

Challenges for Library IT

Communications

Library IT departments face a wide variety of challenges in responding to a crisis. Depending on the crisis, the most pressing hurdle may be communications. The fire at Hale created the most obvious communications issue when university communications tools were temporarily knocked out. That unforeseen problem required a quick switchover to non-university communication mechanisms in order to pull the IT department together so it could respond to the fire in a coordinated way. In other situations, however, the internet itself may be down. There are few substitutes for phone trees in the most severe crisis. However, it is worth noting that in the case of a major catastrophe, cell phone service may become congested. Some employees may not choose to have internet or even phone service at home. After the Hale fire, at least one employee showed up for work the next day, having no idea that a fire had occurred. It is a common impulse for some people, in lieu of communication, to physically go to their place of employment to seek information. In the case of a crisis where there is a serious communication disruption, it may be advisable, when possible, to station someone at or very near the physical site to provide information to people unknowingly showing up for work.

A larger communication question involves the amount and type of communication necessary to maintain team cohesion during a crisis and in its sometimes extended aftermath. The Hale fire reduced the library IT department to virtual communication initially, although within the first few weeks there were already events planned by individuals within the department that allowed everyone to gather as a group. Once the department was provided with new offices, on-campus meetings and other events quickly began to normalize. At the library level, all-staff meetings were increased from monthly to weekly

frequency for a substantial period after the fire, and library administration worked to provide physical venues on campus for the meetings, while simultaneously facilitating Zoom access to them as well.

At Washington University, however, the COVID crisis has played out very differently. As of this writing, the library IT department is still working remotely, and virtually all interactions are via Zoom or Teams. As a direct consequence of this situation, the normally weekly departmental meetings are now daily morning meetings: a change necessary due to the lack of the normal interactions that occur freely as a result of colocation in the office. As of this date, four separate hires have been brought into the department during the pandemic. Three of these individuals remain and have never met their colleagues in person or seen their ostensible work spaces. In their case, the daily meetings have helped foster a sense of belonging, but regular managerial interaction, both through the normal one-to-one meetings and through more situational conversation, is essential to help them settle in under remote conditions.

Another facet to the communications issue is communicating with the rest of the organization. In both crises there was a significant technology dimension involved, so, as the department head, I felt it was important to make myself as available as possible for events. Sometimes this meant physical attendance; sometimes it meant virtual attendance. Sometimes these were formal all-staff meetings, and sometimes they were information sessions or informal staff chat events. While this wasn't always the case, not infrequently there were questions by library employees about the library technology response or the campus technology response. It was important to be there to answer such questions, even if the answer was "I'm not sure what has been done, but I'll look into it for you."

Beyond the library itself, library IT departments will need to interface with the rest of campus or the

community. The library needs to remain apprised of salient conditions outside of its walls. I was on a number of committees at both universities, some standing and some temporary, that dealt heavily with crises. All of them passed along status reports and solicited information from individual departments. I also frequently asked my colleagues in our library IT department to participate in specific committees or attend for me if I was unable to participate in a given meeting. Keeping those lines of communications open and healthy was essential for ensuring that the libraries weren't taken by surprise by a technical change or detail. They were also vitally important to the community that we were a part of so that campus IT could get feedback from us as needed.

One challenge in crisis communication is the question of communication versus action. It is sometimes underestimated how much work is involved in communicating and how much time it can take away from actually carrying out a plan of action. Even outside of a crisis, simply composing e-mails and other messages takes up a significant part of my day. Similarly, I have so many operative channels of communications that I have had to cut back on which ones I actively monitor. I am currently on so many Slack channels that, along with Teams, it would be almost a full-time job just to actively participate in them all. A crisis exacerbates this situation. As a result, IT staff may need to establish some boundaries regarding communication channels, with clear expectations about which of those channels will be most actively monitored. Similarly, composing communications may be something that other administrators are willing to assist with, either with a first pass or by helping you review a communication prior to sending it out.

It can be easy to underestimate the scope of effect for a particular change. I have definitely been guilty of that at times, leading me to undercommunicate. In crisis situations, lack of communication is often a source of anxiety for library colleagues, and library administration will have a particular need to be aware of major changes to the IT landscape. It can be useful, depending on the tempo of change, to schedule regular meetings or additional meetings with other administrators or your reporting chain.

Logistics

Closely coupled with the challenge of communication is the challenge of logistics. This is a significant issue in remote work environments when the need to work on or distribute equipment arises. It was exacerbated during the COVID crisis at Washington University Libraries by an inability to colocate even off campus and by slowdowns that occurred in shipping. Additionally, as noted earlier, some equipment became harder

to find from vendors and sometimes became more expensive when it could be found. Sometimes unexpected problems cropped up, such as organizational leaders responding to calls for equipment needs well after a response deadline has passed. When packages arrived at Olin Library, they needed to be quarantined in order to safeguard against any surface transmission of the virus. This required Library Technology Services to plan carefully for potentially extended shipping times. Some of these difficulties also meant that on several occasions I ended up having to pick up or deliver items at private homes.

Throughout the COVID crisis, the nature of equipment needs changed. Remote work created an organizational dependence on productivity tools like Teams and Zoom, which require a webcam in order to be useful with a computer. In the early days of remote work, when most employees were using laptops, they had access to built-in webcams and microphones. However, as they returned to the office, they required webcams for desktop systems that lacked these peripherals, since not all staff had returned and certain elements of remote work continued. However, this also provided our department with an opportunity to plan ahead, since it is increasingly likely that Teams and Zoom will be a regular feature of future meetings for all library staff, even post-pandemic.

At K-State, recovering equipment from the interior of Hale Library after the fire became a significant logistics project. A great deal of digital hardware, from workstations to large monitors and everything in between, had been placed in a couple of triage rooms by the reclamation teams. This equipment had to be inventoried, sorted, and evaluated once the building could be re-entered safely. Complicating the problem was the presence in the building of corrosive soot from the fire, which took a toll on all of the computing equipment in the building. Even devices that had been spared soot and sprinklers, such as devices from the top floor of the building, were found to have hardware problems as a consequence of sitting through a Kansas summer in a building without climate control. One copier from the fifth floor, upon being opened by a technician, had marks inside the case where humidity had condensed and run down the cover, like rain on a window.

In such situations another logistics issue becomes dealing with the insurance companies. It is no secret that insurance companies would prefer to not pay out on claims, and a great deal of the work that we did within Hale Library was done to comply with strictures the insurance company required us to fulfill for payment. Remember that if a third-party service provider is recommended by the insurance company, its loyalty will be to the insurance company. Third-party work must be scrutinized carefully. In the case of the Hale fire, the company initially brought in to clean,

assess, and inventory the computer equipment inside the library provided spreadsheets that proved to be so inaccurate that when library IT and campus IT went into the building to begin organizing and assessing the equipment, the inventory had to basically be redone. The same company claimed that various pieces of equipment were fully reusable based upon a “sponge test” conducted on the exterior of the cases of the devices once they had been cleaned, ignoring the fact that the corrosive soot had, in many cases, been moving through the vents (and thus over the circuit boards) in the devices. This test also ignored the environmental conditions that a lack of climate control had subjected the electronic equipment to.

The compelling nature of photographs is useful in such instances. The main library server rack, which was moved out of Hale Library after the fire, showed obvious corrosion artifacts from the soot. One of the library IT sysadmins took copious and detailed pictures of the state of the server rack . . . images that were used in explaining matters to the insurance providers, among others. Numerous equipment failures by devices that were removed from Hale and repurposed also served as useful evidence of the effects of the fire.

In the case of both of these crises, a significant amount of new equipment had to be ordered. Such unexpected acquisition of equipment can create stresses in the library budget. At Washington University Libraries, this was exacerbated by expenditures related to other major projects scheduled around the same time as the outbreak of the COVID crisis. The environment of remote digital work meant that the situation remained suitable for projects such as the new Washington University Libraries website, but that also meant that expenses related to such projects continued unabated.

During the COVID crisis, logistical difficulties have proved to be as much about people as about equipment. Policies were enacted by Washington University and the libraries that established specific, and at times strict, protocols for coming onto campus. Staff had to self-test and go through certain training as well as getting permission from the libraries reporting chain in order to return to campus for any reason. External contractors, including vendors who had to be brought in to service printers and copiers, were required to go through a similar process. Library staff were needed to escort them during their work in Olin Library, meaning that provisions had to be made for someone from Library Technology Services or another team to be available on-site. Special provisions also had to be made to pick up or distribute equipment to remote workers, including those who left the organization or were newly hired. This sometimes meant going to someone’s home or a meeting in a parking lot if access to the buildings was out of the question.

The Human Element

Onboarding during a pandemic can be a fraught experience. No fewer than four Library Technology Services staff members were added at various points during the pandemic. Of the three who still remain, to date not one of them has had a chance to meet all of their departmental colleagues in person. This has created a dynamic that will require what amounts to a second onboarding once the department returns to campus. They must still be familiarized with their eventual workspaces, issued keys, taught physical procedures, and allowed to begin the process of interacting face-to-face with library staff that they may know only through remote tools.

Even for existing staff, situations like the COVID pandemic are likely to be a challenge. Robbed of the physical routine of work, they can find it difficult to maintain focus and time lines. Morale is hard to maintain when colleagues can no longer see each other outside of a computer screen. Frequent virtual meetings that contain generous amounts of general conversation, while seemingly a bit wasteful on the surface, can be an indispensable tool in maintaining team integrity under such problematic circumstances.

However, there is no getting around the stress that goes hand in hand with a crisis. Especially in the initial phase of a crisis, staff may be asked to work extremely long hours in the service of solving complex problems. In the first days after the Hale fire, Library Technology Services staff worked long hours, often very nearly around the clock, to resolve a variety of technical issues. Such work is a zero-sum game; as exhaustion sets in, decision-making and quality of work inevitably suffer. Exhaustion, stress, and the other issues that go along with them exacerbate every kind of health issue and negative behavior.

A few days after the Hale Library fire, my health suddenly declined precipitously and, after finally going to an urgent care facility for the first time in my life when I began to experience some difficulty breathing, I discovered I had contracted a tick-borne illness. I had traveled just prior to the fire, spending some time in the woods, and the characteristic half-bull’s-eye rash was a clear indication to the doctor of what had transpired. My reaction to the disease was severe, and the effects of the illness still linger. There is little doubt that the severity was increased by my mental and physical condition at the time. This highlights the critical importance of self-care for leaders in crisis situations. I admit that this has never been a strength of mine. I tend to be quite concerned for the welfare of my colleagues in the IT department, but in my own case I have a tendency to just want to power through difficult circumstances. This becomes a less tenable solution as a crisis situation shifts to extended alternative operations and often sets a poor

example. While the first stage of a crisis response often demands extraordinary effort, that stage should be short-lived and followed by opportunities for rest and situational assessment. It is appropriate for the leadership to conspicuously work hard and share in the difficulties of a crisis, but it is equally appropriate for leaders to model a sustainable work-life balance in difficult circumstances and avoid creating implicit expectations of unsustainable effort.

Another source of stress for library staff in a crisis situation can be equity issues. I have seen situations where staff members felt insecure because certain positions were central to recovery operations while theirs were not. I have had difficult conversations with staff members who felt that they were being eclipsed because others in the department responded quickly to the rigors of a crisis but did not include them in a way they felt was adequate. I have heard staff members upset because they were working long hours performing unpleasant tasks while some persons in the library who already occupied privileged positions did not seem to be sharing in the collective difficulties of the crisis, even when there were jobs that they could have done to assist.

The COVID pandemic generated a host of unique equity concerns for library staff. Some positions were such that work could be conducted remotely almost as easily as on campus, while others revolved specifically around work with the physical collection or location. Some staff members were required to return to campus much earlier than others, potentially exposing them to greater risk of infection. There were staff who worked with deliveries, or books that had been returned: a potentially unnerving prospect in the early days of the pandemic when there was still considerable apprehension about the possibility of surface transmission of the virus. In most cases little could be done about these issues beyond the libraries scrupulously following the best available science and providing adequate protective equipment. But it was nonetheless important to recognize these feelings in staff and the stress they caused.

By the nature of crises, their timing is rarely convenient and their disruption of pre-existing plans only elevates the stress associated with them. When the fire struck Hale Library, extensive plans had already been drawn up for a new makerspace on the first floor. These plans were the result of months of work by a combined team of libraries and central IT staff. Numerous other projects and programs were heavily disrupted by the fire, which kept employees out of the Hale Library building for years. However, the fire also provided unexpected opportunities to expand the original makerspace plans into a much more comprehensive offering.

The COVID disruptions occurred at Washington University Libraries just weeks after a major

migration of all of the libraries digital infrastructure from a local library data center onto services provided by campus IT. Dealing with inevitable migration issues was exacerbated by a variety of obstacles that included the transition to remote work. It also occurred during a period when a variety of other major projects and personnel changes were occurring. Like the surprise timing of the Hale Library fire, the timing of the COVID pandemic, even without its other complications, was a source of tremendous stress at organizations worldwide.

Transitioning to Alternative Operations

A challenge during such stressful circumstances is doing the work necessary to pivot away from emergency operations to the alternate operations that necessarily characterize a longer period of disruption. Part of the reason for this is that dealing with emergencies can become a habit. Too often in such situations I have found it increasingly difficult, in the time I had between dealing with more immediate concerns, to sit back and re-engage with normal administrative tasks. It was easy to fall into a rut, where I was balancing multiple serious, time-sensitive priorities in a way that made it difficult to reorder my thoughts so that I was managing time and tasks in a less crisis-focused manner.

However, as a crisis stretches into a longer-term event, the stress of emergency response becomes untenable. It also often causes essential planning and administrative work that characterize normal operations to be neglected. This last issue is one that I've seen play out at a number of organizations, where unusual and stressful operations (some were emergencies, while others were just major projects that required particular focus and effort) caused leaders to shift away from their normal planning and oversight roles and not return to them without intervention. Invariably, this lack of attention to those management fundamentals led to degradations in service. In such cases leaders need to make a conscious effort to begin to set aside time for planning and administration, even when it is difficult. As the tempo of the crisis slows, leaders may find themselves in a position to delegate more tasks, freeing up time for this purpose.

Organizations should seek to transition to alternative operations as rapidly as possible. Once initial response measures have been taken, with systems stabilized and staff mostly or completely able to do their jobs in their new circumstances, some key changes need to begin. In the first phase of a crisis, communication channels are often used in a less-than-structured way. Essentially, whatever modality is needed to communicate an issue to another key staff member

in a timely fashion is what is used. However, as operations shift away from emergency conditions, the organization should begin encouraging a more normative use of communication channels. IT departments in particular should begin encouraging individuals who have gotten into the habit of reaching out informally to colleagues about problems they need assistance with to return to using whatever ticketing system their department uses to track work. The department may want to consider discussing how it has been communicating during the early days of the crisis and using those mechanisms as part of a re-evaluation of the overall departmental communication strategy. This is a good time to send out gently worded, but clear, reminders to library staff about the appropriate means for requesting equipment, getting help, or conducting other business with the IT department.

Staffing issues should also be addressed at this point, and they will need consideration on multiple levels. At its most basic, staff should be able to begin to return to more normal working hours and conditions. After the first period of emergency response, it should become clear what areas now require more assistance and what areas are under less pressure due to changes in operations, allowing duty assignments to be shifted accordingly. In academic libraries that have faculty and staff, it can be a challenge to move faculty from one area of emphasis to another, both in administrative terms and in terms of faculty resistance. However, it is unfair to expect staff to carry the entire burden of change, and a conspicuous resistance by faculty toward sharing in the burden of alternative operations will likely lead to significant morale problems.

Some library employees, be they faculty or staff, may work in areas that no longer require their efforts on the same scale as was true precrisis. This is particularly relevant in cases where physical service points and operations are disrupted. If employees are unable to scale their work into the digital theater, one challenge will be finding work that they can do to avoid layoffs or other negative outcomes. This can be an opportunity for the organization to tackle tasks that need significant human intervention and can be accomplished on computers, but would ordinarily have had to wait for student employees, grant-funded temporary employees, or some kind of crowdsourcing effort in order for them to be completed in a timely fashion. At Washington University Libraries, a large metadata project being undertaken by Special Collections provided work for many library staff who were otherwise unassigned. In such cases the organization must be careful to take into account the administrative overhead of such a large influx of temporary help into a department. The available labor for a given project may increase, but that will mean a corresponding increase in the time and effort needed to manage and

oversee such a project.

Alternative operations also often means lower-than-precrisis productivity. Part of that can be ascribed to exhaustion by some employees after the frenetic pace of emergency response operations. However, another major factor is the constellation of difficulties, large and small, faced by employees who have to adapt to unfamiliar work environments . . . especially when they are working from portable computing devices. For those who, prior to the crisis, did not have an alternate workspace they were accustomed to using (such as a home office) and for those who aren't used to working from improvised spaces, adjusting may be difficult. Suddenly being confined to a laptop screen and keyboard, for instance, can make working on multiple products simultaneously more difficult. Working from home can present many challenges, especially to staff members who have other family or pets with them in the same space. Managers must exercise discretion and understanding. Even after alternate office arrangements were found for Hale Library employees after the fire, a lack of colocation with some colleagues, adjusting to new workspaces, and adapting to new, often portable equipment, posed difficulties for many.

It is important to note that alternative operations doesn't have to mean working from home, although it can. After the Hale Library fire and an initial period of work from home, a variety of departments at Kansas State University found space for library employees. These departments stepped up generously, a fact which library employees appreciated. However, this still resulted in staff displacements and inevitable difficulties. The Library Technology Services department systems and developer teams, along with my new office, were relocated into the central technology building (the Unger building) a short distance off of campus. Our desktop and equipment support unit, LIST (Library Information and Support for Technology), was located on campus to make it easier for it to support the other library departments. This required me to frequently travel between locations and required LIST staff to travel to the Unger building for many of our meetings, including departmental meetings. It also weakened some of the team cohesion that had existed pre-fire, when the entire department was colocated in one office space on the fourth floor.

However, the shift to alternative operations should provide employees with the opportunity to slow the pace of their work and begin to return to the normal planning and assessment processes that should be part of their nominal operations. Managers should return to some forward-looking topics and planning processes within departmental meetings and one-to-one employee meetings. Within the IT department, time can be made again for team meetings focused on longer-term projects or consensus building around

strategy. Assignments should begin to reflect a return to work on precrisis projects and priorities where possible. This will be the time to start weaning staff members off more chaotic emergency response schedules and response footings so that a new normal can begin to be established. Meeting formats and schedules adopted specifically for emergency response can be assessed at this time to see if there is anything to be culled from them that fits into the larger renormalization process. Otherwise, those meetings and structures should be wound down with a return to previous patterns and schedules.

At this point it is best to manage expectations. As of this writing, the Washington University Libraries technology services department is still working remotely as it has been for over a year. I left K-State Libraries in November 2019, at which point Hale Library personnel were still working mostly at alternative locations, as only the first floor of Hale had been opened. It was not until early 2021 that most staff were able to return to work at Hale. It is normal in the aftermath of a major crisis or disaster for people to want things to return to normal. However, staff must be redirected by leadership away from the temptation of focusing on when (or if) things will return to a precrisis status quo. Leaders must project confidence but also an acceptance of altered circumstances as well as a sense of gratitude. At both K-State and Washington University, the organizations took significant, and to me sometimes surprising steps, to ensure job security and provide employees with a continuing sense of community despite the crisis. At both institutions many people went above and beyond in responding to the crisis. Leadership responded flexibly to the demands the situation placed on the organization and evidenced real concern for the well-being of staff. The leadership should make it clear that employees need to settle into alternative circumstances to the greatest extent possible and work with them to help establish a relatively comfortable new normal. Staff should also be coached to understand that, even after a full recovery from a crisis, it is likely that there will be lasting organizational change.

Alternative operations are also the point at which the leadership element needs to begin to take stock of lessons learned from the crisis. There will be more lessons likely to come until a broader normalization occurs, but the calming of the operational tempo provides opportunity to consider what went well and what didn't in the emergency response phase. What changes have been made to accommodate the crisis that might be worth keeping? Do the larger organizational procedures and approaches need to be rethought? COVID-19, in particular, has been an opportunity for university libraries to reconsider often calcified positions on remote work. This is especially vital for library IT

departments. Remote or partially remote work has long been a regular facet of the technology world, but universities generally, and university libraries in particular, have been slow to adapt their policies to this reality. This issue has led to the loss of at least one highly skilled developer at a library IT department I headed, and I'm glad that COVID is giving at least some university libraries food for thought.

In the same vein, this crisis has forced many in higher education (some kicking and screaming) to take the need for an asynchronous model of education more seriously. The traditional college experience has long been a privileged one, but the rising cost of this experience is placing it far out of reach for many in the United States. Moreover, daytime class schedules, physical attendance, and office hours designed around that traditional experience place enormous barriers in the path of qualified nontraditional students. In the same way that a large segment of the population of potential students is poorly served by the traditional model, many public universities are increasingly poorly served by it as well. Facing drops in enrollment and ever-more-significant hurdles being erected in the path of the international students that comprise the most lucrative segment of the student tuition share, while simultaneously dealing with severe budget cuts due to over a decade of collapsing public support now coupled with COVID shortfalls, many public universities have been struggling to stay afloat. Such public universities have been forced to make up for politically motivated budget decimation by escalating tuition costs in a vicious cycle that effectively removes a cost-effective college option that was originally designed for the children of working people.

Despite hopes by people like me that the need on both sides would eventually converge into new offerings by higher education, the only place this seemed to happen was at institutions of so-called proprietary higher education. These were private, mostly online institutions that saw an opportunity and seized upon it. I have some experience in this area; my first job out of library school was as the director of library services for the Cedar Rapids branch of Kaplan University. However, many of these schools engaged in practices that were, to put it mildly, not as student-focused as they should have been. Eventually, changes to rules around student loan borrowing put many of them out of business. However, this should have been a wake-up call to higher education. These schools were so successful precisely because there was such an enormous level of unmet demand. While some mainstream universities, such as Purdue and Georgia Tech, have been moving to capitalize on this reality, too much of higher education has seemed incapable of innovating in this direction . . . even to save itself. However, COVID-19 has forced the issue, and it is possible that universities

that have had to learn to adjust for the pandemic will repurpose some of these lessons learned by expanding into the asynchronous education market.

Eventually, alternative operations will give way to a postcrisis status quo. In the lead-up to this change, and throughout the planning process for it, managing expectations will remain important. Employees may be returning to spaces and space assignments that are very different from those they initially left. They may be occupying entirely new positions, with vastly different duties, from those they held before the crisis. Lessons learned from the crisis may lead to changes in hours or management practices, but they will certainly lead to at least some changes in procedures. Staff with a low tolerance for change may continue to experience anxiety or disappointment that conditions will not be returning to what they regard as normal. It is also important in these times to celebrate the crisis itself. Something bad happened, but your team dealt with it and made it through to the other side. This is an accomplishment that is worth savoring and can form the basis for team building. Take this opportunity to celebrate any positives that came out of the crisis. The rebuilt Hale Library is a magnificent space. The Washington University Library Technology

Services department is emerging from the pandemic with a new sense of purpose and accomplishment.

And this sentiment goes to the heart of the matter. Whenever and wherever possible, leadership should turn crisis into opportunity. Every crisis is an opportunity for organizations to reimagine themselves, rethink who and what they are, celebrate the talent they possess, explore new ways of doing things, and sacrifice a few sacred cows in the name of innovation. Doing these things is often an uncomfortable experience for some, or all, in an organization, but it is a means of avoiding calcification and encouraging growth. Crises can introduce new ideas and demand re-examination of ideas that no longer serve their purpose. They can force organizations to consider whether their standing interpretation of their core mission has become something that merely serves the interests of powerful internal or external groups. Crisis often operates as a change engine, and responding to one can force change in organizations where change has otherwise become politically toxic. As leaders it is our responsibility to imagine the future and move our organizations, our professions, and our disciplines toward it.