Editorial Board Thoughts:
The Importance of Staff Change Management in the Face of the Growing "Cloud"

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The library vendor market likes to throw around the word "cloud" to make their offerings seem innovative and significant. In many ways, much of what the library IT market refers to as "cloud," especially SAAS (software as a service) offerings, are really just a fancier term for hosted services. The real gravitas behind the label cloud really emanated from grid-computing or large interconnected, and quickly deployable infrastructure like Amazon's AWS or Microsoft's Azure platforms. Infrastructure at that scale and that level of geographic distribution was revolutionary when it emerged. Still these offerings at their core are basically IAAS (infrastructure as a service) bundled as a menu of services. So I think the most broadly applicable synonym for the "cloud" could be "IT as a service" in various forms. Outsourcing in this way isn't entirely new to libraries. The function and structure of OCLC has arguably been one of the earlier instantiations of "IT as a service" for libraries vis-à-vis their MARC record aggregation and distribution which OCLC has been doing for decades. The more recent trend toward hosted IT services has been relatively easy for non-IT related units in our library. A service no different to most library staff based on where it is hosted. And with many services implementing APIs for libraries, that distinction is becoming less significant for our application developers too. For many of our technology staff, who have built careers around systems administration, application development, systems integration, and application management, hosted services represent a threat to not only their livelihoods but in some ways also their philosophical perspectives that are grounded in open source and do-it-yourself oriented beliefs. In many ways the "cloud" for the IT segment of our profession is perhaps more synonymous with change, and with change requires effective management of that change, especially for the human element of our organizations.

Recently, our Office of Information Technologies started an initiative to move 80% of their technology infrastructure into the cloud. They have proposed an inverted pyramid structure for determining where IT solutions should reside — focusing first on hosted software as a service solutions for the largest segment of applications, followed by hosting those applications we would have typically installed locally onto a platform or infrastructure as a service provider, and then limiting only those applications that have specialized technical or legal needs to reside on premise. This is a big shift for our IT staff, especially, but not limited to, our systems administrators. The IAAS platform our university is migrating to is Amazon Web Services and their infrastructure is

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largely accessible via a web dashboard, so that the myriad of tasks our systems administrators took days and weeks to do can now, in some adjusted way, be accomplished with a few clicks. This example is on one extreme end of the spectrum as far as IT change goes, but simultaneously, we have looked at the vendor market to lease pre-packaged tools that support standard functions in academic libraries and can be locally branded and configured with our data — things like course guides, A-Z journal lists, scheduling events, etc. The overarching goals of these efforts are cost savings and increased velocity and resiliency of infrastructure, but also and perhaps more important, is giving us flexibility in how we invest our staff time. If we are able to move high level tasks from staff to a platform, then we will be able to reallocate our staff's time and considerable talent to take on the constant stream of new, high level technology needs.

Partnering with the University, we are aiming towards their defined goal of moving 80% of our technical infrastructure into the "cloud." We have adopted their overall strategy of approach to systems infrastructure, at least in principle and are integrating into our own strategy significant consideration for the impact of these changes on our staff. Our organization has recognized that people form not only habits around process, but also personal and emotional attachments to why we do things the way we do them, both from a philosophical as well as a pragmatic perspective. Our approach to staff change is layered as well as long term. We know that getting from shock to acceptance is not an overnight process and that staff who adopt our overarching goals and strategy as their own will be more successful in the long term. To make this transition, we have developed several strategic approaches:

1. Explaining the Case: My experience is that staff can live through most changes as long as they understand why. Helping them gain that understanding can take some time, but ultimately having that comprehension will help them fully understand our strategic goals as well as help them make decisions that are in alignment with the overall approach. I often find it is important to remember that, as managers, we have been a part of all of the change conversations and we have had time to assimilate ideas, discuss points of view, and process the implications of change. Each of our staff needs to go through the same process and it is up to leadership to guide them through that process and ensure they get to participate in similar conversations. It is tempting to want to hit an initiative running, but there is significant value in seeding those discussions gradually over a somewhat gradual time period to more holistically integrate staff into the broader vision. It is important to explain the case for change multiple times and actively listen to staff thoughts and concerns and to remember to lay out the context for change, why it is important, and how we intend to accomplish things. Then reassure, reassure, and reassure. The threats to staff may seem innocuous or unfounded to managers, but staff need to feel secure during a process to ultimately buy in.

2. Consistency and Persistence: Staff acceptance doesn't always come easy — nor should it necessarily. Listening and integrating their perspectives into the planning and

implementation process can help demonstrate that they matter, but equally important is that they feel our approach is built on something solid. Stability is reinforced through consistency in messaging. Not only in individual consistency, but also team consistency, and upper management consistency — everyone should be able to support and explain messaging around a particular change. Any time staff approach me and say, "it was much easier to do it this other way," I talk about the efficiency we will garner through this change and how we will be able to train and repurpose staff in the future. The more they hear the message, the more ingrained it becomes, and the more normative it begins to feel.

3. Training and Investment: IT futures require investment, not just in infrastructure, but also in skill development. We continue to invest significantly in providing some level of training on new technologies that we implement. That training will not only prove to staff that you are invested in their development as well as their job security, but it will also give them the tools they need to be successful in implementing new technologies. Change is anxiety inducing because it exposes so many unknowns. Providing training helps build confidence and competence for staff, reducing anxieties and providing some added engagement in the process. It also gives them exposure to the real world implementation of technologies where they can begin to see the benefits that you have been communicating for themselves.

4. Envisioning the Future: Improvements and Roles — One of the initial benefits we will be getting from recouping staff time is around shoring up our processes. We have generally had a more ad hoc approach to managing the day to day. It has been difficult to institute a strong technical change management process, in part, because of time. We will be able to remove that consideration from our excuses as we take advantage of the "cloud." The net effect will be that we will do our work more thoughtfully and less ad hoc and use better defined processes that will meet group-developed expectations. In addition to doing things better, we do expect to do things differently. With fewer tasks at the operational level, we believe we will be able to transition staff into newly defined roles. Some of these roles include DevOps Engineers, a hybrid of application engineering (the dev) and systems administration (the ops), these staff will help design automation and continuous integration processes that allow developers to focus on their programming and less on the environment they are deploying their applications in; Financial Engineers who will take system requirements and calculate costs in somewhat complex technical cloud environments; Systems Architects who will be focused on understanding the smorgasbord of options that can be tied together to provide a service to meet expected response performance, disaster recovery, uptime, and other requirements; and Business Analysts - who will focus on taking technical requirements and looking at all of the potential approaches to solve that need whether it be a hosted service, a locally developed solution, an implementation of an open source system, or some integration of all or some of the

above. This list is by no means exhaustive, but I think it forms a good foundation on which to help staff develop their skill set along with our changing environment.

I believe it is important to remind those of us who are managing IT departments in Libraries that in many ways the easiest parts of change are the logistics. The technology we work with is bounded by sets of guidelines that define how they are used and ensure that if they are implemented properly, they will work effectively. People on the other hand are not bounded as neatly by stringent rules. They are guided by diverse backgrounds, personalities, experiences, and feelings. They can be unpredictable, difficult to fully figure out, and behaviorally inconsistent. And yet, they are the great constant in our organizations and therefore require significant attention. Our field needs "servant leaders" dedicated to supporting and developing staff, and not just being competent at implementing technologies. Those managers who invest in staff, their well-being, development, and sense of engagement in their jobs, will find their organizations are able to tackle most anything. But those who ignore their staffs' needs over pragmatic goals will likely find their organizations struggling to move quickly and instead spend too much energy overcoming resistance instead of energizing change.