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Changing Operations of Academic Libraries

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Changing Operations of Academic Libraries

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Robert Murdoch, Assistant University Librarian for Collection Development and Technical Services, Brigham Young University

Abstract

The session is an exploration of library operational adaptations to the changing technologies of information distribution and usage. The librarians will present glimpses of the changes occurring in their library operations as they transition to services without print. The cadence of change, particularly with respect to e-books, continues to accelerate. The moderator will summarize some of the technology changes of the last year, and a panel of librarians will explore, through the evidence of their changing library operations, a range of topics including: trends in e-book acquisition and usage; developments in open access publishing; changes in consortia; and the role of librarians in instruction and evolving peer-review and publication processes. This specific presentation addresses Information Discovery and Third Party MARC Records and Collection Acquisition and Usage Issues. After initial presentations, the panel and moderator will encourage questions, comments, and discussion with attendees.

Multiyear Analysis of Library Operations at Western Oregon University, Allen McKiel

This is a small case study analysis of the changes in library operations at Western Oregon University (WOU) over the past 6–8 years. WOU is a medium-size (6,000 students) master’s level public university about 10 miles southwest of Salem, Oregon. The study focuses on shifts in

resource expenditures, holdings, usage, cost per use, and gate count. It also looks at changes in operations and personnel.

Resource Expenditure Shift to Online

Electronic resource expenditures have eclipsed print over the past 8 years. Electronic resources comprised 23% of expenditures in FY 2006, print

Type	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Print	\$377,273.83	\$311,895.87	\$274,999.70	\$214,186.01	\$151,098.11	\$108,035.39	\$90,320.93	\$74,549.42
Electronic	\$113,357.63	\$177,339.71	\$209,949.73	\$262,243.95	\$323,677.20	\$378,117.34	\$379,268.47	\$392,542.12

Table 1. Print and Electronic Resource Expenditures FY 2006–2013

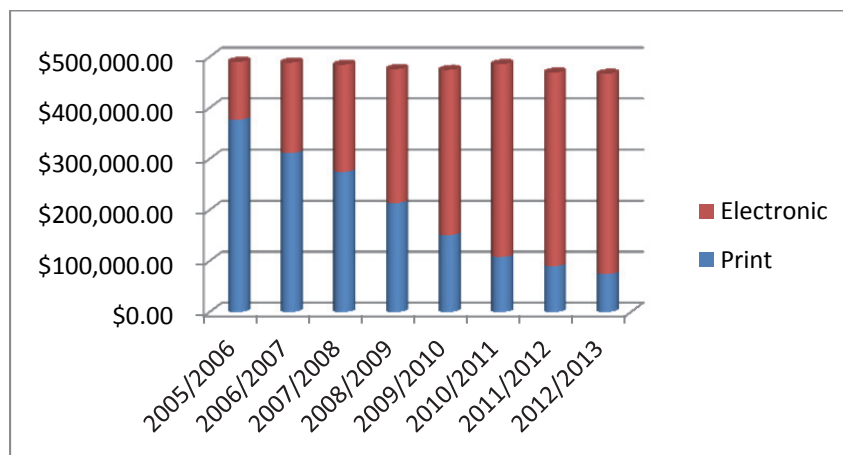


Figure 1. Print and Electronic Resource Expenditures FY 2006–2013

Material Category	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
P-Serials	\$202,799.54	\$158,580.53	\$167,186.72	\$91,955.59	\$57,020.03	\$34,191.32	\$30,535.52	\$25,424.10
E-Serials	\$110,746.63	\$167,813.03	\$181,814.03	\$242,460.86	\$300,702.05	\$314,043.16	\$332,093.00	\$330,136.23
P-Books	\$148,269.81	\$147,895.79	\$101,021.74	\$114,760.04	\$86,247.27	\$63,232.72	\$51,933.95	\$42,500.70
E-Books	\$2,611.00	\$9,526.68	\$21,089.70	\$38,476.52	\$34,262.20	\$30,216.18	\$39,863.47	\$38,430.89

Table 2. Print and Electronic Books and Serials Expenditure Trends Detail FY 2006–2013

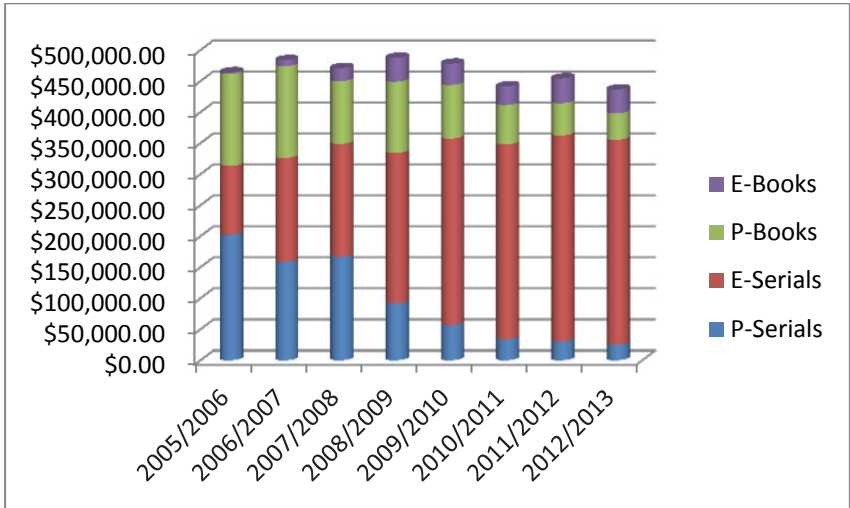


Figure 2. Print and Electronic Books and Serials Expenditure Trends Detail FY 2006–2013

77%. By FY 2013, online resources consumed 84% of the resource budget with print resources accounting for 16% (Table 1 and Figure 1). Over the 8 years, the total information resource budget declined by 5%.

Books and Serials Expenditures

E-journal expenditures have become dominant over the past 8 years. In FY 2006, print journals comprised 43% of expenditures, print books 32%, e-journals 24%, and e-books only 1%. By FY 2013, e-journals consumed 69% of the resource budget. E-books claimed 8%, print books 9%, and print journals 5%.

Cancellation of individual subscriptions to both print and e-journals and decreased print book purchases funded the increased electronic expansion. The transition was afforded by reduced book allocations and cancellations of individual print and electronic journal titles in favor of databases of e-book and journal titles, pay-per-view access, and PDA. Print journal titles were canceled in favor of the least expensive way

to replace it in e-format. If annual usage costs via pay per view were lower than the e-subscription cost for a title, we would cancel the subscription. (Table 2 and Figure 2).

Holdings

We have aggressively pursued an access rather than a holding strategy for collection development. Subscription databases, PDA, and pay per view permit relatively inexpensive expansion of titles. The approach increases the probability that a search term will find matches and permits access to content that we could not otherwise afford. The cost per title for access to e-journals between FY 2008 and FY 2013 averaged \$20.17 per unduplicated title. For the same time period, access to e-journal titles increased by 727% from 11,595 to 95,941 unique titles. E-book titles increased by 133%—from 42,000 to 98,870 at an average cost of \$3.56 per title. Print book titles purchased in the conventional manner increased the collection by 6%—from 213,717 to 226,322 volumes and cost on average \$36.47 (Table 3 and Figure 3).

	Book Volumes	E-books	FT E-Journals Unduplicated*
2008	213,717	42,000	11,595
2009	217,529	48,000	15,813
2010	222,429	52,000	30,905
2011	224,906	61,320	56,109
2012	225,551	79,385	86,610
2013	226,322	98,870	95,941
Δ	6%	135%	727%

* FYs 2008-10 are estimates based on the average percent of unduplicated titles (58%) for FYs 2011–2013.

Table 3. Book Volumes, E-Book Title, and FT E-Journal Access FY 2008–2013

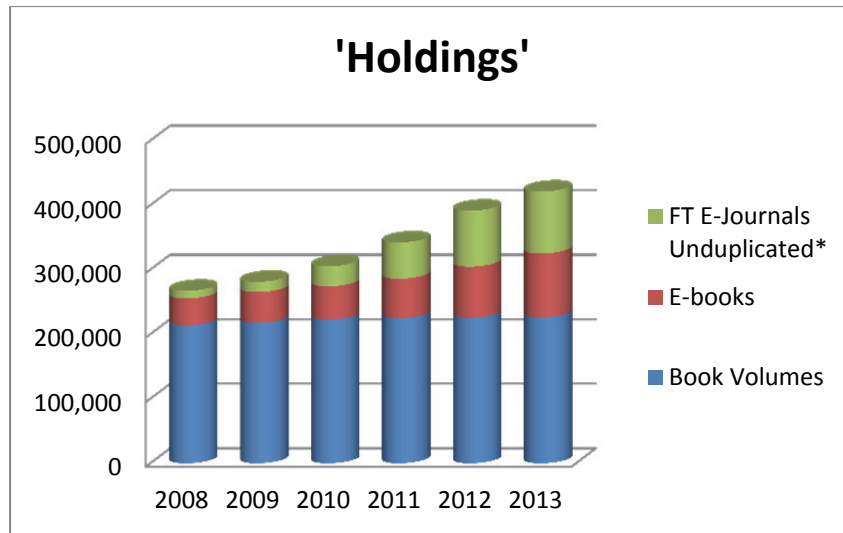


Figure 3. Book Volumes, E-Book Title, and FT E-Journal Access FY 2008–2013

Circulation	2008	2009	2010	2011	2012	2013
Total Physical Circ	59,359	53,467	57,974	51,956	48,838	50,724
Total E-Usage	119,564	157,796	152,964	177,819	197,378	182,853
Total Circ/Usage	178,923	211,263	210,938	229,775	246,216	233,577

Table 4. Physical Circulation Versus Online Usage

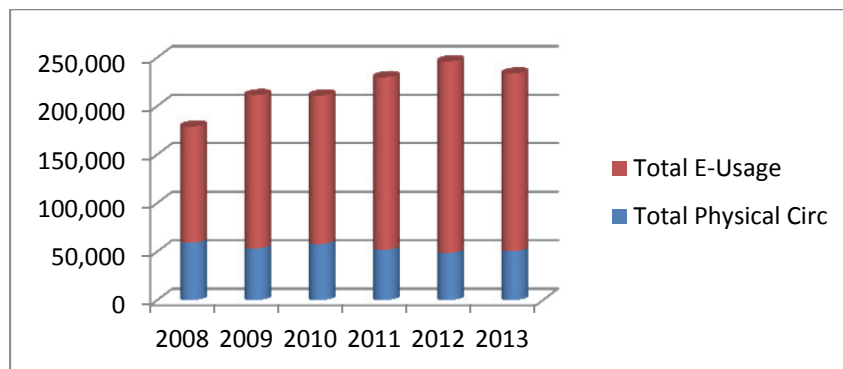


Figure 4. Physical Circulation Versus Online Usage

Total Usage

Total physical circulation and online usage increased by 59% over the past 7 years from 148,401 to 235,007. Total physical circulation decreased by 19% from 63,779 to 52,154. Total full-text online usage has increased by 116% from 84,622 to 182,853 (Table 4 and Figure 4).

Physical Item Usage

Overall, circulation declined by 14.5% for physical items. Book usage was up while print reserves, equipment, and AV were down. Circulation of books decreased 8.6% at almost 2% per year from FY 2008 through FY 2012 then increased by nearly 18% from FY 2012 to FY 2013 for a net increase of 7.8%. (An explanation for the sudden increase has not become apparent.) Book borrowing through the 37 libraries of the Orbis Cascade Alliance saw an increase of 2.2%. Physical reserves and AV checkout dropped by 22.3% and 20.8%, respectively, with equipment checkout dropping 72% (Table 5 and Figure 5). [We are no longer checking out laptops.] With the exception of the anomalous FY 2013 year, book usage has been steady with about 2% of the usage shifting to

Alliance books. Physical reserves has shifted to e-reserves using Moodle instead of the library. AV is moving to streaming.

Online Usage

Library-provided e-journal usage (i.e., not counting open web access) was already established by FY 2008 as dominant over print journals. Nevertheless, usage rose 37.8% by FY 2013 at nearly 90% of e-resource usage. E-book usage has been slow to develop. In FY 2008, e-books were 16% of the total book collection and only 6% of the usage. By FY 2013 e-books were 30% of the total book collection and 27% of the usage. There is still a preference for print books, but it is now marginal. Convenience and comfort of format matters to faculty and students, and e-book formats seem to have become familiar and tolerable enough at this point to have near parity in usage (Table 6 and Figure 6).

The increased volume of resources for approximately the same expenditure from FY 2007 to FY 2013 paralleled increased usage which resulted in a lower cost per use. The expanded portion of print books had an average cost per use

	2008	2009	2010	2011	2012	2013	Total	% Δ 2008-13
Book	26870	25865	25503	24001	24549	28962	155750	7.8
Summit	6202	3664	6276	5844	6141	6338	34465	2.2
Physical Reserve	9544	9117	9428	9137	8466	7416	53108	-22.3
Equipment	10252	8043	10421	7383	4679	2866	43644	-72%
AV	6491	6778	6346	5591	5003	5142	35351	-20.8
Totals	59359	53467	57974	51956	48838	50724	322318	-14.5

Table 5. Physical Item Usage FY 2008–2013

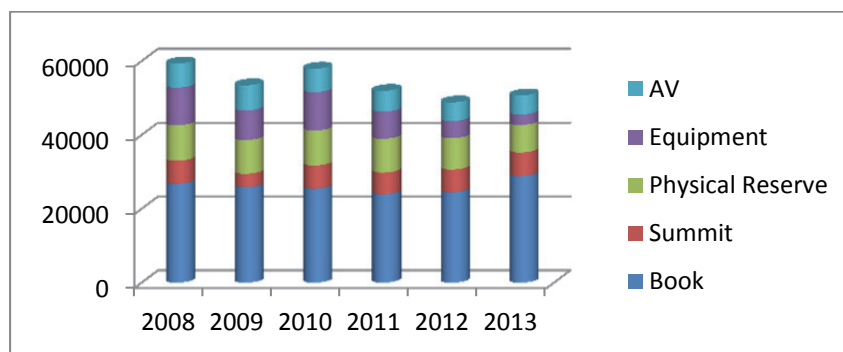


Figure 5. Physical Item Usage 2008–2013

	2008	2009	2010	2011	2012	2013	Total	% Δ 2008- 13
FT Articles	117,782	154,918	149,382	163,671	172,532	162,252	920,537	37.8
E-books	1,782	2,878	3,582	8,443	14,683	10,627	41,995	496.4
Streaming Media				327	6,962	4,010	11,299	
On Demand Articles				3,826	3,201	4,767	11,794	
ILL Articles				1,552	1,385	1,197	4,134	
Total	119,564	157,796	152,964	177,819	197,378	182,853	988,374	52.9

Table 6. Library Database Usage FY 2008–2013

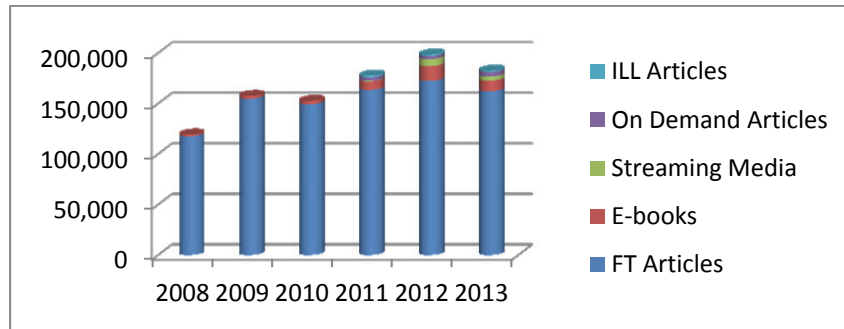


Figure 6. Library Database Usage FY 2008–2013

	Titles/ Volumes Added	Cost	Cost per Title	Use	Cost per Use
Books	12,605	\$459,696	\$36.47	8,270*	\$55.58
E-Books	56,870	\$202,339	\$3.56	41,995	4.82
E-Journals	84,346	\$1,701,250	\$20.17	920,537	1.85

*Usage calculated as percent of new titles to the total book collection

Table 7. Book, E-Book, and FT E-Journal Average Cost per Use Between FY 2008–2013

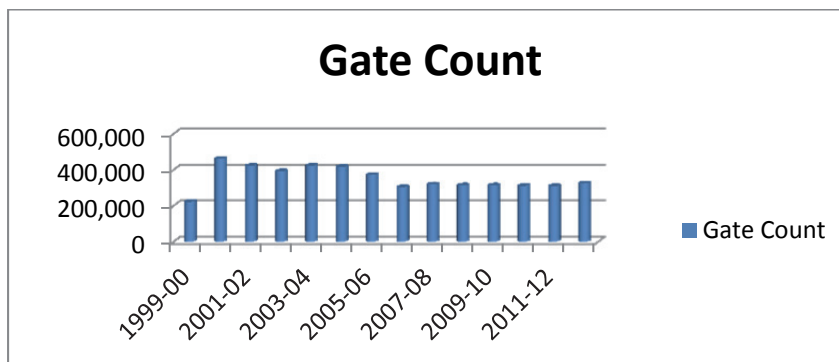


Figure 7. Gate Count

of \$55.58 (calculated as a percent of total usage proportional to its percent of the total collection). The cost per use of e-books was \$4.82 and e-journals \$1.85.

Gate Count

Gate count more than doubled from 222,334 in FY 2000 to 461,800 in FY 2001 when we opened the new library. The increased gate count was primarily from the enthusiasm of the new and attractive space on campus. Gate count decreased by 44% from FY 2001 to FY 2007 then stabilized. The decline from FY 2001 to FY 2007 was likely due primarily to the gradual loss of the newness of the building. Availability of online resources increased dramatically after 2006, which is when the usage of the building stabilized.

The point worth noting is that the gate count has not decreased during the rapid transition to online usage. In FY 2000, resource usage was nearly completely physical. By FY 2013, total physical resource usage had declined to 21%. Print book usage garnered 12% and print journal usage less than 1% of total informational and equipment resource usage. The point is further accentuated when considered in light of the increased usage by students and faculty of open web resources. Students, in a recent Credo survey of student information resource usage, reported that the open web was their primary resource for assignments (ATG, April 2013). Almost 70% of the students reported using open web resources regularly, and only 46% said they used library resources regularly.

Operational and Personnel Shifts

From Technical Services to Systems, Archives, IR, and Digital Commons

The shift from print collection building to purchasing online access decreased personnel needs for book processing and cataloging. The number of titles decreased, but we also outsourced book processing and most of the remaining cataloging. Our technical services librarian retired in 2010. Rather than hire another technical services librarian, we hired our first archivist who was willing to manage three

enterprises: a scaled-down version of technical services, developing and processing our archives collections, and initiating the implementation of Western's Digital Commons. In hindsight, this was very cruel. The range of responsibilities was completely unrealistic. A bit of relief came from the collection development/systems librarian who agreed to assume responsibilities for technical services.

The downsizing of technical services provided a fair amount of trauma for the staff positions because of the ensuing fluidity and uncertainty of job descriptions. One staff member left. We are currently beginning the process of implementing the Orbis Cascade Alliance shared Ex Libris integrated library system and expect that, over the next year, the technical services and systems workload will be fairly consuming for many of the librarians and the staff in the library. However, after the dust settles on the system, we expect that some of the staff and library positions may be directed toward some of the emerging efforts in the library—archives, Digital Commons, open access publishing, and the development of an institutional repository for research data/results publication and preservation.

Since we had overloaded the collection development/systems librarian when she relieved the archives librarian, we hired a systems/IR librarian position to assist her by using the funding from the vacant technical services staff position. And since administration is holding firm to a zero-sum budget strategy, the additional funding for the position was afforded by the differential between the salary of a departing instruction librarian and a the new instruction librarian. The increasing demands of online presence, the swift evolution and increasing utility of the technologies of interactive web pages, and the complexity and mutability of a growing variety of competing vendor technologies and platforms made it prudent to hire assistance and backup for our systems.

We are not able to move robustly into any of the new frontiers of librarianship. They are major frontiers for small libraries like ours with very limited personnel and budgetary resources. They are nevertheless arenas in which we must make

our best efforts to serve our institutions. The shifting parameters of publishing to open access require navigation, ramping up, and eventually support for the needs of both administration and faculty. The library must discern and articulate its role in the provision of services for the emerging needs. To what degree and in what manner are we to provide the technology, systems, information, and labor required to comply with the rising expectations and regulations for the results/data associated with federally funded grants to be open to the public? We do not yet have an institutional repository. Should we outsource or develop an in-house alternative? What level of support are we to provide faculty in their efforts to move to open access publication? Do we explore and provide guidance on alternative publication channels in their various disciplines? Do we promote the virtues of open access?

We have initiated a Digital Commons web publication platform using bepress. We have put up a variety of collections including scanned archival material, student master theses, and the publication of a peer-reviewed student journal. What is the extent of our obligation to provide online access to unique local materials or to provide infrastructure, support, and labor for student and faculty online publication? We have recently moved the operation of a teaching resource center, its audio/video production lab, and an instructional technologist into the library. We will circulate audio video equipment and assist students and faculty with their use. The instructional technologist is also an accomplished author of fiction and very familiar with online independent publishing channels. This arena is ripe for exploration, but we have very limited resources. Where do we focus them?

Instruction and Reference

Instruction used to be an introduction to the card catalog and paper periodical indexes. Reference was also instruction. It was one-on-one instruction at point of need in the use of a complicated array of print information resources. Search technologies have become much easier for students and faculty to navigate, albeit more complex and nuanced with respect to locating

optimal resources. Google and Wikipedia provide instant access to a growing wealth of articles and information that will satisfy the demands of most assignments.

Instruction now focuses on assisting the development of students' discovery and evaluation skills for navigating the rapidly expanding information sphere, which includes both open web and library provided resources. The evolution of the task is toward the provision of comprehensive, point-of-need instruction across the curriculum using a variegated combination of in-class, online, video, interactive, LibGuide, mixed and flipped classroom protocols. The objective is to provide an experiential process of instruction closely integrated into assignments throughout their academic career that will provide skills and conceptual frameworks for later work, civil, and personal information use.

The last 3 years have seen a redirection of personnel resources to instruction. Budget that was used for the ongoing coverage of sabbaticals was used to hire a permanent instruction librarian. And the replacement of a vacated reference position with another instruction position brought the instruction team from one to three librarians.

Changing Operations at University of California, Merced, Jim Dooley

The University of California, Merced (UC Merced) is now officially 8 years old although initial planning began over 20 years ago. Library planning began in 2000 with the hiring of the founding University Librarian, Bruce Miller. Library collection planning began in 2003 with the hiring of the author as Head of Collection Development and Technical Services. It seems appropriate at the tenth anniversary of collection planning at UC Merced to examine what has worked as intended and what has been modified as a result of experience.

UC Merced began as the first new American research university founded in the twenty-first century and the tenth University of California (UC) campus with 875 students and 13 founding faculty in September 2005. When the campus officially

opened, only the library building was ready for occupancy; two additional buildings opened in January 2006. From these modest beginnings, the campus has grown to 6,200 FTE in fall 2013 with 358 of those students being graduate students. Currently there are 180 tenured or tenure-track faculty and an additional 162 lecturers. In May 2013, UC Merced awarded 25 PhD degrees. The proximate goal is to receive a Carnegie Classification as a Research University-High Output by 2015. A somewhat more long-range goal is to grow to 10,000 students, 1,000 of whom would be graduate students, by 2020.

From the beginning, the guiding principle of collection development at UC Merced has been access rather than ownership. The library will spend its available funds to provide access to the largest possible number of information resources rather than to permanently acquire a necessarily much smaller number of resources. This is clearly a controversial approach since libraries have traditionally been ranked and valued based on the size of their permanent, usually print, collections. Most University of California libraries have held public ceremonies marking the acquisition of their next millionth volume. Why should the UC Merced library be different?

The principle answer is that, even in 2003, the landscape for research libraries had significantly changed. The traditional view of the research library as a single institution that built collections in isolation was giving way to a more cooperative approach. Even the largest research university libraries were realizing that they could no longer collect comprehensively in all fields, if they ever could. In this environment, was it necessary or even desirable, not to mention a good use of funds to have as a goal the creation of a stand-alone library on the traditional model? Put another way, did it make sense for the UC Merced library to have as a goal the celebration of the acquisition of its one millionth volume at some future date? The founding librarians decided that it did not.

Once the basic principle of access rather than ownership was determined, it was then necessary to decide the concrete steps that would be taken to implement that decision. UC Merced was not

an isolated start-up in a field in the Central Valley of California. Simply by being a University of California campus, the library had almost immediate access to a massive number of information resources in all available formats. At 37 million volumes, the collective University of California print collection is the largest research library collection in the world. Acting through the California Digital Library (CDL), often referred to as the eleventh University of California library, the UC system provides access to many thousands of online journals as well as databases and e-books. Simply by accessing the internal UC ILL system and being added to existing licenses, the UC Merced Library would be well on its way to supplying the information needs of the founding faculty and students.

Beyond just getting started, a series of decisions were made that continue to shape the UC Merced collection. First, it was clear to the founding librarians in 2003 that the proverbial “tipping point” had been reached with regard to faculty preference for online journals over print. Therefore, the decision was made to prefer electronic versions over print versions in all cases. The only print journal subscriptions would be those titles that were requested by faculty but not available online. The library would participate in the acquisition of online journal backfiles by CDL and utilize the UC interlibrary loan (ILL) system to respond to occasional requests for articles not available online. Print journal backfiles would not be acquired.

It was equally clear in 2003 that the “tipping point” for preferring e-books over print books had not been reached and would most likely not be reached for many years. It was therefore necessary to plan to make print books available to UC Merced faculty and students for the foreseeable future. Given access to the collective UC collection through ILL, the decision was made not to collect print monographs retrospectively. The library worked with YBP to acquire an “opening day” print collection of approximately 13,000 volumes. Print acquisition has continued by means of approval plans with YBP and firm orders based on faculty request. Selected gifts have been used to supplement purchased titles.

While the “tipping point” may not have been reached, it was also clear that e-books would become increasingly important. Initially, the library subscribed to ebrary Academic Complete which provides a large number of titles at a low per-title cost. The library has also acquired packages of e-books through CDL negotiated systemwide agreements, particularly content from Springer and Wiley. One important decision was to use demand-driven acquisition (DDA) as the means of title-by-title acquisition of e-books. Currently the library has DDA plans with EBL and MyiLibrary. The library also became the first all-electronic Federal Depository Library by using the Marcive Documents Without Shelves service to provide bibliographic records with links to electronic Federal Government documents.

Another decision was not to collect microforms. While the library does have equipment to view, print, and scan microforms received through ILL, no microforms have been acquired. After 10 years of operation, what have been the results of these policies? First of all, they have resulted in a collection that is approximately 90% electronic, although that has never been a goal. As of July 2013, the UC Merced Library collection contained approximately 1.1 million items, including 110,000 print books, 1,600 DVDs, and one million electronic resources of some type. Collection expenditures are also approximately 90% for electronic resources, although, again, there has never been a goal to spend any particular percentage on a specific format.

Faculty and student acceptance of electronic journals remains very strong. Currently, the library has access to 86,000 online journals, the vast majority of which are made available through CDL licenses. There are 20 local print subscriptions. Other than a few wistful faculty remarks about the miles of bound journals at the libraries of their former universities, there have been no complaints about the lack of print serials.

The library was an early adopter of e-books and continues to increase its e-book holdings through DDA. As of July 1, 2013, there were 375,000 titles available through DDA from EBL and MyiLibrary. Approximately 97% of the EBL catalog is visible; only titles costing more than \$300 are excluded.

Titles are purchased after three short-term loans. In 2012–2013, 66 EBL titles were purchased at a cost of \$4,921; there were 4,923 short-term loans at a cost of \$61,564. Results for previous years were similar with a small number of purchased titles and a relatively large number of short-term loans. These results might indicate a failure at a library with a different collections philosophy, but they are consistent with an approach of access rather than ownership. In 2012–2013, 85 MyiLibrary titles were purchased at a cost of \$11,722. The MyiLibrary plan does not include short-term loans; titles are purchased on the second access. In addition to e-books accessed through DDA, the library continues to subscribe to ebrary Academic Complete and has access to many thousands of e-books through CDL licensed packages. The result is that the number of available e-books is approximately seven times the number of locally held print books.

One unanticipated benefit of the large number of e-books available through DDA has been the positive effect on ILL. Given the policy of not retrospectively collecting print, it was anticipated that the UC Merced Library would be a net borrower for many years. In actuality, the opposite has happened. For the past 4 years, the library has been a net lender to every other UC library. While detailed studies have not been conducted, one likely reason is the large-scale availability of e-books through short-term loan. If one-third of the short-term loans in 2012–2013 had instead been ILL requests for print books, the library would have been a net borrower for the year. With an average short-term loan cost of \$15 and an average ILL cost of at least \$30, this represents a significant savings as well as providing faster access for the user.

While these numbers are impressive, several factors related to publisher behavior have hindered the acceptance of e-books. First is that many publishers do not make a significant portion of their content available in both electronic and print versions simultaneously. This forces libraries to purchase print or else to wait and hope that an electronic version will be available before the print is out of stock. Second is the practice of withholding certain titles from packages and

making these titles only available for single title purchase. A practice that directly affects users is that of arbitrarily removing titles from DDA plans with minimal notice to the library. In many cases, this means that users will try to access suddenly unavailable titles before the library can remove the record. Finally, there is the vexed question of ILL for e-books, or more precisely, the ability of a library to share a purchased e-book with another library similar to the way libraries have been sharing print books for generations. The legal basis and technical means of such sharing are clearly different for electronic and print books, but the principle remains, and it is an important principle for libraries.

The library may well have been ahead of overall user preferences in the adoption of e-books but attitudes are clearly changing. Feedback from faculty and students demonstrate an increasing acceptance of e-books, although, admittedly, the acceptance rate continues to lag that of electronic journals. Many of the reported barriers, particularly limits on printing and downloading, are the result of license restrictions insisted upon by publishers. These will hopefully become less burdensome with time. Improvements in e-book platforms to enhance the online reading experience and further development of annotation and other tools will also contribute to increased acceptance.

Overall, the strategies developed in 2003 have continued to work well. With one exception, user feedback from surveys, focus groups, and direct contact continues to be positive. The one exception is a number of historians who say that ILL does not meet their needs and therefore believe that the library must significantly increase the number of print books housed in the library. In order to begin to address this need, the library is investigating if it has the budget and staff to begin some level of retrospective monograph acquisitions, particularly of important titles published from the 1970s to the early 2000s that are not available online.

In the coming year, the library will investigate whether parts or all of the current print approval plans can be converted to DDA to realize savings that could be applied to retrospective monograph

acquisition. The impact on technical services will have to be carefully addressed because all books from YBP are currently received completely shelf ready. Titles acquired through print DDA would be rush shipped and would need to be cataloged and processed by the library. Savings in acquisitions will have to be compared to additional costs in technical services to determine if this plan is feasible.

Information Discovery and Third Party MARC Records: What Are Our Library Collections? Robert Murdoch

Advances in digital technologies and digital publishing continue to challenge the status quo in library operations. There are two topics I want to address that are connected to the theme of our presentation, Changing Operations in Academic Libraries. The first is information discovery and Third Party MARC Records and the second topic has to do with what are our library collections?

Information Discovery and Third Party MARC Records

One of the most foundational of all the many goals and operations of an academic library is to provide library users with accurate and timely cataloging metadata and bibliographic records designed for discovery and access to library resources. Typically, these records are obtained by either (1) creating, editing, and/or copying records by personnel in cataloging and metadata departments or units; (2) acquired records through "shelf-ready" cataloging services; and (3) acquiring MARC records through third-party vendors that match large database collections. At Brigham Young University, we use all three methods to provide discovery and access records for our resources. From the library's web page, patrons can search for information resources through either the library's Ex Libris discovery tool, Primo, or through the catalog database housed on a SIRSI/Dynix system.

In recent years, the library's collection development patterns have changed whereby more and more of the resources the library is acquiring is coming from either the purchase or subscription of large (in terms of number of items)

resource databases. In almost all cases, the MARC records for these materials come from a third-party vendor. A growing challenge for our library is being able to load and maintain the currency of the bibliographic records of these collections in a way that can be scaled and is cost effective. In many cases, the content of these databases is consistently changing with material being continually added and deleted.

The investment in human resources and amount of time required to sustain a workflow to accommodate the ongoing need to update and edit these vast numbers of bibliographic records coupled with the amount of time involved in getting records into the catalog database posed a huge challenge for our library. We needed to implement a workflow that was much more timely, efficient, and with a positive cost/benefit.

The answer to this challenge was for the library to (1) change its cataloging policy of requiring all acquired materials, whether owned or leased, to be loaded in the library's catalog database and (2) adopt a policy permitting third-party bibliographic records for large resource databases to be loaded directly into the library's Ex Libris discovery system and bypass the catalog. While this change in policy and workflow process has just recently been implemented, all testing seems to indicate the change will meet our goals and expectations. The old and new processes look like this:

Old Process

All bibliographic records, including third-party MARC records for library materials, have been loaded into the library's catalog database. The loading process and workflow for third-party MARC records looked something like this:

1. Download records from vendor: 5–10 minutes
2. Edit using MARCedit: 30 minutes
1. 3. Quality control: 3 days
2. 4. Create test load: 1 day–2 weeks
3. 5. Confirm/adjust: 10 minutes

4. 6. Load: 1–8 days
5. 7. Index: 1–8 days
6. 8. Remove old records: 1–8 days
7. 9. Deindex old records: 1–8 days

New Process

1. Download from vendor: 5–10 minutes
2. Edit using MARCedit: 30 minutes
1. 3. Quality control: 3 days
2. 4. Load: 5 minutes

We have made this change in process and workflow by creating a system that bypasses the library catalog and loads these types of records directly into our discovery layer. This makes the loading process faster, more flexible, and easier to maintain. Additional benefits include:

1. Reducing the number of broken and unavailable links in our system.
2. Providing a better experience for our patrons.
3. Allowing for more flexibility in the way we display collections to our users. For example, we will be able to display instructions specific to a resource in the search results without having to put the message in the MARC data. We can also instruct users how to download ebrary books to their Kindles and other devices, for example, and we can provide a different set of instructions or messages for a different resource.
4. We are no longer completely bound up in the MARC format as a means to provide better and more seamless access to our ever growing electronic collections.

Collections by the Numbers: What Are Our Collections?

The continuing evolution of the content being acquired by our library and the way in which it is

being discovered, accessed, and used is and will have a profound impact on library operations, collections, services, and facilities. We recently took a close look and our general library collections from the standpoint of expenditures, quantity, and usage. Our intent was to look for trends and changes and highlight areas that might have significance in our current library operations and planning for the future. For the purpose of this presentation, I will only highlight and discuss expenditure, use, and quantity as it pertains to print books and e-books.

2012 All General Collection Print and Electronic Usage

The main observation is that Electronic Content constitutes 90.3% of all use:

- Print Book: 539,693
- E-Book: 2,068,131
- E-Journal: 847,074
- Print Journals: 13,735
- Database: 2,250,563

2012 General Collection Monograph Expenditures

The main observation is that our collection development acquisition patterns continue to favor the purchase of print books by a considerable margin, while usage of books favors e-books by a considerable margin. What changes in library planning and operations need to be made?

- Print Book: \$1,346,643 (Approximate number of print book titles in the general collection: 2,229,290)
- E-Book: \$321,701 (Approximate number of e-book titles assigned to the general collection: 174,494)

Time allotted for this presentation will not allow detailed discussion about the changing dynamics of our library's collecting and acquisition practices and how library users are discovering and accessing information and data and the clear preference for using electronic resources. However some general observations that no doubt will influence processes and operations within our library include:

- Library users are very connected to technology. They use their computers and other personal communication devices to discover, access, and use information. This trend will only continue to increase. Growing use of these tools suggests the need for planning and improvements in a number of areas, such as the need for quality discovery metadata and other finding aids; enhancing discovery and access tools and apps; Wi-Fi throughout the library; enhanced online reference, research, and help services; improvement in personal library skills training and research consultations; and enhanced or new web portals to linked information and data resources.
- E-books are here to stay. While the majority of book publishing remains in print, the trend is shifting. E-publishing is on the rise, and library usage data indicates a strong user preference for e-books for research purposes over print books. Our library's collection development fund allocation continues to be based on the traditional print book collection development model. Funding and collecting policies and practices should be reassessed and aligned with current usage data.
- Questions about the necessity to own library materials need to be addressed. How important and necessary is it for libraries to continue to "own" and "build" print and electronic collections? DDA acquisition models, web access to resources, e-book collections for lease, and expanded e-publishing are trends that are calling into question the need and value of continuing traditional collection development and purchasing practices. Questions about the future role of the subject librarian need to be examined.

New opportunities for planning for the proper use of library space, facilities, and services are emerging. As the need and demand for printed library resources rapidly shrinks, the requirement for dedicating library space to house physical items will diminish considerably.