J. Gary Augustson, Vice Provost for Information Technology at The Pennsylvania State University, received the 2001 EDUCAUSE Award for Excellence in Leadership. This lifetime-achievement award honors extraordinary influence, statesmanship, and effectiveness on both individual campuses and within the higher education community. Augustson is widely respected for his early and skilled leadership of higher education’s national networking efforts and for his key role in shaping the higher education position on national information technology policy issues. He was instrumental in the start of the Internet2 project, the University Corporation for Advanced Internet Development (UCAID), the Pennsylvania Research and Economic Partnership Network (PREPnet), and the Coalition for Networked Information (CNI). For twenty years, he has kept Penn State positioned as a leader in applying information technology to institutional challenges, with a focus on facilitating learning communities and supporting top-quality research. His early recognition of coming issues, his strong critical and organizational skills, and his extraordinary ability to build alliances have positioned him as one of the most influential leaders in his profession.
As we move into the twenty-first century, we face a most important question: Is leadership of the information technology (IT) function in higher education the ultimate oxymoron or the ultimate challenge? Although I know there are those who say that the days of needing strong IT leadership are past, I am convinced that IT leadership in the twenty-first century will be the ultimate challenge.

Effective leadership is critical to the success of any reasonably complex organization; it is not simply an exercise in tilting at windmills. But trying to imagine and understand what the future may hold for information technology in higher education in these early years of the new century is daunting. One hundred years ago, who could have imagined what the twentieth century would bring? With the IT industry in its infancy in those days, there were classic examples of "not understanding the future." In the early 1900s, for instance, a debate raged over the use of telephones on the Pennsylvania State College campus. The president of the telephone company in Bellefonte, Pennsylvania, sent a letter to the dean of the College of Agriculture, stating that in spite of the dean's request, there really was no need for an additional "telephonic device" because the Penn State campus had plenty—eight of them, in fact. He noted that the job was already done.

Today, we all have a good laugh over the examples of naïveté in years past. In 1943 Thomas Watson, then president of IBM, said: "I think there is a world market for maybe five computers." In 1977 Ken Olson, founder and chairman of Digital Equipment Corporation, noted: "There is no reason anyone would want to have a computer in their home." And of course Bill Gates, founder and chairman of Microsoft, stated in 1981, "640K ought to be enough for anybody." Yet with equal naïveté, some people today claim that the job of the IT leader in higher education is already done. They note that the IT function is now simply another well-oiled machine that can be run like numerous other business areas of the college or university—so well-oiled, in fact, that it can and should be outsourced whenever possible. In their opinion, leading the IT team is thus the ultimate oxymoron.

I'm sorry, folks, but I disagree. The job is not already done. In a bleak moment during one of our strategic planning efforts at Penn State, at a time when we simply weren't making progress in getting the funding and support we felt we needed, we crafted a motto that expressed our frustration: "Dare to Be Average." We even had buttons made up with this slogan on them. Needless to say, although this provided us some comic relief, we didn't use that motto when we submitted our plan that year, nor did we wear our buttons to any university functions. And we shouldn't be wearing such buttons today. In today's complex world, we can't afford to just be average. The tasks facing the leaders of IT in higher education today are even more daunting than before. Think of some of the tasks that lie ahead—implementing a national grid, building...
College and university leaders need to understand that continuity has value, and they must begin rewarding continuity.

My message for senior management is: With a leader, a fellow that you can do something with, you’ve got to keep the opportunity to contribute, to learn something about what’s next, and to turn setbacks into victories... The greatest leader I’ve ever known is Shackleton’s leader, a leader that everybody looks to, you pale with the passage of time. Its leadership is an intangible skill—terribly difficult to see and predict. Maybe Warren Bennis, author and distinguished professor at the University of Southern California, put it best when he noted: “Leadership is like the Abominable Snowman, whose footprints are everywhere but who is nowhere to be seen.” Trustees need to be looking for the Abominable Snowman for their college or university. They must pick an institutional leader who understands, appreciates, and values the benefit of IT to the entire campus, just as they would do in picking a leader for their own company.

When I first arrived at Penn State in 1982, I was a young man, or at least a relatively young man. Certainly I was young in experience in higher education. Although I had a lot of IT leadership experience, I did not have any background surviving in—let alone directing—the culture of a large research university. I was extremely fortunate in my early years at Penn State to work with aggressive leaders who were willing to take chances in order to launch Penn State into a top position in many areas, including IT. In those early days at Penn State, the combination of Bryce Jordan as president and Bill Richardson as provost created an atmosphere for success that few will have the pleasure of experiencing in their entire career. Jordan and Richardson taught me the value of enlightened leadership.

2. Create a Seat at the Table. I find it amazing that today—in the year 2002—at most higher education institutions, including most of the country’s leading research universities, the chief information officer (CIO) still does not sit at the key decision-making table. To trustees, I would ask: Is this how you run your own organization? To presidents and chancellors, I would ask: Why in the world would you run your institution this way?

I know this is an issue of considerable debate and emotion, and some colleagues have suggested to me that this is simply an issue of ego. That is, someone who is good at a job will get the job done regardless of organizational inefficiencies. This is true, of course, but why would any accomplished leader purposefully put together an organizational structure that has such a glaring inefficiency? If you have a lot of good athletes on your baseball team, you can win the ballgame with your key hitter sitting on the bench, but why would a manager put together such a lineup? This is an incredibly important issue today, when so many...
people, regardless of their background or talent, consider themselves to be IT experts. Certainly if a college or university president is looking for leadership in this area, there will be many people offering to fill the void, regardless of how ill-informed they might be. How many times over the past decade have senior IT leaders had to undo initiatives that were launched at presidential cabinet meetings by the pleadings of a well-intentioned, but clearly misguided, Vice President of This and That?

Although the number of CIOs who sit on presidential cabinets has grown over the last decade, there are still far too few examples of IT leaders who have easy and regular access to the senior management at their institutions. The underlying problem is that many colleges and universities simply have not updated their organizational concepts to match the needs of the twenty-first century.

3. Think Future Value, Not Current Cost.
Institutions that have senior managers who view IT as an investment in the future will fare far better than those with managers who see it only as a cost of operation for today. Every department, every college, every business unit is in the information business. But unlike organizations in the private sector, colleges and universities do not report quarterly earnings. Teaching and learning resist easy metrics, but can anyone doubt their importance to the higher education institution and to society overall?

Many managers who focus on current costs believe that the institution should outsource as much of the IT function as possible. After all, industry knows how to do the IT task best (just look at its track record). A good number of us in the higher education IT field have been around long enough to remember the promises, back in the 1980s, of those who argued for outside management of our computing centers because of the savings that could be generated. And we have all heard the promises, in recent years, of those offering portal services that would generate tens of millions of dollars of income from “click-through Web shopping malls.” Why don’t we learn from our experiences?

Of course, we all outsource some of our services, and we have for years, but we certainly shouldn’t be outsourcing those services that are strategically important to us, that are part of the core of our culture, that make us who we are and what we are all about. With high-bandwidth networks to every nook and cranny of the higher education institution—a “high-bandwidth port for every pillow”—some senior managers are now suggesting that we outsource our networking infrastructure. This naïveté is both amazing and alarming. Yes, there are places in the business community where the mindless standardization of IT equipment, software, and processes would appropriately encourage outsourcing. But there are no such places in higher education.

Even in the darkest of fiscal times, an institution cannot afford to cut that which is critical to its future success. The chief financial officer must come to truly understand the future value of investing in information technology. I am amazed that this issue is still being debated in the early days of the twenty-first century.

4. Value Continuity.
In my twenty years at Penn State, I have served under four presidents and six provosts. In that type of environment, it is often difficult to sustain institutional momentum. Unfortunately, today’s CIO marketplace creates similar problems, with CIOs being encouraged to spend three years here and three years there.

College and university senior managers are doing their institutions a great disservice by turning the acquisition of a CIO into something akin to what has happened in professional sports. I grew up as a real baseball fan. Back in those days, fans knew who Sandy Koufax and Don Drysdale were—and what teams they played for. These players would never be traded: they meant too much to the team, to the culture of the city. Probably the only person of that ilk today is Cal Ripkin. Think of what he has meant to baseball, and to the city of Baltimore. There are no more like Willie Mays, Stan Musial, or Ted Williams. The accomplishments of baseball players today—and what they mean to a city, to a culture—have become fogged as they spend three years here and three years there.

True leaders bring value to a team or to an institution in the things that they do off the playing field and outside the boardroom. What are the leader’s values? How does the leader influence an institution over time? What does the leader’s vision contribute to the institution? What programs has the leader built and developed? What Joe Paterno and his wife, Sue, have brought to Penn State, to the Commonwealth of Pennsylvania, and for that matter to the nation over the course of the more than fifty years they have been part of the university is more appropriately measured by the lives they have affected, the careers they have launched, and the issues they have championed than by the number of football victories delivered in Beaver Stadium on a Saturday afternoon.

College and university leaders need to understand that continuity has value, and they must begin rewarding continuity—continuity of leadership, of vision, of values, of the things that truly make a contribution to the institution. More specifically, senior management needs to understand that the IT agenda of an institution is not something that can be appropriately addressed by “three years here and three years there.”

Lessons Learned:
For Future IT Leaders
The following thoughts, listed in no particular order, are for the IT leaders of the future. Like the thoughts above, they are heavily influenced by my twenty years at Penn State. They are offered here to encourage those who would pursue the path of an IT leader, those who would do something rather than just talk about it. Senator Dwight Morrow said: “The world is divided into people who do things and people who get the credit. Try, if you can, to belong to the first class. There’s far less competition.” Certainly our institutions need such leaders.

1. Be Who You Are.
The first rule of any successful leader is to be yourself, to be who you are. The view we have of ourselves often differs considerably from the view that others have of us. A leader needs to be comfortable with who he/she is. As Frances Hesselbein, chairman of the Peter F. Drucker Foundation
for Nonprofit Management, has stated: “Leadership is a matter of how to be, not a matter of how to do.”

An important aspect of being yourself is not being afraid to have an opinion. Elbert Hubbard, the author and founder of Roycroft Press in the 1890s, advised: “To escape criticism—do nothing, say nothing, be nothing.” If you are going to be a leader, you must take a position. My longtime colleague Richard West used to say: “I always read Gary’s e-mail first because it is the most exciting and it often leaves an impact.” I took that as a compliment. Richard may not always have agreed with what I said, but at least he knew how I felt on an issue and why—and sometimes my e-mails to him were. I’m sure, difficult to ignore. Don't be afraid to state your opinion!

A corollary to this first rule is, don't be afraid to be wrong. If you get involved in the discussion only when you are certain that you are right, you will add value to very few encounters. This is not to suggest that you become careless or glib but rather that you need to be able to take risks. Go with your feelings, your intuitions. Leadership includes knowing when to gamble and when not to.

If you follow this advice, you will probably tick off everyone at least once every couple of years, but this need not be a problem. One real measure of effective leadership is the ability to both win and lose—without crowing or bragging or excusing. The true test is whether, after an “encounter of the worst kind,” you and your colleague can put down your laptops and go out and have a beer together and talk about the weekend’s ballgame.

2. Hire Good People and Listen to Them.
Effective management is obviously a key leadership trait, and there are many different schools of management. Casey Stengel, the New York Yankees manager in the 1950s, once said: “The secret of managing is to keep the guys who hate you away from the guys who are undecided.” Although I love Stengelisms of this sort and I feel that Casey had a lot of good advice, I think Sir Shackleton offers a better example in this area. The Shackleton’s Way authors explained how his method for selecting and organizing his crew applies today: “Hire those with the talents and expertise you lack. Don’t feel threatened by them. They will help you stay on the cutting edge and bring distinction to your organization.”

The real reason for the success of the IT efforts at Penn State over the past two decades is our incredibly talented workforce. My management team has been in place for over a decade, disrupted only once since the late 1980s. If the value of continuity to the success of a program can be seen anywhere, it is at the Penn State Office of Computer and Information Systems. This senior team is supported by an equally talented, second team. All of them add expertise that I lack, and believe me, I listen to these people.

At the Seminars on Academic Computing in the summer of 2001, when I was busy picking the brain of one of my key staff members during a break, my good friend Bill Graves walked by and said, “There goes Gary again, picking other folks’ minds for great ideas!” Bill meant it in good humor, but I’m sure many people would have been insulted. I was flattered. Isn’t that why leaders hire smart workers—to listen to them? If leaders don’t listen, why hire these workers in the first place? Let someone else have them.

There is a most important corollary to this rule about hiring good people: Always have your Anna. There is no person who is more important to your success than the person who supports your efforts—directly and personally—on a day-to-day basis. At Penn State, we call these staff members “administrative assistants.” Whatever they may be called, you should never underestimate the value of having a trusting, personal relationship with your right-hand staffer. Anna Bove and I have been together since my earliest days at Penn State. I could not do what I do without her. She knows where I am, even when I don’t. When I’m not where I’m supposed to be, she knows where I’m supposed to be and she tells me where I ought to go. She knows how to find me—even when I don’t want to be found—and how to protect me, often from myself.


The consumers’ advocate Ralph Nader once said: “The function of leadership is to produce more leaders, not more followers.” One of the biggest failings of those in the IT arena of higher education is succession planning. Current leaders need to reach down in the organization to seek out and find the leaders of the future. Don’t wait for them to bubble up through the process; don’t wait for democracy. Go down and get them; help them surface quickly. Nurture them. Mentor them. Enroll them in leadership programs to help them become successful.

Finding leaders and moving them on the path to success is a tough task. But it must be done. If it is not, there will be nobody to take over for the leaders of today when we are gone.
4. Practice Diversity.
There is a glaring lack of minorities in the higher education IT field, particularly in senior leadership. Applicant pools for senior-level IT positions often have few—if any—minority candidates.

In an effort to try to ensure that IT leaders twenty years from now are not faced with the same dilemma, at Penn State we have developed a program that provides a fast-track career start in the IT industry for new minority graduates. Our goal is to launch a career. If we can keep these young professionals at Penn State, that's great, but I am not going to be disheartened if they decide to leave the area while continuing in the IT field. Our hope is to build a diverse talent pool so that the next generation of IT leaders will be able to build an information technology team that is more appropriately balanced. All college and university IT departments should be developing similar programs.

5. Manage Your Ego.
A key aspect of success is the ability to manage your ego. Everyone who is good enough to sit in a senior leadership position in a profession as challenging as IT has, by definition, an ego. The key issue is how you manage your ego—how you live with it.

One bit of advice is to leave your history at the doorstep. All the wonderful things you did in the past will not matter at all in a new position. People don't want to hear about what you did in a similar situation elsewhere last year; they want to know what you are going to do for them now. If you are really that great, they will figure it out. Unfortunately, being humble is a talent that many very talented people never master.

In addition, don't take yourself too seriously. If you understand that you aren't as great as all the hype that got you in the door, you are likely to be much more successful. The best leader is the one who doesn't know how good he or she really is!

The road to success differs at each institution and is formed by the local culture. But there is a set of common players everywhere: faculty, students, and staff. Never forget who your real customers are—and that you are there to support them. At Penn State, the solid relationships we have built with these constituencies over the years—particularly with our academic leaders (deans and department heads) and their faculty—have formed one of our keys to success. I urge all future IT leaders to focus on building solid relationships with faculty members.

And don't forget your business partners. Look for places where you can work together with corporate partners to the common good. As I've said to business leaders many times before, 'A partnership is a little of your skin in the game and a little of my skin in the game. With a partnership, we can advance our relationship and enjoy benefits far beyond those we could gain from simply having a business relationship.' At Penn State, the partnerships we have built with key corporations have benefited both the university and our partners over the years.

There is only so much that a leader can accomplish locally. Some of the real progress that is needed can happen only when college and university IT leaders join together as a community. Working as 3,500 independent entities simply doesn't make sense. Of course, you must pick your issues carefully. They shouldn't be chosen “just for fun” but rather must deliver value both to the national agenda and to your institution. If they don't, they aren't worth the wear and tear on you and your staff.

The type of issues that need to be addressed on a national scale are not easily resolved and are not “once and done” efforts; they are activities that require endurance and diligence. Being involved will require a significant investment of your time, and it will require you to log many road miles. But that should not deter you—even those of you who are off the beaten path. As my good friend Bob Heterick, former president of Educom, told me: “If you live at the end of a dirt road, your endowed chair will be on Piedmont Airlines.”

Don't be afraid to get into that chair and spend some time on issues that will make a difference. If you don't, think about who will be deciding such issues for you. That ought to be enough of an incentive.

8. Remember Your Family.
When Senator Paul Tsongas announced in 1984 that he would not seek reelection, he quoted a friend, who had written to him: “No one on his deathbed ever said, 'I wish I had spent more time on my business.'” If you don't make room for your family, if you don't find time for them, then you need to ask yourself: Am I really a success? Each person has to do this in his or her own way, but the question must be answered.

In my case, I am sure that whatever I have achieved, I could not have done so without the support of my wife, Jill, and our two daughters, Jennifer and Elise. Yes, over the years I spent many hours away from them, but in general we took the time to enjoy ourselves as a family. It required some planning and perseverance, but we never missed a spring break in the Caribbean—no matter how hard the year had been. Those vacations, which continue to this day, have provided us with the time to relax and enjoy and to appreciate what we have as a family. Even now, with our daughters grown and out on their own, Jill and I not only continue to revisit our favorite Caribbean haunts but also have found new playgrounds, ranging from the golf courses of Palm Desert to the hiking trails of Snowmass to the ice fields of Juneau. I trust there are many more playgrounds still ahead.

Of all my memories, these are the most vivid and enjoyable. If you don't have similar memories, then I challenge you to reexamine where you are—and where you are going. The famed baseball player Yogi Berra once advised: “When you come to a fork in the road, take it.” My advice is: just be sure you don't take the wrong one.

Conclusion
So why do college and university IT leaders do what they do? Because we do make a difference. When I think back to what Penn State looked like in September 1982, at the time that I first started to work there, and when I honestly evaluate the impact that IT has had on the faculty, staff, and students of the university in the past twenty years, I can reach only one conclusion: the impact has been phenomenal.

Information technology has changed everything: the way we operate our
institution; the way we educate our students; the type of research our faculty members are able to do. Much of this change would have occurred regardless of who was leading Penn State’s IT efforts—or even if no one was leading the efforts at all. The point is that those of us in the IT profession have been offered the opportunity to make a difference over the last several decades. One can barely imagine the opportunities the next several decades will offer.

Taking advantage of those opportunities, truly making a difference, requires effective leadership. Certainly, the team with the best players—and the highest payroll—is the one most likely to make it to the World Series. Likewise, the dogsled team with the biggest dogs has the best chance of reaching the finish line first. But the value of the leader must never be underestimated. Adapting a line from the author and columnist Lewis Grizzard, former Educom president Ken King often quotes his favorite saying: “Life is like a dogsled team. The scenery only changes for the lead dog.” My youngest daughter, Elise, who now lives in Alaska, suggests that a more accurate rendition is the following Yukon saying: “The speed of the leader is the speed of the pack.” To me, leadership entails a combination of these two thoughts: “The scenery always changes for the lead dog.” That is why being the lead dog is so fulfilling: to be out front—picking the path, setting the pace, taking responsibility for the well-being of the entire mission. This is what Sir Shackleton was saying and doing as well: “Leadership, after all, is more than just reaching a goal. It is about spurring others to achieve big things, and giving them the tools and the confidence to continue achieving.”

In closing, let me paraphrase something I heard Richard Katz say in August 2001: “While we live in a time of significant uncertainty, we still have the opportunity to change the world.” The uncertainty in our world has grown immensely since that time, but the changes have only magnified the opportunity that those in the information technology community have to change the world in positive ways. Every U.S. president, every secretary of state, every national security adviser—virtually every leader of the United States over the years—has been educated in a U.S. college or university. Where are the leaders of tomorrow? All of them are in one of the nation’s higher education institutions today—learning the skills they need in order to navigate in the twenty-first century.

The information technology efforts within higher education form a key part of the underlying national infrastructure that supports the ability of the United States to continue to be a global leader—whether in driving global economic success or in making the world safe for our children and our grandchildren. The effective leadership of these efforts is immensely important. The IT enterprise is not something that can be treated like a rudimentary business function, to be led by someone who knows “business” but not technology. Nor is it something that can be outsourced to industry for the promise of saving a buck or two.

The job is not already done. In fact, the job has just begun. IT leadership in the twenty-first century will be the ultimate challenge.

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