

Chaos to Consensus

A Team-Based Approach to Developing Holistic Workflows

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The University of Virginia (UVA) Library earned a reputation as an innovator in digital libraries in the late nineties as an institution that experimented early and often with faculty and other colleagues to create and share scholarship and research resources online. Located in Charlottesville, in central Virginia, the university is an R1 doctoral institution with a reputation for and pride in the residential experience for undergraduates and excellence in graduate programs. The main library system employs 230 full-time staff members and is administratively distinct from libraries for the professional schools. A particular strength in the humanities led to robust partnerships involving the library with groundbreaking ventures such as the Institute for Advanced Technology in the Humanities (IATH) and the Scholars' Lab. While the library has a well-earned reputation for participation in and leadership of digital humanities projects, an infrastructure for creating and maintaining stable library-managed digital collections was never fully realized. Many different pathways grew to take a collection from idea to dissemination; the solutions were often different for similar types of materials, and no shared understanding of accountabilities developed.

Setting the Change Stage

In early 2017 the library identified the multifaceted digital production workflow as a process in need of significant overhaul. The process of moving digital collections from idea to completion was opaque, both for collections staff wishing to acquire materials or initiate digitization and for processing staff responsible for the underlying work of making these materials available for research and use. After many efforts to increase the quantity and quality of communication between departments, library administration determined that a full review was necessary to create a coherent, replicable, and scalable process for developing and managing digital collections. The result was

the commissioning of a task force with representation from across the library, and the recommendations of that group were made available to all staff before action was approved.

I. Warm-up Phase

STAGE 1: ESTABLISHING A SENSE OF URGENCY

The Electronic Text Center at the University of Virginia was an early player in the creation of digital objects by libraries. However, over time, the functions once unified in that unit were spread out over several departments as the library became responsible for an increasing number of digital resources of varying etiology. Individual units responsible for processing digital collections had a different range of similar but not identical authority and responsibility. The origin and status of the digital accessions differed as well, including in-house digitization of print materials from Special Collections and circulating collections based on intentional collection building as well as patron digitization requests, born-digital materials, legacy digital collections, and newly acquired material with donor expectations for digitization. Many, if not most, of these accessions were not yet publicly disseminated. This lack of access was a distinct point of frustration for all.

In this distributed model, each digital collection was custom-designed. Different evaluation frameworks and processes were in use, based on the various parties involved at the outset. There were no standardized workflows, which resulted in work being omitted in the initial workflow, and later requiring remediation. Additionally, there was no unified prioritization, and units responsible for stages of work on any project had no authority governing their choices. Each unit answered to and received instructions from a different hierarchy. As an example, the Digital Production Group met quarterly with representatives of Special Collections to agree upon prioritization for collection-building digitization for that subset of material. At the same time, the Metadata units received proposals from individual donors who wanted the library not only to accept analog materials, but also to make them accessible electronically. The decisions on accepting these materials rested with Collection Management, an entirely different unit.

STAGE 2: CREATING THE GUIDING COALITION

In recognition of the all-encompassing nature of the stated goal of creating a coherent, replicable, and scalable process for developing and managing UVA's digital collections, the library's Senior Leadership Team authorized the Digital Production Workflow Team to identify issues and propose solutions. The team met for ten weeks between April and June 2017 and reviewed current workflows to acquire, describe, digitize, disseminate, and preserve library-managed digital content.

The group consisted of a mix of managers, who understood relationships between units and larger workflows, and staff who implemented day-to-day operations. This was key to forming an accurate and complete picture of what was happening within and between units and for analyzing roadblocks. Experts in metadata, preservation, repository services, digitization, AV, born-digital, and archival material gathered together to bring their knowledge of the workflows, formats, and best practices for each aspect of

the process. A member of the Senior Leadership Team served as a neutral facilitator. A factor in the project's success was the broad composition of the team and the strong desire of the group to have agreed-upon and consistent workflows and strategies for creating, managing, and ingesting digital content.

With this in mind, the team established principles and goals:

- Commit to the establishment, communication, and maintenance of a unified and stable prioritization process.
- Utilize formalized documentation processes and tools.
- Shift from primarily student labor for description and processing to permanent staff.
- Reduce reliance on customized design and increase reuse of standard guidelines.
- Inventory physical materials before material digitization. Full arrangement and description prior to digitization should be preferred.
- Separate patron scanning on demand from collection building at all steps in the process.

The team had credibility across the library because the right people were sitting around the somewhat crowded table. By allowing each unit to determine who should be present, and by being willing to accept additional members, the team was able to gain a complete and accurate understanding about current workflows and sticking points through the entire process. The team was committed to working quickly through each stage of the documentation process, while ensuring that all voices were heard. All were invested in creating positive outcomes for the project and eager to develop consistent workflows and prioritization processes for digital content across the library as a whole.

STAGE 3: DEVELOPING A VISION AND STRATEGY

Because each team member brought a different focus on the current and ideal life cycle for digital collections, time was initially allotted to create a grand unified vision. Near the beginning of the process, the team looked outward at other institutions. Looking outward first helped bring the team to consensus on the important characteristics of a successful program. Several members of the team had prior work experience at peer institutions and were able to describe in depth the practices and process of those organizations. Others researched publicly documented solutions at other libraries to share with the team. Through interrogating the strengths and weaknesses of these approaches with an eye toward applicability to the local culture, staffing, organization, and goals, some main tenets of the strategy emerged. After the environmental scan, the focus shifted to enumerating rough stages of an internal workflow, with individual meetings devoted to each stage.

STAGE 4: COMMUNICATING THE CHANGE VISION

Each member arrived with his or her own critiques of the status quo and a determination to focus on an improved future environment instead of perceived failings with the current state. All projects started prior to the development and adoption of a new workflow were quickly labeled “legacy” projects, and it was understood that the idiosyncrasies of how they were handled should not impede or distract the team from

deciding the best path forward. After weeks of regular conversation, the team ultimately arrived at a shared vision. The group communicated internally by email and began using Atlassian's Confluence collaboration software program to collect meeting minutes and resource documents, and to establish agendas. All information was made visible to the full organization. While updates were not pushed out to the organization as a whole, team members could point to the site, and nonmembers interested in the team's work could subscribe to automatic updates when new information was added.

The group met almost every week for three months in order to get through all of the workflow steps and discuss them in some depth, again, documenting each meeting with notes and attached resource documents. By the middle of the summer, the conversations were concluded and the work shifted to the drafting of a report for the administration. A subset of the group, using notes from the discussions, drafted a document outlining findings. The full team reviewed the draft and met again in person to discuss changes, additions, and corrections. A final draft was prepared and sent to the administration for review, followed by a meeting with the administrative team. With only minor changes based on that meeting, the report was sent to all staff detailing thirteen recommendations falling into three major categories:

- **Staffing**—Establish a position dedicated to leadership of digital collections, establish a cross-unit team to oversee prioritization and work planning for digital projects, and staff organization and description appropriately to desired level of output.
- **Documentation**—Create and document policies and procedures for digital collection development, vendor management, preservation actions, and system backup.
- **Systems**—Assess, select, and implement systems for digital project proposal and progress tracking, digital archiving, digitization tracking, metadata creation and storage, digital serials management, and hosting of digital texts.

Following the release of the report was a well-attended all-staff meeting featuring a prepared presentation of report content as well as time for questions and discussion.

II. Introducing New Practices Phase

STAGE 5: EMPOWERING BROAD-BASED ACTION

In the course of the discussion and internal workflow review, the team discovered that the barriers to change fell into three broad categories in need of attention: structure, communication, and ownership. Each of these components arose repeatedly in conversation. Structural barriers included siloed units where projects could be advanced or neglected due to various circumstances of funding, relationships, donors, or areas of interest or focus without broader, library-wide knowledge of those circumstances. The decentralized structure led to a lack of transparent, interconnected systems and an absence of streamlined workflows for processing of digital collections, leading to duplication of effort and customization for all materials, not just those presenting novel or unique content. Fed by the structural obstacles, disjointed communication led to confusion in project handoffs, benchmarks, and expectation for receiving, processing, and dissemination. The compartmentalized nature of collections work did not interface well with the centralized system for processing. There was often conflicting or absent

information regarding copyright and licensing concerns, prioritization in relation to financial and personnel resourcing, and no centralized documentation of a project's legal, descriptive, or preservation standing. Finally, it was clear that the lack of ownership and responsibility over the domain of digital collections was crippling to the desired success of stewarding and making these collections accessible. Decisions were not framed in a way that allowed for equitable input and standing from those responsible for the work, nor with a transparent understanding of the circumstances that may move a project forward or cause delay. It was no one person's job to make sure digital collections move from ingest to access. The recommendations addressed these issues to define a successful path to change.

STAGE 6: GENERATING SHORT-TERM WINS

In the team discussions, several decisions led to short-term gains toward the final goals. First, the team agreed to experiment with use of Atlassian's JIRA ticketing system to create a central registry for storing proposals, agreements, and other documentation about projects from idea to completion. The implementation was understood to be iterative as needs surfaced or information was shifted around. The ability to openly track the progress of digital projects through each stage keeps stakeholders well informed in terms of prioritization and action. Next, a team began work on a template framework to establish project-level processing and metadata plans for standardized descriptive workflows. Finally, resources and development time were allotted to investigating a metadata management system to accommodate description for certain formats such as serials and photographs.

STAGE 7: CONSOLIDATING GAINS AND PRODUCING MORE CHANGE

Meanwhile, outside of the group's scheduled meetings, the library hosted the Society of American Archivists workshop "Implementing 'More Product, Less Process,'" which provided a philosophical framework to operate within as we considered the special challenges for efficiently digitizing and describing archival collections at scale. This led to two small experimental prototype digital projects where our approaches for description and dissemination could be tested within a subset of the technical infrastructure. These projects provided examples for future enquiry as the team continued to deliberate technical handoffs, metadata best practices, and optimal user experience.

The recipe to maintain momentum was frequent meetings with focused topics capped off by a consistent and steady project leadership. Including representation from the relevant constituencies within the library and taking the time to begin by outlining the process as it currently existed led to brainstorming questions that needed to be answered in order to move forward. The team recognized that issues resolved in one meeting might be revisited as subsequent questions encroached on an earlier solution. The facilitator kept discussions on track with very focused meeting topics and asking the germane team representative to provide an overview and initiate discussion. By meeting consistently every week, and with the ability to consult detailed notes via Confluence, momentum built as the team constructed a path.

Team members were self-motivated to continue forging ahead in order to create a report outlining the needed changes. The report explained why process change was absolutely necessary for a robust digital workflow. Again, all recognized the need to create a new streamlined workflow that was a more obvious and transparent process for all throughout the library.

As resistance to suggested changes arose, the team either dove into the issues immediately or set up time at the next meeting for deeper discussion. The debates were sometimes lively until arriving at conclusions acceptable to the entire group. In coming together, the relevant stakeholders from each unit tacitly agreed to implement the proposed improved workflow. This report was the blueprint for change that led to the establishment of a permanent Digital Collections Team in late 2017, and in mid-2018, the establishment of a Director of Digital Strategies, a position ultimately filled by the facilitator of the group discussed in this chapter.

III. Grounding Phase

STAGE 8: ANCHORING NEW APPROACHES IN THE CULTURE

The next phase of work began as a new team was established to carry out the recommendations of the working group. The new Digital Collections Team was comprised of some members of the working group, as well as new members. This group began meeting in October 2017, and they continued to communicate through Confluence, on a new site developed for the team and its work. They began work in earnest on the recommendations in the fall of 2017, and that work continues. As milestones in the process are reached by this group, library-wide announcements will be released to alert staff to the new tools and processes this group plans to produce.

Analysis and Conclusions

The Digital Collections Team adopted these strategies intended to address the multi-faceted barriers to change. Regardless of the clarity and momentum of the small team, clearly communicating to the larger library staff the existence, goals, and expectations of the new digital collections workflow remained a challenge. This was addressed through the continued open documentation (meeting notes, case studies, decision points, the initial report), as well as presentations about the team and developing workflow during all-staff meetings. Agendas are openly built in Confluence, with notes posted upon meeting completion. Individuals are tagged in the minutes as appropriate, sending a notification to the person, and there are plans to continue to hold one-on-one sessions and small meetings with individuals and teams whose future work would be pragmatically affected by the suggested changes and software that the team is building. An important component of recognizing barriers to change and working effectively to help resolve them is a recognition that these barriers may not be linear, or overcome only once.

The strength of the task force clearly lies in each individual's commitment to a shared solution to separable issues. The willingness to listen to all members, engage in discussion and debate, and compromise was key to the success. Additionally, the commitment involved time: time to prepare for and participate in meetings. In this

respect, library administration supported the effort by prioritizing time spent in this pursuit. The work of the task force is considered successful; the recommendations were approved and action begun. The resulting Digital Collections Team is now responsible for maintaining the momentum to bring tangible results in the form of shared process, transparent tracking of progress, and routine dissemination of digital content.

The Kotter framework aligns well with this organic change process. At heart, the framework encourages preparation and intentional discussion prior to firm action. These were key aspects to the UVA change process and foundational to the success achieved. Since the Kotter framework lays out a fairly linear process, the challenge in analyzing the change initiative post-process is the iterative manner in which some parts played out. For instance, while the guiding coalition was established early and remained stable throughout the process, developing and maintaining a shared vision and strategy was continual as new ideas and challenges emerged. Also, culture change is a long process, and anchoring changes takes more than a set of agreed-upon recommendations. Iteration, though, is clear in the tenets of the Kotter framework, and gradual development is what progressed the conversations from review of current state to new positions and creative use of existing tools to bring about change.

