Jo Ann Calzonetti and Victor Fleischer

Don't count on luck, be prepared

Ten lessons learned from the "great flood" at the University of Akron's Science and Technology Library

On a bitterly cold Sunday afternoon in January, personnel from the University of Akron Libraries (UAL) were called from their warm homes to the chilly and wet environment of the university's Science and Technology (S&T) Library. Earlier that day, an unwrapped fire suppression pipe burst sending thousands of gallons of water gushing through the library. Luckily UAL had recently finalized an updated "Disaster Preparedness and Recovery Plan."

The plan included creation of a disaster action team (DAT), whose members were charged with specific emergency response duties. Disaster supplies were delivered to all campus libraries just two weeks prior to the incident. Although these essential components were in place, the plan had not been tested and we had not conducted response and recovery exercises. This unexpected disaster was a real world test of our plan and an uninvited opportunity to acquire on-the-job training.

While we passed the test with flying colors, this experience taught us valuable lessons that helped us improve our plan; and that, we hope, will benefit others.

Background

The S&T Library is one of six libraries on the UA campuses. As suggested by its name, the S&T Library is a full-service library supporting research and teaching in the pure, applied, and health science disciplines. The S&T Library is located within the Auburn Science and Engineering Center complex on UA's main campus.

At 2:00 in the afternoon of Sunday, January 31, 2010, an uninsulated fire suppression pipe located near the roof burst sending thousands of gallons of freezing cold water gushing through the library. The fire alarm sounded due to loss of water pressure. Fortunately the library was open and student employees were able to take immediate action. The building was evacuated and student employees notified the circulation supervisor at the main library that a major water discharge was in progress. He activated the disaster preparedness and recovery plan. Members of DAT were contacted by phone along with the head of the S&T Library and the dean of University Libraries.

Because steam was forming, the fire department feared that a steam pipe had burst and, out of safety concerns, would not permit anyone access to the building. Water ran into the building for 30 to 40 minutes before university facilities personnel working with the fire department determined that the cause of what appeared to be steam was actually fog formed by the cold water entering the warm building.

When DAT and other library personnel were permitted to enter, they were shocked by the amount of water in the building. The entire main floor of the library was covered with two-to-four inches of water. The water began to seep through the floor onto the level below. Classrooms, study areas, and book stacks on the lower level were in danger of

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being totally soaked. Facilities maintenance and janitorial services began vacuuming standing water on the main level, while members of DAT covered the lower level book stacks with plastic sheeting, moved library materials away from ceiling leaks, and boxed materials already affected. After three hours of triage and packing, approximately 40 boxes of wet books were moved into a freezer in the university's student union. Books that were only slightly damp were moved to a dry area of the library where they were laid out on tables to air dry. Fans were placed nearby to keep the air circulating.

On Monday, February 1, the library was closed as clean up efforts continued and the fire suppression system was restored to full operation. Facilities personnel vacuumed residual water out of carpets and placed rented dehumidifiers and fans throughout the building. The library reopened on Tuesday. Recovery efforts continued for several months, including sanitizing carpets, replacing ceiling tiles and light fixtures, repairing damaged drywall, and repainting.

Plastic sheeting protects books from water damage.

Remarkably students took this all in stride using library resources and study space oblivious to plastic sheeting on all the book shelves, fans and dehumidifiers throughout the building, and university personnel who were repairing the damage. S&T Library personnel retrieved and reviewed the books that were stored in the freezer and made decisions about further salvage efforts or discarding and replacing them.

The fact that water leaked through the main floor onto the circulating collection actually worked in our favor. The leaking prevented damage to all but one computer in the library, which was located just under the broken pipe. The bulk of computers and other equipment are located on the main floor. The leaking onto the circulating collection on the lower level was discovered relatively quickly, and all of the book stacks were covered with plastic. Only 1,000 books were wet.

A month after the event a debriefing or after action assessment was conducted. The following is a list of ten lessons we learned from this experience.

Ten lessons learned

1. Have your disaster preparedness plan up-to-date and conduct regular training exercises. This seems obvious, however, we all know that in the press of day-to-day activities planning and practicing, recovery exercises for events that might never take place get postponed. As this incident proved to us, you never know when the unexpected will occur.

2. Have a security plan in place. During the response efforts, DAT members noticed patrons entering the building and roaming the library. This is both a security risk and a liability. Emergency personnel initially secured all entrances, but later unlocked all entries to facilitate entry in and out of the building by the recovery team. This allowed patrons unfettered access, as well. DAT personnel should have posted signs on all entrances to alert patrons that the library was closed and posted personnel at all unsecured entrances to monitor people entering the building.

3. Make sure collections and equipment salvage priorities are clearly identified on your floor plans and physically marked on shelving units. While S&T Library personnel knew the location of their collection and equipment salvage priorities,

DAT members had trouble locating some of these materials. The salvage priorities were marked on the floor plans in the disaster plan. Most DAT members were not familiar with the layout of the library and had difficulty deciphering the floor plans. Labeling shelving units that house priority collections and equipment with color-coded signs would have helped DAT members locate these priority items. The libraries' forthcoming training program will include a visit by DAT to each library to see where priority collections and equipment are located.

4. Ensure that a list of each library's disaster supplies and their location is in your disaster plan. While S&T Library personnel knew the location of their disaster supplies, no one outside of their unit was aware of their location. Because the supplies were delivered only two weeks prior to the disaster, their location had not been added to the plan. Personnel from other university libraries arrived on the scene first and had trouble locating the supplies. In addition, only the members of DAT knew the contents of the disaster packs. One of the most frequent complaints of response workers was cold and wet feet. These individuals would have benefitted from the rubber boots and gloves included in the disaster packs.

5. Try to prevent disasters before they take place. This incident could have been prevented if the fire suppression pipes were insulated. A comprehensive internal and external hazards survey was conducted during the disaster planning, but the unwrapped pipes went unnoticed. Particular attention should be paid to such issues during facilities surveys, and maintenance staff should be made aware of them so they can be remedied. Fire and police need to be aware of all pipes that run through your libraries. Emergency personnel did not shut the fire pump down until 35 to 40 minutes after the pipe burst, as they saw steam and thought it was a steam pipe issue, but steam pipes do not run through this building. If they had been aware of this, the water damage would have been minimized.

6. Communicate with emergency personnel before a disaster occurs. Throughout the response efforts, communications between university libraries staff and university facilities emergency response personnel were minimal and not effective in part because personnel from the disparate units were not very familiar with one another. This led to several problems. For example, maintenance personnel kept turning up the heat in the building to increase the efficiency of the dehumidifiers in drying carpet and furnishings. Library personnel kept turning the heat down because higher temperatures encourage mold growth on paper-based materials. Meeting before a disaster to outline our needs and requirements may have prevented such situations and eliminated a lot of confusion, misunderstanding, and miscommunication.

7. Test all emergency contact information for accuracy and completeness before a disaster happens. While most of the contact information in the disaster plan was checked for accuracy and completeness, a few contacts were added later and were never tested. The campus extension for one of our most important contacts, the director of university food services, who offered freezer space for wet books, was inaccurate. In addition, his home phone and cell phone numbers were not included in the plan, nor was information for a backup contact. Although we were eventually able to obtain his cell phone number, this oversight cost us valuable time.

8. Pack books flat, not on their tails. Our disaster plan recommended packing wet books on their tails in a fanned position to facilitate drying. This method was recommended by a conservation lab when the plan was being created. Working in haste, our pack team placed most of the books flat. This turned out to be fortuitous inasmuch as after the damaged items were removed from the freezer we learned that books packed flat had a better survival rate. On the other hand, those that were packed upright, especially paperbacks, tended to swell and distort.

9. Prepare for the worst. Almost every person who arrived on the scene stated that

the disaster was worse than they anticipated. This caused some individuals to panic, which can lead to poor decision making. Imagine the worst possible scenario and prepare mentally before you arrive on the scene. This will help to create a calm demeanor, which will facilitate better decision making. During the planning process, no one anticipated a disaster of this magnitude. As a result, there was an inadequate amount of plastic sheeting to cover the bookshelves. A trip to the hardware store remedied the situation, but valuable time and energy were lost and books were damaged unnecessarily.

10. Do not store valuable items on the floor. This is one of the biggest lessons learned from this experience, and it was learned the hard way. Since there was up to four inches of standing water in many areas of the library, everything stored or left on the floor was damaged beyond repair. This included several important and valuable library resources that were left on the floor by library personnel. These materials can be replaced, but at a great cost to the library.

Conclusion

The flood in the S&T Library at UA on January 31, 2010, was a real disaster. The entire facility was flooded and thousands of materials were affected. The library was closed for two days temporarily suspending important services to the campus and the community. While a disaster plan, supplies, and a response team were in place, the plan was untested and training and recovery exercises had not taken place. Despite lack of training and practice we had an up to date plan and most of the supplies we needed to respond to and recover from the incident quickly and efficiently. Hard work and commitment of personnel from the libraries and the university's physical facilities staff were critically important.

We were lucky. Two weeks earlier and there would have been no disaster supplies in place. Three months earlier and our disaster plan would have been woefully incomplete and inadequate. Luckily the library was open and our student employees knew to take immediate action evacuating the building and activating our disaster plan. We learned many valuable lessons from this traumatic real world experience, one of the most important is that you should not rely on luck and can never be too prepared.

("Teaching with The Situtation..." cont. from page 80)

about the effectiveness of incorporating popular culture in instruction sessions:

- 94.7 percent of the students felt more engaged during the instruction session
- 73.7 percent of the students thought that they were now better able to recall and retain the information because of the integration of popular culture

Confidence in the ability to recall and retain information is hard to truly assess without a pre-test and post-test, but the majority of the respondents felt that popular culture helped them in this process.

Due to the survey results and first-hand observations, Springer and Yelinek intend to continue integrating popular culture themes into library instruction sessions. Popular television shows like *Jersey Shore* will lose relevance or popularity and eventually face network cancellation, but new popular culture references will always be available.

Regardless of the popular culture topic, being willing to try different teaching methods is crucial for using popular culture in information literacy instruction. When trying unusual ideas, there is an even greater need for hands-on exercises in which the students can apply information literacy skills. Application of these skills is also important when proving effectiveness to faculty members, who may have reservations about incorporating popular culture references. Springer and Yelinek were both grateful for the support they received from faculty members at their institutions.

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