NEARLY TWENTY YEARS AGO, a panel of technology leaders selected by EDUCAUSE Review answered questions about the future of the higher education IT field. Much has changed since. IT professionals are engaged in more than could even have been imagined two decades ago. Yet the issues discussed then continue to resonate today and offer insight into the future of the profession. Below we offer our thoughts on, and answers to, these same questions.
What is the biggest challenge facing IT professionals today?

Paige Francis: Crafting long-term vision and shepherding its timely execution in a fiscally smart way is very difficult. Within higher education, the business funding model is not in sync with the pace of the technology, leaving IT professionals to make decisions that are oftentimes not funded until much later. By the time there is consensus and funds to move forward, the original solution and/or strategy may be outdated and need to be replaced with something better, smarter, cheaper, more integrative. The discussion becomes: Do we move forward with what we originally sold to the campus, or do we pivot and risk looking flaky with a new choice? Answer: Educate the campus on the process and “the why” early and often. It is never too late to make a smarter decision.

Cindy Mitchell: I can’t pick just one challenge. Information security is a concern: efforts to improve our security programs for infrastructure, endpoints, data, and awareness are high priorities for institutional leadership and boards. Agility and responsiveness are critical as well: we are challenged to acquire the skills, the funding, and the capacity to research, procure, and implement solutions, as well as to integrate data at the rate our colleagues want it incorporated into their work—all while balancing the efforts required to maintain our legacy solutions.

PB Garrett: The biggest challenge is that there are too many challenges we have to face every day: increasing information security, furthering faculty development, finding appropriate resources to fund new initiatives, and sustaining existing services. However, without students, we would not have jobs at higher education institutions. So improving student outcomes is paramount and a priority at most institutions, but with that imperative comes the need to successfully manage the implementation and integration of various student success initiatives. The ability to be agile and to adapt to the insane pace of technology change in academic transformation in order to achieve aspirational institutional goals is crucial, but it requires conceptualizing and prioritizing resources.

Sharon P. Pitt: The technology profession, whether in higher education or beyond, needs greater diversity. As IT professionals, we partner and collaborate within our institution, across institutions, and across industry. Yet our organizations and our vendor partners often do not reflect the diversity of the institutions and regions we serve. We need to make a considered and concerted effort, locally and beyond, to ensure that everyone in our community feels included and has an opportunity in our profession. Taking action can be difficult, because we may not feel that we have the training or the expertise to make a difference. But we must start somewhere. Higher education institutions and professional organizations have resources to help us become aware, develop a message, and take action. We can participate in a diversity discussion; we can be an ally, be a mentor, be a friend. We can help to forward someone’s dream.

Theresa Rowe: In a 1965 Oakland University memo, D. C. Beardslee, the director of “data processing,” spoke passionately about the growing volume of work required without adequate resources. He stated there were only three possibilities:

1. Vastly increased university support
2. Outside funds
3. A drastic scaling down of expectations

In reviewing the original EDUCAUSE Review panel discussion from 2000, I see that Linda Fleit, then president of Edutech International, identified the biggest challenge as “Managing campus expectations. . . . The gap between the supply of and the demand for information resources will continue to be large.” And now, in 2018, I find that this gap remains and impacts our decisions on a daily basis. What would we do with technology if resources did not constrain every aspect of a technology decision? We are trying to handle the resource gap by throttling introductions of innovative or efficiency changes, supplementing staff with consulting and student labor, outsourcing or moving to the cloud where we see resource allocation improvement, deeply evaluating priorities for strategic alignment and focus, and delaying some decisions. The resource gap appears to be a permanent challenge; with more than fifty years of history, the gap remains a strong and common characteristic of any IT operation. The leadership challenge of communicating and evaluating management of the resource gap is even more important now, in an era when many are questioning the value of higher education.

How can IT professionals best prepare themselves for the future?

Francis: Be the person in the room who adds value, develops meaningful and reciprocated relationships, embraces criticism as an opportunity, and enjoys communicating at every turn. With the
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abundance of devices in the world today, the technology field has its own version of “Dr. Google.” But seeing the “big picture” and connecting all the pieces cannot be done by searching online. This requires vision—someone to solve the puzzle and formulate the best path forward. Be that person.

Mitchell: Be curious. Learn what your colleagues across institutions are doing with technology in academics, research, administration. What do they see as their next big need? Attend conferences, webinars, seminars. Read. Develop relationships with creative, innovative people. Ideas, future thinking, continuous improvement, and innovation keep us pointed in the direction our colleagues and our students are going.

Garrett: Bloom where you are planted. Learn to conceptualize at the 50,000-foot level of where the institution is going or needs to go to align with its strategic plan, and then build a concrete path for actually achieving that plan. Develop trusted and authentic relationships with stakeholders both internal and external to the institution. Cultivate strategic partnerships across the academic and within professional organizations. Become the boss that you hoped you would work for, and listen to your team. Seek feedback, often, from everyone. Get used to change—it is the one thing that remains constant in this field.

Pitt: To repeat Paige’s excellent point: Add value. There is never a time when we are not in service to our students, our faculty, our staff, our teams, or our profession. Our field changes rapidly, so we need to understand the capabilities, challenges, and emerging opportunities of various technologies in order to be full partners in the success of our institution. Anywhere we participate—at any “table,” virtual or real—we need to add value. The caveat is that our expertise must be offered without defensiveness and without conceit but with helpfulness and with empathy for the challenges of others. And when you find yourself without answers, ask for help.

Rowe: For me, the key is PB’s “Bloom where you are planted” advice. Those of us who are perennial gardeners have a goal of continuous blooms all season long. Yet no single perennial will provide a season-long show. Sometimes a plant has to be nurtured for years before it flowers. A gardener knows that the garden needs constant renewal. This is a parable for an IT employee and an IT organization. What are we doing today that will flower in three to five years, in addition to adding value daily? This commitment is the best way to prepare for the future.

Q Where will tomorrow’s leaders in our profession come from?

Francis: Everywhere. I used to be an anomaly with my communication undergraduate degree and my mad respect for the arts and sciences. Now I see technology leaders coming from all directions, and it just makes sense. Technology departments and their staff are no longer solely basement dwellers. We are finance and human resource professionals; we are project managers; we are developers and user experience gurus. Our trajectory is no longer to simply reach CIO stature and stay there. More and more often, our next steps are CEO, COO, or chancellor. Tomorrow’s technology leaders are ingredients in a truly cross-discipline melting pot.

Garrett: Our new leaders will come from disparate areas. No longer is it required or the norm to have a doctorate in computer science in order to be a successful technology leader. The research shows that the top attributes for being successful in our profession now, and in the future, are communication skills, political savvy, and strategic business knowledge. Now is a great time to aspire to be a leader in our profession—particularly for women and African Americans. A recent study of individuals in higher education leadership roles found that only 22 percent are women and only 3 percent are African Americans. A more diverse and inclusive workforce is needed to provide a balance that embraces leaders irrespective of race, gender, or disability.

Pitt: What was suggested nearly twenty years ago is still true today. IT professionals will come from everywhere. As Fleit noted: “The leaders will come from among the many pools of bright and capable people on campus—from the computer center to the library, from the faculty to the finance office.” In terms of leadership paths for IT professionals, we now need to encourage inclusion and diversity. At our institutions, we need to adopt hiring processes that lead to inclusiveness, for example accepting expert credentials instead of the sometimes restrictive requirement for a degree. We also should actively talk about the sense of fulfillment, purpose, and joy to be gained from working in the higher education and IT fields.
Mitchell: Our leaders can come from anywhere, and it is up to us to be developing leaders from within our own departments and institutions. Leaders aren’t just born (well, some are); their development requires intentional investment, encouragement, mentoring, and professional development.

Rowe: Expanding on Cindy’s comment, “intentional investment” is critical. Some of that investment is championed by existing leaders and professional development organizations. But individuals too have to intentionally invest in their own career and their career decisions. A career is not a trip plan or a checklist; some of the efforts needed to advance haven’t been invented yet and will emerge five or ten years from now. A career leading to a leadership role consists of a series of intentional decisions to ensure an individual has not only years of experience to draw on but also the confidence to choose innovative pathways that will lead to a new horizon.

How can IT leaders show the value that we add to the institution and to institutional decision-making?

Francis: Through conversations, modeling, and results. A story to illustrate this involves budget time at my last institution. To increase process transparency, campus leaders gathered to share our needs for the next fiscal year. As the CIO, I had already had a pre-discussion with the executive vice president (my boss), who had told me that in the next year, I could expect to see less additional funding because so many other areas had increasing needs. At the gathering of leaders, my funding request was presented first and was received as reasonable. Each report after that, from Student Services to Advancement to Academic Affairs, asked for significant technology funding to be given to my area on their behalf. My boss just stared at me across the table and shook his head. I smiled. Long story short, our value comes from aligning with the business of our institutions. When our campus partners are the ones evangelizing our value, we have arrived.

Pitt: For institutions that value student success and effective decision-making, technology professionals are already relevant and valued. Information resources and technology are core institutional assets and capabilities. Essential to our continued value is demonstrated transparency, openness, agility, and progress. When those of us in information technology, as leaders and as a profession, demonstrate these essential competencies, we build and sustain trust. Part of sustaining that trust is measuring, assessing, communicating, and celebrating our shared progress with our institutional partners, in addition to expressing our shared requirements to achieve success.

Garrett: The focus should be on the value drivers, and the overarching goal should be to solve our institutional problems, not our IT problems. We should always use data and metrics to support the decision-making process, benchmark against peer institutions, and partner with other campus stakeholders to strengthen requests.

Mitchell: As Paige noted, we show our value when we engage in the business of our institutions. We also show our value when we speak the language of our students, faculty, and staff and demonstrate our understanding of their work. We show our value when we engage in solving problems holistically even if the solutions or options don’t include a new technology. We show our value when we share—in a way that connects to their work and in language that connects to them—the value of the services we offer, from firewalls to data warehouses to workflow to business continuity. We show our value when we are present, listening, and engaged at all levels of the institution.

Rowe: The idea that IT leaders need to understand the business of higher education was an underlying theme in the year 2000 and remains so today. But the business of higher education is changing. Our colleges and universities are doing more to reach nontraditional students and new population markets, create innovative and attractive programs, and provide successful educational outcomes through new methods and processes. As IT leaders, we must address the challenge of understanding—and being a thought leader for—how the business model is changing, the impact on information technology, and the value that information technology can add to this model.

What can nontechnical institutional leaders do to support IT professionals in their quest to be more effective partners in institutional decision-making?

Francis: Higher education is working tirelessly toward changing the legacy
of territorialism and siloed decision-making. This is a tough but necessary transition, especially on campuses where past interactions with technology teams were unhelpful at best. Oftentimes we are facing disparate and numerous duplicative, nonintegrative systems that all need replacement. Persistent, positive collaborations and communications must take place in order to build reciprocal confidence and bridge the conversation gaps between technical and non-technical. IT professionals must place learning and understanding the business as their highest priority. Conversations, not declarations, need to happen. Listening and consuming new ideas is key. If we, as technology professionals, walk into the room with all the answers, we likely won’t be asked back to hear the questions. Today’s institutional leaders need to demand strong technology leadership including vision, grit, and inclusiveness. Once the right IT leaders fold into the mix, they should naturally emerge as more effective business partners, working with other campus leaders to identify, ideate, solve, and measure institutional problems.

Mitchell: The most important thing nontechnical institutional leaders can do is include technology professionals in initiatives from the beginning. They should assume there will be a technology component and then create the space for IT professionals to be a part of the entire process, not just when someone realizes that a technology conversation must occur. Nontechnical leaders should invite technology leaders into institutional strategy discussions, on the ground level of key initiatives, and expect them to contribute beyond technology knowledge itself.

Rowe: There must be collaborative, ongoing, and immersive engagement among all institutional leaders, pulling in subject-matter experts as needed. This engagement must also have a strategic focus. The complexity of the IT environment is not handled in an annual report or with an occasional check-in meeting. The comments by Marty Ringle, president of the NorthWest Academic Computing Consortium and CIO at Reed College, in the January/February 2000 EDUCAUSE Review panel still ring true: “Including IT/IR professionals in the highest-level strategic conversations will achieve two-way communication and thus serves the best interests of the institution.”

Where do we go from here? Forward. Technology has evolved from systems to solutions and services. Leadership has changed from task-driven to strategy-focused. Response has moved from reactive to proactive. For the most part, technology leadership and vision has matched the pace of change with little fanfare. Responsibility has pivoted to the entire institution in holding IT professionals accountable for performance and response and for meeting campus needs and wants. The campus as a whole must remain engaged in strategy, understanding that technology is no longer simply a (sometimes confusing) utility but is a strong, complementary facilitator in all facets of the mission and operation of the higher education institution.

Just the idea of how these questions above might be answered in 2038 is mind-blowing.

Notes