

From the Bottom Up

Ever since computers came to campus, the mission of colleges and universities has been clear: keep the “holy trinity” of information systems running. In other words, failures in the (1) student, (2) human resources, and (3) financial information systems represented career-ending opportunities.

Our fixation on the vulnerability of these three systems reminds me of that old blanket that Linus keeps around him: even though we may have outgrown the enterprise world, it is familiar. We have become accomplished operators of production enterprise systems, weathering the transition from mostly batch to online systems and riding the architecture waves from host-based systems to client server and perhaps soon to a services orientation. And of course, who could argue with our priorities? The mere hint of a possible problem when running payroll could stop even the most argumentative colleagues in their tracks.

Until now. Although the student, human resources, and financial systems continue to command much of the time and attention of those of us involved with campus IT, they are no longer what many of us mean when we talk about “enterprise” systems. In many ways, 9/11 and Hurricane Katrina redefined the enterprise landscape. While these regional disasters reminded us of the importance of our three familiar friends, they also taught us that today, technologies con-

necting members of the academy to one another and to the outside world constitute the new top of the food chain. In twenty-five years, e-mail has moved from an important experiment and intriguing supplement to the voice communication network to a position of centrality and indispensability. In fifteen years, the Web has become both the gateway to global information resources and services and the world’s window into higher education institutions. To the three balls that those of us in higher education IT have long



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needed to keep in the air, we now add the network, e-mail, and the Web infrastructure. In turn, these services depend on the enterprise directory and the middle layer of access and identity management. And as we plan for pandemic flu as well, we understand that sustaining the academy also means safeguarding the repositories of irreplaceable research data and providing an infrastructure that will make it possible for classes to continue amid possible large-scale interruptions. Keeping all of these balls in the air is hard. Now we’re into governance.

We in higher education IT have succeeded, beyond our wildest expectations, in making the fruits of our life-work indispensable to our institutions. The fates of our technical environments and our institutions are intertwined as never before. To celebrate and to recognize this new world, we must begin to rethink everything we do. Industry colleagues refer to *resilience*—a design principle focused on preserving institutional capacity in the face of any contingency. In higher education, shouldn’t

we hold ourselves to an even higher standard? As institutions with very long-term, even perpetual mandates and expectations, shouldn’t colleges and universities stop treating disaster recovery as solely an IT problem or business continuity as an afterthought?

Today, the technologies exist to allow us to design systems in ways that will allow our institutions to withstand interruptions from all manner of sources. For our colleges and universities to be truly secure, we must move beyond safeguarding the core enterprise systems. Those of us in higher education IT must engage our colleagues in safeguarding the entire academy, which now rests on the technology foundation we have built. We must sustain the academy, from the bottom up.

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