

# Leadership in Instructional Technology and Design: An Interview

*Interviews with two leaders and three practitioners shed light on the convergence of ideas in instructional technology as the field evolves*

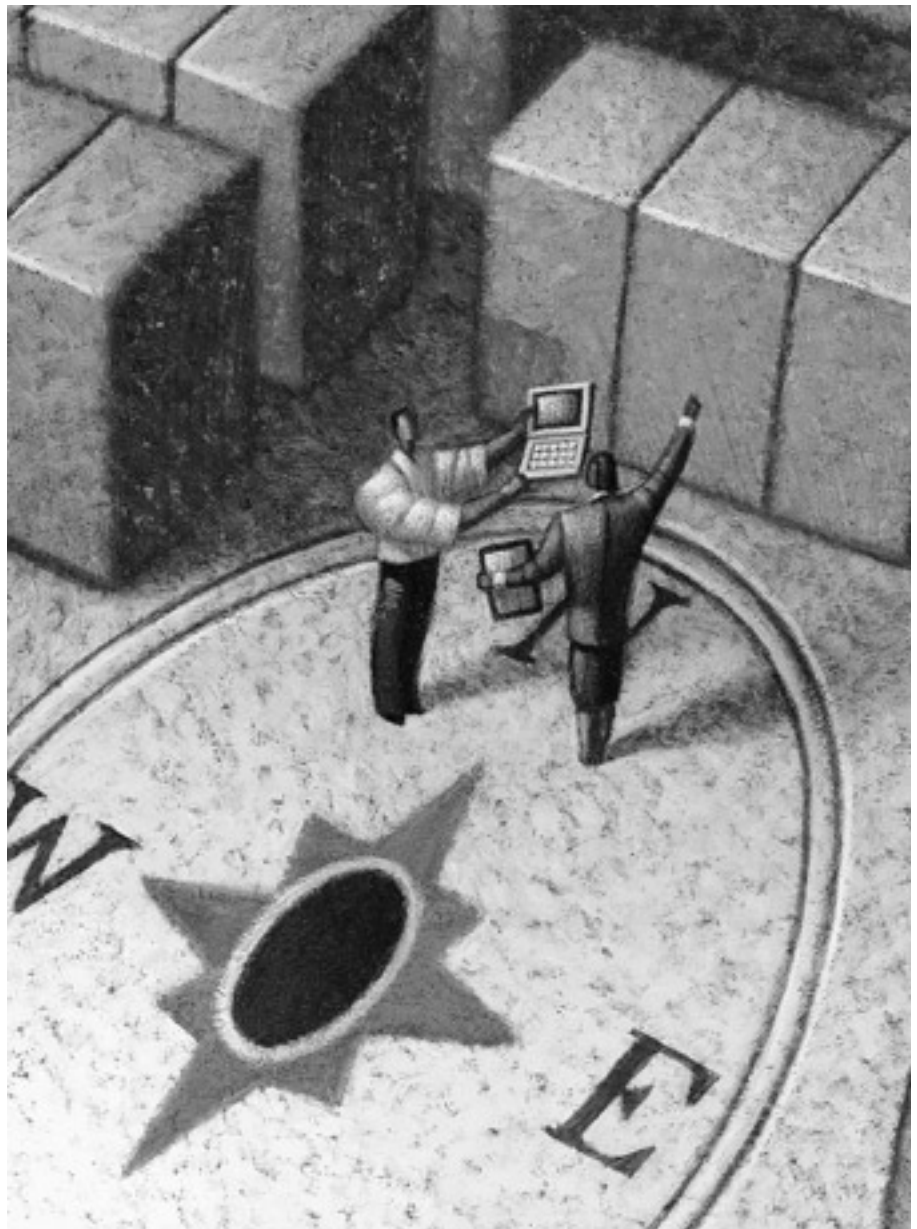
By **Peter B. DeBlois**

Just as technology-enhanced teaching and learning has evolved over the past 50 or so years—from overhead projectors and reading machines to PowerPoint presentations, discipline-specific simulations, and Web-based databases—so has support for instructional technology evolved at our institutions. The changing rubric of librarian, media specialist, information resource analyst, faculty computing consultant, instructional technologist, and instructional designer has signaled the advent of a major branch of the IT profession, with unique service, management, and leadership challenges.

To recognize and support the growing cadre of leaders in instructional technology and design, in July EDUCAUSE offered its first Instructional Technology Leadership Institute. At its conclusion, I interviewed two of the faculty members and three participants in order to gauge the state of convergence and leadership challenges in this hot-button area. We can learn as much from their divergent opinions about technology and design as from the similar threads in their responses. Unfortunately, what does not come through is the excitement about and engagement in the field that these five people embody. For them, transformational leadership is not a cliché but an action and an attitude they practice every day.

Institute faculty interviewed were

- **Kathleen Christoph**, Director of DoIT Academic Technology at the University of Wisconsin–Madison (Carnegie



Classification: Doctoral/Research-Extensive)

- **Lawrence Ragan**, Director of Instructional Design/Development at The Pennsylvania State University (Carnegie Classification: Doctoral/Research-Extensive)

Institute participants interviewed were

- **Vidya Ananthanarayanan**, Instructional Support Manager at Trinity University (Carnegie Classification: Master's I)
- **Paul Fisher**, Director of Teaching, Learning, and Technology Center at Seton Hall University (Carnegie Classification: Doctoral/Research-Intensive)
- **Marla Gerein**, Director of Academic Technology Services at Colorado College (Carnegie Classification: Baccalaureate-Liberal Arts).

**EQ:** *What do the terms instructional technology and instructional design mean, and how are they linked in practice?*

**Ragan:** I see these as two distinct but tightly related professional dynamics. Instructional technology means the hardware, the software, and the systems that either have been created specifically for an educational purpose or have been adapted to an educational purpose. A chalkboard, an iPod, a clicker, voice-over-IP, and *Dungeons and Dragons* are all instructional technologies, tools I can use to transmit information and develop skills. Instructional technologists do the coding, create the network environment, and manipulate those tools for us in wonderful ways.

Instructional design is the systematic creation of an educational experience that will help students achieve a specified set of learning outcomes. An instructional designer asks what you want to accomplish by the end of the learning experience, by the end of the course, and that becomes their goal. Instructional designers have to practice part science and part art in order to create the learning system that will support the learning outcomes.

**Christoph:** Instructional design is a discipline, a field of study, that has

its theories, publications, and methods. An instructional designer takes an instructional problem and goes through an analysis that has several fairly well-defined steps, and the outcome is a learning activity or a learning environment. It is procedural in nature, but with critical soft skills like working with faculty and team leadership. Instructional technology, I think, is a term we've made up to deal with the very large issue of how technology can contribute to learning. Instructional technologists work with faculty to match appropriate technologies to teaching, and they assist the faculty in effective use of the technologies at our institutions.

**Fisher:** Instructional designers are concerned about learning theory and strategies to insure the quality of instruction, and this is where I draw a big distinction: You can be an instructional designer without having anything to do with technology, but I don't think you can be an instructional technologist without knowing the theory behind design. The distinction blurs when you look at specific projects. We have a staff of six instructional designers, and many of them play both roles. They are designers working with the instructor to develop goals and objectives, but as the project progresses and they identify the technologies that will be best utilized to reach that goal, they also become technologists, where they are actually developing either content or the delivery mechanism to allow the students to reach the desired outcome.

**EQ:** *We often hear that the two branches of instructional technology and instructional design frequently come together in the same person, in varying degrees, but do you find people leaning one way or the other? If so, is it a matter of temperament, training, or where they fall in the organization?*

**Christoph:** I think the two key ingredients to working in the field of instructional technology are the individual motivation to learn and some real understanding of how people learn. That actually is still one of our needs in shaping the Institute: We're trying to fill some of the leadership gap in instruc-

tional technology, but that doesn't help the one-person shops with a professional development need to learn about learning. We've got to work on that.

**Ragan:** The designer's role is to craft a learning experience so that you achieve an outcome, and the technologist's job is to create the environment for that to happen in. The technologist is more defined and delineated in approaching tasks, addressing hardware, support systems, and the technologies needed to get something done. The designer brings in the art. Think of an interior designer. He isn't the one doing the building; he tells you where he thinks the lighting should go and how things should be arranged. He doesn't build the furniture. The technologist says, "You want a chair, I'll build you a chair." The designer is the one who has to think about placing it.

**EQ:** *Is the instructional technologist/designer (IT/D) similar to a subject-area bibliographer in a library, where they need to have some expertise in the content and pedagogy of the disciplines they support? And given the reality that, in many schools, especially smaller ones, one person must wear the hat of technologist and designer, what if they don't have the background in learning theory or particular disciplines?*

**Ananthanarayanan:** Coming from a technology background, I have the requisite technical skills, but I do need to fill a gap in design and learning theory and find ways to integrate that better with what I do. This certainly applies in a small-school context, where it is often one or two people who have to meet this need. It's a necessary convergence that needs to happen. In a larger institution, where there might be a broader support staff, the instructional designer can look at the learning objective and help the faculty member design effective curriculum or course materials, and then take it to the technologist who has the skill set to create tools and media delivery. I'm not so sure [the designer] needs to be a subject-matter expert like a bibliographer, but it wouldn't hurt to have some kind of disciplinary foundation to work better with particular departments.

**Gerein:** I like the term “emerging practice” for instructional technology and design. As IT/D professionals, we try to pull together the best combination of tools and approaches that we can in order to work within the contexts of the educators we support. Our goal is to enhance the teaching and learning process. Our support needs to encompass all the peculiarities and wonders of the technology and the interdisciplinary influences that affect the context—from cognitive psychology to the behavioral sciences to the philosophies of education at our institutions.

**Ragan:** People evolve in these positions, whether playing a technologist’s role or a designer’s role. I used to be the A/V person in a library where I managed the carts. The next thing I know, I’m running this network, and then someone is asking me if I can help a faculty member use PowerPoint in his classroom. Faculty don’t understand that the person managing the network may not have a background in educational technology. When people come to instructional support services, they’re looking for a broad range of skill sets, and we don’t have the luxury of carving people into categories: “You’ll be the designer, and you’ll be the technologist, and you’ll be the AV support person.” This speaks to the need for management to understand their support professionals’ strengths and weaknesses and to help shore them up. This may mean additional training and skill development or, in some cases, hiring additional backup support with the needed skills.

**EQ:** *What role do IT/Ds play in advancing the mission of the institution? What does the institution have to do to maximize its investment in instructional technology?*

**Fisher:** The Seton Hall mission statement actually says, “We will provide our students with an evolving, technologically advanced setting.” Ultimately, though, without our faculty we can’t succeed in that mission because while we may have the networks and the computers, if we don’t do something with them, the students aren’t going to use them beyond word processing. So our invest-

## **My role is to be the evangelist and help faculty make it more engaging to learn**

ment in IT means engaging our faculty in the instructional design process—taking a look at their teaching and seeing how they can do it better using technology by being a guide and partner.

**Gerein:** Colorado College has a special core value as part of our mission, which is a promise to “educate students for our time.” If you think about what that means now in a digital age, it includes ideas about ways of learning and teaching and ways to facilitate critical thinking and engagement that are dramatically different from approaches 15 or 20 years ago. If we are truly educating students for our time, or educating the “net generation” as Diana Oblinger and others have called our students, then we need to understand that the tools of the disciplines and of scholarship include technological tools. Then the IT/D becomes a “champion” who helps those faculty who may not have kept up with the tools and strategies. In other cases, some faculty are already very proficient with instructional technology tools but don’t, for example, have the time or the next level of skill to be professional Web designers or Flash experts who develop interactive modules for students. IT/Ds often fill in this gap between competent users and the need for expert, one-time design. Lastly, because there is always an inundation of information and choice when it comes to technology, IT/Ds can translate and filter what the faculty and their students really need to know and be aware of in terms of technology-enabled solutions.

**Christoph:** Working as an IT/D is kind of like creating a marriage. You’re responding to the faculty’s requests for help to use technology for X course or Y kind of teaching, and when you get that door open, you use that opportunity to say, “Ah, did you ever think about...?” or “Maybe it could work this way differently,” because the normal mechanism is to do what you’re doing the same

way with technology. The IT/D needs to be always aware of the extra potential that technology can bring. So, I think an institution really benefits by having instructional technologists on staff, and saying to them, “You’re not only answering faculty questions about how to use this or that technology, but your job is also to help faculty think about their teaching and learning challenges and to show other possibilities.”

**Ananthanarayanan:** It’s got to be about the faculty because they are the vehicle that we can use to get to our students. But the faculty are not always willing, and I think it’s a common peeve among some IT/Ds that we are seen as the geeks, the point-and-click service people, not necessarily as collaborative colleagues who can work with and help them enhance what they do. My CIO is helping create an environment for this new generation of learners in which technology can transform teaching and learning. He’s setting up the context, but my role is to be the evangelist and help faculty make it more engaging to learn.

**EQ:** *So what do you do when you’re so successful an evangelist—sowing the seeds of transformative interest in more and smarter use of technology and cultivating a collaborative relationship with the faculty—that you have to go back to the CIO and say, “I’ve really been effective, but I can’t do it all, I can’t support it, there’s not enough of me”?*

**Fisher:** You need to make the case to your administration that what the students are expecting and what we’re able to deliver that day or that week don’t match—the gap analysis. Show where you are not meeting student need because, ultimately, if you’re not giving them what they want, they’re not going to come or stay.

**Gerein:** What we do as IT/Ds needs to be both scalable and sustainable whenever possible. Right now many of us, especially in smaller institutions, are still able to provide one-on-one support, but as we become more successful, and as students and society start internalizing the demand and the value system of technology as an authentic tool for scholarly activity, the increasing

demand makes us victims of our own success. How do we scale it up? How do we make sure that whatever projects we are embarking on are sustainable?

**Ragan:** Let's presume the institution has made some investment in the infrastructure. Whether there's a learning management system or not, there is a technology base to draw on. It may not be as rich as you want, but there is something there. Do you want all faculty using the technology? Maybe only some faculty can have access. Do you want showcase programs with high-end courses? Or do you want to impact many—if not all—courses in your system? Once I understand these questions, I want to know what am I going to be measured on, what are the outcomes, how am I going to be held accountable?

Often people will point to the instructional technology and say, "Wow, look at what this did, what a great technology!" And it turns out it wasn't the technology itself, it was that for the first time someone worked with a faculty member to really understand what they were trying to achieve and worked to craft the system to achieve it. This is where I see the power of the information and instructional technology. The technology can serve as an attractant. It's new, it's exciting, and IT can help us realize the learning potential. It's a marketing tool in that sense.

**Christoph:** It's about programmatic initiatives versus day-to-day support. No matter if it's one person or if it's a shop, we need to have a kind of murmur going on. The murmur can be through workshops, or newsletters, or e-mail. I think you should spend maybe 20 percent of your time on that murmur and 80 percent on the strategic initiatives. I think that serves the institution the best, and that's the best way to use resources. It's hard to do; you've got to really discipline yourself to say, "I'm not going to be able to answer the phone that many hours a day and give this person a half-hour on the spot if I'm really dedicating myself to figuring out what my institution needs, and putting some programs around it." You create the programs around the institutional need but also around your awareness of

where the faculty pockets are the most willing to move, so you're actually serving the people who want to get served in a programmatic way.

**EQ:** *What is the relationship between the professional IT/D and the faculty? How do they work together to improve the teaching and learning process? Is a central role of the IT/D to "nudge" the faculty to incorporate technology (more technology) in their teaching and their students' learning? If the IT/D doesn't do it, who will? Who should? Does the IT/D face an ethical dilemma by not "nudging"?*

**Ananthanarayanan:** I think it's a given that if you're an IT/D, you do nudge. You're there to engage the faculty in this process, leading them gently by the hand and saying, "You can do it, just take that first step." You wear so many different hats: You're the geek,

the motivator, the hand-holder, the one who is bringing it in any way you can. You're trying to get them engaged and thinking about this. There's no one way to pin down the relationship. Sometimes the biggest success comes out of taking the time to grab lunch, a cup of coffee, and talk about what they are trying to do in their classroom.

**Gerein:** An essential ethical position for IT/Ds is helping faculty use the right tool for the right job. Part of that position is also communicating that technology isn't always the right tool. Faculty are often apologetic when saying that they haven't used technology or they're not sure if technology is the right thing for their unique situation, and they're surprised when I say, "You're right! I agree!" A healthy relationship between faculty and IT/Ds is all about opportunity costs and understanding which tools are the right tools at a given

## Additional Instructional Technology Resources<sup>1</sup>

C. Barone, "A Pivotal Alliance," *EDUCAUSE Review*, Vol. 40, No. 6, November/December, 2005 (forthcoming).

The Design-Based Research Collective, "Design-Based Research: An Emerging Paradigm for Educational Inquiry," *Educational Researcher*, Vol. 32, No. 1, 2003, pp. 5–8; <<http://www.tophe.net/papers/dbrc03.pdf>> (accessed September 3, 2005).

EDUCAUSE Learning Initiative (ELI), "Interaction: Principles and Practice—ELI Summer Session 2005," report based on the 2005 ELI Summer Focus Session, <<http://www.educause.edu/LibraryDetailPage/666?ID=ELI0525>> (accessed August 30, 2005).

EDUCAUSE Learning Initiative (ELI), <<http://www.educause.edu/eli>> (accessed August 30, 2005).

EDUCAUSE resources in instructional design, <[http://www.educause.edu/Browse/645?PARENT\\_ID=406](http://www.educause.edu/Browse/645?PARENT_ID=406)> (accessed August 30, 2005).

*EDUCAUSE Review* (issue on learning space design), Vol. 40, No. 4, July/August, 2005, <<http://www.educause.edu/apps/er/erm05/erm054.asp>> (accessed August 30, 2005).

D. Oblinger and J. Oblinger, eds., *Educating the Net Generation* (Boulder, Colo.: EDUCAUSE, 2005), <<http://www.educause.edu/EducatingtheNetGeneration/5989>> (accessed August 30, 2005).

C. Palomba and T. Banta, *Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education* (San Francisco, Calif.: Jossey-Bass, 1999).

B. Walvoord, *Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education* (San Francisco, Calif.: Jossey-Bass, 2004).

moment in time. That is the IT/D mission: to help faculty know what the tools are, and then to help them make selection decisions based on their teaching style, their institutional culture, and their subject matter. That's an ethical motivator for every one of us.

**Christoph:** You need to build trust if you're going to work on something together. The faculty member has to know that the IT/D has knowledge, cares about what they're doing, will listen and invest in what the faculty member knows. We have to acknowledge the faculty as the leaders in a project, even when the IT/D is really the organizer, the person who understands and makes sure the process is followed. We've done some very large projects where we usually have only one instructional designer but up to 20 faculty on a project, and there will be a faculty lead. For example, the faculty member might say, "I want to use a video to teach something," and the instructional designer has to ferret out "What is it you're actually trying to achieve? Are the students not learning something well? Is this a new part of your discipline that you're trying to teach, and visual communication is important?" So the instructional designer typically takes the intro from the faculty, and then steps back several steps to really figure out what the goal is. They'll key on a particular technology, but it turns out they use something different in the end. Technology may be the subject of the initial conversation, and then it will go to teaching and learning, and then it will come back to technology. Do they really need a discussion board or something else?

**Ragan:** I would argue that the central role of the ID or IT is not to nudge the faculty toward incorporating technology because that puts the focus on the outcome of using more technology rather than in helping students reach their learning goals. It reminds me of the old marketing line, "Where's the beef?" It's not about the beef, it's about the protein and how you get it—the diet. And it might not be through technology, but technology is there and can be used in ways perhaps people hadn't thought of. The most exciting part of my work is

watching the two forces come together. You take a person whose life work is the study of a discipline—and they love this stuff—and you match them with someone who understands how people learn with the tools and the infrastructure. You can do some amazing things.

**EQ:** *What advice would you give the IT/D who says, "I was hired to help faculty use the course management system to create course Web sites, and given the volume of work I have, I don't have the time or the luxury to learn the deeper learning principles of this particular discipline"?*

**Ragan:** My advice to this professional would be to bloom where you are planted—start there. If that's putting the course syllabus online, get that done really well. In the process, you might find opportunities to introduce quality pedagogical concepts. Maybe creating a template or a series of templates would aid the course structure. Say to the faculty, "If this is your goal, putting your syllabus online, then I have a template you might want to look at. By the way, I've created this Web form. Go to this URL, type your data in, and it will create it for you." Starting to get smart about how to offload some of those tasks could free up time for you to meet with that same faculty member and say, "Tell me about an educational issue you're dealing with or a problem you are having in your course, and let's see if we can strategize how we might apply a technology to address it. Look at what John did across the hall, with his discussion board." It's about understanding the values of the faculty, looking for opportunities, and having the dialogue.

**EQ:** *One critical area of concern is assessment—measuring learning outcomes. There are stereotypes still afoot that in some disciplines, faculty are more comfortable with quantitative measures (obviously the sciences and professions), and that as you get closer to the humanities, qualitative measures are more important. For some faculty, assessment represents a threat that may come back at them as a professional evaluation or tenure*

*issue. How should the IT/D relate to the faculty member so that assessment is seen as a welcome, collaborative tool?*

**Fisher:** It is a touchy subject. There are faculty who don't want anyone in their classroom. We don't assess prior to doing something unless the faculty member asks us, but we will certainly assess after we've implemented technology to help teach. While it would be the best-case scenario to do pre-assessment to determine what is the necessary technology or new design for the course and then do a postassessment to see if we succeeded, that's not always possible. Sometimes assessment is much more informal, more a conversation about what worked and what didn't. This can be valuable too.

**Gerein:** Most of our institutions have a real challenge in trying to establish a culture of assessment and making it a regular part of instructional technology planning. I've personally started looking less at hard numbers on test score changes and quantifying the impact of instructional technology on learning and instead am focusing on degrees of student engagement, integrated learning, and deeper learning. Since few of us in instructional technology and design are assessment experts, working with the institutional research [IR] offices at our institutions can be really valuable, something that many of us haven't thought much about before. At the Institute, many attendees didn't even know if their institutions had an IR group. I think that awareness of and collaboration between IT/Ds and IR will increase in the next five years as more schools promote assessment.

**Ananthanarayanan:** We recently conducted, through our IR office, a faculty technology survey. As results came back, I realized we were discovering what tools they use and how much, but not necessarily how well or effectively they use those tools. I think there needs to be better communication between IT/Ds and the IR specialists that says, "OK, we know this many are using Blackboard, and most are using e-mail, but are they

organizing their content differently? How do they approach their course planning?"

**Christoph:** It sure would be wonderful if everybody loved assessment, wouldn't it? We certainly do run into faculty who are wary of assessment, because it's easy to think of assessment as assessment of them, of the teaching, when really what we're always trying to do is evaluate whether this application of the technology to this problem is at all effective. At UW–Madison, we have staff who will design the assessment in cooperation with the faculty and will actually analyze and write up results that the faculty can use in publications if they find it useful. If an instructional designer gets assigned to a project, assessment will be a natural part of that project. We're sensitive to the faculty members' feelings and needs and have been successful in showing that assessment is part of what we do.

**EQ: What do "leadership" and "change agent" have to do with the challenges facing the IT/D professional?**

**Ragan:** Leadership is not a position; it's not a title you get. Rather, it's a perspective that says, "I have a belief that the educational system can be better, and I happen to have a belief that instructional technology can play an important role in that." I can lead by providing a vision for faculty on how to change what they are doing. It's leading change by enabling change in helping people lower their barriers, whether rational or irrational, to technology.

One thing that really goes a long way is gaining recognition and visibility for your work—not your personal work, but the impact of IT/D in the institution. The leadership will get excited about such exposure. Another thing that is very effective is having the faculty and students communicate the value they've realized from the integration of information technology and the services of an instructional designer.

**Gerein:** The most successful IT/Ds are those who have embraced their role as leaders, risk takers, and collaborators regardless of their position in the orga-

nization. They have vision and conviction and empathy for their community and the people they serve.

**Ananthanarayanan:** I'm a frontline staff person, so I'm not in a leadership position by virtue of my official title, but I'm often part of a committee or team that's working on implementing cutting-edge technology on campus. My superiors are also very willing to listen when I say, "Hey, I've got this idea I would like to make happen." These opportunities enable me to function both as a leader and a change agent and, often, as a risk taker and collaborator. The challenge is to ensure that these goals are aligned with the institution's goals and culture.

**Fisher:** The IT/D is a leader and a change agent regardless of whether they report to a department chair, a dean, or the central IT shop. The goals are the same for the IT/D.

**Christoph:** Leadership can and should be anywhere, at any level of the institution. After the Institute, one person from my institution who attended and who's been an instructional designer for over ten years—highly skilled, highly professional, who's got the soft skills with the faculty down pat—said, "Wow, it's a bigger world! I think I need some mentoring," and asked for help in understanding leadership within the profession of

instructional design. We've started that process and it's very interesting. The other person who attended came back and said, "I've always thought of myself as the worker bee, doing what needs to be done. I didn't realize that I could think of myself as a leader within that role."

Career-pathing is part of it as well. At the Institute, [EDUCAUSE senior fellow] Carole Barone and I presented a matrix [see Table 1] that lays out leadership skills and mindsets in various positions. Leadership at any level connects the IT/D professional with the goals of the institution; if you're thinking leadership, you're going to make that connection. *e*

**Endnotes**

1. Thanks to Jane Terpstra, Senior Instructional Technology Consultant for DoIT Academic Technology at the University of Wisconsin–Madison, for suggesting the assessment references.
2. Adapted, with permission, from C. Barone and K. Christoph, "Loping With Leadership," unpublished presentation from the EDUCAUSE Institute, Instructional Technology Leadership Program, July 10–14, 2005. Originally conceived by the 2001 EDUCAUSE Advisory Committee on Teaching and Learning.

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Table 1			
Instructional Technology Skills: Practitioner to Leader <sup>2</sup>			
Skill Area	Frontline Leader	Mid-Level Leader	Senior Leader
Resource Management	Identify needs	Create and track budgets	Plan for major initiatives
Technology	Deploy and adapt technology	Facilitate campus-wide best practices	Develop policy, make enterprise-wide decisions
Communication	Consult with and train faculty	Develop collaborative relationships with department chairs and librarians	Cultivate executive awareness and buy-in from provosts, CFOs, deans
Instructional Issues	Define scope of and manage projects, establish priorities	Organize distributed support, cultivate balance of innovation and operation	Align instructional services and resources with institutional mission