**Service Synergy: A Collaborative Approach within Libraries to Support Researchers'
Information Literacy Skills**

Sheila Stoeckel
University of Wisconsin-Madison
sheila.stoeckel@wisc.edu

Abstract

Most university libraries have well-established information literacy instruction programs that collaborate with faculty to teach students the skills they need to be successful in today's rapidly changing information age. However, approaches to providing information literacy support to faculty and professional researchers, has a propensity to be done through siloed initiatives or with individual subject specialist librarians. While the traditional research lifecycle model has gained wide acceptance, the myriad skills and resources needed to be successful at each step of the model, in addition to the rate at which research is changing, present challenges for many expert researchers and librarians. This paper will explore how collaboration among information literacy and researcher engagement librarians, investment in professional development, and campus networking can build a more programmatic approach to libraries providing campus researchers with the skills they need to be successful throughout their careers and thus elevate prestige for libraries along with their value to campuses worldwide.

Keywords: Information Literacy, Research Services, Collaboration

Introduction

Research is central to any university campus. Professional researchers ideate unanswered questions, rigorously investigate answers, and then share their findings with the world. In support of the campus research mission, university libraries 60 years ago moved away from a passively custodial book warehouse function to that of a proactively engaged organization (Ariew, 2014). In taking a proactive approach to all research needs, campus libraries have evolved to provide more interactive services that requiring high-level patron/librarian engagement in order to calibrate and tailor an effective response to specific research needs. In the 1980s, orientation-style instruction was replaced with information literacy instruction (Salony, 1995). In the nearly subsequent 40 years, information literacy has become a showcase service for campus libraries across the globe. Today, information literacy is defined as "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities" (Association for College & Research Libraries, 2015). Information literacy instruction is woven into curriculum, orientation, partnerships with other support units, and used with research consultations among faculty across all academic disciplines. There is very little question within most college campuses that librarians are the broad information literacy experts.

Still in all, there is sometimes a question from faculty and professional researchers, regarding the perceived value and continued need to use librarians to keep up-to-date on information literacy practices, as their careers progress. Information literacy has been widely accepted as a key lifelong learning outcome for all. In 2016, the Association for College & Research Libraries adopted the new "Framework for Information Literacy in Higher Education" which migrated from a standards-based approach to threshold concepts. In the framework's introduction, Wiggins and McTighe describe threshold concepts as "ideas in any discipline that are passageways or portals to enlarged understanding or ways of thinking and practicing within that discipline" (2004). With the rise of interdisciplinarity and rapid scholarly communication technological progress, faculty are often seen as moving in and out of thresholds during their academic pursuits. John Bean discusses in writing and research that the "process of moving from outsider to disciplinary insider or from novice to expert is neither simple nor linear" (2011, p. 228). As a result, libraries are and must continuously position themselves to become threshold guides by reaching out to their professional researchers so as to help them hone their lifelong information literacy skills. This paper will highlight the collaborative methods in which libraries can position themselves as information literacy threshold guides to iteratively usher professional researchers through the scholarly research process.

Changes in the Professional Research Pathways

The philosophy and steps which are inherent to a research lifecycle have remained integral elements of an important scheme providing a shared language for both researchers and librarians. However, it is important to note that the ways in which each step is achieved are constantly shifting and changing. The research lifecycle scheme represents all the stages a researcher moves through from idea conception to dissemination. Models, such as the one developed by the Central Florida University Libraries, illustrate the change from rigid steps to a more organic and iterative path (2019). The information literacy fluency needed at each stage of the scheme is shifting along with changes in the searching behaviors of faculty and researchers. For example, the 2019 Ithica S&R Faculty Survey shows a dramatic increase in Google Scholar usage by professionals in the Humanities and Social Sciences, while those in Medical and Science fields still prefer to start their research in scholarly databases offered through campus libraries (Blankstein & Wolf-Einsenberg, 2019, p. 7-9). Libraries are often referred to as laboratories for the Humanities, so why are these professional researchers now starting outside of the libraries' infrastructures? Both information literacy librarians and liaison librarians, who work with undergraduate students, know of the difficulties in coaching students to find and evaluate sources in Google. Students often overestimate their information literacy skills. Without a doubt, similar issues would emerge in an evaluation of professional researchers. This would be especially evident when examining pitfalls such as predatory journals, open access publishing options, echo-chamber searches, and self-publishing models on the web.

The pace of information creation is growing exponentially each year, as well as exponential growth in technological innovations that are influencing scholarly communication. There is a strong emergence of scholarship that engages and requires new methods and approaches, such as: digital humanities, research data management, grants, copyright, etc. In addition, both higher education and research funders have incentivized interdisciplinarity (Jacobs, 2009). The traditional silos of

academia and research practices are shifting to a more collaborative environment. Consequently, libraries are rethinking their staffing and service models to scale them in accord with such rapid paces of change and newly emerging boundaries.

Making the Case for Service Synergy

Throughout history, librarians have aided researchers in their scholarly pursuits. In the 1980's, as part of the proactive approach to providing researchers with customized reference support, "the model of the liaison librarian emerged to provide more concrete assistance in specific subject areas and, at the same time, to promote and advance the mission of the library toward teaching and learning" (Zanin-Yost, 2018, p. 151). Liaisons are well-versed in the scholarly needs of their faculty and students. They proactively reach out to these users through outreach methodology, often teaching customized information literacy sessions in their disciplines along with making collections purchasing decisions. However, the siloed approach of allocating one librarian to meet all the needs of a single department is quickly becoming unsustainable due to major environmental changes.

Over the past decade, public funding has decreased for American higher education institutions (Brownstein, 2018). Libraries, along with other land-grant university units/divisions, have also weathered austerity, and a decreased workforce of professional librarians (Association of Research Libraries). This phenomenon, coupled with the concurrent pace of change in academic libraries, has created significant challenges for libraries and librarians. As a result, library leaders are looking at new models in which they may offer their services at scale and remain a proactively engaged institution.

At the University of Wisconsin-Madison, there has been a concerted effort to break down library service silos and utilize synergy among staff to provide a widening array of information support which professional researchers need. It is no longer practical to believe that one librarian can know and do everything to support a department. To meet the broad array of researchers' information needs, collaboration must be used to leverage each librarian's specialized expertise in order to help the entire organization better serve a diverse campus. Employing the English proverb "many hands make light work," librarians working collaboratively can do more together than individually. While there are many service areas at the University of Wisconsin-Madison Libraries implementing this philosophy, this paper will now focus on strides made to enhance the information literacy skills of professional researchers. For the purposes of this paper, professional researchers consist of faculty, lab staff, and high-level graduate students who are conducting original research for discovery pursuant toward formally sharing their findings with disciplinary peers across the globe.

Collaborative Value-Based Approaches

Pragmatically speaking, this begs the question as to how service synergy in a value-based approach can operate as a catalyst to help librarians leverage their collaborative expertise to aid faculty and researchers in meeting information literacy needs? First of all, libraries must generally understand their users' research support needs in the broadest sense. At the University of Wisconsin-Madison, the "Research Needs Assessment Committee" has worked to develop holistic researcher profiles

so as to better understand the research and information practices of faculty, professional researchers, and high-level graduate students. Staff who were involved in this process broke down typical faculty/librarian relationship service silos and looked toward developing a holistic picture of needs. This staff included specialized roles and functions such as: liaison, researcher engagement, scholarly communication, and instructional librarians. The aims of profile development were to thoroughly understand the needs of all campus professional researchers so that an accurate map of library services could be linked to research journeys. In order to gather data about which information literacy skill gaps existed for new online Masters and Doctoral program students, it was essential for E-Learning Librarians from the "Teaching & Learning Programs Office" to externally partner with academic departmental instructional designers. This partnership provided an optimal synergy of collaborative services to such graduate students who would be conducting high-level professional research as part of their coursework and of the faculty who serve these programs. All these data sources have helped the libraries to better understand information literacy gaps and provide valuable expertise to meet the needs of today's researchers. Secondly, libraries must use needs assessment data to develop a suite of services that bring value to research patrons. In the book *New Roles for Research Librarians,* the authors wisely state, "One can build great resources, but if they are not relevant to researchers, they will never use them. The best way to ensure that library research support is relevant is to ask researchers what they need. However, researchers often do not know what the library can offer, so a 'set menu' could be useful to illuminate this. Once researchers see what is offered, they may start thinking about the library in a different way, and request other services" (Drivenes Dala & Walmann Hidle, 2016, p. 21). At the University of Wisconsin-Madison, the "Research Services Incubator Team" has worked to identify its unique menu of services for campus researchers. The team built upon the good work of previous information-gathering activities, current and forward-looking service-mapping using the research lifecycle, developing relationships on campus, and soliciting feedback from library staff to develop a strategic agenda. This work team included engagement from librarians in scholarly communication, data management, area and international studies, science and engineering, and teaching & learning programs. Broad engagement by the library staff has resulted in synergy and momentum fueling great strides in the research mission-driven area that had previously been or at least seemed insurmountable. A two-year plan has been developed and project management begun under the direction of top-level campus libraries' leadership.

Specifically, successes in the Teaching & Learning Program were used as a model during this process for campus engagement, project management, and to identify the information literacy needs throughout. It warrants keeping in mind that academic professional researchers often have large teaching, supervising, and advising portfolios. Corresponding adjustment of an optimal Bandwidth to update information literacy skills can be difficult. Staff at the University of Wisconsin-Madison Libraries are astutely cognizant of time pressures which ensue when developing outreach to faculty, in particular. One model that has garnered much success has been a project managed by the E-Learning Librarian, who identified information literacy skill gaps with the assistance of departmental Instructional Designers. The E-Learning Librarian communicated highly relevant data by holding discussions with library colleagues, who possessed knowledge expertise in identified gap areas, about what educational materials could be created in order to meet articulated needs. This process has resulted in the development of online micro-courses on topics such as: Graduate Information Literacy, Copyright, and Research Data Management. Micro-courses are short, bite-sized, online courses that build specific competencies in marketable

skills which can be flexibly completed at the learner's pace (Roscorla, 2017). The previously discussed needs assessments steered development and leveraged collaboration among distance learning and topical expert staff. This authentic collaboration has resulted in a successful micro-course development, high usage by faculty and graduate students, and a strong tangible product which the library can utilize with constituents to illustrate library value. The project has also yielded several invited presentations at national and international conferences.

Another rather impressive skill-based model of information literacy development is being done at the University of North Carolina-Wilmington Library. Here, collaboration with liaison, information literacy, and distance education librarians provides quick, skill-based database commercials. These commercials can be conveniently sent out through library news, library social media, or departmental newsletters. For example, one skill-based commercial that has shown high value is on how to use Artstor to obtain high quality images that can be directly embedded into Power Point presentations (Ivens, 2019). Both examples highlight ways in which librarians are being proactive and responsive in providing outreach for busy researchers to hone essential lifelong information literacy skills which are needed to stay abreast of developments in a rapidly changing environment.

Thirdly, libraries must nurture the lifelong learning needs of their own staff. Librarians can no longer remain idle in their personal professional development. With the rapid changes in the information landscape, the way research is being conducted and disseminated, and evolving preservation practices, librarians and library leadership will need to be proactive and vigilant in preparing staff to grow their own informational expertise. An important skill-set for all those working with professional researchers, is the ability to proactively communicate the value of libraries quickly. Often, very busy professional researcher constituencies do not know what they do not know and often must be reminded of the value of involving a librarian in their information needs. Solis and King have begun to develop methodologies and frameworks for liaisons to envision themselves as a "sales force" utilizing business sales techniques to engage users. To encourage professional researchers to use the library's information literacy and scholarly communication expertise, Solis and King (2016) developed four approaches:
1. Changing libraries culture to understand that selling is necessary for liaisons
2. Utilizing goal-focused interactions
3. Conveying enthusiasm for the library's resources and services
4. Understanding the needs of the user-customer

The University of Wisconsin-Madison Libraries brought in Solis and King to train their instruction, liaison, and researcher engagement staff in the skills needed to develop good value statements, build personal relationships, and become more comfortable with influencing constituents. These sessions for library staff resulted in subsequent training on the topic of influence, discussion of updating elevator speeches, and stressed importance upon relationship building. Professional development in supporting professional researchers has continued to be a priority for the University of Wisconsin-Madison Libraries. Staff skills, collaborations, and new campus relationships have all grown out of these efforts.

A fourth aspect emphasized that librarians should do what they do best - share and network with peers. Libraries have strong collaborations among shared collections. Libraries should use that

model when ideating on how to provide information literacy services to professional researchers, as well. While conference sharing is prevalent in the US, the focus on synergies of services and breaking down silos seems to be the exception rather than the norm. Librarians should also use their networking and influence skills to integrate themselves in committees, groups, and communities of practice around professional research. In the book *Data Information Literacy,* the authors thematically make the case that an emerging data community within libraries should be breaking down the service silos, utilizing lessons learned, and engaging techniques from information literacy programs to develop new efforts around data management (Carlson & Johnston, 2015). The University of Wisconsin-Madison took this advice from Carlson and Johnson to initiate discussions and explored how their libraries can assert data information literacy expertise which builds upon the strong 30-year legacy of information literacy efforts. The experimentation with micro-courses was bolstered by this series of discussions as well as campus committee participation in developing a more programmatic approach to researcher engagement services. As with the research lifecycle, the emerging slate of literacy skills needed for lifelong learning are fluid without being linear or distinct. No one service area within the libraries or across campus can claim full ownership to literacy skill development. Collaboratively, librarians were able to develop more robust information literacy educational tools as a group than any one librarian could have done by herself or himself.

There also exists collaborative experimentation between a few of the large research libraries in the USA. One such example can be found in the "Big 10 Academic Alliance Libraries" which is a consortia that provides research, information literacy, and in some cases collection service support across the consortia for departments in Area and International Studies. The synergy of shared experts with international language and regional knowledge can allow for maximum coverage across campus departments. This far exceeds the contrasting limitations of individual service, which has an extremely high staff to patron ratio. Overall, the greatest asset which libraries provide is their people and leveraging that asset to maximize effectiveness will in turn ensure future successes in providing information literacy support to all faculty and professional researchers.

Conclusion
The mark of prestige for large universities is often represented by the quality of research and innovation which they have produced. For professional researchers to continue to produce and deliver at a high-level, they will need the help of librarians to keep their information literacy skills sharp and up-to-date. Given the many priorities of campus libraries, the rapid degree of change, and the sheer number of academic departments to support, libraries will need to break down silos and harness the collective power of their staff's expertise. Professional development investment to prepare staff for new roles, new methods of scholarship, and comfortability with their own information literacy, will need to remain or become a priority. Libraries have a historic legacy that positions them within a unique niche to maintain their brand as information literacy experts in this time of rapid change. Future success relies upon a positive correlation with efforts to incentivize and build structures that allow the many hands of their expert staff to make light work for professional researchers.

References

Ariew, S. A. (2014). How we got here: A historical look at the academic teaching library and the role of the teaching librarian. *Communications in Information Literacy*, *8*(2), 208-224. Retrieved from https://eric.ed.gov/?id=EJ1089140

Association of Research Libraries. (2014-2017). *ARL Statistics* [Data file]. Retrieved from https://www.arlstatistics.org/publications

Bean, J. C. (2011). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. San Francisco: Jossey-Bass.

Blankstein, M., & Wolff-Eisenberg, C. (2019, April 12). Ithaka S+R US Faculty Survey 2018. https://doi.org/10.18665/sr.311199

Brownstein, R. (2018, May 07). American higher education hits a dangerous milestone. Retrieved from https://www.amren.com/news/2018/05/american-higher-education-hits-a-dangerous-milestone/

Carlson, J., & Johnston, L. (2015). *Data information literacy: Librarians, data, and the education of a new generation of researchers*. West Lafayette, IN: Purdue University Press.

Drivenes Daland, H. & Walmann Hilde, K.M. (2016). *New roles for research librarians.* Retrieved from https://www.sciencedirect.com/book/9780081005668/new-roles-for-research-librarians

Ivins, T (2019). *Commercials for faculty: Randall Library's new "databasics" series* [Presi presentation slides]. https://acrl.ala.org/DLS/2019-virtual-poster-session/commercials-for-faculty/

Jacobs, J. A. (2009, November 22). Interdisciplinary hype. Retrieved from https://www.chronicle.com/article/Interdisciplinary-Hype/49191

King, N., & Solis, J. (2017, January 5). Liaisons as sales force: Using sales techniques to engage academic library users. Retrieved from http://www.inthelibrarywiththeleadpipe.org/2017/liaisons/

Roscola, T. (2017, July 3). Why micro-credentials are taking hold in universities. Retrieved from https://www.govtech.com/education/higher-ed/Why-Micro-Credentials-Universities.html

Salony, M. F. (1995). The history of bibliographic instruction: Changing trends from books to the electronic world. *The Reference Librarian, 24*, 31–51. doi: 10.1300/J120v24n51_06

University of Central Florida Libraries. (2019). Overview: Research lifecycle. Retrieved

from https://library.ucf.edu/about/departments/scholarly-communication/overview-research-lifecycle/

Wiggins, G. P., & McTighe, J. (2008). *Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.

Zanin-Yost, A. (2018). Academic collaborations: Linking the role of the liaison/embedded librarian to teaching and learning. *College & Undergraduate Libraries*, *25*(2), 150–163. https://doi-org.ezproxy.library.wisc.edu/10.1080/10691316.2018.1455548