

Defining data librarianship: a survey of competencies, skills, and training

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APPENDIX A

Data librarian skills and competencies survey

You are being invited to participate in a research study titled “‘Databrarians’ and Beyond: Competencies, Education, and Requirements for an Emerging Role.” This study is being conducted by Lisa Federer of the National Institutes of Health (NIH) Library. The purpose of this research study is to gain a better understanding of skills and competencies of librarians and information professionals who perform data-related work.

You are eligible to participate in this survey if:

- a significant portion of your work is related to data services of some sort, and
- you work in a biomedical or science library, or work in a general academic library that serves biomedicine or sciences.

This survey will ask about your academic and professional background and your opinions on what skills and competencies are most important for data specialists in libraries. The survey should take you approximately 5 minutes to complete.

Your participation in this study is completely voluntary, and you can withdraw at any time. You are free to skip any question that you choose.

The results of this study will be presented at the Medical Library Association 2017 Annual Meeting in Seattle, WA. Your responses will be combined with others and will remain anonymous. Responses will be collected until Friday, May 5, 2017.

If you have questions about this project or if you have a research-related problem, you may contact Lisa Federer at lisa.federer@nih.gov. This research has been determined excluded from institutional review board (IRB) review by the NIH Office of Human Subjects Research Protections.

By clicking “Next” below you are indicating that you are at least eighteen years old, have read and understood this consent form, and agree to participate in this research study.

1. What is your job title?

2. For how many years have you worked in your **current** position?

3. For how many years **total** have you worked in a library setting?

4. Select the scientific area(s) you support in your data-related work.

- Biomedical and/or health sciences
 - Life sciences
 - Physical sciences
 - Mathematics and/or statistics
 - Engineering and/or computer science
 - Social sciences
 - Other (please specify)
-

5. In an average week, what percentage of your time do you spend on data-related work and other work?
(The sum of your responses should add up to 100.)

Percent of time spent on data-related work _____

Percent of time spent on other work _____

6. Which of the following educational experience or training have you completed? Check all that apply.

- American Library Association (ALA)-accredited master's degree
- Science master's degree
- Other non-ALA, non-science master's degree
- Undergraduate science degree
- PhD (any discipline)
- Specialized librarianship certification (such as data or medical library certification)
- Other non-degree, non-certificate training in data, science, or specialized librarianship

Importance of qualification, knowledge, skills, and personal attributes

The following skills, knowledge, and characteristics have been identified as potentially relevant to work in data librarianship. For each skill or characteristic, please rate how important you consider each to work in your current position. You may also rate skills or knowledge you do not currently possess; for example, if you do not currently have expertise in scientific programming, but you think having this skill would help you be more successful in your position, you might rate it as important.

1. Data management

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Data management planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data preservation, curation, or stewardship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Applying or developing ontologies or metadata	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support for data resources (such as National Center for Biotechnology Information [NCBI] and other molecular biology databases, data repositories, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support for clinical data management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support for general data management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bioinformatics support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support for data use and analysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support for institutional repository	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of data services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Technology and information technology (IT)

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Data visualization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientific programming (such as R, Python, Javascript, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Statistical software (such as SAS, SPSS, MATLAB, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing and maintaining websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GIS software and data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Evaluation and assessment

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Evaluation of classes or instructional programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluation of services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Needs assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Teaching and instruction

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Course-integrated instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of course content or curricula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of online tutorials, course materials, or instructional guides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One-on-one consultation or instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff/librarian training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Library skills

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Collection development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library and institutional committee service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reference support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Literature searching and systematic review support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scholarly communication support (copyright, support for scholarly publishing, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cataloging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Marketing and outreach

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Data-specific liaison services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General library liaison services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social media	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing relationships with researchers, faculty, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Professional involvement

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Academy of Health Information Professionals membership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participation in continuing education or professional development activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting research and/or writing journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Skills and personal attributes

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
Customer service skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovation and creativity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oral communication and presentation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaching skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork and interpersonal skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management and leadership skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Educational background

	Not at all important	Slightly important	Important	Very important	Absolutely essential	Don't know or N/A
ALA-accredited master's degree (i.e. MLS, MLIS, or equivalent)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Certificate or specialized education in data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bachelor's degree in a science or biomedical field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graduate degree in a science or biomedical field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PhD or doctoral degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1. What other skills not included in the list on the last page do you consider important to your work in your current position?

2. Please share any other additional thoughts or comments you have related to skills and competencies for data specialists.
