EWWW!: Electronic Resources in the Twenty-First Century

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The idea of change as the only constant in the world is ancient; yet we are always still somewhat surprised at the speed at which change takes hold of our comfortable routines. Initiating needed change in a modern library environment is like trying to hit a moving target that is tied to a running elephant with a Nerf gun—the target is moving at a great speed, the resources given to us may not be enough to accomplish the task, and, quite frankly, we’re not really sure we should even be shooting non-lethal foam darts at an endangered species.2 The cards are stacked against us, and we are running against the clock.

And yet, change and innovation go hand–in-hand. The ‘innovation’ for our Innovation Session is not that the Jean R. Quible Department of Collections and Technical Services of the University Libraries at Virginia Tech are efficiently managing their electronic resources: Many libraries throughout the world are doing just that. It is not that our technical services units, personnel, workflows, and physical spaces have undergone transformation: Workplace evolution in tech services is generic, and genetic! Nor is it that Tech’s tech services have placed user needs far above their own esoteric practices and preferences: Holistic attitudes and approaches are must-haves for the New Age Library. Our ‘innovation’ is the speed3 at which we made a number of landmark changes in the department and, perhaps most profoundly, how we laid the groundwork for the strategic direction of e-resource management for the University Libraries’ next 6-year (2018-2024) strategic plan.

Conceivably, the skill sets required for day-to-day electronic resource management in the near future at Tech will involve complex analysis (usage measurement and projection, standardizing the elusive Cost-Per-Use figure) and the application of coding and programming skills to extract and manipulate data, metadata, and paradata. There will be tremendous flexibilities in staffing and workflow; even workplace, as a concept, will be virtually (re)defined.

The long-range goal is the development of a proactive information delivery eco-system where it is possible to anticipate the information and data needs of a single user or user population based on previous experiences, behaviors, and trends and deliver relevant products and services quickly and capably.

While we recognized the effect of external factors on our environment, such as the e-resource explosion and the behaviors and expectations of the user populations (Millennials, Generation Z, etc.), we were presented with a powerful, internal factor for transition in the person of our new dean, Tyler Walters, who joined us in 2011.

Dean Walters, leading us through a period of seismic change4 in the academic library world, supports e-resource initiatives across the board (“Our collections need to be as online as possible”). He sees the library as a “regenerating entity that adapts to changing user needs and expectations.” Without his encouragement (He says it’s time to “rip off the Band-Aid”) in moving

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1 See Heraclitus in just about any encyclopedia of philosophy.
2 No elephants were harmed in the writing of this paper or in the creation of the Electronic Access Team. We did, however, devour a brownie cake. And yes, we know that elephants are technically classified as “threatened” instead of “endangered.” Cut us some slack, it makes for better rhetoric.
3 Roughly the land-speed of an elephant on a closed course.
4 Strategic Plan 2012-2018 University Libraries Virginia Tech.
forward.), our workflow transformation may not have happened as it did. As Theodore Roosevelt would say, “Bully. ^5 Bully for you, Tyler.”

**Legacy Workflows**

For decades, technical services workflows at Virginia Tech and innumerable other libraries were based on handling and processing physical resources. Over those years, technical services staff honed skills to a fine point, and fields of specialized expertise blossomed as they worked with these tangible forms of library materials.

Since appearing on the scene in the latter 19th century, the University Libraries at Virginia Tech have acquired, maintained, and otherwise established an academic research library collection comparable to her peer land-grant institutions.

The above-mentioned collection contains roughly 3 million volumes, and our materials budget hovers near the $8M mark. Our users can access 978 databases as well as over 40,000 e-journals. Total e-books account for almost half a million, and that number is climbing.

We’ve been a III Millennium shop since 2005. Even though Tech, at 28,263 FTE strong for the Fall 2012 semester, has some Top 10 and Top 5 academic programs (http://en.wikipedia.org/wiki/Virginia_Polytechnic_Institute_and_State_University), the ARL salary and staffing rankings have not been so kind to us. Having one of the smaller professional and support rosters is not necessarily a bad thing (we can suit up around 120), especially when undergoing extreme workflow makeovers.

**Ch-ch-ch-changes:** ^6 History only knows when the very first e-resource altered library DNA forever, but according to Sutton (2011) citing Dewald, the first e-resources librarian job ad appeared in 1990:

> The first job advertisement for an electronic resources librarian appeared in 1990 (Dewald 2003). It began to develop as a specialty as libraries began to adopt new technologies and put them to use for the delivery of library services. It has close ties to serials librarianship since serials were among the first resources to become available electronically. As serials began to appear in electronic formats *it was the serials librarians who first struggled with their management, organization, and the provision of access to them.*

Serials units in academic libraries dealt with Sutton’s struggle [emphasis added] for control, but there was also the unwritten struggle of dealing with dual formats. Along with the traditional print management (e.g., check-in, claiming), new challenges appeared in coping with electro-print content (should superseded print volumes be withdrawn or stored?) and the very new challenges of the e-environment (platform changes, downtime). The ‘struggle’ quickly became much greater than the sum of its parts.

As our e-resource budget steadily increased through the 1990s and 2000s, and the associated duties of the serials team steadily increased, the numbers of serials staff did not steadily increase. So, our Serials Team became very adept at juggling—not balancing—the demands of the e-workflow.

Lucy Tedd, Lecturer in the Department of Information Studies at the University of Wales Aberystwyth, tells us in her paper (2005), “Ebooks in academic libraries—an international overview,” that the term ‘electronic book’ first appeared in the 1960s, and the term ‘e-book’ took root in our nomenclature with the advent of Project Gutenberg in the 1970s.

While e-journals have been a staple in the academic library world for the past 20 years, e-books are just now fulfilling their destiny in our collections. What the e-book lacks in glitz and glamor, it makes up for in sheer numbers ^7 and the

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6 David Bowie, probably paraphrasing Heraclitus.

unprecedented variety of purchase and rental models.

Within the last 20 months or so, our e-books very quickly outnumbered our other e-resources by almost 10 to 1. Was our indefatigable Serials Team, ably staffed with infinitely skilled and veteran e-resource handlers, going to take on the added work of hundreds of thousands of e-books?

No.

It was inevitable that we would have to make fundamental staffing and workflow changes much like those described in the 2011 ALCTS eForum “Serials, Staffing, and Workflow.” The Advisory Board Company’s “Redefining the Academic Library,” and other helpful sources like ER&L.8

In May 2012, the Head of Acquisitions, the Head of Serials, two senior serials staff, the E-Resource Manager, and the AD of E-Resources and Emerging Technologies began a grueling, summer-long series of daily, and sometimes thrice-daily, meetings to map processes, interview anyone (TS and public services) that had anything to do with e-resources at any time in their professional career, hold debates and discussions on the present issues and future challenges of e-resource management, and otherwise make a commitment to devoting most of our human resources to managing e-resources. These meetings were known as EWWW!, Electronic Workflows Weekly Work.

On September 6th, the Electronic Access Team (EAT) was officially recognized. EAT is a merger of the old Acquisitions and Serials Teams; its sole purpose in the organization is to address any and all issues of e-resource management. EAT still works with the print format, but only on a limited basis; e-resources are the emphasis here. With the formation of EAT, this fall the two heads of the former teams renamed job titles, rewrote position descriptions, and reformulated performance goals.

Workflow Wrangling: The formation of EAT combined with the high-level change occurring within our library gave us an opening to take a look at the workflows and practices we had been relying on for many years. A close scrutiny— involving mapping all of our workflows as they stood in spring 2012—revealed that many of our processes had become siloed, and our workflows included duplication of the same labor-intensive tasks many times over. Our reenvisioned workflows have streamlined the processes we use to keep the data on our electronic resources up-to-date in all of our systems, allowing us to devote our resources to exploring and ensuring the accuracy of our subscription and collections data. Instead of managing the same data points in a variety of locations, we now check the accuracy of our title and holdings data upstream, in our knowledgebase, and allow corrected data to automatically flow into all of our downstream systems.

Letting Go of Legacies:

Much like Rux and Borchert (2010) in their article “You Have HOW MANY Spreadsheets?”, in the spring of 2012 we were manually managing the same e-resource data in five different systems: our traditional library catalog; our knowledgebase (including the selection criteria for the associated MARC records service product); the spreadsheets we download from our knowledgebase, make notes on, and archive on our backed-up server; our discovery service instance; and last, our OCLC holdings.

Given all these factors, we realized that the gain in general e-resource data accuracy across all our systems was unsustainable given the resources we have available and the duplication of effort required for its maintenance. We were not efficiently using the resources available to us to greatest effect; new resources would slowly and systematically be added to our system as we worked to maintain the most accurate data possible. Within these workflows it could take weeks for new e-journal and e-book packages to be added to our library catalog, the primary content for library instruction. We realized that in many cases we were sacrificing access for accuracy and decided to make a few major changes not only to our e-resource workflows but to our philosophy of how to provide e-resources to our patrons.

8 Radical ideas at http://www.electroniclibrarian.com/
The Library provides a number of different entry points into our library resources. Our library catalog, a traditional ILS, has been the workhorse of providing access to our patrons; however, with our new ability to offer one-stop full-text article-level searching in a discovery system that ingests MARC bibliographic data straight from our catalog, the role of the traditional ILS in our library has been changing. While the discovery system does not offer every search capability in our ILS, it does offer quite a bit more than the ILS alone. In fact, while the number of searches in our library catalog have only dropped 7% in the last year, a closer look at the data reveals that 70% of searches in our catalog are bibliographic record number searches from the discovery layer itself. Based on this data and the knowledge that a majority of our electronic resources have full-text availability in our discovery service and with the support of our administrators, we decided to rethink and reevaluate the role of electronic resources in our catalog.

Given this data, we decided to change our delivery options for our e-resource MARC records service such that the records would be sent straight to the discovery system, bypassing the catalog entirely. This change allowed us room to take a step back from maintaining our electronic resources in the catalog, and we began shifting our focus from checking and rechecking e-resource metadata in our library catalog to performing essential collections functions, such as checking to make sure vendor title lists are accurately represented in our knowledgebase and in our downstream systems. In order to deploy our resources towards providing the best possible access for our patrons, our objective is to slowly phase e-resources out of our traditional catalog by summer 2013. The resources we had previously dedicated to maintaining bibliographic and holdings data in our catalog will now be used to assess and manage subscriptions and collections data as well as working on new projects and new technologies.

**Embracing Change**

In the end, we did not affect change by adopting any new products or services; our discovery service has been live for over a year, and while our MARC records service is new to us, it is hardly a new technology in the world of academic libraries. Our lesson, our innovation in all of this, is that it doesn’t take a shiny new product or service to bring about efficient and effective change. Our reorganization of staff and workflows grew out of the recognition that our legacy workflows were unsustainable given our declining resources (fewer staff, more tasks). Through the EWWW! model, we were able to take a step back from our workflows and take a deeper look at every process involved with our electronic resources. The space created by these short weekly meetings allowed us to quickly identify and act on the parts of our workflows that could be streamlined, saving us both time and staff resources.

**References**


