learned along the way served me as my “rooms” shifted over time.

2. As Aaron Burr observed (in the Broadway musical Hamilton), try to figure out how to be in “the room where it happens.” Even if you are not a regular in “the room,” you can position yourself for access when appropriate or needed: when there are major discussions of issues that information technology impacts most intensely. Your (non-CEO) boss can get you there.

3. Depending on your institution and where you are in your career, you may get “in the room” by virtue of your position (as defined by your predecessor) or by virtue of what you have yourself accomplished for your institution. You are more likely to get there if you can demonstrate your own strategic value and that of information technology to multiple aspects of your institutional mission. For me, that meant becoming active across all of teaching & learning, research, administration, and community engagement.

Remember that no institutional structure is immutable; they evolve based on both circumstances and people. Your path won’t be exactly like mine. As it happens, I’m now serving as that fifth head of the UH System and eighth head of UH Mānoa.

options: [a] Increase the role of the CIO to a full partner in forging the future of the institution [b] Reduce the CIO’s role to someone who takes orders from the president’s cabinet, which will then have to take full responsibility for taming the forces of digitalization.\textsuperscript{21}

No One to Blame but Ourselves

It’s natural to look to CEOs to ensure that technology leadership is strategically placed in an institution, but IT leaders also need to look to themselves and do everything they can to be the kind of partner C-suite colleagues and presidents seek out for strategic insight. The #3 issue in the EDUCAUSE 2018 Top 10 IT Issues list is Institution-wide IT strategy, focusing on “repositioning or reinforcing the role of IT leadership as an integral strategic partner of institutional leadership in achieving institutional mission.”\textsuperscript{24} Now is a good time to consider the degree to which our IT organizations are fully primed for this kind of institution-wide strategic capability.

Michael Kubit, vice president for IT and CIO at Penn State University, acknowledges that some legacy thinking may exist within IT departments. “Many IT leaders are too focused on technology and not enough on the core business of the college or university they serve,” he maintains. “As IT leaders, we need to help executive leadership and governing boards better understand the strategic value of IT as it relates to our institutions. IT organizations should be strategically pivoting from a culture focused on providing services to one of enabling and empowering the use of technology. If IT is perceived as a utility, we have no one to blame but ourselves.” Similarly, Joshua Singletary, CTO at Albany College of Pharmacy and Health Sciences, refactors the utility-to-strategic asset transition as a move from a utility-minded gatekeeper to a genuine partner. Sue Workman, CIO at Case Western Reserve, identifies the capacities required of the successful contemporary CIO, insisting that “talents not thought about—leadership, organizational management, business analysis, financial management, marketing, communication, change management—can be crucial throughout the campus. The CIO is no longer the geek-poohbah, rather the CIO is a thinker and doer that helps lead innovation and business management.” Acknowledging the IT shift from utility to strategic asset, she stresses the criticality of collaboration: “A
Making the Case: Collaboration
Bridget Burns, Executive Director, University Innovation Alliance

Launched in 2014, the University Innovation Alliance (UIA) is a group of eleven of the nation's largest public research universities committed to developing and scaling innovative solutions that help students of all socioeconomic backgrounds succeed and earn a high-quality degree.

When it comes to scaling student success initiatives, we have found that the formula for success is: Leadership + Change Management (teamwork) + Technology. We simply cannot meet the educational needs of America's future without technology. IT professionals play an essential role in the successful design, integration, and implementation of the complex technology solutions powering the engine of our work.

Most importantly, IT leaders have a critical role to play not only in identifying the right tools and approaches to bring important interventions to scale but also in supporting the thoughtful change management required. IT professionals also identify where and how technology can help with scale, and they ultimately ensure that institutional initiatives reach as many students as possible.

For example, inspired by its collaboration with UIA peers, the University of California at Riverside (UC Riverside) recently scaled its use of predictive analytics to give all university advisors access to real-time, precise data to inform how to support students throughout their academic journey. At the outset, UC Riverside took a thoughtful approach to building trust and demand for the initiative by starting with engaging key institutional stakeholders. To start, UC Riverside assembled a multidisciplinary team that included IT, institutional research, and student affairs staff, as well as faculty and advisors, to explore how the university would design and leverage predictive analytics to improve student success. After building a model for data use, and testing it with advisors, UC Riverside selected technology partner Civitas Learning to scale its homegrown approach. UC Riverside is rolling out its new system in the fall of 2018.

The UC Riverside project reveals three lessons for collaborating to integrate information technology into critical student success initiatives:

1. Involve IT professionals early to build the right support.
2. It's not just technical. Don't overlook change management.
3. Lean on the IT organization to engage the end user.
decade ago, the job of a CIO was to make decisions about what technology to use and then operate it. There was much control over what was implemented and when. That is no longer the case today. Users have much control over their own technology. Collaboration is the key, and the CIO has to be a collaborator and leader, and a partner to other executives, and empower the university via technology.

Undoubtedly, IT organizations would benefit from giving more attention to collaboration capabilities. Several of the key digital capability index scores in the EDUCAUSE CDS survey show, for example, that IT governance competencies lag behind others (see figure 3). EDUCAUSE research also demonstrates that institutions with formal IT governance bodies in place function at a higher strategic level—participating more often in strategic planning and policy-making, enjoying support from leadership, and involving others in decision making.

In addition to evidence suggesting that there is room for improvement in structural collaboration (IT governance), EDUCAUSE research also finds evidence of opportunities for developing more capacity for collaboration at the individual level. For example, higher education CIOs indicate that they recognize the high importance of their ability to effectively manage relationships within their institution, influence others, negotiate, and understand non-IT areas; however, there is a gap between their assessment of this importance and their own proficiency (see figure 4). And it’s not just senior technology leaders: this same dynamic appears at other levels across the IT organization. For example, we see gaps between “importance” and “proficiency” not only for CIOs but also for non-CIO managers and non-managers when it comes to the “ability to manage relationships within institution” and to “understand non-IT business processes/operations.”

When information technology is understood to be a strategic asset and understands itself this way, the focus is no longer on just the technology (e.g., the network) and its performance (e.g., 99.9% uptime) but now is also on the relationships, people, and processes involved in technology implementation and use. This latter layer is clearly apparent from the digital capability indexes that EDUCAUSE has developed and incorporated into the CDS survey. For key areas (analytics; e-learning;...
information security; IT governance, risk, and compliance; IT service management), we’ve worked with campus experts to determine the high-level domain areas that define success and have developed questions to help campuses benchmark their maturity in these areas. No surprise: the vast majority of success domains are not essentially technological. When it comes to analytics, for example, only one of the six domains (technical infrastructure) is explicitly technology-focused. Another is data-focused (data efficacy). The rest all fall squarely into the category of people and processes: decision-making culture; IR involvement; policies; and investments/resources (see figure 5). The same dynamic holds true for other capability indexes as well.

This point hit home for me most dramatically at the Top 10 IT Issues session at the 2017 EDUCAUSE Annual Conference when someone in the audience observed that what’s not in the top 10 lists could be every bit as important as what is and asked: “So, what’s not on the top 10 list for 2018?” Without missing a beat, one of our presenters answered: “technology.” The audience looked at the top 10 list and agreed, maybe a bit stunned by the insight. When technology adds strategic institutional value, the technologies themselves fall into the background, and the people and processes and relationships involved become the thing that matters most.

The strategic nature of technology solutions has made implementations significantly more complicated and challenging. Take, for example, the deployment of technology-assisted advising systems on campus to improve student success. Recognized as a strategic...
Strategic IT: What Got Us Here Won’t Get Us There

Senior institutional leadership, IT leaders must ensure the strategic placement of the IT leader on the cabinet, but in addition, IT leaders must ensure they are involved in these projects (see figure 6).26

Findings like these across institutional activities have profound implications for information technology and make it clear how far information technology has come in higher education from being a “silently awesome” utility. For information technology to be best positioned for success in this kind of strategic, interdependent, and collaborative landscape, senior campus leaders must ensure the strategic placement of the IT leader on the cabinet, but in addition, IT leaders must ensure that the IT organization is positioned to be effective, and even indispensable, for working in a collaborative context.

**Strategic IT: Already Here?**

It may well be that I end up at this point humming the same tune as Glick in 2001 or Wheeler and Voss in 2010. Together, we make up a chorus that acknowledges the strategic value of information technology, sizes up the distance to go to reach this broad recognition, and hopes for a more strategic future.

However, I agree with Voss’s statement in 2014: “Allowing these discussions to continue only within the IT community—among CIOs sharing horror stories at conference forums and in articles, op-eds, and blogs—also will not get the job done. We’ve been discussing this topic in various forums for as long as I was a CIO (nearly a decade) and, I’m pretty sure, for a decade before that (if not longer).”26 We will know we have arrived at a more promising reprise of the familiar tune only when we are having this conversation about strategic IT with those outside of the IT community. Voss suggested collaboration and shared discussion across higher education associations.

There is reason to be optimistic. The year 2018 marked the fifth annual Enterprise IT Summit partnership between EDUCAUSE and NACUBO (National Association of College and University Business Officers), bringing these C-suite professionals and their staff together. The 2018 summit also added AIR (Association for Institutional Research) to the partnership. The American College President Study 2017, produced by ACE (American Council on Education), clearly advises presidents to pay more attention to technology and asserts that those presidents and boards who “get IT” may very well be those preserving over the institutions that will be most successful in the coming decades.10

Meanwhile, the 2017 Statement on Innovation in Higher Education, issued by the AGB (Association of Governing Boards of Universities and Colleges), is both expansive and clear:

Successful innovation demands the governing board’s attention to the strategic role of technology. Innovation requires adequate resources, but that is not always enough. Because technology is a foundational part of virtually every innovative strategy, it is crucial that technology is recognized and treated as a strategic asset, not a mere utility to be paid for, turned on, and forgotten about. Boards should ensure that campus technology professionals are thoroughly involved in those projects that depend on technology for their success, including the planning stage. The president needs to be certain that the institution’s commitment to technology is well funded and staffed; however, presidents must also consider the strategic placement of technology within the organization. It will prove difficult, for example, for technology to serve as a strategic asset for innovation if the CIO is not at the table when key decisions are made at the cabinet level.31

Most recently, the Chronicle of Higher Education is publishing *Securing the*
Making the Case:
Digital Transformation Initiatives
Ed Clark, CIO and Chief Digital Officer,
University of St. Thomas (Saint Paul, MN)

As my team has been working with the University of St. Thomas community to complete a campus ERP upgrade, I have been reminded of the fact that these huge initiatives are 90 percent about people and 10 percent about technology (and it’s quite possible that I have overestimated the technology part).

The same is true for digital transformation initiatives. The goal is to become a nimble organization that can respond rapidly to meet the ever-changing expectations of an internet-powered generation while maximizing profitability and enhancing competitiveness. But how do you go about the hard work of building this kind of organizational adaptability?

The answer is collaboration and empowerment. To this end, the business strategist Dion Hinchcliffe calls for organizations with “more decentralized yet highly engaged entities like empowered groups of change agents.” After all, the only way to really hear what your customers are asking for is to involve people from every team across the campus. Together, these groups will be able to tell you the full story of the actual customer experience—from the times when things get most congested to the most frustrating features of a given solution. Moreover, the only way you will be able to respond quickly in addressing these issues is to empower cross-functional teams to work together on implementing new solutions right away.

Done correctly, these new solutions will power new and better customer experiences, increase your competitiveness and profitability, and demonstrate organizational agility.

Finally, while agility is important, don’t forget that just as in ERP upgrades, the core information technology—“the plumbing”—remains critical to digital transformation.

Note
Digital Future: What College Leaders Need to Know about the Changing Role of the CIO, which makes the case for strategic IT as well, finding that “a growing number of college presidents and boards are realizing the importance of including information-technology leaders” in strategic planning discussions.\(^\text{12}\)

There is still as much work to be done as there is to crow about. But I do not believe that in 2018 we are simply humming the same tune or repeating the same conversation from years past. Rather, I believe the situation is more akin to a version of William Gibson's comment about the future: “Strategic IT is already here, it's just not very evenly distributed.” To advance far broader recognition of the strategic value of information technology, EDUCAUSE has dedicated one of our three strategic priorities to Expanded Partnerships and Collaboration, including our stated commitment to “vigorously and comprehensively promote stronger, more collaborative relationships between IT leaders and their institutions’ senior academic leaders and other C-suite executives.”\(^\text{13}\)

Perhaps our expectations simply need recalibration. The 2001 invocation of the “inflection point” metaphor suggests that a movement from a utility-focused to a strategic-focused mindset will amount to a sudden and productive change in direction, to a dramatic new trajectory brought on by a confluence of circumstances. On the other hand, maybe the realization of strategic IT in meaningful ways across colleges and universities is happening in subtler ways. Speaking at the 2018 EDUCAUSE Enterprise IT Summit, Scott Jaschik, Inside Higher Ed editor and co-founder, pointed to this more nuanced possibility when he observed: “I’ve been going to the EDUCAUSE annual conferences for a long time. I don’t know when it happened, but at some point in time the focus turned from hardware and technology to education. This was an important game-changer.”\(^\text{14}\)

Our progress may seem confoundingly slow, and it may be difficult to track. But at some point I’m confident that we will look around from wherever we are and realize we have already arrived.

**Notes**

3. Mitch Davis, personal conversation with the author.
12. For example, our 2018 trend watch data suggests that 40 percent of institutions are planning institution-wide deployment of augmented and virtual reality, which holds significant potential for engaged, experiential learning (“EDUCAUSE 2018 Strategic Technologies: Data Table”). See also Kristi DePaul, “VR and AR: Pioneering Technologies for 21st-Century Learning,” EDUCAUSE Review, May 17, 2018.
18. See Donna M. Desrochers and Richard L. Staisloff, “Technology-enabled Advising and the Creation of Sustainable Innovation: Early Findings from iPASS,” rpk GROUP, n.d. [accessed August 31, 2018]. Not included in this figure were additional costs incurred to put those initiatives in place. EDUCAUSE engaged rpkg GROUP to develop a Return on Investment Toolkit to make it easy for institutions to predict
financial viability.


21. EDUCAUSE Core Data Service (CDS) data, 2003–2016. See the EDUCAUSE CDS website and portal online.


26. Joanna Lyn Grama and Leslie Pearlman, Digital Capabilities in Higher Education, 2016: IT Governance, Risk, and Compliance, ECAR research report (Louisville, CO: EDUCAUSE, 2017). For IT leaders who want to enhance their IT governance, the EDUCAUSE IT Governance, Risk, and Compliance program provides resources, including a toolkit, to explore IT governance concepts, benefits, and design strategies for building an IT governance framework.


28. A recent joint study by EDUCAUSE, NASPA, and AIR on the use of data and analytics for student success shows, at a glance, the same interdependencies between IT, student affairs, and institutional research staff. See Amelia Parnell, Darlena Jones, Alexis Wesaw, and D. Christopher Brooks, Institutions’ Use of Data and Analytics for Student Success: Results from a National Landscape Analysis (2018), figure 8 (p. 15).


33. “EDUCAUSE 2017–2021 Strategic Priorities.”


© 2018 John O’Brien. The text of this article is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.