once upon a time, there was the mainframe. Only a handful of applications were available on this great big computer. A few hardy users took advantage of these applications, often accessing them one at a time. Folks generally did not expect to use any application with another. Why would they?

Now, of course, the world is very different. College and university networks computing environments include hundreds of servers and thousands of desktop computers. Virtually all students, faculty, and staff use these computers and many available applications. They also generally expect these applications to work seamlessly with each other. What's more, academic and administrative technologists have beefed up security requirements. This environment is like some of the highways developed in the Old West. The systems are complex, with myriad servers and thousands of desktops. The interfaces are confusing. It's hard to focus on where you're going when the trip is so stressful.

In fashion, our complex networked environments in higher education require a completely different way of thinking about technology architecture. No longer can a few very smart staff sit in their separate offices and roll out new applications. We must ensure that the implementation takes all the technical issues into account: Ask an architect. Who will lead that team to identify the issues to be addressed, the standard to be followed, and the resources to be used? Ask an architect. Who will lead that team to develop the architecture in which the technology architects are seen as organizational and institutional intellectual leaders, even if they aren't “management” leaders.

The architects lead campus forums about the technology roadmap, including the road's inevitable dead ends and confusing signage. But now we're in rough territory. Application developers don't much fancy having other technologists tell them what to do—or what not to do. It takes time to develop a culture in which the technologists serve the business. They must do the product of coordinated planning so that they meet and exceed requirements and expectations.

This sounds good, but how do we do it? At the University of Wisconsin-Madison (UW-Madison), the Division of Information Technology (DoIT) has been grappling with this issue for several years. DoIT created a small group of three architects in an organization of over five hundred staff whose mission is to lead and facilitate the creation of a coherent architectural roadmap. And DoIT implements new technology, it holds the architects accountable for understanding the whole design: the flow of functions and data, the paths and vulnerabilities of identity management and security, the requirements for interoperability between the new and preexisting applications. Having led the development and communication of the technology roadmap and standards, the architects are called on to provide guidance about technological decisions—even within enterprise applications—in order to help staff understand the consequences of decisions and to ensure interoperability. The architects lead campus forums about the technology roadmap, including the road's inevitable dead ends and confusing signage.

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Some windows are lighted. But mostly—they're darked. A place you could sprain both your elbow and chin! Do you dare to stay out? Do you dare to go in? Simple it's not, I'm afraid you will find, For a mind-maker-upper to make up his mind. You can get so confused that you'll start in to race down long-wiggled roads at a break-necking pace and grind on for miles across weirdish wild space, headend, I fear, toward a most useless place. A most useless place?

Not! That's not for you!

And it's not for me either. Let's keep all our technologists talking to each other. Arrive at the fine spot that Dr. Seuss suggests: You'll find the bright places Where Boomb Bands are playing.!