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Assessing a Patron-Driven, Library-Funded Data Purchase Program

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ABSTRACT

The University Library at the University of Illinois at Urbana-Champaign established the Data Purchase Program in 2010 to provide a source of funding for the purchase of datasets which are requested by students and faculty, and make this data available to the campus at large for future use. In this study, the authors interviewed past applicants who submitted proposals to this program to collect their feedback and perspectives on the strengths of this program and the impact that it had on their research, as well as to determine any aspects of the program's design or implementation that need improvements. Interviews revealed that the ease of application and lack of other options for obtaining data made the program appealing, especially to graduate students, but that study participants wished for a more robust program in terms of marketing the specific data purchased by the library and help with data in general. Also, the purchased data had a wide range of impacts on the participants' research.

INTRODUCTION

For many years, data-centric research has been moving beyond explicitly quantitative fields like engineering or math into the social sciences and humanities. Many social scientists have worked with data for decades, but others have only begun working with data in the last ten years or so. Digital tools have also made it possible to answer research questions in the humanities that were impossible or impractical to answer even ten years ago, and the decreased cost of computer storage and processing power has made it possible to work with larger data sets than was practical when a powerful desktop computer had 64 KB of random access memory (Commodore 64, released in 1982; Computer History Museum, 2016). Digital tools have also transformed the things that researchers can use as data, including text and images as well as numbers and instrument readings.

Libraries have followed this developing trend with interest, and many academic libraries have adapted their collections and services to reflect the importance of data to research. Last year Saunders analyzed library strategic plans for 63 academic libraries and found that 40% emphasized data services (Saunders, 2015, 288). Data was at the top of the list in the *College and Research Libraries News* 2014 list of top trends in academic libraries, and was represented in the top two items on the 2016 list: research data services and digital scholarship (ACRL Research Planning and Review Committee, 2014; ACRL Research and Planning Committee, 2016).

Although some datasets are freely available online through repositories, and others can be accessed via subscriptions or purchases of data package products marketed to libraries, some data is sold commercially by the agencies or corporations who collect the data or by a third party vendor. This data is often only available if purchased directly, and the cost can be quite high, ranging from hundreds to (more often) thousands of dollars. Researchers must either fund the purchase themselves or seek additional help, and academic libraries are receiving these requests and beginning to recognize data as a fundamental collection development need. For example, James Church (2008) describes the challenges of acquiring international survey microdata, much of which must be purchased and is in high demand by researchers, and recommends strategic data acquisition in consultation with researchers. He advocates for a coordinated, user-driven acquisitions model that includes data within its purview, stating "we buy many books, documents, and microfiche that few people use…it seems misguided to spend thousands of dollars buying items students have not specifically requested while neglecting to purchase data that could lead to the publication of a doctoral thesis" (p. 16). Church describes one particular type of data and user need, but these principles can be extended to many disciplines and data types.

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ASSESSMENT OF LIBRARY PROGRAMS FROM PATRON/USER PERSPECTIVE

In order to assess the success of a program like the Data Purchase Program and identify areas for growth and improvement, user feedback about their experiences is critical. As a measure of quality, it is fundamental to understand user satisfaction with the mechanics of the application, approval, and data acquisition and use, as well as the user's perceived value of this program as a service and source of funding for research support. This user-centric approach to evaluation and assessment with the goal of improving service quality is in line with the application of Total Quality Management (TQM) principles in libraries, as described by Moghaddam and Moballeghi in "Total quality management in library and information sectors"(2008). A library culture of TQM means a focus on user-defined quality and "the application of qualitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future" (Moghaddam & Moballeghi, 2008, 912). Building on this concept, optimal service quality in a library is achieved when there is a successful intersection of user demand for information, user need for information, and library services offered (Albu, Cristian, & Pistol, 2012, Fig. 2, p. 152). In order to determine whether the Data Purchase Program is providing optimal service, the program administrators need to know how well it has been meeting user needs, and this can be learned from discussions with program participants.

Although TQM is based on a business strategy, applying its principles can help academic libraries reach the goal of improving the educational experience, and providing high quality service that is defined and valued by their users is an integral part of this experience. Using patron feedback as a measure of service program success and to identify areas for improvement is not a new concept for library assessment. Programs such as the Data Purchase Program are fairly new and there are no direct examples of assessments of data purchase programs in the literature. However, a program of this nature might best be classified as a hybrid between a library research funding support program, and a patron-driven acquisitions collection development program; a few examples of relevant case study assessments in which user feedback was collected with the aim of evaluating and improving the quality of related programs include "Assessing the Library's Grants Program" (Namachchivaya & McGowan, 2015) and "We're Listening: Using Patron Feedback to Assess and Enhance Purchase on Demand" (Hussong-Christian & Goergen-Doll, 2010).

Namachchivaya and McGowan used informal interviews to collect qualitative information from librarians who had applied for external grants about their perceptions of grant-writing and the support and processes provided by the library during that experience. They used this information to "identify motivations for pursuing grants and the obstacles that library professionals face in the process" (p. 71), and to improve the support structures and resources provided by the library based on this feedback. This is similar to the methods used by the authors of the current study.

Hussong-Christian and Georgen-Doll used a survey to collect patron feedback about their experience with a patron-driven acquisition program for traditional library books and resources, which converted interlibrary loan requests into purchases. Their survey was primarily quantitative, but also included an open-response question which they analyzed in terms of positive comments, negative comments, complete or qualified support, or unsupportive of the program. Through this survey, they determined how satisfied or unsatisfied their patrons were with various aspects of the program, and identified features which were particularly valued by patrons to determine whether the pilot program could be successful in the long-term. Similarly, the authors of this study of the Data Purchase Program are interested in identifying the components of this particular type of "purchase-on-demand" program which are particularly valued by applicants, and pinpointing aspects which should be continued or improved upon to ensure long-term success and impact.

HISTORY OF THE DATA PURCHASE PROGRAM

While many libraries are buying data for users who request datasets, the Data Purchase Program at the University of Illinois at Urbana-Champaign appears to be the first formal program where users apply for data on a particular cycle, and the program is publicized in campus-wide channels (Hogenboom & Hayslett, 2017, in press). On the Illinois campus, the Data Purchase Program began with a pilot in 2010, when the library's first Numeric and Spatial Data Librarian was appointed and given a collections budget. Identifying data for purchase that would be a one-time purchase, affordable, and useful to the campus is daunting on a campus of this size and complexity. The Associate University Librarian for Collections also expressed interest in ways that the library collection could visibly support data-intensive research, and these complimentary concerns led the library to pilot the Data Purchase Program. For more information about the first year of the program, including a detailed discussion of the impetus, the logistics, and the challenges and lessons learned, see Hogenboom, Teper, & Wiley, 2011.

The Data Purchase Program identifies collection needs for "small data" by soliciting applications from campus faculty and students for commercially-sold datasets needed for their research, and negotiating purchase of approved datasets for use by the campus. For the purposes of this program, "small data" refers to data that is both relatively inexpensive and able to be loaded onto a laptop or other standard computing equipment. A Data Services Committee, consisting of members from within the library and from a statistical consulting service outside the library, had previously been established to provide help to campus researchers working with data. This committee took responsibility for evaluating applications to the program. For the first several years the Numeric and Spatial Data Librarian worked with the Acquisitions Department to contact vendors and negotiate licenses, then loaded the data onto a library server that is restricted to campus access. Starting with the Fall 2015 cycle, committee members began the discussion with the vendor for each dataset and the library's Electronic Resources Librarian began shepherding the licensing process once the committee determined the scope and price of the order.

Data purchase requests must meet several criteria in order to be approved for funding, criteria which have evolved with the program. Data purchases have always been limited to no more than $5000 per researcher per year, though once or twice it has been possible to purchase more expensive data with matching funds from the applicant or when multiple applicants request the same dataset. A second limitation is that the library only purchases data if the applicant can explain the significance of the data for their research. And finally, after the first year the Data Services Committee determined that the library could not fund applications when the purchased data could not be made available to all of campus.

The committee chair issues a call for proposals during the first or second week of fall semester, with an application deadline for first consideration in early October. Announcements are sent out via entries in campus wide email newsletters targeting faculty and graduate students. The program is also marketed via paper flyers distributed at library public service locations, electronic signs in the library, and an email announcement is sent to liaison librarians to share with their campus departments. Currently the application deadline is a deadline for first consideration, and if funds remain available the data librarian continues to process additional requests submitted after the deadline. During the application review process, the Data Services Committee members make initial contact with the vendor to investigate the feasibility of purchasing each data set (license terms, institutional pricing, and access mechanisms, for example). If no insurmountable obstacles become apparent, the committee notifies the applicant that the library will

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