Data Management Competencies

1. Please list your position title:

	Response Count
	60
answered question	**60**
skipped question	**6**

2. How would you describe your library?

		Response Percent	Response Count
Non-Health Sciences related Academic Library		**61.9%**	**39**
Health Sciences Library		31.7%	20
Public Library		0.0%	0
Special Library (government agency, corporate, etc.)		6.3%	4
	answered question		**63**
	skipped question		**3**

3. Please list your years of library experience:

	Response Percent	Response Count
0-2	9.4%	6
3-5	12.5%	8
6-10	10.9%	7
>11	**67.2%**	**43**
	answered question	**64**
	skipped question	**2**

4. Are digital curation and management of datasets a part of your position's responsibilities?

	Response Percent	Response Count
Yes	20.6%	13
Not currently, but will be in the future	33.3%	21
No	**47.6%**	**30**
	answered question	**63**
	skipped question	**3**

5. Please describe how digital data curation and management are or will be a part of your responsibilities.

	Response Count
	29
answered question	**29**
skipped question	**37**

6. Has your library currently developed or is it in the process of creating a program to address digital data curation and management needs?

	Response Percent	Response Count
Yes	**69.4%**	**43**
No	30.6%	19
	answered question	**62**
	skipped question	**4**

7. Please comment on the nature of and the progress implementing this program to address data management needs:

	Response Count
	40
answered question	**40**
skipped question	**26**

8. Please rate the impact having an additional degree or equivalent experience in computer science or any related IT field would have on a librarian's ability to provide digital data curation and management services:

	Response Percent	Response Count
Important and necessary	33.3%	15
Helpful, but unnecessary	**64.4%**	**29**
It would have no impact	2.2%	1
Unhelpful	0.0%	0
	answered question	**45**
	skipped question	**21**

9. Please rate the importance of a librarian having a subject-specific degree in the same field as the datasets he or she manages e.g. a librarian with a genetics degree managing genomic data, etc.

	Response Percent	Response Count
Very helpful and necessary	31.1%	14
Helpful, but not necessary	**68.9%**	**31**
It would have no impact	0.0%	0
Unhelpful	0.0%	0
	answered question	**45**
	skipped question	**21**

10. Please check off the following skills that you use in your daily duties to curate and manage digital data or those you feel you would benefit from acquiring (please mark all that apply):

	Response Percent	Response Count
I use Web 2.O technologies	**62.2%**	**28**
I build, populate and maintain digital databases	40.0%	18
I use a variety of programming languages (e.g. XML, SQL, etc.)	28.9%	13
I maintain an institutional repository	40.0%	18
I work with a variety of metadata standards (e.g interoperability standards and language such as Dublin Core, MODS, and OAI-PMH, etc.)	42.2%	19
I work with Metadata Manipulation, Crosswalk, Validation and Portals (Description, Indexing, Storing, etc.)	28.9%	13
I provide Data Mining, Interpretation, Representation and Visualization services	37.8%	17
I provide Data Archiving and Preservation services	44.4%	20
I work with and/or develop Digital Lab Notebook Applications	22.2%	10
I work with and/or develop Virtual tools to Manage and Curate Data	42.2%	19
None of the above	20.0%	9
	answered question	**45**
	skipped question	**21**

11. Please check off the following activities you perform or would like to perform to provide data services for researchers and other patrons in your institution (please mark all that apply):

	Response Percent	Response Count
I perform a "data interview" with researchers to assess their data needs at various stages of their research	72.7%	32
I work with researchers to help them create a data management plan before they begin data collection/aggegration	56.8%	25
I consult with researchers about the life cycle of their data and work with them on archival and conservancy issues prior, during and post project	72.7%	32
I teach data literacy to patrons	59.1%	26
I work with researchers to help them be compliant with government-sponsored grants' regulations and requests concerning data management e.g. NSF	68.2%	30
I help patrons understand the intellectual property and copyright issues concerning their data (e.g. provenance, publication, licensing and digital rights)	70.5%	31
I work with researchers on data security issues	22.7%	10
I actively advertise my and the library's data services to researchers at my institution	72.7%	32
I promote digital data sharing, open access, and/or participation in an institutional repository at my institution	**79.5%**	**35**

I access or locate data sets from the published literature for patrons' original research papers		56.8%	25
None of the above		2.3%	1
		answered question	**44**
		skipped question	**22**

12. Please list, describe or elaborate on the competencies (technical and non-technical) listed or not listed above that you possess and/or feel should be included in an educational curriculum to effectively educate librarians to provide data services to researchers and other patrons:

	Response Count
	28
answered question	**28**
skipped question	**38**

13. Please list the data management and curation skills (technical and non-technical) that you would like to gain or improve through professional development/continuing education to better serve patrons' data service requests:

	Response Count
	26
answered question	**26**
skipped question	**40**

14. Please describe the frequency and nature of the data services requests you receive from researchers and patrons.

	Response Count
	31
answered question	31
skipped question	35

15. Please list any obstacles or challenges you and/or your library currently face providing these data services to patrons:

	Response Count
	36
answered question	36
skipped question	30

Page 2, Q1. Please list your position title:		
1	Research Librarian	May 12, 2011 12:37 PM
2	Library Director	May 10, 2011 12:18 PM
3	Librarian	May 10, 2011 5:19 AM
4	engineering librarian	May 9, 2011 10:49 AM
5	research + instruction librarian	May 9, 2011 7:45 AM
6	Nursing Reference Librarian	May 9, 2011 7:38 AM
7	research and instruction librarian	May 9, 2011 5:38 AM
8	Research & Instruction Librarian	May 9, 2011 5:11 AM
9	Library Director	May 9, 2011 4:58 AM
10	Science Reference Librarian	May 9, 2011 4:40 AM
11	Director of Public and Access Services	May 9, 2011 3:49 AM
12	Library Weekend Supervisor	May 8, 2011 3:34 PM
13	Associate Director	May 8, 2011 3:30 PM
14	research and instruction librarian	Mar 18, 2011 11:39 AM
15	Senior Automation Services Officer	Mar 18, 2011 9:58 AM
16	Archives Assistant	Mar 17, 2011 7:45 AM
17	Research and Instruction Librarian	Mar 16, 2011 2:56 PM
18	Engineering & Physical Sciences Librarian, Associate Professor	Mar 15, 2011 10:48 AM
19	Biological Sciences Librarian	Mar 15, 2011 6:59 AM
20	research and instruction librarian	Mar 15, 2011 5:51 AM
21	Library Director	Mar 14, 2011 3:41 PM
22	Liaison for Biology, Agriculture, Natural Resources and Environmental Science	Mar 14, 2011 12:20 PM
23	Associate Director	Mar 14, 2011 8:56 AM
24	Director	Mar 14, 2011 8:48 AM
25	Mgr	Mar 14, 2011 7:57 AM
26	metadata librarian	Mar 14, 2011 7:31 AM
27	Dean	Mar 14, 2011 7:26 AM

Page 2, Q1. Please list your position title:		
28	Director	Mar 14, 2011 7:20 AM
29	Science Librarian	Mar 11, 2011 11:00 AM
30	Data/GIS Manager	Mar 11, 2011 6:53 AM
31	Data/Systems Librarian	Mar 10, 2011 10:36 AM
32	Library coordinator	Mar 10, 2011 8:46 AM
33	Assistant Director	Mar 10, 2011 7:51 AM
34	Research & Instruction Librarian	Mar 8, 2011 8:58 AM
35	Library Director	Mar 8, 2011 7:37 AM
36	Digital Repository Librarian	Mar 8, 2011 6:43 AM
37	Reference Libriarian	Mar 8, 2011 6:41 AM
38	Bibliographer for Science and Engineering	Mar 8, 2011 6:11 AM
39	Reference Librarian/Bibliographer	Mar 7, 2011 4:46 PM
40	Director	Mar 7, 2011 1:52 PM
41	Head of the Science Library	Mar 7, 2011 1:10 PM
42	Engineering/Mathematics/Business Librarian	Mar 7, 2011 12:54 PM
43	Science Rersearch & Instruction Librarian	Mar 7, 2011 11:34 AM
44	Curriculum Support Librarian	Mar 7, 2011 11:25 AM
45	Research Librarian	Mar 7, 2011 10:26 AM
46	Database Management Librarian	Mar 7, 2011 8:58 AM
47	Director of Library Services and Information Technology	Mar 7, 2011 8:12 AM
48	Collection Management Librarian	Mar 7, 2011 8:06 AM
49	Head of Public Services	Mar 7, 2011 8:03 AM
50	Bioinformatics and Biosciences Librarian	Mar 7, 2011 7:41 AM
51	Liaision Librarian for Computer Science, Geosciences, Mathematics, Physics, Statistics	Mar 7, 2011 7:40 AM
52	Web Coordinator and Information Services Librarian	Mar 7, 2011 7:22 AM
53	manager	Mar 7, 2011 7:01 AM
54	librarian	Mar 7, 2011 6:56 AM

Page 2, Q1. Please list your position title:		
55	it's too unique, sorry	Mar 7, 2011 6:41 AM
56	Science Research & Instruction Librarian; Data Management Services Coordinator	Mar 7, 2011 6:36 AM
57	Reference librarian	Mar 7, 2011 6:36 AM
58	Research & Instruction Liaison	Mar 7, 2011 6:32 AM
59	Head, Research & Scholarly Communication Services	Mar 7, 2011 6:21 AM
60	ASsociate Director	Mar 7, 2011 6:00 AM

Page 3, Q1. Please describe how digital data curation and management are or will be a part of your responsibilities.		
1	In my position, I am responsible for providing staff development opportunities and reorganizing staff roles/responsibilities to support librarians currently participating in, or planning to participate in Institutional Repository activities; NSF data management activities; faculty profiles. The Medical Library is participating on Working Groups/Committees on initiatives being directed by the larger undergraduate university libraries, as well as independently on medical campus initiatives.	May 10, 2011 12:32 PM
2	will help faculty to develp their NSF data management plan.	May 9, 2011 10:50 AM
3	I will be part of a team that provides back up service to a full time data curation librarian who will be hired soon.	Mar 18, 2011 11:40 AM
4	I manage the IR	Mar 18, 2011 9:59 AM
5	Will be part of a campus work group to develop data curation and data managemetn plan	Mar 14, 2011 3:42 PM
6	chair of the digital creation and preservation working group	Mar 14, 2011 7:32 AM
7	From a strategic view of what the library should be doing to support the research efforts of our university.	Mar 14, 2011 7:26 AM
8	Customized database of nanotechnology data is one component of the overall project that I work on.	Mar 11, 2011 11:01 AM
9	Responsible for a broad range of data aquisition, archiving, access and support services with campus systems partners.	Mar 11, 2011 6:58 AM
10	I manage oceanographic data and historical data collections. These collections include digital geospatial data, digital media (photographs, audio, video), and metadata for non-digital collections.	Mar 10, 2011 10:37 AM
11	Content addition and assistance with repositories; metadata	Mar 10, 2011 7:51 AM
12	Creating data guide and educational material for faculty. Curating institutional data.	Mar 8, 2011 7:38 AM
13	Our institutional repository will be a possible infrastructure for curating and managing small data in the near future.	Mar 8, 2011 6:44 AM
14	The digital data curation and management will be a part of all reference librarians' responsibilities.	Mar 8, 2011 6:44 AM
15	The curation of digitial data will need to be integrated or blended in with the scientific and technical resurces of the Library's knowledge base for long term preservation of the scientific and techincal historical record, not sure at present just how that will be done, but it need the collaboration of collection development, and both archival and data repositories, as well as the managers of the metadata and ontologies.	Mar 8, 2011 6:16 AM
16	tba - work in progress	Mar 7, 2011 4:46 PM

Page 3, Q1. Please describe how digital data curation and management are or will be a part of your responsibilities.		
17	Providing support for data management plans and standards, serving as liaison between faculty with data and the library's staff focusing on this.	Mar 7, 2011 12:55 PM
18	Provides knowledge of data management principles/practices and coordinates the data management services provided by the library and the Reference and Instruction Department to faculty in the School of Arts & Sciences and the School of Engineering. Liaise with library collection development and technical services departments, digital collections and archives, University Library Technology Services, University Information Technology, the Office of Research Administration, other University libraries, and appropriate units to build services that support researchers' development of data management and data curation plans. Coordinate access to relevant tools including the Data Management Research Guide. Keep abreast of developments and raise awareness of data management issues within the library. Represent the library on the School of Arts & Sciences Data Management Team.	Mar 7, 2011 11:59 AM
19	I will be serving as a liaison between researchers and those on campus who will actually be handling the data.	Mar 7, 2011 11:25 AM
20	I have been managing the establishment of an institutional repository and digital preservation system. I have also begun consulting faculty on their NSF data management plans and helping prepare the library as a service provider for research data curation.	Mar 7, 2011 9:01 AM
21	I am the institutional administrator for the Medical/Dental Schools, depositing research into the larger university institutional repository.	Mar 7, 2011 8:08 AM
22	We have subscribed to Digital Commons and will be encouraging our faculty to use DC to deposit their data and papers to meet NIH/NSF requirements.	Mar 7, 2011 8:04 AM
23	On committee for data storage services, so outlining those now. Probably will be as liaison to different departments, as point person for those dealing with NIH/NSF requirements, and to assist with putting documents and data sets onto our institutional repository	Mar 7, 2011 7:23 AM
24	We will assist researchers with metadata and finding storage for large datasets. Metadata can be stored in our institutional repository. We may store smaller datasets there too.	Mar 7, 2011 7:01 AM
25	Given the NSF requirements all grant applications from faculty on this campus will have to include a data curation plan. I expect to get questions about this SOON	Mar 7, 2011 6:59 AM
26	Provides knowledge of data management principles/practices and coordinates the data management services provided by the library and the Reference and Instruction Department to faculty in the School of Arts & Sciences and the School of Engineering. Coordinate access to relevant tools including the Data Management Research Guide. Keep abreast of developments and raise awareness of data management issues within the library. Represent the library on the School of Arts & Sciences Data Management Team. Coordinator of Tisch Library Data Management Services: Liaise with the library's collection development and technical services departments, digital collections and	Mar 7, 2011 6:49 AM

Page 3, Q1. Please describe how digital data curation and management are or will be a part of your responsibilities.		
	archives, University Library Technology Services, University Information Technology, the Office of Research Administration, other university libraries, and appropriate units to build services that support researchers' development of data management and data curation plans.	
27	I will be seeking out datasets to deposit into our repository and investigate metadata and storage issues.	Mar 7, 2011 6:41 AM
28	Instruction on data management, possible providing temporary an/or small storage of data sets in our institutional repository.	Mar 7, 2011 6:22 AM
29	Oversee and provide leadership for staff who are responsible to do this type of work.	Mar 7, 2011 6:01 AM

Page 4, Q1. Please comment on the nature of and the progress implementing this program to address data management needs:		
1	Very early stages, but planning to use the opportunity	May 12, 2011 12:38 PM
2	are trying to learn.	May 9, 2011 10:51 AM
3	A data curation librarian position has been created and the issue of data curation has been discussed with librarians	May 9, 2011 7:47 AM
4	Program is in its very beginning. Currently educating faculty and librarians; taking a needs survey and setting broad process guidelines.	May 9, 2011 7:40 AM
5	We use Digital Commons for data storage and are exploring other options to meet mandates created by NSF and NIH and others to store research data.	May 9, 2011 4:59 AM
6	Just underway, trying to incorporate Digital Commons for faculty use.	May 9, 2011 4:41 AM
7	digitize & curate documents	May 8, 2011 3:31 PM
8	early in the process, but recently a new position was approved and a data curation librarian will be hired for the first time	Mar 18, 2011 11:40 AM
9	Primordial stage.	Mar 15, 2011 10:48 AM
10	part of planning for institutional repository	Mar 15, 2011 7:00 AM
11	The progress is slow. We are beginning with education inititatives.	Mar 14, 2011 3:43 PM
12	Working with other dept on campus to determine best practices for data management, offering workshops for faculty/grad students, working towards obtaining a data respository for the campus	Mar 14, 2011 8:57 AM
13	Outlined in previous answer	Mar 14, 2011 7:50 AM
14	We are developing a digital preservation action plan and after that we will begin evaluating digital preservation solutions. We assume that research data will be included in the content we will need to preserve.	Mar 14, 2011 7:33 AM
15	We are investigating options and presenting information to the administration and faculty on the subject.	Mar 14, 2011 7:27 AM
16	Working with relevant colleagues in other libraries and from other campus organizations to assess the situation and address the needs.	Mar 14, 2011 7:21 AM
17	Library-initiated project to understand the scope of data management needs and challenges on campus. Initial activities include education and environmental scanning exercises, as well as outreach to the office of research. Phase two of progress will be to implement services around data management for faculty and graduate students.	Mar 11, 2011 11:03 AM
18	Currently developing formal policies for data management support based on new funding agency guidelines and benchmarking, including organizations such as ICPSR	Mar 11, 2011 7:00 AM
19	I wouldn't say we have a formalized program, but we do work on creating unified	Mar 10, 2011 10:39 AM

Page 4, Q1. Please comment on the nature of and the progress implementing this program to address data management needs:		
	collections. Part of our work is also identifying the most valuable collections so that we can know what to digitize in the future.	
20	We have implemented a program, but it continues to grow	Mar 10, 2011 8:47 AM
21	My library is talking about this program but I do not have any specifics	Mar 8, 2011 9:04 AM
22	Academic library has the emerging role in the research cycle to provide the expertise on data/information management. Currently, we have a general data management plan (DMP) in place and have been working with a couple of professor already.	Mar 8, 2011 6:47 AM
23	The Library has assigned the scientific reference and instruction person to developed a resource guide for the development of data management and to provide instruction on how to do this and assist in the completion of the NSF data management poartion in the research grant application, so an initial step has been accomplished	Mar 8, 2011 6:19 AM
24	Early days. Still in talks. But interest is there.	Mar 7, 2011 4:47 PM
25	We've organized the library to have a department that focuses on specialized content that brings together video, gis & Maps, music, data under one umbrella, that department has partial FTE allocations for work on data and escience using a team approach.	Mar 7, 2011 1:49 PM
26	Thanks to impetus from the NSF DMP mandate, actively outreaching to faculty about data management issues. Still in initial stages of determining how to archive and catalog data sets.	Mar 7, 2011 12:56 PM
27	The DMP team was pulled together very quickly in response to the NSF's requirement of a DMP in all proposals as of January 16, 2011. An online guide was quickly created and the coordinator position was established just a few months after the team. The coordinator is in the process of leading the team in organizing,creating and implementing procedures, documentation, policies and communication procedures regarding data management.	Mar 7, 2011 12:04 PM
28	Two years ago the library purchased two file servers from Sun Microsystems that provide 24 TB of replicated storage capacity. We also recently established a Digital Commons repository site hosted by BePress. We are working to combine these two entities into a data management and distribution service plan.	Mar 7, 2011 9:14 AM
29	We are in the process of signing a license for Digital Commons. Although this might not be the best system for data management, we will attempt to store completed data sets in this system. Management of active data sets is more difficult. At this point we are providing storage that can be backed up and accessed by the researchers directly.	Mar 7, 2011 8:27 AM
30	So far only a library guide has been created to alert researchers that the library can help with planning for data management.	Mar 7, 2011 8:13 AM
31	Currently determining the functionality of the repository to respond to data management needs.	Mar 7, 2011 8:09 AM

Page 4, Q1. Please comment on the nature of and the progress implementing this program to address data management needs:		
32	It is just starting and is being done in its own area by other staff people. I am not involved in the planning.	Mar 7, 2011 8:05 AM
33	Group of interdisciplinary librarians working on data needs. We have several success stories. Our newest project is helping NSF funded faculty composed data management plans.	Mar 7, 2011 7:42 AM
34	In early stages. Setting up IR slow going, university just hired an IR librarian and along with that, NSF requirement is jump starting project again.	Mar 7, 2011 7:24 AM
35	The need for a data management librarian/coordinator became very apparent when the NSF data management guidelines were implemented. A team was put together quickly and liaised with the appropriate university departments. From there an online guide was developed and a coordinator named. Right now the progress is steady as procedures, outreach, documentation and development of the position continues.	Mar 7, 2011 7:22 AM
36	We have established a data working group, under the auspices of the Digital Strategies Group.	Mar 7, 2011 7:02 AM
37	Some one in the library "is working on it" but I have received no information.	Mar 7, 2011 6:59 AM
38	We have a group formed to investigate potential library data services. We did a lot of self education, we have surveyed other institutional practices, we did faculty and grad student focus groups and interviews, started a partnership between research admin and campus technology, and are going to start to map out potential library services.	Mar 7, 2011 6:45 AM
39	IMLS planning grant for instruction, developing relationships with IS and bioinformatics to provide comprehensive services.	Mar 7, 2011 6:23 AM
40	Early planning phase	Mar 7, 2011 6:01 AM

Page 5, Q5. Please list, describe or elaborate on the competencies (technical and non-technical) listed or not listed above that you possess and/or feel should be included in an educational curriculum to effectively educate librarians to provide data services to researchers and other patrons:		
1	All those checked	May 9, 2011 7:44 AM
2	The items listed in question 4 are skills I would like to be involved with, not what we actually do at this time.	May 9, 2011 6:29 AM
3	As a library director I don't feel I need the nuts and bolts understanding of data curation, but need to understand the vocabulary and the big picture so I can communicate plans to research administration and provide adequate resources to meet their needs.	May 9, 2011 5:04 AM
4	Learning all of the above skills would be useful to me.	May 8, 2011 3:38 PM
5	Awareness of types of data and typical usage in relevant fields. Oral and written communication skills. Excellent listening skills Ability to work collaboratively & independently Ability to learn and to integrate new information readily into processes.	Mar 15, 2011 11:07 AM
6	- policy issues - relation to scholarly values	Mar 15, 2011 7:08 AM
7	My answers in #3 refer to the "or those you feel you would benefit from acquiring " part of the question.	Mar 15, 2011 5:56 AM
8	It really depends on what level the library will support data curation and management. A general assistance is possibile now, We don't have the staff abilities to provide detailed assistance now. That is something to be built over time. For questions 1 and 2 above I would answer that an it background is helpful for general assistance but crucial for detailed assistance	Mar 14, 2011 12:27 PM
9	understanding of data management plans, and options at institutional-level, local metadata practices	Mar 14, 2011 9:00 AM
10	It would be helpful to have some policy information related technical issues, such as protecting personal information.	Mar 14, 2011 7:31 AM
11	All of the competencies listed above should be included in a curriculum.	Mar 11, 2011 11:10 AM
12	ability to work collaboratively with librarian colleagues, IT groups, IRB and scholarly communications staff and faculty. Identify and build partnerships for most effective team.	Mar 11, 2011 7:37 AM
13	I feel that librarians who work with data need to have excellent computer skills, including knowledge of scripting languages and data schema design. These skills have been essential for my work, especially cleaning metadata and publishing digital collections.	Mar 10, 2011 10:44 AM
14	I feel should be included in an educational curriculum effectively educate librarians in all digial data standard, curation, archival, retirval processes.	Mar 8, 2011 7:00 AM
15	For the most part these are the skill I think a data curator or managern should have knowldege about how to build a relational database, how to handle various file formats, and how to care for thses files, Knowledgeable about metadata and ontologies, how applications are used across platforms. And understanding of	Mar 8, 2011 6:59 AM

Page 5, Q5. Please list, describe or elaborate on the competencies (technical and non-technical) listed or not listed above that you possess and/or feel should be included in an educational curriculum to effectively educate librarians to provide data services to researchers and other patrons:		
	reserch practices and scientifc workflow. Domain knowledge and the principle research problmes specific to the domain, an underating of the techniques, instruments and types of data used. Good analytical and problem sovling skills, ability to preform detailed work, good organizational sense Knowledge of digital preservation issues, expertise wiath a variety of database query languages, how to prioritize workflow	
16	knowledge of metadata standards; knowledge of digital preservation;	Mar 8, 2011 6:52 AM
17	Sorry - but the questions and choices on this page are very difficult to provide useful answers to.	Mar 7, 2011 1:55 PM
18	Should include all in Questions 3 & 4; should include rigorous knowledge of meta data standards (including how to create a new standard if necessary) and some programming, not just "soft" stuff.	Mar 7, 2011 1:00 PM
19	General or subject-specific informatics, data management, mining, curation; metadata standards and programming languages.	Mar 7, 2011 12:36 PM
20	Not sure that I currently have the competencies.	Mar 7, 2011 11:28 AM
21	Database administration and management is essential; programming understanding at least and some level of expertise preferred; data preservation and its related competencies; open source programs and systems	Mar 7, 2011 9:33 AM
22	I think I still need a basic introduction to data management, security, access, etc. so that I can gain more confidence to discuss this topic with researchers.	Mar 7, 2011 8:33 AM
23	work with and/or develop Digital Lab Notebook Applications.....work with and/provide or develop Virtual tools to Manage and Curate Data.....Provide Data Mining, Interpretation, Representation and Visualization services	Mar 7, 2011 8:15 AM
24	Understanding of scientific method, the data lifecycle, data management, data security, ways to stay current with evolving research trends	Mar 7, 2011 7:09 AM
25	I think it really depends on the type of institution where you will end up. If it is a large research institution, maybe it would be best to specialize in a science discipline or be a technical expert because there will be others who are fully devoted to some of the other data issues. If you are at a small college, you will probably have to own more of the issues and be a jack of all trades, but the demand will probably be less. That being said, project management, knowledge of sponsored research practices/policy, broad metadata understanding, preservation exposure. Also a basic understanding/exposure to library systems.	Mar 7, 2011 6:59 AM
26	Work & educational experience in a field that can be served by data curation services (e.g. biology, GIS).	Mar 7, 2011 6:40 AM
27	I believe the ability to build and maintain databases would be a service researchers would appreciate, as well as make librarians competent in their abilities to discuss such. I like the idea of acquiring skills in some newer tools like digital notebooks. I think providing unique services to help researchers visualize/present data in new ways is intriguing.	Mar 7, 2011 6:29 AM

Page 5, Q5. Please list, describe or elaborate on the competencies (technical and non-technical) listed or not listed above that you possess and/or feel should be included in an educational curriculum to effectively educate librarians to provide data services to researchers and other patrons:

28	I think there are a wide range of skills needed and not one person is going to have them all. I think its really a team effort.	Mar 7, 2011 6:05 AM

Page 5, Q6. Please list the data management and curation skills (technical and non-technical) that you would like to gain or improve through professional development/continuing education to better serve patrons' data service requests:

1	Expand on those checked above	May 9, 2011 7:44 AM
2	Specific needs of researchers at our institution. Budget and personnel to meet those needs.	May 9, 2011 5:04 AM
3	Additional open-source materials for students and researchers.	May 8, 2011 3:38 PM
4	all those listed above in question #4	Mar 18, 2011 11:45 AM
5	Data Mining, Interpretation, Representation and Visualization services; Work with Virtual tools to Manage and Curate Data Data management planning; archiving and curating basics; More knowledge of available data literacy tools and data set availability Regular nontechnical updates on standards and crosswalks	Mar 15, 2011 11:07 AM
6	Too ignorant to meaningfully answer this question.	Mar 15, 2011 5:56 AM
7	I'd like a better understanding of what is involved, but I also know that my abilities in data / IT will be limited; mostly this will be acquired with new staff, in my mind	Mar 14, 2011 12:27 PM
8	best practices for including data within institutional respositories, addressing long-term curation/access issues	Mar 14, 2011 9:00 AM
9	I work at the strategic level for the most part, but I would like to have staff in the library able to manage the technical details and be able to advise me on the issues. They should also be more closely aligned with technical staff to learn of the nature of policy issues and hardware requirements.	Mar 14, 2011 7:31 AM
10	Intellectual property issues and hands-on data management (deposition into data repository as well as metadata for datasets: DDI).	Mar 11, 2011 11:10 AM
11	learn more about preservation life cycles.	Mar 11, 2011 7:37 AM
12	I would like to gain better fluency in linked data and the semantic web. Also in machine learning/data mining tools for cleaning metadata.	Mar 10, 2011 10:44 AM
13	most best practices in data management are learned to better serve patrons' data service requests.	Mar 8, 2011 7:00 AM
14	to be more knowledgabe in digital preservation, both short and long term options.	Mar 8, 2011 6:59 AM
15	Everything above except data security which I think belongs to other departments.	Mar 7, 2011 1:00 PM
16	Programming languages, curation, mining; bioinformatics	Mar 7, 2011 12:36 PM
17	The list is too long.	Mar 7, 2011 11:28 AM
18	Two years ago I enrolled in the U of Arizona Digital Information Management graduate certificate program. I am currently taking the fifth of its six courses. I	Mar 7, 2011 9:33 AM

Page 5, Q6. Please list the data management and curation skills (technical and non-technical) that you would like to gain or improve through professional development/continuing education to better serve patrons' data service requests:		
	feel strongly that this program is providing me with a firm foundation, in terms of both technical and nontechnical skills, to confidently help provide data management services. I highly this recommend this program.	
19	An understanding of how researchers use active data sets and how data sets can move from active data to archived data sets.	Mar 7, 2011 8:33 AM
20	work with and/or develop Digital Lab Notebook Applications.....work with and/provide or develop Virtual tools to Manage and Curate Data.....Provide Data Mining, Interpretation, Representation and Visualization services	Mar 7, 2011 8:15 AM
21	Working with XML, crosswalking; also, knowing the step by step process of grant writing.	Mar 7, 2011 7:29 AM
22	XML, Crosswalk, etc., metadata standards	Mar 7, 2011 7:09 AM
23	I would like to know more about discipline-specific metadata, metadata for data, a broader understanding of discipline-specific data management/sharing practices, better understanding of preservation, and I'd like to be more versed on the technical side of things. I would also envision more flexible librarians in the future who can adapt to more situations and not just do one thing, but can be more embedded in the research process.	Mar 7, 2011 6:59 AM
24	More actual practice managing & curating data sets.	Mar 7, 2011 6:40 AM
25	- data visualization - communication design - limited programming	Mar 7, 2011 6:29 AM
26	I think the technical skills are where most librarians are lacking. Programming, database creation and management, etc...	Mar 7, 2011 6:05 AM

Page 5, Q7. Please describe the frequency and nature of the data services requests you receive from researchers and patrons.		
1	Currently very few	May 9, 2011 7:44 AM
2	The library has not promoted itself as a service that is available to assist with data management or curation. I have not received requests but have attended lectures where faculty within my liaison areas have been present.	May 9, 2011 6:29 AM
3	minimal (once a month?) but growing	May 9, 2011 5:04 AM
4	None, but none of our patrons and few of our faculty are aware of such services.	May 8, 2011 3:38 PM
5	not yet frequent	Mar 18, 2011 11:45 AM
6	I have only received one request for archiving.	Mar 15, 2011 11:07 AM
7	infrequent at the moment	Mar 15, 2011 7:08 AM
8	We don't really get these requests but I think it's because it's known on campus that we don't provide these services.	Mar 15, 2011 5:56 AM
9	Since we have started offering assistance we have been getting some questions. There is definate interest in the topic though - we started advertising a workshop on data management for grant supported projects last week and are up to 56 registrations so far, spread across faculty, staff and graduate students.	Mar 14, 2011 12:27 PM
10	biweekly	Mar 14, 2011 9:00 AM
11	?	Mar 14, 2011 7:31 AM
12	Requests are infrequent and have focused on data management plans.	Mar 11, 2011 11:10 AM
13	so far our work is based on outreach until a formal program is in place.	Mar 11, 2011 7:37 AM
14	I do not receive frequent data requests. On the order of 1-2 requests per week. Most of my work is involved in organizing my library's existing collections.	Mar 10, 2011 10:44 AM
15	Those I received are now directed to the Science Librarian that has had the responsibility of Data Manager added to her job responsibilities, so they have decreased, and I only occasionaly received such inquiries- about once evey few months.	Mar 8, 2011 6:59 AM
16	Almost none, yet.	Mar 7, 2011 4:51 PM
17	None at this point	Mar 7, 2011 1:56 PM
18	At present, one per month but expect that to change. Complexity varies but requires a minimum of one hour per request to resolve.	Mar 7, 2011 1:00 PM
19	Since forming the Data Management Group we have received 7 requests for assistance with NSF data management plans. At this time data service requests from patrons is very low, perhaps once or twice per year.	Mar 7, 2011 12:36 PM
20	Very infrequent.	Mar 7, 2011 11:28 AM

Page 5, Q7. Please describe the frequency and nature of the data services requests you receive from researchers and patrons.		
21	Since Dec. I have received four requests from faculty to help with their NSF data management requirement.	Mar 7, 2011 9:33 AM
22	We've had three requests for assistance with NSF data management plans since January.	Mar 7, 2011 8:33 AM
23	None, actually	Mar 7, 2011 8:19 AM
24	currently infrequent requests for data services, but I expect that requests will grow with the NSF grant cycles	Mar 7, 2011 8:15 AM
25	sporadic	Mar 7, 2011 7:44 AM
26	Some ask about NIH requirements, some about copyright, some about open access, but feel ill-equipped to help them. Services not build up enough yet to advertise as helpful, and the help researchers need with funder requirements is beyond the scope of my experience (I can explain the requirements and reasoning, but they need help with the complications of the NIH submission systems)	Mar 7, 2011 7:29 AM
27	1/month at present	Mar 7, 2011 7:09 AM
28	We started exploring data about a year ago and have received 3 or so requests for consultation for NSF plans. I have no idea for reference requests - I don't work in that area. We haven't developed or started to advertise any official services just yet - we are in the early stages.	Mar 7, 2011 6:59 AM
29	Sadly infrequent - in my institution, scientists tend to try to solve this problem themselves.	Mar 7, 2011 6:40 AM
30	None at present.	Mar 7, 2011 6:29 AM
31	few	Mar 7, 2011 6:05 AM

Page 5, Q8. Please list any obstacles or challenges you and/or your library currently face providing these data services to patrons:		
1	Number of librarians has been reduced during past few years, making it a challenge to consistently dedicate time to new roles. Secondly, although librarians can provide some services as part of the overall Library Education/Reference consultation service, only one librarian possesses technical skills required to directly manage or curate data.	May 10, 2011 12:52 PM
2	Our program has not yet been finalized	May 9, 2011 7:44 AM
3	Access to server space, protocols to follow, training. I believe that our office of research may be taking a lead on the data management issue. I don't know if the library is planning to be part of this service.	May 9, 2011 6:29 AM
4	understaffing, inability to hire people with appropriate training (e.g., have tried in the past to get a designated science librarian and could not offer a high enough salary to attract one)	May 9, 2011 5:42 AM
5	personnel and budget for resources	May 9, 2011 5:04 AM
6	Minimal staffing, few researchers (we're a community college) other priorities on the part of library management.	May 8, 2011 3:38 PM
7	expertise with scientific data	Mar 18, 2011 11:45 AM
8	IR is under development at this time. Staffing, workload, time for training. Building trust in Library's ability to maintain records and IR security. Patron expectations (self-reliant, do-it-yourself approach is common) Variety of disciplinary needs	Mar 15, 2011 11:07 AM
9	competition with administrative services	Mar 15, 2011 7:08 AM
10	Number of staff, training of staff (no time/money for either). Inability to pay for existing datasets.	Mar 15, 2011 5:56 AM
11	Lack of knowledge, background, time and abilities on the part of staff; lack of funds and opportunities to hire staff with strong data skills; liaisons who are already ovewhelmed by the breadth of their jobs who have little background in this new area	Mar 14, 2011 12:27 PM
12	no local respository	Mar 14, 2011 9:00 AM
13	Funding for appropriate tools and services. We need additional staff and systems.	Mar 14, 2011 7:31 AM
14	The library is not currently seen as a resource for data management by faculty and/or data management is not seen as an issue that needs institutional support.	Mar 11, 2011 11:10 AM
15	creating policies and guidelines and identifying staffing needs, formalizing partnerships within instituional structure.	Mar 11, 2011 7:37 AM
16	$ $ $ $ $!!! In my opinion, data services are not limited by technology or skills. Companies and people exist who can provide the data services that people need. What lacks is funding and community support.	Mar 10, 2011 10:44 AM

Page 5, Q8. Please list any obstacles or challenges you and/or your library currently face providing these data services to patrons:		
17	currently very limited data services is provided to patrons via IT or library's system staff.	Mar 8, 2011 7:00 AM
18	With any new program it takes time to get it established, and its not clear if the library actually recognized the full impact this new endeavor in managing and preserving scientifc & technical information, although they are certainly aware of it and have initiated a step in the right direction in expanding the science reference position to include data management, but to really achieve a robust program such as John Hopkins, Perdue, U of ILL is going to take a much deeper understanding of the issues and the cost to develope a full fledged program in both manpower and storage resources.	Mar 8, 2011 6:59 AM
19	The librarians don't have the skills and the mechanisms are not in place for researchers to seek out our help in this area.	Mar 7, 2011 4:51 PM
20	lack of skills	Mar 7, 2011 1:56 PM
21	A big challenge is to define and offer an actual service, even in pilot form - there is some need for local data hosting, is there a team with the variety of skills to support the service?	Mar 7, 2011 1:55 PM
22	Establishing with other departments outside the library basics such as who is responsible for what, getting server space, etc.	Mar 7, 2011 1:00 PM
23	Staying current with the technology/policy changes; identifying courses or certificate programs for data management, data curation, bioinformatics. Marketing our services to faculty and patrons; collaborating with grants administrators on campus to provide seamless service and information.	Mar 7, 2011 12:36 PM
24	How will these new services be funded?	Mar 7, 2011 11:28 AM
25	We have been working with a part-time programmer and archivist on staff and desperately need to get those positions added full time. More positions are needed as is, most significantly, a dedicated budget.	Mar 7, 2011 9:33 AM
26	We don't provide much assistance with support for active data sets. I'm hoping the IR we are putting in place will be able to adequately support archived data sets.	Mar 7, 2011 8:33 AM
27	Budget to hire qualified staff Communication - making researchers aware of help the library can provide	Mar 7, 2011 8:19 AM
28	funding	Mar 7, 2011 8:15 AM
29	working with other offices around the university, like the office of sponsored programs, etc	Mar 7, 2011 7:44 AM
30	See above	Mar 7, 2011 7:29 AM
31	Lack of knowledge of data use in liaison librarians, few people with necessary technical skills, lack of recognition by researchers of the library's resources in this area.	Mar 7, 2011 7:09 AM

Page 5, Q8. Please list any obstacles or challenges you and/or your library currently face providing these data services to patrons:		
32	staffing	Mar 7, 2011 7:03 AM
33	Decentralized technical infrastructure across campus, bad politics between the university technology department and basically every department on campus. A traditionally-minded technical services department - training for data (and other IR and special collections) description is needed but is cast aside in favor of the 'essential' day to day cataloging of traditional resources. Lack of technical resources that the library can offer - we might find that we can only offer consulting services and workshops, and not any storage or preservation. The good thing is that our science librarians are super great and our library director is forward looking and supports our efforts.	Mar 7, 2011 6:59 AM
34	Money, staff time, lack of a easily usable storage solution, lack of credibility.	Mar 7, 2011 6:40 AM
35	Communication gaps between IS and researchers, IS and the library, the library and IS, etc. Basically, researchers do not know what services are available, thus do not take advantage.	Mar 7, 2011 6:29 AM
36	Lack of skills Overlap and services across the institution	Mar 7, 2011 6:05 AM