

**A**s I write this, Hurricane Ike is within twelve hours of making landfall in Texas; currently, it appears that the storm will strike directly at the Houston–Galveston area. Houstonians with long memories will be comparing Ike to Hurricane Alicia, which devastated the region in 1983, killing twenty-one and doing \$2.6 billion in damage.<sup>1</sup> Younger residents and/or more recent immigrants to the area will recall Tropical Storm Allison, which though not of hurricane force, lashed the city and much of east Texas for two weeks in June 2001, leaving in its wake twenty-three dead, \$6.4 billion in losses, and tens of thousands of homes damaged or destroyed.<sup>2</sup> And of course, more recently, and much better known to all of us, regardless of where we live, Katrina, the “mother of all storms,” killed over eighteen hundred, caused over \$80 billion in damage, left huge swaths of New Orleans uninhabitable, and created a population exodus with whose effects we are living even to this day.<sup>3</sup>

Common to each of these disasters—and so many others like them—is the fact that they have often wrought terrible damage on libraries in their areas. Most of us have probably seen the pictures of the water- and mildew-damaged collections at Tulane, Xavier, the University of New Orleans, and the New Orleans public library system. And the damage from these events is long-term or even permanent. I formerly worked at the University of Houston (UH), and when I left there in 2006 that institution was still dealing with the consequences of Allison’s destruction of UH’s subterranean law library. And now I have to wonder whether UH librarians, faculty, and students might not be facing a similar or even worse catastrophe all over again with Ike.

*ITAL* editorial board member Donna Hirst has done the profession a great service with her column, “The Iowa City Flood of 2008: A Librarian and IT Professional’s Perspective,” which appears in this issue. Her account of how library IT folks there dealt with relocations of servers, library staff, and indeed library IT staff members themselves should be made required reading for all of us in the field, as well as for senior library administrators.

The problem, I think we all secretly know, is that emergency preparedness—also known by its current moniker “business continuity planning” (BC)—and disaster recovery (DR) are not “sexy” subjects. Devoting a portion of our always too modest resources of money, equipment, staffing, and time to what is, at best, a sort of insurance against what *might happen someday* seems inexcusably profligate *today*. Such planning and preparation doesn’t roll out any shiny new services and will win few plaudits from staff or patrons, to say nothing of new resources from those who control our institutional purse strings. Buying higher bandwidth equipment for a switching closet is likely to be a far easier sell.

That is, until that unthinkable something happens,

and your organization is facing (or suffers) a catastrophic loss of IT services. Note that I didn’t say “equipment” or “infrastructure.” The really important loss will be one of *services*. “Stuff”—in the form of servers, workstations, networks, etc.—all costs money, but ultimately is replaceable. What are not replaceable—at least not immediately—are library *services* to staff and patrons: access to computing (networking, e-mail, productivity applications, etc.), Internet resources, and perhaps most importantly nowadays, the licensed electronic content on which we and our patrons have so come to rely. While the news coverage will emphasize (not without justice, I think) the lost or rescued books in a catastrophic loss situation, what staff and patrons are likely to demand first and loudest will be continuation or restoration of technology-based library services such as e-mail, Web presence, Web access, and licensed content. Lest there be doubt, does anyone recall what drove evacuees into public libraries in the wake of Katrina? It was, as much as anything, the desire to locate loved ones and especially the need to seek information and forms for government assistance—all of which required access to networked computing resources.

If we have one at all—I suspect that many of us have a DR plan that is sadly dated and that has never been tested. Look at it this way: Would you roll out a critical and highly visible new Web service without careful preparation and testing? Yet many of us somehow think that BC or DR is somehow different, with no periodic review or testing required. Since we feel we have no resources to devote to BC or DR planning and testing, we excuse our failure to do so by telling ourselves and our administrations that “we can’t really plan for a disaster, since the precise circumstances for which we’re planning won’t be the ones that actually occur.” And so we find ourselves later facing a crisis without *any* preparation.

Here at the University of Alberta Libraries, we’ve been giving the questions of business continuity and disaster recovery a good deal of thought lately. Our preexisting DR plan was typical of the sort I’ve described above: out-of-date, vanishingly skeletal in its details, without explicit reference or relevance to maintenance and restoration of mission critical services, and of course, untested.

Impetus for our review has come from several sources. Perhaps the most interesting of these has been a university-sponsored BC planning process that embraces a two-pronged approach:

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- *Identify and prioritize your organization's services.* Working with other constituencies within the library, we have identified and prioritized approximately ten broad services to be maintained or restored in the event of an interruption of our normal business activities. For example, our top priority is the continuation or restoration of access to licensed electronic content (e.g., e-journals, e-books, databases, etc.). Our IT disaster planning will be informed by and respond to this goal.
- *Identify "upstream" and "downstream" dependencies.* We are dependent on others for services so that we can provide our own; thus we cannot offer access to the Internet for our users unless campus IT provides us with a gateway to off-campus networks. We need to make certain as we plan that campus IT is aware of and can provide this service in the scenarios for which we're planning. By the same token, others are dependent on us for the provision of services critical to *their* planning: our consortial partners, for example, rely on us for ILS, document delivery, and other technology-based services that we need to plan to continue in the event of a disaster.

These two facets—services and dependencies—can be expressed as a matrix that is helpful in planning for BC and DR goals that are both responsive to the needs of the organization and achievable in terms of upstream and downstream dependencies. It has been an enlightening exercise. One consequence has been our decision to include, as part of next fiscal year's budget request, funding to help create a DR site at our library's remote storage facility, to enable us quickly to restore access to our most critical technology services. In the past, we might have used this annual request as an opportunity to highlight our need for funding to support rolling out some glamorous new service initiative. With this request, though, we are explicitly recognizing that we as an organization need to commit to measures that ensure the continuance in a variety of situations of our *existing* core services. That's a major change in mindset for us, as I suspect it would be for many library IT organizations.

A final interesting aspect of our planning process is that one of the major drivers for the university is a concern about business continuity in the event of a *people-based disaster*. As avian influenza (aka, "bird flu") has spread beyond the confines of its Southeast Asian point of origin, worry about how we continue to operate in the midst of a pandemic has been added to the more predictable suite of fires, floods, tornadoes, and earthquakes (okay, not likely in Alberta). Indeed, pandemic planning is in many ways far more difficult than that for more "normal" disasters. While in many smaller libraries the "IT shop" may be comprised of one person in many hats,

in larger organizations such as ours (approximately 25 full-time equivalent employees in library IT), there tends to be a great deal of specialization. Can the webmaster, in the midst of a crisis, support staff workstations? Can the help desk technician deduce why our vendor for *Web of Science* has suddenly and inexplicably disabled our access? Our BC process rules tell us that we should be planning for "three-deep" expertise in all critical areas, since the assumption is that a pandemic might mean that a third or more of our staff would be ill (or worse) at any given time. How many of us offer critical technology services that suffer from that IT manager's ultimate staffing nightmare, the single point of failure?

We have no profound answers to these questions, and our planning process is by no means the one that will work for all organizations. But the evidence of Katrina, Ike, and Iowa City is plain: We need to be as prepared as possible for these events. The time to "get religion" about business continuity and disaster recovery is *before* the unthinkable occurs, not after. Are there any of you out there with experiences—either in preparation and planning or in recovery operations—that you would consider sharing with *ITAL* readers? We all would benefit from your thoughts and experiences. I know I would!

*Post-Ike postscript.* Ike roared ashore four days ago and it is clear from media coverage since that Galveston suffered a catastrophe and Houston was badly damaged. Reports from area libraries are sketchy and only today beginning to filter out. Meanwhile, at the University of Houston, the building housing the Architecture Library lost its roof, and the salvageable portions of its collection are to be relocated to the main M.D. Anderson Library.

## References

1. "Hurricane Alicia," Wikipedia, [http://en.wikipedia.org/wiki/Hurricane\\_Alicia](http://en.wikipedia.org/wiki/Hurricane_Alicia) (accessed Sept. 12, 2007).
2. "Tropical Storm Allison," Wikipedia, [http://en.wikipedia.org/wiki/Tropical\\_Storm\\_Allison](http://en.wikipedia.org/wiki/Tropical_Storm_Allison) (accessed Sept. 12, 2007).
3. "Hurricane Katrina," Wikipedia, [http://en.wikipedia.org/wiki/Hurricane\\_katrina](http://en.wikipedia.org/wiki/Hurricane_katrina) (accessed Sept. 12, 2007).