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## Metastatic Metadata: Transferring Digital Skills and Digital Comfort at UMass Amherst

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In autumn 2011, the Digital Strategies Group of the University of Massachusetts (UMass) Amherst Libraries was grappling with the challenges of charting a path through the analog world of the recent past into the digital future. Like many libraries, UMass faced the refractory fact that some members of staff lacked a detailed understanding of digital standards and many lacked practical, hands-on experience. The task set by Digital Strategies, a group comprised of senior-level managers with significant investments in digital technologies, was to devise a means of bridging the gap between analog skills and high-tech demands and to develop comfort with digital technologies throughout the organization, top to bottom. Such staff development would allow the libraries, as their strategic plan suggests, “to build competencies across the organization rather than create units where digital expertise would be isolated” and to create “opportunities for creative collaboration among units...positioning the Libraries for future expansion, innovation, and growth.” Having observed that the usual rounds of workshops, talks, or brown-bag lunches had only marginal impact in raising the skill level, the Digital Strategies Group theorized that lasting organizational change would require sustained opportunities for staff to take part in concrete digital projects in a real-world setting.

While Digital Strategies strategized, the libraries’ Department of Special Collections and University Archives (SCUA) faced its own digital dilemma. As home to much of the libraries’ original digital content, including born-digital and converted assets, SCUA might be considered a digital oasis, having organized and managed two large-scale mass-digitization projects in recent years. Recognizing that the future of special collections—and libraries more generally—lies in the ability to be fluent in both traditional and digital documentary forms, the SCUA staff have dedicated themselves to building a foundation for the future through self-education, collaboration, grant writing, and strategic hires. One of the digital collections under its purview, however, had become something of a thorn in its side. A decade previously, SCUA had digitized over 13,000 photographs in a one-off project, making the results available through a web-accessible database developed in collaboration with the libraries’ systems department. Documenting the visual history of UMass from its founding in 1863, these photographs were heavily used, and with the university’s sesquicentennial looming in 2013, it appeared that use would increase significantly. Thus the problem: this valued digital collection was a product of its time. In other words, it was a relic. While the scans were of high quality, the metadata were not compliant with current standards nor were they consistently applied, and the technology powering the database had been superseded by a new, more robust digital repository, Credo, built on the open-source software Fedora. Worse, the descriptions themselves were too often inadequate, incomplete, or inaccurate, posing a stiff challenge for discovery.

The size of the corpus made it difficult to imagine resolving the problem with available staffing in SCUA, but staff set it as a priority to revisit this nagging collection to emend the records, roust them into the 21<sup>st</sup> century, and fold them into the new repository.

## Building Digital Capacity

At the intersection of opportunity and craven self-interest, the University Photos Project (UPP) was born. One member of the SCUA staff, Danielle Kovacs, noted the inherent synergy between the libraries' larger goals and SCUA's needs, and with Tom Sawyer intentions, the head of SCUA worked with the Digital Strategies Group (on which he serves) to promote the concept of appropriating labor from other library departments to whitewash SCUA's digital fence. Although this plot might seem nefarious, it was fundamentally an exercise in biblio-mutualism. In return for the labor, SCUA would help demystify digital technologies for its peers and assist them in acquiring skills in three distinct areas: creating and interpreting digital content, working with the Metadata Object Description Schema (MODS), and gaining comfort in using XML-authoring software. In some ways, SCUA was well poised to help, not only because of its experience with digital projects, but because three members of its staff are adjunct instructors in a library science program. There were some fairly high-level complexities, of course. This was no simple exercise in applying MODS encoding. It was, in effect, original cataloging and, to do the job properly, it required participants to develop an understanding of visual materials cataloging and contemporary content standards, and to tap into a sometimes arcane fount of knowledge about the university and its history. From the outset, however, it was clear that the UPP would allow SCUA to chip away at a timely, even essential project while providing a test bed in which the library staff could confront the changing digital climate and hone their metadata skills.

## Organizational Integration

After vetting the formal proposal through the Digital Strategies Group and ensuring that it aligned with the library's current strategic plan, the proposal was approved by the Senior Management Group (consisting of library administration and department heads), and the UPP was launched as a one-year experiment in January 2012. SCUA began by evangelizing for the project at one of the libraries' regular all-staff meetings, encouraging peers to enlist for a glorious term of enjoyable work with original materials and highlighting the benefits that would accrue not only to the university's sesquicentennial and the library, but to their own professional development. Self-interest, SCUA said, would align with self-interest.

Individuals who chose to participate consulted with their department heads and arranged for five hours of release time per week to devote to UPP. To defuse concerns over the impact of the project on the productivity of their home departments, the UPP calendar was limited to three 10-week sessions, corresponding roughly to the university's spring, summer, and fall terms, although with the approval of their department head, volunteers were permitted to register for more than one session. To spread the impact of the project as broadly as possible, participants were solicited not only from the professional and paraprofessional ranks, but from other areas of the staff as well, including security and office staff.

## Integrating Workflow

Philosophically, the heart of UPP lay in three principles: the work must be practical, routine, and intensely collaborative. To be practical meant keeping a razor-like focus on providing direct experience with metadata as quickly as possible, thrusting participants directly into the mode of learning through actual production, and sustaining the work long enough for it to become routine. Each UPP session was launched with SCUA convening a quick four-hour introduction to the project, to the MODS standard, and to the Oxygen XML-authoring software. After the introduction, participants were assigned one box each of university photographs, and with little ceremony, sent straight to work.

To make the UPP work routine required some conceptual adjustment, leading SCUA to turn away from its inborn affinity for notions of productivity and efficiency. Abandoning all productivity goals in order to keep the focus on learning, SCUA asked only that participants establish a regular schedule to prevent UPP work from being devoured by the creeping sands of daily life. Similarly, SCUA rejected the idea of having participants work in groups in a lab-like setting, reasoning that metadata work should be an everyday part of library life, conducted wherever workers actually work: their own desks and offices. The library's systems department installed Oxygen on each participant's workstation, enabling them to explore the new standards in the comfort of their native habitat. Ordinary, routine, and comfortable were the watchwords.

Once participants settled into their offices, the workflow was straightforward. Since each image had already been scanned and described—not always accurately—UPP participants began by selecting a photograph from their assigned box, locating the record in the outdated online repository, and checking it for sufficiency and accuracy. Then they set about creating a new MODS record, using a template supplied by SCUA, that would be ingested into Credo. Participants worked directly from the original photograph, rather than the digital surrogate, because some images contained captions or other valuable contextual data that had not been captured previously. This was not simple data entry. Indeed, nearly every record in the project required intervention to bring it into conformity with current content standards and to add subject tracings, and many records required significant editing or emendation.

## Collaborative Investment

The final principle of UPP, that the project should be intensely collaborative, placed the greatest demands on the SCUA staff and UPP participants alike. At the top level, collaboration began with the support of the director of libraries and the heads of other departments, who saw that short-term reduction in staffing would reap long-term benefits in the form of a more flexible and up-to-date staff. SCUA, too, felt the sting of short-term reductions, as its staff mentored three to five UPP participants each session, paying an initial onsite visit to each participant to provide one-on-one orientation, followed by rounds of encouragement and consultation as the project progressed. SCUA also monitored completed records for accuracy, sufficiency, and validity, addressing issues as soon as they arose. During the course of the project, the average burden for the three SCUA instructors was roughly on par with the five-hour per week commitment of other UPP participants, although of course the load spiked during planning, training, and the first week of production.

Collaboration, however, means more than top-down mentoring. In several ways, UPP participants were encouraged to help themselves by helping others. SCUA began, for example, by seeding a local authority file to facilitate consistency among participants, but asked UPP participants to refine, correct, and extend the file as they went along. More importantly, SCUA encouraged participants to contribute to a project e-mail list where anyone could post—or answer—questions regarding content, strategy, standards, or technology. Although SCUA staff members took part, a handful of UPP participants rose to the challenge and rendered highly effective service to their peers, crossing departmental boundaries with abandon. The ultimate impact of UPP, the authors hope, lies as much in facilitating a culture of cooperation on digital work as in facilitating digital skills.

## Communal Purpose

Intentionally small in scope and simple in design, the UPP trained a total of 26 volunteers in three sessions, of whom 17 completed at least one box and four reenlisted for a second session. Only one-third of volunteers came from the professional ranks, although professionals comprise over 40 percent of the aggregate staff. Given the heavy workload in the library and reluctance to enforce participation, SCUA anticipated that some individuals would not be able to fulfill their five-hour weekly shift—many could not—and others would drop out. Five of the nine professionals failed to complete a session. The day-to-day pressure of work simply overwhelmed good intentions.

For all the effort, however, two measures of productivity stood out. First, UPP participants corrected and encoded approximately 3,100 images during the project, over 180 for each person who completed the course; and second, nearly 20 percent of the libraries' total staff volunteered to take part. The stellar performance of the paraprofessional contingent was particularly noteworthy, as was the generous support they provided for one another. For them, UPP represented a respite from their regular workday and an opportunity to contribute directly to the libraries' future. Participants singled out the collaboration, hands-on mentoring, and support for acquiring new skills as critical to their experience. Rather than fear change, paraprofessionals embraced it. One staff member even continued to volunteer three months after the end of UPP. Given the limited duration of the project and its voluntary nature, and given the limited time commitment of participants and the emphasis on training, the modest productivity of this experiment seemed reasonable.

## A Versatile, Collaborative Workforce

Reflecting on this experience, the authors speculate that one of the implicit factors in the success of UPP was the quiet extension of the staffing model employed in SCUA to the rest of the library. Like most special collections departments, SCUA is not so flush with staff that it can afford to dedicate individuals to discrete functions. In fact, SCUA has consciously rejected such specialization in favor of having curators who engage in the full range of departmental activities, and SCUA has sought to build a departmental culture emphasizing versatility, cross-training, collaboration, entrepreneurship, and collective problem solving. The reasoning is simple: Skills in modern libraries are highly integrated and top-flight service demands functional experience across regimes. The demands of the future workplace require a flexibility

that results only from technological breadth, diversity, and catholic experience with the broad spectrum of publics. In the authors' experience, shared responsibilities and intensive collaboration are bred in the bone of special collections departments, even those bereft of digital expertise. This may be the point.

In a project like UPP, the question of sustainability hovers always overhead, and to be sure, sustainability is no more guaranteed than success. UMass enjoyed some structural advantages in conducting the experiment thanks to the peculiar skills resident in SCUA, but, advantages or not, scaling up from instruction to mass production would require a shift away from voluntary participation and an increase in time commitment, upping the conflict with other, daily work. But this misses the point. Just as most academic libraries face similar challenges to UMass, most have similar skill sets resident somewhere on staff that can be put to the same ends. What is needed is what the authors consider the heart of UPP: administrative support for a model for conveying the cooperative ethos of special collections across departmental boundaries, using an engaging project and a sense of communal purpose as a bridge to the digital future. It is the ethos that needs to be sustained, not the project per se, and if the adaptation the authors witnessed among UPP participants is any guide, UMass Libraries may have taken their first steps.

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