

MLA Podcast 004—Sally Gore Interviews Lisa Federer

19:11

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SPEAKERS

Sally Gore, Lisa Federer

Sally Gore 00:11

Welcome, everyone to this episode of Press, Play, Connect, the official podcast of the Medical Library Association. I'm Sally Gore, manager of research and scholarly communication services at the Lamar Souter library, University of Massachusetts Medical School and a board member for MLA. My guest today is Dr. Lisa Federer. Lisa is the data science and open science librarian for the National Library of Medicine. Welcome, Lisa. And thanks for taking time today to talk about librarians and data science.

Lisa Federer 00:42

Thank you for having me.

Sally Gore 00:45

Our listeners may or may not know that MLA offers three different specializations for its members. These specializations designate that a person has completed advanced training in a specific area. The three are the consumer health information specialization, the one that's been around the longest; the disaster information specialization; and the data services specialization. This last one has both a basic certification and coming next month an advanced certification. So Lisa, you've been an integral part in leading and developing the data sciences specialization. What's involved in the training, and maybe even before addressing that tell us why medical and health sciences librarians would need training in this area?

Lisa Federer 01:30

Yeah, so hopefully, over the last decade biomedical and Health Sciences Research has really become increasingly data driven. And we have just so much data available to us. So I mean, this is really exciting. It gives us a lot of opportunities. But it also means that researchers and students and clinicians and even the general public all need a level of data literacy, that

Sally Gore 01:56

that's a little friend...

Lisa Federer 02:00

Let me get some treats, so throw them at her, and she started doing this that might help.

Sally Gore 02:06

Lisa, you've been an integral part in leading and developing the data services specialization, what's involved in the training, and maybe even before addressing that, tell us why medical and health sciences librarians would need training in this area?

Lisa Federer 02:21

Yeah, so over the last decade, biomedical and Health Sciences Research has become just increasingly data driven. We have an unprecedented amount of data available to us. And this is great. This presents a lot of exciting opportunities. But it also means that researchers, students, clinicians, and even the general public all need a level of data literacy that will enable them to work with that data and to transform that data into knowledge. So as librarians, I think we're really in a unique position to support our users in, you know, gaining data literacy skills and working effectively with data. I think we're also at a point in time when researchers in particular are really going to need a lot of help with managing and sharing their data in response to the National Institutes of Health, new data management and sharing plan policy, which goes into effect in a couple of years. So researchers are going to have to come up with plans for managing and sharing their data. And this is not something that they've had to do before. So I think it's going to be really helpful for librarians to have skills in this area. And they can be really a very valuable resource or resource to their researchers. And so as far as what's involved in the training, it covers five basic areas, or, as they're called in the MLA parlance, performance indicators. And it's designed to give learners a range of skills for developing and delivering data services. So things like understanding data literacy in the data lifecycle, providing training on data related topics, and supporting research data, best practices in general, including things like ethical, reproducible, and where possible Open Science Research practices. And the specialization is really intended to give librarians both the data related expertise and also the skills that they need to apply that expertise in practice.

Sally Gore 04:17

So you mentioned the NIH data sharing policies, so that has been released. Correct that for folks. Yeah. And but it's going to be out like they can read people can read the policy now, but it's not going into effect. Quite white right away. Sort of

Lisa Federer 04:34

right, not until January 2023. So we have some time to prepare.

Sally Gore 04:38

Exactly right. It reminds me of the public access policy when that came out. And it helped we had a little bit of time to educate people and so very much the same, right? Well, what prompted your interest in data science? Were you always interested in like the data and things or

Lisa Federer 04:55

No, I didn't even really know that that would be a thing that I would get interested in. When I went to library school. But that was when I first got interested. I was in library school at UCLA. And they offered a course that was actually out of the biomedical engineering department. And the title of the course was something like medical knowledge presentation. And it basically dealt with how to design systems that help researchers and clinicians make sense of data. Because there's so much data. And it's often a combination of different types of data, like clinical imaging, genomic and other other types of data. So it's really, you know, complicated, you know, systems have to deal with and I, in doing this class, I started to realize just how much data was really available to us. And it also occurred to me that we potentially have the answers to so many questions and cures to diseases right in front of us, if we just had the tools and the knowledge to find it in the mountains of data, right.

Sally Gore 05:58

Like a needle in a haystack. Kind of.

Lisa Federer 05:59

Exactly, yup.

Sally Gore 06:02

So I think and I, I'm really fortunate I have two data, data sciences, data services librarians in my department, one who's been here for a little while, and Kim McKenzie, who just joined us and our, our last MLA podcast, I interviewed her because she joined us right before the pandemic. So what a way to start a new job. Um, one of the things here, and one things, I think a lot too is that data services can be kind of daunting, and even a little bit intimidating to many health sciences librarians. And I know one thing that we've dealt with here, and we are a lot like NLM, a very specialized, somewhat standalone type of institution, we're not part of a, an undergraduate university or anything like that. And so we have a lot of people around here with a lot of advanced degrees. And it can be a little intimidating, particularly when it comes to data. And we have to do kind of this dance with our data sciences core, right? We have, we have a lot of people who have PhDs in in bioinformatics and data science. And I don't think that they necessarily always understand what role we might be able to play as librarians in that area. And sometimes it even feels a little bit like a turf war that, you know, that people feel a little bit threatened. So I, I feel like we're probably not the only institution where this happens. And I don't know if you've experienced anything like that in your own journey, or if you can just imagine it, and what would be some of the things you could suggest to people to kind of overcome some of those obstacles or even not even think of them as obstacles, but what kind of opportunities do they lend?

Lisa Federer 07:48

Yeah, absolutely. So I think there's a lot of layers to that question. One is that a lot of these skills are new to librarians, and it may seem out of reach. But I think it's helpful to keep in mind that a lot of what's involved in data services is really based on the skills that librarians have traditionally applied to the literature. So things like curation, preservation and access, understanding information-seeking behaviors, just in this case, that expertise is being applied to data instead of literature. I think it's also daunting to think, data services, like oh, I'm gonna have to learn statistics and programming and all sorts of complicated stuff. But I think there's really a lot of different, you know, levels of data services

that you can provide. And you don't need to know all of that, to be successful in doing this work. So as far as the sort of broader institutional perspective, I absolutely agree that most people or many people don't really know what kind of roles librarians can play in this area. And it just would never occur to them to look to the library for help with their data. So, you know, I think a lot of people still think that libraries are a place that you go to check out a book. And we have a lot more expertise than that. So I think partly, we have work to do at the institutional level to, you know, outreach, and to do marketing for data services, just to let people know, and make them aware that this is something that is available to them. But I also think it has to happen at a higher level as well. And I am encouraged because I am starting to see that happen. One example that I can think of is a couple years ago NIH developed a strategic plan for data science. And that plan specifically mentions librarians, and one of the implementation tactics for that plan was developing training for librarians to upskill in this area. So I think it was really exciting to see that NIH acknowledge that librarians have a role here. And I think that also that sort of awareness of what librarians can do will also help with the sort of turf war issue and I think it's helpful to focus on collaboration and you know, emphasize the unique skills that librarians do bring to the table. Because we do have, you know, some some skills that even if you have a PhD in bioinformatics, you probably don't have. So we do have a unique role. And, you know, even in my work at the NIH more and more, I'm seeing that people, not just accept, but actually wants to have a librarian at the table once they know what we have to offer.

Sally Gore 10:26

Right, right. Yeah, I think another thing that we've discovered here is that, as you remember, there's just so much data, and there's so many people doing so many things that the amount of of work, the amount of opportunity that's available, is really huge. So yeah, we've tried to leverage that, I think a little bit here as well. But the sort of Okay, you, there are a lot of researchers who are doing things that don't necessarily have a whole bunch of funding behind them to pay for a core service or something like that. And they're, they're definitely places we can help. Yeah, that's terrific. So if a person works through this data services specialization, what skills are they going to come away with? You've talked a little bit about them, but really, like, what are they going to know how to do? And will they get some ideas about how, like we're just talking about, how to take these new skills and use them in their workplace?

Lisa Federer 11:20

Yeah, so like I said, the goal is really to give librarians the knowledge that they need to, you know, actually do the work, but also how to apply that to develop services. So the training includes things like data management, of course, as you would expect, but also things like how do I do a data consultation? How do I develop a service. And one of the things that I think is good about the specialization is that learners will have some choices about what courses they want to pursue. So there's a core set of training on data management types of topics. And then learners have basically like choices for electives, that makes it possible for them to pursue the particular skills that are interesting to them. So for some people, it might make sense that, you know, oh, I really want to, you know, learn a lot and learn how to program and whatever. But for other people, that's not what they're looking for. And that's not what their institution needs. So there's some different choices on what makes sense for you to offer in your library, and how to pursue training for that.

Sally Gore 12:23

That's great. That's great. So I want to shift now, just to talk a few minutes about how your role as a data science and open science librarian has been affected by COVID-19. I mean, it's hard to not talk about COVID right now, particularly where you work and where we all work as Health Sciences Librarians. So NIH and NLM have been really central in the scientific efforts in collecting and organizing, disseminating everything from preprints, to data and all the other important outputs of the research that's being done right now, to both develop treatments and a vaccine. Like we're, we know all of this through the news and through what's going on. So I know that personally, I've sat back any number of times, and I just really been wowed by seeing all these things we've talked about, in theory, translational science and bench, you know, patients coming in and being a part of research and right away doing things that working with benchtop. And it's really just been astounding, I know, on my campus to just sit and see what's happened, like this has really been happening here, people are driving up for, you know, COVID testing or being a part of, of, of clinical work, and you know, the sciences in the in the research buildings are just right there. And it's really made me stop and say, Wow, I wonder if, if you've seen any of that, if you have any good stories from where you sit and what you're doing down, down there at NLM and NIH?

Lisa Federer 13:57

Yeah, I think if there's any silver lining to this whole really awful situation, it's that people are really starting to see the power of open science. And I think people are also just more engaged with, with science in general, like, as we're recording this, the FDA is having their hearing on the emergency use authorization for one of the vaccines and like, you can tune in and watch that live and like, yeah, everyone can do it. It's really exciting that people are, you know, able to engage with science in this way. And then, you know, from the open science perspective, that's not really the way that science has been done, traditionally. You, you know, would have people collect data and have it in their lab, and eventually they'll publish a paper but no one ever really sees that data. And if we had done things that way, we wouldn't be where we are right now with what we know about COVID. So I think people are really starting to see that, you know, the, the traditional way of doing things isn't necessarily the quickest or most efficient way and that you can still, you know, get scientific reward, even when you're doing really open science, and I think a lot of people have felt like, you know, oh, I won't get any credit if I just put my data out there. But I think we're seeing that that's really not the case.

Sally Gore 15:12

Right? Right. It's been really terrific. I know that you and I both attend a lot of, we overlap in a lot of meetings and things that we attend because of our roles. And I don't know if you the transforming research conference, and things like that, where they really a lot of clinicians, research clinicians talking about, you know, the real advantages of this time and how things are happening, as well as some of the cautionary tales, which I think are really, you know, really both interesting, and just good things for us to think about. And I think about not, not necessarily with data sciences, but the whole issue of preprints. And what's happening, there's really, really a super area for like for us as health sciences librarians to kind of pay attention to and, and see where we're going with that. And just like everything else, as you know, data has emerged as a place for us. All of these kind of things bubble up, particularly through open science that offer all kinds of opportunities. Yeah, so I think that's really terrific. So any last thoughts or things you want to share about the specialization or anything about being a part of MLA in general? Because we, that's where we are here at MLA?

Lisa Federer 16:25

Yeah, yeah, yeah, I just want to say, you know, I'm really excited that the specialization is coming out, this has been, you know, a year or so worth of work from a really fantastic team, who helped put this together. And so it's really, really exciting to see it coming out. And I also just want to say how grateful I am to be part of such a great professional community. I was so sad that we weren't able to get together in person this year for the annual meeting, because I look forward to it all year to connect with so many awesome colleagues. So I really can't wait to see everyone again, we can get together in person and see all my old friend colleagues, "frolleagues," as MJ says, and also meet some new colleagues.

Sally Gore 17:07

Absolutely. Yeah, that's definitely been the, not, the inability to travel this year has been really, really tough. Yeah, yeah, for those listening. Listen, I had a fun time there in Edinburgh last, yeah, last month that I did last fall, just like just that was for the Force11 meeting and other stuff

Lisa Federer 17:30

Zoom is good, it's nice to see people on camera. But I definitely look forward to seeing people in person face to face again.

Sally Gore 17:38

I'm with you there 100%. So I just want to thank Lisa for being here and being part of the Medical Library Association's podcast; for being so important in bringing about this along with your team for this whole new specialization that are the advanced part, the basic stuff is out there now. We'll put links in the podcast text as well so that folks can easily find more information about the the data sciences specialization. And of course people are always I know Lisa's always available to answer questions if if folks are there, and we're easy, it's part of the one of the great things, again about MLA is the the professional associations and relationship that we have and helping one another along and this has been a great example. So thank you so much, Lisa, for being here today. And thank you to all of you who are tuning in and listening. You have been listening to Press, Play, Connect, the official podcast of the Medical Library Association. Join us again next month for another episode. Until then, I'm Sally Gore and I Am MLA.

Lisa Federer 18:48

And I'm Lisa Federer and I Am MLA.

Sally Gore 18:51

Alright, let's talk to you all soon!