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The NYU Survey Service: Promoting Value in Undergraduate Education

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Abstract:

New York University's Data Service Studio has recently launched the NYU Survey Service, whose ultimate aim is to support the development and administration of surveys of all types. For the web-based component, we utilize a product called Qualtrics, which allows university affiliates to develop and administer web-based surveys. This article describes the process by which we at NYU came to offer the service during a time when concerns abound about the ability of libraries to support and expand services while still meeting service imperatives such as robust data services. While many considerations went into this evaluation and the ultimate conclusion to pilot the service, we emphasize those most related to data and information literacy, undergraduate instruction, learning and research, library collaborations and application administration and support.

Keywords: Surveys, information literacy, undergraduates, data, information services

Current economic conditions notwithstanding, library collections and services must still support sound teaching and learning. As a result of recent economic uncertainty, units of the academy will likely need to further justify their value as budgets remain under pressure for the foreseeable future. It is within this context that New York University Libraries' Data Service Studio (hereafter DSS) identified a significant challenge to its ongoing charge to support numeric and geo-spatial research that required immediate attention. The solution required a more expansive, less insulated approach to the selection of the online component for our newly introduced NYU Survey Service and the value of the service to research and learning was among the prominent underpinnings of our exploration of a resolution.

As the breadth of electronic resources and tools available for use continue to proliferate and evolve, user expectations will remain high regardless of the library's fiscal condition. One expectation is that the library will support the learning activities of the university's undergraduate students, which increasingly means support of original research by undergraduates. The ability to support survey research methodologies in a manner that is rigorous and ethical is fundamental to that expectation. And it was that necessity which prompted DSS staff to pursue partnerships and input that might not have been considered during the evaluation of an electronic tool in the past. However, such a process may prove increasingly necessary in the "new normal." Save for the approach outlined below, the DSS would likely be unable to offer truly robust support for the provision of online surveys by NYU affiliates. This article describes the causes and rationale for the development of the survey service, making special reference to how prevailing trends and attitudes about undergraduate education and its value drove the processes from problem identification to implementation. The selection process described here led to the selection and introduction of the Qualtrics web survey tool.

SUPPORTING DATA DRIVEN RESEARCH IN LIBRARIES

Selecting, acquiring, and supporting a robust university-wide web survey tool marks an important step in the evolution of NYU's DSS. The DSS, which opened in Fall 2008, brings together statistical computing and library data services in a physical location in NYU's Bobst Library with a central mission of supporting members of the NYU community in their work at all stages of the digital life cycle (Green 2006) of numeric and spatial data. By providing a tool for the creation of data, the DSS is effectively supporting a key piece of that digital object lifecycle.

The NYU Data Service Studio, a joint venture of Information Technology Services (hereafter ITS) and the Division of Libraries, is designed to provide support for numeric and spatial data-oriented research projects. DSS

services, which are continually evolving, include: (1) a dedicated and centrally located lab equipped with the hardware and software to conduct quantitative, qualitative and geographical research analysis, (2) statistical consultation and instruction, (3) tutorials and training materials on research software and methods, and (4) support for the acquisition and use of numeric and spatial data sets among other services. The full-time DSS staff is currently comprised of two statisticians, two librarians, two IT professionals and a geographer. Graduate students from five NYU schools and six unique degree programs are also employed and consult based upon their high-level knowledge of the various statistical and mapping software packages supported by the DSS. (For a visual representation of this model see Guss & McGarry 2010).

Although the DSS in its current form has only existed for two years, ITS and the Libraries had independently and separately supported aspects of quantitative research and numeric data activities for years. Both units provided access to statistical software packages. The statisticians and faculty technology specialists in ITS supported statistical computing in a variety of ways: helping users navigate statistical software packages, providing research design consultations, and helping users find data from sources like the United States Census Bureau and the Interuniversity Consortium for Political and Social Research (ICPSR). Meanwhile, librarians helped users find and access information, often in the form of numeric data, in the context of comprehensive literature searches. The library also harbored expertise in sophisticated preservation and description of resources and discovery environments and techniques. It was because of these complimentary skillsets that these two groups merged, creating the foundation for the Data Service Studio.

The DSS's main goal is to support the NYU community at *all stages* of the digital life cycle of numeric and spatial data: to "provide integrated support for NYU faculty and students in finding, accessing, understanding, manipulating, sharing and preserving the raw materials of research for multiple disciplines across the university" (Data Services Working Group 2007). In this list of objectives, we can find much of the same language of the Digital Curation Centre's Curation Lifecycle—the sequential actions: Create or Receive; Appraise & Select; Ingest; Preservation Action; Store; Access, Use, & Reuse; and Transform—and the actions that should occur throughout the lifecycle: Description and Representation Information; Preservation Planning; Community Watch and Participation; Curate and Preserve (Digital Curation Centre).

While the Data Service Studio has been skillfully supporting pieces of this lifecycle since its inception, especially the components titled "Access, Use, & Reuse," "Transform," and "Community Watch and Participation,"

others are still in planning or development stages. We are continuing to build our expertise in the various preservation actions and piloting several data repository projects as we determine our best path towards support of preservation of numeric and spatial data. Regardless of whether full-scale digital preservation services will be provided locally by the DSS or whether we instead serve as facilitator between researchers and already-established archives, we can still actively build services across the spectrum, including support for those collecting or creating data. The NYU Survey Service (Qualtrics) allows us to add "Create" to our list of supported lifecycle actions. Providing a web based survey tool that has been carefully vetted to meet high standards of our researchers and to serve as a teaching tool for the instructors of budding data creators moves us considerably closer to our goal of full lifecycle support. Certainly NYU is not the only institution of higher education that has acted to add data services to its library and information technology offerings; in fact many institutions already have or certainly will need data services (Aldrich and Stefanelli 2006) and Internet based web survey tools will be an increasingly important part of the array of services offered (Farrell and Petersen 2010).

QUANTITATIVE LITERACY AND ORIGINAL RESEARCH BY UNDERGRADUATES

By acquiring a university wide license for a web survey tool, the Data Service Studio is not only supporting faculty, administrative and institutional research, but also the learning and research needs of undergraduates and providing them with important transferable skills. Access to rigorous research tools is crucial considering the increased emphasis on quantitative literacy, quantitative reasoning and original research skills in recent years (Madison and Steen 2008, Steen 2004).

An important trend is the push to strengthen quantitative literacy skills across the undergraduate curriculum, commonly described as the quantitative literacy, or QL, "movement." McClure & Sircar (2008), writing particularly about business education, argue that "quantitative methods can and should be applied to a wide array of decision-making scenarios and that all business students should have an adequate level of quantitative literacy to make calculated decisions in the increasingly complex, information-oriented, knowledge-based world"—a statement that can apply to students across many, if not all, disciplines. Informed participation in society depends not only on traditional notions of literacy—the ability to interpret information—but increasingly the ability to comprehend and interpret information represented numerically or derived from quantitative methods. Schied (2004) argues that it will be "difficult to be considered information literate in the 21st century without being statistically literate" and others have argued that undergraduates in the United States are already falling behind in attaining these skills

(McClure & Sircar 2008, for instance).

The literature logically identifies statistics and mathematics educators as key figures, but also emphasizes that QL is widely relevant and more effectively achieved when "explicitly label[ed], model[ed], and reinforce[d] repeatedly in multiple contexts" (Jordan & Haines 2006). A quantitative-reasoning-across-the-curriculum (QRAC) approach, has been championed for years by leaders in the QL movement (Cozzens 2003; Madison 2004; Tritelli 2004, quoted in Jordan & Haines 2008). The QRAC approach, "reflecting the well-established writing-across-the-curriculum model, asks instructors in all disciplines to incorporate explanations of quantitative reasoning and quantitative problem solving in their teaching" (Jordan & Haines 2006). There are countless examples of courses, faculty members, and entire departments that have prioritized incorporation of QL principles in disciplines like business, sociology, and social justice, but there is also a role for the library, and particularly for library data services centers. Schield (2004) argues that librarians, who are generalists already involved in teaching critical thinking and information literacy, are "eminently qualified to teach students…how to become statistically literate and how to become data literate" (p. 9).

Another important trend is the increased emphasis on original research conducted by undergraduates and this phenomenon has been well chronicled in the library and information science and education literature (Hunter et. al. 2006). The opportunity for rewards to students and society from undergraduates who are trained to efficiently produce and interpret data can be significant (Card et. al. 2003, Higgins 1999). Students who emerge from undergraduate programs with these skills offer benefits to society and will have an advantage in the knowledge-driven economy's difficult job market.

Original research has been prescribed as a mode of pedagogy in large introductory courses in the social sciences (Atkinson et al. 2006), as a method of teaching of statistics to non-majors (MacDougall 2008), and naturally as part of research methods courses for undergraduates in a variety of disciplines including sociology, business, and political science, among others (Shostak et al. 2010; Vandiver & Walsh 2010; Doyle & Mezzell 2007).

In addition to these in-class reasons that students are conducting original research, many liberal arts colleges require a thesis or capstone project while many larger research universities, including New York University, have honors programs for undergraduates that culminate in a senior thesis derived from original research. Providing full support for these pedagogical and curricular endeavors should mean instruction or tutoring in appropriate methods as well as institutional support for the necessary tools. Survey research in particular spans a

wide range of disciplines, and these surveys are often created and administered via the web—necessitating the availability of a web-based survey tool.

ECONOMIC CONSOLIDATION ARGUMENTS

One of the ways in which we considered the purchase of such a survey tool was with an eye towards streamlining the approach of several units throughout the university that were spending funds for survey tools and while expanding campus capabilities. From our initial research, we learned that other units on campus, as well as countless individuals, were already paying to use web survey tools. The web-based survey tool provided by Qualtrics Inc. was already being used by at least one school at New York University, but of course, most NYU affiliates did not have access to that instance of the product. Several schools and administrative departments had purchased limited licenses to other survey products (for instance, Snap Surveys), while others shared a single Survey Monkey (or other) account. Beyond these known expenditures, we knew from experience that countless faculty members, graduate students and undergraduate students were purchasing individual accounts to tools such as Survey Monkey.

While the DSS officially provided support for Survey Monkey and maintained access to several accounts for our own instruction purposes, we had previously been unable to provide individual, secure accounts to our users. In order to gain access to a tool where surveys could be administered confidentially, users were counseled to acquire -- and pay for -- their own individual accounts. Acquiring a university wide license would allow us to provide secure, individual accounts to our users.

The true cost savings of a university wide license would be realized by allowing any affiliates or units to stop paying for other survey solutions on an *ad hoc* basis. Instead, the cost would be split between the Division of Libraries and ITS. A centralized solution would make support and administration more efficient and eliminate the cost burden from individuals, which would be especially significant for students. Qualtrics was selected because of its own merits, but it was certainly an added bonus that the other units who were already paying for Qualtrics (and uninterested in switching tools) could be incorporated into the university wide price. We also reached out to units that might not necessarily contribute money but that might be interested administratively, methodologically or ethically by the rollout of the new service with the goal of increasing buy-in and recognition for the survey service and ensuring that the needs or requirements of these units would be met before we finalized a service. Additionally, a cost recovery model was defined such that any of these units could get a customized look and feel or “skin” in

return for a contribution to the overall cost of the tool. Providing an enterprise solution for users at NYU allows the entire campus to leverage both the efficiencies and methodological advantages that come with the use of online surveys.

SELECTION PROCESS

In order to select and recommend a web survey tool for purchase, the Data Service Studio team completed an evaluation that involved gathering information, characterizing the future service, defining requirements for a tool, identifying tools to evaluate, and evaluating each on the defined criteria.

The following steps represent the approach to selection and were employed roughly in the order below.

1. Gather community input to verify the demand and functional requirements for a survey service.
2. Research existing survey tools and service models at NYU and identify gaps and potential for improvements.
3. Summarize functional requirements and define administrative requirements for a survey service.
4. Identify potential tools and evaluate them based on stated functional and administrative requirements.
5. Define the Data Service Studio survey service model needed to accommodate the distribution and support of a centralized university-wide survey service.
6. Evaluate the cost effectiveness of a single centrally supported solution.
7. Make a recommendation based on information gathered during the evaluation process.

To learn about survey needs, we targeted several groups: known existing survey users at NYU, other survey tool providers at NYU that were previously known or discovered during this project, and personnel at peer institutions who either support or use surveys.

A web survey was administered to Data Service Studio clients who were known have conducted survey research as well as to the members of a "Statistics" Listserv, a special interest list comprised of NYU faculty, staff, and students who voluntarily elected to receive information about the Data Service Studio. This survey generated 31 responses (18 faculty, 7 staff, 6 students) from 12 schools and departments and yielded valuable insight from the community about desired features and tools already in use, while indicating a high level of interest in a new centralized solution. Contact was also made with several individuals across the NYU campus who were affiliated with departments expected to administer surveys (e.g. the business school and various NYU administrative offices).

Finally, a web search was conducted to learn about survey services and solutions currently offered by NYU's peer institutions and identify potential tools to evaluate.

Functional requirements were compiled using feedback from the survey of users and from the previous experience gathered by Data Service Studio staff from years of supporting Survey Monkey. Administrative requirements were also defined largely on this existing knowledge and experience, but also refined over the course of the evaluation. For instance, the definition of a "reasonable" price emerged only after several products had been evaluated. Additionally, DSS staff had a good idea of the type of service model that they could realistically employ, but details of this ideal model also surfaced only after an in-depth look at the tools and vendors themselves.

The final list of tools to be evaluated was compiled from the assessments of peer institutions and tools already supported and used on the NYU campus.

Eight tools were evaluated. An initial investigation of each tool was conducted by contacting vendors and compiling information from vendor websites. For tools that met initial administrative requirements, the evaluation team scheduled a demonstration that was conducted via webinar. Trial accounts were obtained for several tools so that evaluators could get a first-hand sense of the tool and its features. Additionally, after Qualtrics emerged as the finalist, the evaluators contacted colleagues from another NYU unit and from a peer institution, both of whom were already supporting Qualtrics, to gather impressions. In addition to evaluating the stated requirements, interactions with the vendors also gave DSS staff a sense of how each vendor handled interactions with its customers and what each might be like to work with.

Although functional requirements were certainly important, administrative requirements were evaluated first. The evaluators acknowledged that even the most feature-rich tool would be eliminated if it did not meet critical administrative requirements—for example, if it were prohibitively expensive or required so much administrative overhead that the Data Service Studio could not realistically support it. For this reason, not all tools were fully evaluated, as many were necessarily eliminated from consideration based on clear failure to fulfill administrative requirements. Survey Monkey also was not evaluated via a demonstration because DSS staff evaluators had sufficient knowledge of its features from years of supporting it.

The fact that NYU chose Qualtrics as the underlying tool for this aspect of our online survey services reflects the confluence between Qualtrics, NYU's needs, resources and the opinions of those charged with the evaluation of the several tools we appraised. The DSS selected Qualtrics based on the evaluation presented here, but

this article is not meant to definitively recommend (or discourage) that other institutions select Qualtrics as their web survey tool. Each institution will undoubtedly uncover different administrative and functional requirements based on their assessment of their own unique user communities and circumstances. Instead, this article is presented as a recommendation for how other institutions might go about determining these needs and requirements so that they can choose among survey tools with an eye towards greater efficiency and cost savings without sacrificing methodological robustness or ethical research.

ADMINISTRATIVE AND FUNCTIONAL REQUIREMENTS

Based upon the needs NYU users and available resources at hand, the NYU Survey Service Project team members defined the following list of five administrative requirements for potential survey solutions. (1) The tool must be available at a reasonable price for all current faculty, staff and students of NYU and, ideally, the tool would offer a site-license option to ensure that the price would not contingent on the number of active users or respondents. (2) Due to the limited number of in-house resources to run, maintain and backup a server, the tool was also required to provide secure hosting. (3) Similarly, limited staff time required the tool to offer a form a automated provisioning so that user accounts were automatically created, validated and deleted according to NYU's registry system. (4) To ensure portability, the tool must be web-based so that it can accessed on any machine, Windows, Macintosh, Linux, etc..., without additional software installation. (5) The final administrative requirement was a method of collecting usage metrics of the tool so that the DSS can monitor current and project future user needs.

The survey of known survey users across NYU solidified a list of desired features for a web survey tool. Atop the list was the need for an intuitive graphical user interface so that users from all backgrounds can use the tool with relative ease. Another component was a method for collaboration or sharing so that multiple users, or groups, could edit and view the same survey(s). Users also wanted a powerful mechanism for respondent management; one that allowed batch lists of respondents to be uploaded and contacted based on various conditional statements, for instance if they had, or had not, completed a survey. Other key elements included: the ability to directly export raw data to SPSS's file format (.sav) with value labels attached, eliminating the cumbersome and unnecessary process of entering them manually; advanced randomization and logic capabilities; options for the view and analysis of results; plug-in capabilities for embedded video; integrated scripting options; templates for sample surveys and survey questions; respondent-based metadata and foreign language support. There was also a demand for paper-based surveys, but given the hardware requirements (automatic feed scanners) and limited benefits in the

academic setting -- few functional features and only negligible advantages in survey response rate and quality (Fricker, 347-358) -- a paper-based option was deemed unnecessary and impractical for a large-scale service. Additionally, the DSS provides access to a feed scanner and the software package Remark OMR on an appointment basis to the few users who cannot use web-based surveys for their research.

RECOMMENDATION

Table 1 represents the rubric used to evaluate each tool/vendor's fulfillment of stated administrative requirements. These administrative requirements were considered critical and were evaluated first—and in fact a majority of the tools were eliminated at this step.

[Table 1 About Here]

It is important to note that Qualtrics was one of the first tools evaluated. Although it ultimately proved to be the only tool that could fulfill all administrative requirements (as is evident in the table above), it also clearly influenced subsequent evaluations. Since a viable option was identified early, evaluators knew that they would not have to compromise on the presence of any administrative requirements. Therefore, they were able to completely eliminate tools that could not fulfill one or more administrative requirements, without further evaluation of functional requirements.

The following tools/vendors were eliminated as options for the following reasons (also see Table 1, above):

- *Survey Monkey:* Did not offer individual user accounts under a university wide license. Did not offer automated account provisioning. Only offered licensing on a user-by-user basis, at a rate that would prove infeasible on a university wide scale at NYU.
- *Snap Surveys*: Access is not web-based and requires the user to download software. Software requires a Windows environment.
- *Checkbox:* Did not offer automated account provisioning.
- *Key Survey:* Only offered licensing that would prove infeasible on a university wide scale at NYU. Automated account provisioning was untested by any of their other clients.
- *Survey Share:* Only offered licensing on a user-by-user basis, at a rate that would prove infeasible on a university wide scale at NYU.
- *SPSS Data Collections*: Did not offer automated account creation or management. Only offered pricing by

number of survey respondents, which would prove infeasible on a university wide scale at NYU.

- *Opinio:* Did not offer automated account provisioning.

Qualtrics was the only tool to fulfill all defined administrative requirements, but also met or surpassed all functional requirements.

SUPPORT MODEL OF THE NYU SURVEY SERVICE

Just as with any other large-scale service, the implementation of Qualtrics required a well structured support model. The DSS already had a successful service model in place, supporting numerous quantitative, qualitative and geographic research-based software packages, however the mechanisms for the creation and collection of survey data were deemed deficient in many respects and demanded considerable revision. As a part of the Survey Tool and Service Evaluation Project, the DSS defined a scalable survey support model, the NYU Survey Service, with primary goals of providing sufficient technical support and training resources, as well as guidance on administrative procedures and research policies, to the faculty, staff and students of NYU.

In order to "accommodate a variety of learning styles, including classroom instruction, small group coaching, individual appointments, and drop-in assistance" (Hurt 1997: 76), the NYU Survey Service offers survey support in both individual and group settings through one-on-one consultation sessions and classroom tutorials. Consultation sessions are available in person, on an appointment or walk-in basis, or remotely, via email or telephone, anytime during the DSS's hours of operation. Group tutorials, led by DSS staff, and webinars, provided by Qualtrics technical support, are routinely scheduled near the beginning of each academic semester with additional sessions available upon demand. The DSS also recognizes the increasing importance of collaboration between faculty members and Library/ITS staff (ACRL Research Planning and Review Committee 2010: 288) by working alongside professors to offer specialized in-class tutorials. In addition to providing individual and group training for Qualtrics, the NYU Survey Service extends its services to accommodate paper-based surveys by supporting the optical mark recognition software Remark OMR.

In creating the NYU Survey Service, DSS staff created and linked to a variety of reference resources for NYU patrons who have questions about survey creation or collection. Documentation is available for each regularly scheduled tutorial provided by the DSS, and the NYU Survey Service research guide (http://nyu.libguides.com/survey), created with LibGuides, provides information for patrons seeking assistance with the use of survey software. The NYU Survey Service research guide also points to Qualtrics University

(http://www.qualtrics.com/university/), a digital library of training resources hosted by Qualtrics. In addition to training resources, the NYU Survey Service guide contains valuable information on the policies and guidelines of the service, created and compiled by the NYU Survey Service team. This includes the NYU Survey Service Terms of Use, which lists the full set of requirements for using the service and highlights the need to consult the University Committee on Activities Involving Human Subjects, NYU's Institutional Review Board, for all research involving human subjects as well as the requirement to follow the Office of Institutional Research and Program Evaluation's Survey Policy when surveying the NYU population.

Implementing the NYU Survey Service was a fairly seamless process; the DSS facilities (a computer lab loaded with speciality software) remained unaltered and the DSS support staff already believed that "ongoing staff training is a crucial component" (Cowgill, Beam and Wess 2001) to a successful support model. "[Expecting] a high volume of questions on a wide range of topics varying in complexity from simple to the most advanced" (Graham 2003), the DSS established a tiered support system where requests are assigned to the staff members who are best qualified to answer them; patrons are redirected to Qualtrics support when requests are beyond the capabilities of internal staff.

OUTREACH AND NEW RELATIONSHIPS

It was clear from the beginning of the project that to select and roll out a web survey tool and service, the Data Service Studio would have to do a good deal of outreach—both in order to select the best tool to fit the needs of the most users and to publicize the service once it was in place. This outreach was accomplished mainly via listservs, contacting known survey users, word of mouth through researchers and instructors who use the DSS and pre-existing ITS advisory groups, but our efforts led us somewhat serendipitously to many survey users across campus. Through these contacts, we found a great deal of enthusiasm for a university-wide web survey tool, and found that our full roll-out date could not come soon enough. Even though we have not had to work very hard to convince faculty of the tool's utility or importance, these outreach efforts gave us a welcome opportunity to promote other DSS services and generally get our name out to a wider audience on campus.

In addition to faculty, researchers, and instructors, we also forged a new relationship with the Office of Institutional Research and Program Evaluation, an administrative unit reporting to the Provost that conducts research to inform policy and planning at NYU. The OIR conduct a great deal of survey research, and have been enthusiastic early users of the NYU Survey Service, but they also maintain a survey policy that applies to anyone wishing to

survey NYU affiliates outside his or her own office or school. We first reached out to this group during our evaluation of web survey tools, intending only to find out what tool or software they were currently using, but the relationship has proved mutually beneficial as we rolled out the service as well. By meeting the OIR staff members in Qualtrics training sessions and including them in our Qualtrics pilot period, we learned about their policy and have now included a pointer and link to it in the documentation for our service. The OIR readily agreed to this plan because they admitted that their survey policy is not yet widely known and the link on our page will surely help them publicize it.

Another important collaboration that arose from the web survey tool evaluation, selection, and rollout was that between the Data Service Studio and the University Committee on Activities Involving Human Subjects (UCAIHS), which serves as NYU's main Institutional Review Board (IRB). Literature on collaborations between IRBs and libraries is scarce, but the few studies that exist, as well as others examining general tension between researchers and IRBs, tend to recommend fostering open communication between IRB members and researchers (Fitch 2005; Labaree 2010; Guss 2009). Libraries and librarians are well-positioned to carry out this liaison role, and this is especially true of a unit like the Data Service Studio; although ethics review is not explicitly mentioned in the DCC's Lifecycle Model, it is nonetheless a necessary and critical part of research involving human subjects. Our web survey tool allows us to become more involved in this step of research, and even in promoting awareness and learning about the purpose and procedures of IRBs. After reaching out to the UCAIHS, we were able to meet with its chair and a senior administrator to explain our project and discuss how they might be affected. They were glad to have been notified and discussed creating boilerplate language about Qualtrics to provide to researchers for use in their IRB applications. A link to the UCAIHS's page and procedures is on our help documentation, along with a reminder that researchers should determine whether they need review prior to beginning their survey. The web survey tool gave us a good opportunity to make contact with and get to know some members of this important university unit, which will continue to be beneficial beyond this single project.

As previously mentioned, the addition of a robust, widely available web survey tool enables the Data Service Studio to support the data collection piece of the data lifecycle at a higher level. In addition to filling in this one piece of the puzzle, providing a survey tool for educators and researchers helps us promote our other services and creates an in-road for us to be more intimately involved in other parts of the data lifecycle as well. Establishing the DSS as the go-to place for survey research also advances our goals of developing and providing support to

researchers planning for preservation of their research data for future use and reuse. Aside from interacting directly with users of the survey tool, our support documentation—which is currently in the format of a LibGuide library research guide—can contain information on archiving data and how the Libraries and DSS can help one do so. A web survey tool is not only a valuable addition to our suite of services, but also a vehicle that has great potential to advance our other goals and projects related to collection and preservation of original research data created at NYU.

A final somewhat intangible yet very valuable benefit to providing a web survey tool available to all faculty, students, and staff at the university is the increased visibility it is sure to bring to the Data Service Studio, and consequently the Division of Libraries and ITS. In addition to attracting academic researchers and instructors of survey research methods to our services as a whole, the implementation of this survey tool has already attracted much attention from various university administrative units—many of which are heavy users of surveys themselves—and will surely continue to do so. It is likely that many of the administrators who use the NYU Survey Service will never have any other contact with us, but will now have heard of the DSS as a result of using this tool and service. Providing university-wide access to Qualtrics increases the Data Service Studio's visibility among administrators, educators, and researchers, and therefore our status as a valuable university entity—an increasingly vital position to strive for in an era of budget cuts and parsing of services.

Aside from the reasons we've outlined, the process of acquiring a web survey tool and creating support services around it has produced a number of additional unanticipated benefits to the Data Service Studio in the form of outreach opportunities, new relationships, and promotion of the DSS as a whole across the university. Although these bonuses were not primary reasons for undertaking the project from the start, they may very well turn out to be significant reasons to continue the service into the future.

MOVING FORWARD WITH THE NYU SURVEY SERVICE

Now that the online component of the service is in place, the DSS has seen a growing number of accounts and requests for consultations or instruction, which we suspect will only grow as more users become aware of its existence. Undergraduates comprise a portion of users in all these instances. It will be important to continue outreach efforts to all segments of the NYU population to ensure that the NYU Survey Service is being fully utilized. The introduction of the service allows us to support researchers at all levels in rigorous online survey research. At a time when the popular imagination is focused on the perceived or actual lack of resources for important societal needs, the discussion is likely to turn to the value of higher education (Houston 2008, Dreifus and

Hacker 2010).

As a result, the library will need to maintain and assert its role as a enter of information control and retrieval in order to counter the case for underinvestment. We are fortunate to have been in a position to make a case about the value of the survey service at a number of levels. Since survey research of one kind or another is ubiquitous at institutions of higher education, performing the type of cooperative, wide-ranging review that has been described here could be a mechanism towards cost-savings at other institutions, especially if multiple units are pursuing individual solutions as was the case at NYU. And of course there is the teaching and research mandate. Having a robust tool at the disposal of our affiliates allows teaching faculty to more easily supervise rigorous and responsible research by undergraduates and to give them greater flexibility to introduce the practice of such methodologies.

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Table 1: Fulfillment of Administrative Requirements

Survey Tool	Survey Monkey	Qualtrics	Key Survey	Checkbox	Opinio	Survey Share	SPSS Data Collection	Snap Survey
Site-wide License	✗	✓	✓	?	?	✗	✗	✗
Hosted Solution	✓	✓	✓	✓	✓	✓	✓	✗
Automated Provisioning	✗	✓	?	✗	✗	?	✗	✗
Web-Based Access	✓	✓	✓	✓	✓	✓	✓	✗
Accessible Usage Metrics	✗	✓	?	?	?	?	?	✗