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## COMO White Paper - The effect of automation on academic library staffing: A discussion

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# 60110 WHITE PAPER

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## **The effect of automation on academic library staffing: A discussion**

By Robin Fay and Virginia C. Feher

Since their inception, academic libraries have undergone significant changes in the ways they store, catalog, and access information. Technological advances made formats other than the physical book available, such as microfilm and microfiche. While innovative for their day, these formats are now outdated and considered a nuisance by some. Electronic formats and systems, however, have firmly taken their place as a convenient method for storing and accessing information. To improve access to their collections, academic libraries automated cataloging functions, replacing the card catalog with the integrated library system (ILS), greatly impacting the day-to-day activities of library staff. How does automation affect staffing in an academic library? Horny (1985), while discussing the effects that changing technologies might have on librarianship, speculated that libraries would require support staff with “higher levels of knowledge and skill,” which would result in “more interesting and lucrative” jobs, “attracting an excellent caliber of staff” (p. 57).

For the purpose of examining the effects of automation on academic library staffing, this paper will provide a discussion of changes in workflow and staffing at the University of Georgia (UGA) Libraries Cataloging Department starting in the late 1970s, focusing on the Database Maintenance (DBM) Section. The discussion will demonstrate how an increasingly automated environment at the UGA Libraries resulted in the reorganization of duties and, because of the need for employees with greater technical expertise, the re-classification of staff positions to higher levels.

The University of Georgia Libraries' Cataloging Department is composed of six sections, including Acquired Cataloging, Authorities, Database Maintenance (DBM), Monographs Original Cataloging, Music Cataloging, and Serials Cataloging. DBM consists of two units, the Maintenance Unit and the Marking Unit, and its function “is to maintain the quality of bibliographic and holding records in GIL, the UGA Libraries' online catalog, to process added copies, added locations, added volumes, location transfers, withdrawals, possible duplicates, and to prepare materials for transfer to the Repository [a storage facility]” (University of Georgia Libraries, 2008).

Beginning in 1978, the UGA Libraries implemented a proprietary automated library system named MARVEL, an acronym for “Managing Resources for University Libraries” (Enterprise Information Technology Services, n.d.), which eventually included an acquisitions, cataloging, and circulation module. Thus began the process of building a database of the Libraries' holdings. In 1983, the Libraries debuted an online public access catalog (OPAC), providing patrons with the ability to search for the Libraries' holdings online. Holdings received before the implementation of MARVEL were still available in the card catalogs and would gradually be entered into the database via retrospective conversion projects. MARVEL was laid to rest in 1991, when the Libraries implemented GALIN, another proprietary system. GALIN was replaced in 1999 with Voyager, a vendor-produced ILS, thus decreasing local control but at the same time providing an interface that was used by other University System of Georgia libraries, as well as libraries both nationally and internationally, leading to some degree of standardization.

One of the early changes in workflow resulting from automation was that staff no longer manually typed shelf list cards but they were instead produced by the Online Computer Library Center (OCLC), a library cooperative based in Dublin, Ohio. Because of this, the focus was shifted to other cataloging and maintenance duties. The cataloging process, however, still included menial tasks, such as creating "marking slips," which were pieces of paper with hand written call numbers that were later transcribed to the book's actual call number label, in addition to creating "production slips," which were a placeholder for the shelf list card. DBM's responsibilities included verifying the production slip against the catalog record, retaining the slips until the OCLC shelf list card was filed. DBM also produced call number labels based on the marking slips by typing them on a Selin placket typewriter and applying each label to the corresponding book.

In 1994, the UGA Libraries stopped production of shelf list cards. All data was maintained in the ILS and batch loaded by the Systems Department. This move towards complete automation eliminated the need for filing shelf list cards, which, although it required some basic knowledge of Library of Congress (LC) classification, was tedious and time-consuming. This provided staff more time for actual cataloging and helped facilitate the reduction of backlogs such as the "in process collection" (IPC), un-cataloged sets and analytics (Backlog Buddies) , and assorted pockets of unprocessed material.

From 1999-2001, the transition to Voyager, a commercially produced ILS, led to complete integration of technical services tasks and also provided increased functionality, including the ability to directly import records from OCLC, increasing efficiency and streamlining the work flow, resulting in numerous changes, which impacted not only the daily work of staff but also the level of complexity. For example, routine copy cataloging was transferred to the Acquisitions Department so that the Cataloging Department could focus on more complex cataloging responsibilities. In addition, the Libraries outsourced cataloging for some materials using PromptCat, and staff was trained to edit records in Voyager instead of OCLC. Overall, the decentralization of cataloging work allowed staff in the Cataloging Department to eliminate backlogs from the transition, which were a result of training, testing, and downtime during migration, and focus on difficult material, as routine cataloging tasks now were handled by the Acquisitions Department.

In late 2000, DBM ceased the creation of production slips. While this eliminated a time-consuming and menial task, the migration to a new system created more complex responsibilities for DBM, including resolving problems with around 300,000 bibliographic records that did not migrate properly. Cleaning up these records proved to be a daunting task, as they were much more complex than expected and way beyond the ability of the four temporary entry-level staff who were hired to work on these records from 2001-2002. They even proved challenging to more senior DBM staff, many of whom were used to a workload consisting of routine tasks.

Prior to the migration to Voyager, most of the day's work consisted of routine tasks, such as verifying production slips against the Libraries OPAC, resolving minor problems, processing added copies (same book; different location), and typing call number labels. The migration to Voyager changed DBM's work to where it mainly involved making corrections to records (as identified via Access reports) and resolving conversion problems. Resolving problems required a significant level of experience, bibliographic knowledge, analytical thinking, as well as the ability to interpret conflicting data. Often these materials were not fully cataloged but simply consisted of a barcode record attached to a generic template bibliographic record with the title "unattached item record." At best, they had skeletal bibliographic records. The majority of the employees at the time were either not trained or were minimally trained in interpreting bibliographic data, and only the Section Head was experienced in complex copy cataloging.

Because of the increasingly difficult tasks at hand, as well as increased workloads during peak times, cross training became essential. In the end, cross training helped make DBM a more cohesive team as well as equalized knowledge between peers. To streamline the work of conversion projects and to facilitate quicker resolution, two senior DBM employees were trained in copy cataloging. But, of eight positions in DBM, six were entry level with very low pay. This may have contributed to turnover (at one point four of the eight positions were vacant), creating more work for the remaining senior staff and ensuring a continuous training cycle, with senior staff spending inordinate amounts of time either training or assisting in training.

In 2003, the department eliminated the hand typing of call number labels and moved to individual printing of labels during the cataloging process, decentralizing the process. Although cataloging staff funneled all newly received materials through the Marking Unit and the Marking Unit staff applied label shields, individual printing of labels by catalogers while cataloging (using text capture via Snagit) greatly sped up the entire process. An added benefit included the elimination of one potential point of human error, thus reducing the need to double check the work. Because of this, the Marking Unit was able to take on additional maintenance work and responsibilities, helping to offset the loss of two Maintenance Unit positions, which were not filled when vacated and ultimately eliminated due to a lack of funding. More responsibilities, however, required additional training for Marking Unit staff.

From 2001-2006, entry level DBM staff struggled to acquire the necessary bibliographic, database, and cataloging knowledge needed to successfully meet the challenges brought about by automation and workflow changes. Entry level staff previously trained in extremely routine tasks required significant re-training, and finding work that was appropriate to their skills was increasingly difficult. Work for the section continued to shift away from routine menial tasks, increasing the need for a higher level of knowledge and skills. For supervisors, time spent training staff remained significant and substantial.

As vacancies occurred, finding qualified staff became progressively more difficult, because, although the number of applicants was high, qualified applicants were few and far between. Given the increasingly high level of technical expertise needed to accomplish the work of DBM, the section began the first phase of reclassification to higher levels, including more pay. To fund these changes, and to better meet the need for staff qualified to do complex rather than unskilled tasks (i.e., fewer higher level staff as opposed to many entry level staff), DBM eliminated one staff position, and reclassified the remaining positions to a higher level. With these new positions in place, as well as with multiple vacancies to fill, training again became the next step, with the goal of creating tools to streamline training, including an interactive training module, ensuring consistency among staff members.

Given the escalating amount of special projects, including an inventory of the Georgia Room, training in copy cataloging began to expand to include not just the Project Coordinator but also the Marking Unit supervisor, who had recently been promoted from within. This provided the opportunity for revising the position to include complex maintenance and cataloging duties. As more maintenance duties were folded into the Marking Unit supervisor's position, this position was restructured as a hybrid maintenance/marketing position and reclassified yet again, demonstrating a continuous need to re-evaluate staffing and salaries.

Reclassifications have not only increased employee satisfaction but have also put into place job requirements and duties with a higher level of expectation, thus readying the section for future advancements in automated systems. Williams (2001) argued that "libraries must reorganize to meet

today's growing challenges" (p. 36), and DBM is constantly exploring ways to fulfill its mission in an atmosphere of declining budgets and a decreased workforce. The work of the section continues to require experienced database and bibliographic staff with exceptional multi-tasking skills, the ability to work within multiple databases, a deeper knowledge of cataloging rules, a higher level of technical expertise, and overall increased responsibility. Cunningham (2010) contended that "the need for skilled staff, who themselves must be continually retrained, is of paramount importance to libraries" (p. 224). With the impending national and international shift to a new cataloging code in 2013 (Resource Description and Access (RDA)), DBM will undoubtedly need to up-train yet again.

Many of DBM's adjustments to staffing and salaries were not the result of a single change but of cumulative change. One thing led to another. Some changes, such as creating labels via a catalog record and label maker, may seem small on the surface, but the domino effect to work flow is monumental. Many of DBM's responsibilities have evolved from the manual and tedious to a very high level of maintenance work, requiring an educated and knowledgeable workforce that can adapt to and prosper with automated systems. For more than thirty years, every single significant change in the UGA Cataloging Department related to automation in some way, resulting in a cumulative impact on staffing in the DBM section. Technology has indeed affected staffing, as Horny (1985) predicted, in that DBM now requires a highly skilled workforce to perform challenging tasks, and this need resulted in the reorganization of duties and reclassifications.

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#### **Notes**

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