



# Committing to Research: Librarians and Grantsmanship

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## Column Title: posIT

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This JLA column posits that academic libraries and their services are dominated by information technologies, and that the success of librarians and professional staff is contingent on their ability to thrive in this technology-rich environment. The column will appear in odd-numbered issues of the journal, and will delve into all aspects of library-related information technologies and knowledge management used to connect users to information resources, including data preparation, discovery, delivery and preservation. Prospective authors are invited to submit articles for this column to the editor at [kenning.arlitsch@montana.edu](mailto:kenning.arlitsch@montana.edu)

## Committing to Research: Librarians and Grantsmanship

By Kenning Arlitsch

### Introduction

I've been coming down this week off that wired feeling that results from the stress of submitting a big grant proposal. It's the breathless, adrenaline-fueled kind of stress from the intensity of ensuring that innumerable forms are filled out, that the budget is accurate, compliance is dealt with, and of course, that the narrative gist of the proposal is compelling and that the sections written by various team members are seamed together and make sense.

In this case it was a library-led proposal to the National Institutes of Health (NIH) written by a multidisciplinary team that included librarians, computer scientists, campus IT specialists, and bio-scientists. I've written more than a few grant proposals over my career, and I know that the big ones are never easy but this one made all the others pale in comparison. Ideally, an effort of this size would be spread out over a period of many weeks or longer, but the complexity of putting together a sizeable team and running through necessary dynamics to allow that team to function effectively conspired to create a scenario akin to the college all-nighter. Except that in this case it was multiple all-nighters. Regular work was put aside, appointments postponed, schedules rearranged. It was grueling work.

Was it worthwhile? If success is measured purely in terms of whether the grant is funded, then we're months away from knowing. But if the measure takes into account the new knowledge gained, the new connections forged, and the respect earned from campus colleagues who would not previously have considered the library to be a center for a big data semantic web project, then yes, this is already a success.

The process of grant writing remains a mystery for many and the library literature remains surprisingly limited on the subject. Writing that first grant can be daunting, particularly if making a solo attempt. In this column I hope to make it a little less so by describing what I know about the process and the players. The description that follows is based on my experience applying for federal funding from academic libraries at research universities, but the principles are transferrable to other kinds of libraries.

### Why Write Grant Proposals?

Why go through this effort? Why is it important for librarians to write and submit grant proposals? For academic research faculty the answer is clear. Grant funding supports universities and academic faculty, particularly in the hard sciences, and faculty careers are often built on research funding.

For librarians the reasons to submit grant proposals and conduct research are not as compelling. Librarians are not required to win grants to insure successful careers, which may account for relatively few trying for significant grants and even fewer trying outside the funding sources that are aimed at the library profession. The argument about whether librarians should focus on research or service sometimes divides the profession. Many librarians believe that we should focus on the service aspects of our jobs, which includes supporting the research that other faculty and students conduct. Some librarians lack the skills to conduct research. Only sixty percent of the ALA –accredited library science programs require a research methods class (Kennedy, Marie R., 2012), and some colleagues perceive research methods skills among librarians to be weak (Berg, 2011). Personal motivation and willingness to take risks also play into the picture. Keogh explores the motivations that cause some people to try for grants and concludes that “self-efficacy beliefs – the belief that one can attain the goals one sets for oneself – actively contribute to, rather than merely predict, subsequent attainments” (Keogh, 2013).

The reasons for seeking grant funding to conduct research are larger than the health of universities and faculty careers, of course. It’s also about the advancement of knowledge and the economic development that results, and even small advances can become foundational steps. The federal government “provides approximately 60% of ... research and development funds expended by academic institutions, and while recent declines in funding are prompting concerns, the historic availability of federal grant funding is considered a significant reason for the United States leading position in international scientific, technological and biomedical development (Matthews, 2012). A 2011 report from the Information Technology & Innovation Foundation states that in “developed, knowledge-based economies, innovation powers long-run economic growth” and attributes university-based research to job growth and increased wages (Atkinson, Robert D., 2011). Grants are the lifeblood of research in this country and they have supported the development of untold numbers of inventions and innovations. “Research ... translates into technological

innovations that, in turn, transform into benefits for society and improvements in people's lives" (Hather et al., 2010).

Librarians who enjoy faculty status at research universities do have an obligation to conduct research and to publish the results of that research, not only to "create new knowledge and thereby contribute" to the profession's knowledge base (Verzosa, Fe Angela, 2007), but because of the requirements of the tenure track and the promise of continued excellence that the award of tenure implies. The visceral knowledge that research and publishing bring to a librarian also contributes to better service for our users. Most importantly, perhaps, grants can make the difference between a staid career and one that is marked by the kind of innovation and development that a cash infusion can catalyze.

### How it Begins

A grant proposal typically begins with a need. A library may want to make an archival collection more accessible by digitizing and making it available through the Web. It may want to prove or disprove that social media can promote collections or services. It may wish to demonstrate whether the tools and methods used to understand users are configured and applied effectively by libraries across the nation.

Often the need is generated by a call from a granting agency that wants to see a particular problem or area addressed. "Grant makers are interested in funding projects that bridge gaps in existing knowledge" (Devine, 2009). The National Science Foundation's EPSCoR program's mission, for instance, is to improve the "competitiveness of researchers and institutions" in science and engineering disciplines (National Science Foundation, 2008), and universities in many states have benefitted from that infusion of funding.

In the case of the proposal described in the introduction, the NIH was trying to solve a particular problem related to big data. It recognized that scientific disciplines are generating significant amounts of data from research, and in many cases are also effectively managing those data sets within their disciplines. But what the NIH saw lacking was discoverability and use of those data across disciplines. In other words, NIH believes the solutions to some of the world's most pressing problems lies in multidisciplinary data sharing, and that potential is severely undermined when researchers from one discipline cannot find and use the data generated in another discipline. Discipline specific ontologies or lowest common denominator metadata schemes only contribute to the isolation of data sets.

After learning of the NIH's *Big Data to Knowledge* (BD2K) call a small group from the Library and IT Center at Montana State University (MSU) generated an initial vision that was a natural extension of the search engine optimization work that the Library has been conducting for the past three years (see the posIT column from v56 n2-3). Our loosely-formed idea hinged on using the semantic web to create meaning and context across diverse sets of metadata. These discussions led us to seek the

expertise of colleagues at OCLC Research and MSU's Computer Science and Microbiology departments, and those colleagues in turn brought in additional expertise from Wright State University. The nature of the Library made it an obvious choice to propose leading a bridge center for big data; no other college or department on campus can offer that multidisciplinary ground.

### Organizing a team

Small grants can sometimes be written and carried out by one or two people, but larger grants require more help. The successful assembly of a team represents one of the most difficult aspects of the grant submission process, but it can also be the most rewarding and effective (Perry, 2000). The ability of the team to coalesce around a common vision can make or break the proposal, so the "soul-searching phase" and an honest acknowledgement of strengths and weaknesses is crucial to assembling a "team with the complementary expertise to engender the confidence of the grant maker and to complete the proposed project" (Devine, 2009). The expertise needed to write the grant and carry out its promises are primary considerations in choosing team members, but experts who can't or won't write will be of limited use.

The size of the team is worth considering, as there are advantages and disadvantages each to small and large groups. A larger team naturally raises the level of expertise and allows for greater division of work, but it also intensifies the amount of coordination as well as the editing skills needed to merge various writing styles. Larger teams will take more time to move through the group dynamics first identified by Tuckman as "forming, storming, norming, and performing" (Tuckman, 1965). It is helpful to set internal deadlines as soon as possible to assure that the overall deadline will be met because while the conversations during the early stages of the group are necessary and useful they can also drag on and become unproductive. Knowing when to curb discussions and bring the focus back to practical steps that will achieve the aims is a role the leader must take on.

Maintaining fidelity to the original vision while the team expands can also be challenging. In the NIH proposal the vision shifted and morphed as the group expanded and moved through the normal dynamics of people figuring out how to work together, and at some point I didn't even recognize the original ideas anymore. But eventually, through meetings and online discussions that vision shifted back closer to its original form, but richer and more developed because of the expertise contributed by the group members. The abstract nature of some of our ideas may have contributed to some of the difficulty of carrying the vision to the written proposal.

### Research Administration (Sponsored Programs)

The importance of grant funding cannot be underestimated for research universities. Most research universities are dependent on grant funding, and therefore a fair amount of administration is devoted to helping submit and manage those grants. Grants are essentially contracts between the funding agency and the

grantee, and therefore they carry legal and financial implications and, in the case of government grants, compliance implications. The University organization that manages these risks is known as Sponsored Programs or Sponsored Projects offices (OSP), led by a Vice President for Research or Chief Research Officer who is responsible for ensuring “compliance to the Federal, State and university rules and regulations regarding health, safety, and the responsible conduct of research...” (Nash & Wright, 2013). Grants must be submitted through these offices and it is crucial for the Principal Investigator (PI) to know and work closely with them as they can provide guidance as well as direct support in getting proposals submitted by the deadline. In addition to the administrative forms required by the funding agencies, Sponsored Programs offices will have their own sets of forms and sign-off procedures. The PI must submit an electronic proposal clearance form that will list the key personnel of the proposed effort, along with direct and indirect costs, authorization from affected college deans and department heads, and other campus entities that are named in or affected by the grant. Sponsored Programs offices are most interested in seeing a final budget before they will sign off on the submission proposal. Without the signature of the authorizing official the proposal will go nowhere.

In addition to assuring compliance, OSP can also provide help with discovering funding opportunities. Many libraries subscribe to funding databases, but on some campuses it's the OSP that does the subscribing or supplements the library's resources. OSP officers can provide access to these funding databases or create alerts based on areas of interest.

### **The Parts of a Grant Proposal**

Proposals can be complex. Every grant call will come with its own set of requirements, and it's important to read the instructions and follow the requested sections and formats closely. The easiest proposals for grant reviewers to weed out are those that do not follow the requested format and make it difficult to figure out if the requirements are being addressed. Following is a list of some of the more common sections of proposals:

#### Narrative

The narrative is usually the largest and most free-form part of the proposal and most represents a paper submitted for publication. The narrative provides the opportunity to state the problem, propose a solution, and detail how that solution will be researched and implemented. It should have an introduction as well as a literature review to demonstrate that the proposal has merit and that the body of published research supports the ideas or at least doesn't contradict them. Keep in mind that grant reviewers will likely be examining multiple proposals, so clear and factual writing will be most beneficial. Other parts of the narrative may be prescribed by the agency and could include some of the following sections:

#### Management Plan

This is particularly important for a large grant team, but is necessary even for small teams. The funding agency will want to know in this section how you intend to leverage your team members to carry out the work you propose, including who will report to whom. I have found it useful to budget for at least a half-time project coordinator who can help keep the work on track and can help with reporting.

#### Budget Justification

Every item listed on the budget spreadsheet must be explained with a sentence or two. (See more below on budgets themselves)

#### Evaluation

Nearly every grant agency will want to see some description of how the project will be evaluated. Common evaluation strategies include Outcomes Based Evaluation (OBE). OBE works on the principle of setting measurable goals and then reporting on progress toward those goals.

#### Dissemination

The point of grant funding is to conduct research and make the results known, so it's important to state explicitly that you intend to publish results, or give conference presentations, poster sessions or webinars. List the conferences where you intend to submit proposals.

#### Sustainability Plan

Funding agencies learned long ago to ask what will become of the project or program once the money is gone and the grant is finished. There are some cases where the project will naturally and necessarily end, but if funding has been awarded to make resources accessible then the institution should be willing to commit to its ongoing care and feeding.

#### Advisory boards

Also known as steering committees, these are a good way to bring additional expertise onto the team without adding the personnel budget that might be required to bring them on as key personnel. Advisory board members are typically paid a stipend and travel costs for annual or semi-annual meetings where they review progress and provide advice.

#### Letters of Support

Letters from colleagues or experts in the field can provide weight to the proposal, as can letters from administrators in the college or university. Getting letters from the leaders of established organizations can carry significant weight.

#### **Budgets**

Most grants tend to be multi-year efforts, and thus costs must be calculated for each year in addition to a total sum. Funding agencies will typically state a limit for the amount that can be requested, and they will want to know how the money is being

spent and how the amounts were calculated. Some of the vocabulary used in budgets is described, below.

### Direct Costs

Direct costs represent the funding that is required to carry out the aim of the grant proposal. Direct costs may include such categories as personnel, equipment, supplies, contracts and consultant fees, among other categories. Direct costs may also include the amount that is being shared by the applicant institution (see Cost Sharing).

### Cost Sharing or Matching

Some granting agencies expect universities to contribute part of a proposed project's direct costs, and unfortunately it tends to be the funding agencies to which libraries are most likely to apply, such as the Institute for Museum and Library Services (IMLS) and the National Endowment for the Humanities (NEH). Depending on the grant category or total budget these agencies can require as high as a 50% funding match, which gets expensive in a hurry as the overall budget rises.

Fortunately, cost sharing doesn't necessarily mean the library has to come up with cash. Cost sharing can be achieved through "in-kind" contributions, where the library offers a percentage of existing personnel to work on the grant project. By calculating the salary and benefits of staff percentage of effort on the project a dollar figure can be applied to the cost-sharing portion of the budget. Of course this isn't the ideal scenario, because it takes valuable staff time away from other work. Cost sharing can also take non-personnel forms such as compute cycles, archival storage or the use of expensive biomedical equipment.

In the best circumstance the university's VPR office will have a policy stating that the university will cover cost sharing when funding agencies require it. This means that the library will not suffer a deficit from assigning staff to work on the project. The VPR essentially gives a chunk of cash to the project, which serves as an addition to the library budget for the duration of the grant. Additional staff or "buyouts" of staff time then become possible.

### Indirect Costs

Indirect costs (IDC) are also known as Facilities and Administrative (F&A) costs. These are the additional monies that funding agencies agree to pay a university on top of the grant's direct costs. They are based on a rate negotiated in advance with the federal government as justification for the overhead costs that a university will incur to house and administer the grant project. These are sometimes colloquially referred to as "lights and heat" but they represent far more and include IT networks and even the research administration overhead (National Science Foundation, 2004). Negotiated rates vary by institution and by classification of the work that is proposed. A few funding agencies and private foundations don't pay any IDC's at all. Research rates are generally the highest and service-based projects tend to have the lowest rates. Stanford University's research rate (one of the highest) is 60.5%



(Stanford University, 2013) while Montana State's research rate is 44% and it's "other institutional activities" rate is 34.5% (Office of Sponsored Programs & Schmidt, 2013). Most library projects tend to fall into the "other" rate, although it is not unusual for some library projects to fall into the research category.

### **Effective writing with online tools**

The days of passing files back and forth via email are over, or should be. Cloud-based writing and document sharing tools such as Google Drive and Microsoft Office 365 have turned the once-cumbersome effort of collaborative writing into an incredibly effective and creative process. We used Google Drive for our grant submission, allowing a dozen team members to write simultaneously on shared Google documents, watching in real time as other team members edited and offered comments. And it wasn't only word processing. We developed and shared organizational charts and budget spreadsheets as well, complete with sophisticated calculation formulas that tallied numbers across tabbed sections.

### **Grant reviewers and reviewer comments**

Funding agencies typically gather experts from appropriate disciplines to help them review grant proposals, although it tends to be the program officers from the funding agencies who make the funding decisions. It's useful to pay attention to reviewer comments if the proposal is not funded so that adjustments can be made for a resubmission in the next round. Note, however, that grant reviewers change from one cycle to the next, so the comments from reviewers in one round may not reflect the opinions of reviewers the next time.

### **Grants administration**

Once a grant is awarded the actual work proposed in the narrative can begin, but administration of the grant also begins, and it is no small measure of work. The most important part of administration has to do with the budget. Is the money being spent as authorized, in a timely manner, and with the expected effect? Can all expenditures be justified? Here again, working closely with the Sponsored Programs Office is imperative, not only for tracking and compliance, but for heading off concerns before they become problems.

### **Reporting**

Regular reporting on grant progress is required by most agencies. Frequency may vary, with some agencies requiring quarterly or semi-annual reports, but nearly all will want to hear from you at least once a year. Forms are common, though some agencies will allow a free-form report.

### **Summary**

This column was by no means meant as an exhaustive tutorial on grant writing. Numerous classes and books exist for that purpose, but I hope it has clarified some of the mystery surrounding grant proposals and explained why it's important that librarians participate. But there's one more reason for grant writing that I didn't list at the beginning, and that I was reminded of while writing this column. It's fun!

Okay, deadlines aren't much fun but research is interesting and engaging, and it broadens horizons. It's enormously satisfying to create something, to shape and refine it whether with your hands or with your mind, and intellectual creation is, in fact, the reason that so many of us choose to work in academia. And the best way to get to do research is to find funding for it.

- Atkinson, Robert D., S., Luke A. (2011, May). University Research Funding: The United States is Behind and Falling. Information Technology and Innovation Foundation. Retrieved from <http://www.itif.org/files/2011-university-research-funding.pdf>
- Berg, J. (2011, November 11). Doing Research Lets You Justify Why You're Doing What You're Doing. *Letters to a Young Librarian*. Retrieved from <http://letterstoayounglibrarian.blogspot.com/2011/11/doing-research-lets-you-justify-why.html>
- Devine, E. B. (2009). The art of obtaining grants. *American Journal of Health-System Pharmacy*, 66(6), 580–587. doi:10.2146/ajhp070320
- Hather, G. J., Haynes, W., Higdon, R., Kolker, N., Stewart, E. A., Arzberger, P., ... Kolker, E. (2010). The United States of America and Scientific Research. *PLoS ONE*, 5(8), e12203. doi:10.1371/journal.pone.0012203
- Kennedy, Marie R., B., Kristine R. (2012). Academic Librarian Research: A Survey of Attitudes, Involvement, and Perceived Capabilities. *College & Research Libraries*, 73(5), 431–448.
- Keogh, P. (2013). Motivation for grant writing among academic librarians. *New Library World*, 114(3), 151–165. doi:10.1108/03074801311304069

- Matthews, C. M. (2012). *Federal Support for Academic Research* (Congressional Research Service No. R41895). Retrieved from <http://www.fas.org/sgp/crs/misc/R41895.pdf>
- Nash, J. A., & Wright, D. A. (2013). Profile of the Chief Research Officer at Major Research Universities in the United States and Examination of the Current Pathways to the Position. *Journal of Research Administration*, 44(2), 74–93.
- National Science Foundation. (2004, October 21). Indirect Cost Rates. *US NSF - About*. Government. Retrieved December 1, 2013, from <http://www.nsf.gov/bfa/dias/caar/indirect.jsp>
- National Science Foundation. (2008, August 15). About EPSCoR. *NSF Office of International and Integrative Activities*. Government. Retrieved from <http://www.nsf.gov/od/iaa/programs/epscor/about.jsp>
- Office of Sponsored Programs, & Schmidt, L. (2013, July 10). OSP Information Sheet. Montana State University. Retrieved from <http://www.montana.edu/wwwvr/osp/documents/InfoSht.pdf>
- Perry, E. B. (2000). Winning money: a team approach to grant writing. *Computers in Libraries*, 20(5), 32–36.
- Stanford University. (2013). DoResearch. *Rates - DoResearch*. University. Retrieved December 1, 2013, from <https://doresearch.stanford.edu/research-administration/proposal-preparation-submission/rates>
- Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63(6), 384–399. doi:10.1037/h0022100

Verzosa, Fe Angela. (2007, October 9). *Research in Librarianship: Challenges, Competencies, and Strategies*. Keynote presented at the PLAI-STRLC Seminar-Workshop, Laguna, Philippines. Retrieved from [http://www.academia.edu/1505141/Research\\_in\\_Librarianship\\_Challenges\\_Competencies\\_and\\_Strategies](http://www.academia.edu/1505141/Research_in_Librarianship_Challenges_Competencies_and_Strategies)