

The 3rd SPARC Japan Seminar 2017 “Beyond Open Science”

Q&A / Short Discussion

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●Hayashi I hope this short discussion will allow us to focus on the future of libraries. Please do not hesitate to speak up if you have a question or a point you would like to discuss.

Seizing this opportunity, there is something that I would like to ask Heather. Although SPARC was originally initiated in cooperation with the Association of Research Libraries (ARL), is my understanding correct that ARL is currently pursuing their own activities independently? Could you also briefly tell us about the relationship between SPARC and library activities?

●Joseph We did start as a project of the ARL in the US and Canada. When we kind of grew up and matured, we spun off and became an independent organization. We are still a library membership organization. 90% of ARL members are also SPARC members, but we now have more than 125 additional libraries that are not ARL members that are also members of SPARC. Therefore, we have expanded beyond just research libraries as members. In the US, we have liberal arts colleges and universities, but also two-year community colleges and technical universities for whom access to primary journal literature is almost impossible. In these institutions, having open textbooks makes

it more likely that a student will be able to afford higher education. Therefore, we are still completely connected to and working for the library community, just an expanded set of libraries. That has been very helpful in order for us to move more quickly and talk about specific actions needed to promote open access to journals. We take a more holistic look at the research and education environment in general, and we look at places where libraries can play crucial but different roles depending the type of institution and the folks that are a part of that institution.

●Hayashi Regarding SPARC and ARL parting ways, although some tended to think it was due to some dramatic change, or that there was a request for a dramatic change, I was a bit relieved to hear that they are moving forward while maintaining a close relationship with the library community. I am glad that I was able to confirm this fact since librarians were a bit concerned about this move.

●Floor 1 I am from the National Bioscience Database Center. My first point is that I found the management tools to be incredibly interesting since I was previously employed in industry as a manager. Since moving to my current position, I consid-

ered adopting management tools, but I came to realize that they are not really suitable for researchers. Recently, I have only been using them in interactions with external vendors, but after listening to Prof. Kurata's talk, I was able to revisit the possibility that there is still some room to expand their use.

My second point is that, including these kinds of management tools or administrative tools, I think that nearly everyone here can agree that creating proprietary systems is a measure of last resort. If this is the case, it is important to consider which readily-available tools to use, such as the cloud services that recently sprung into being. If each researcher independently chooses and uses whatever tools are to their liking, then in the future we will run into compatibility issues, which I think will lead to inefficiencies. Although I do not know whether libraries alone should be the ones to do so, rather than just offering assistance, I believe that it is best that they think strategically and act as a control tower by saying, "Let's use these tools," or "We will sign multiple contracts at the same time."

●Hayashi Thank you very much. I believe your words have provided us with a great deal of encouragement. Is there anyone who would like to respond?

●Murayama I would like once again to ask Heather about this. As experts in scholarly communication, data perseveration, and paper preservation, we have people in attendance that are librarians, publishers, and repository managers. As we just heard in a lecture, experts in scholarly communication who are not researchers serve the

function of guiding researchers, or acting as consultants. However, what they do could go beyond consulting to include such functions as providing education and actual training. Are they also providing such functions in the United States and Canada?

●Joseph We agree, and I think that the library community would love to become better trained in data curation and research data management. I was trained as a journal publisher, and I worked as a publisher for 15 years before moving into the library community. One of the things that the library community's ability to reinvent and transform their skill set to meet the needs of the community as they are emerging is something that has always impressed me. For our librarians and library professionals, the fastest growing job description in the US is data curation librarian or some derivation of that. We need resources and support to be able to get the training. Among other things, we are talking with the research foundation community to signal in grant requirements that the positions needed to support data management and data curation are funded, and that foundations will provide support for those positions. We would like data curation librarian to be in our libraries, and we will work with anyone who would like to work with us on that. The role for 21st-century librarianship is rooted in data management and data curation.

●Ichiko I believe it is true that librarians have many chances to be involved in various endeavors. For example, as Prof. Kurata said in her talk, libraries are also committed to using systems in which it is burdensome to enter information. At

that time, we all have a variety of basic knowledge and skills, such as ID knowledge and metadata knowledge. After first building trust with librarians, if you point out to librarians that they can use such basic knowledge and skills, I personally feel that we have many opportunities that lie ahead.

●Hayashi Does anyone have something more they would like to discuss? You may also continue discussion on previously-mentioned topics if you like. The person from ICSU-WDS, please.

●Floor 2 Although I am also doing so, I believe that domain researchers at many universities including Kyoto University and Tokyo University have their respective data centers. What will happen to the relationship between university domain data centers and the data activities at libraries?

●Hayashi This is a topic about the required skillsets of data scientists, data librarians, and data curators. I would like to ask Prof. Kurata to clear things up.

●Kurata More so than skillsets, I believe it is an issue of how universities want to manage data internally. For example, in science and engineering departments, I believe there are, of course, some universities that think it better to create data centers that are complete separate from the libraries. That is why I think libraries can really participate is determining how those data centers are positioned within a university.

Having said that, there are some fields and disciplines such as high-energy physics in which there are large-scale domain data centers, so it is

also possible to move in that direction. That is also the case for Dr. Murayama. In other words, it is possible to create specific field-driven databases, and it is possible to create them within universities. Since it is not impossible for libraries to take the lead in the creation of these databases, I believe that actions will be taken at various levels.

I believe the problem right now is that we do not have a vision of how to integrate that, or how to coordinate that. To that end, I believe that everyone should share with each other a bit more of their goals for the overall landscape and how to proceed overall.

●Floor 2 Thank you very much. Last year when we held a symposium related to the World Data System (WDS) in Kyoto, we invited a librarian from the University of Illinois. At that time, what she said is that it is true that databases located within universities are specialized, and that, although they are able to respond to the needs of their users by providing detailed solutions, the biggest issue is that of financing. Since the top priority for researchers is to do research, there is not much funding for data services, and it is not predicted that such funding will be coming in the future. I believe that we must think about establishing an enduring data servicing system for the entire university, perhaps by libraries playing the role of providing funding in cooperation with domain data centers.

●Kurata I completely agree. Although currently we are not seeing that at all, it is obvious that in the future there will be increasingly massive amounts of data, and I believe that there is not a one-size-fits-all answer to exactly how individual

libraries including national libraries will create such databases together. I believe that even a stepwise approach is acceptable. However, to prevent going in a particularly messy direction, in order to work towards goals even in stepwise approach, I believe that we should have a shared final vision of such goals.

●Hayashi That is exactly what Paul was talking about with the open science system. That is to say, if we are not able to share, then businesses will not act. Heather, please.

●Joseph It is important for libraries and data centers to work together. I do not know whether there is a corollary in Japanese universities, but in the US, we have offices of sponsored research and research offices. Libraries and offices of sponsored research need to build a different kind of working relationship, particularly around the idea of data and data management. There is only very loose collaboration at this point. We need to have closer channels to scope the problem and to understand better the resources that are needed. The other players we could think about involving are the scholarly societies. The skill-set that sometimes our data librarians feel that they are missing is the discipline-specific knowledge about data and those characteristics. Scholarly societies may have a new kind of a role to play in bringing discipline-specific expertise to bear. Therefore, we should look at new kinds of collaboration that may be slightly nontraditional, but with players who are traditionally important contributors in the discipline.

●Murayama From that point of view, I would like to get the perspective of university library directors, so I would like to ask Prof. Fukagai for his opinion. Although the job of data librarian does not yet exist in Japan, as the disciplines are somewhat removed from scholarly information management such as the data metadata that the faculty of university departments have created, are the hurdles quite high for Japanese libraries to create, for example, workflows related to data? Is there some way to create an experimental pilot project?

●Fukagai First of all, I am no longer a university library director (laughs).

●Hayashi That is why I believe there is much that you can say.

●Fukagai I will talk about this later in the panel discussion, so I would like to limit my answer to the topic at hand. Considering the duties currently placed upon those working at libraries as well as the positioning of staff, it is difficult to simply delegate the responsibilities for data management to libraries. This should not be about whether libraries will or will not do this, but when those sectors at the university responsible for administration (meaning the administrators) consider where they should exert control of their own university's functions, I believe the issue will become how to tackle such issues as whether they will decide that it is necessary to proactively release their university's idiosyncratic data to the worldwide academic community.

Accordingly, although it may be possible for comprehensive universities that place a focus on research to do so, for universities that do not neces-

sarily place a focus on research, it is conceivable that they could do so only if they are limited to specialized or unique departments. Otherwise, it would be quite difficult for such universities to do so.

● **Murayama** In the end, although I can imagine that nothing will happen unless the executives or the headquarters of a university decide that, “Data is also an important scholarly information asset of this university in addition to the number of papers being produced, so libraries must tackle this issue,” and so to direct them – I am sorry. As I was saying that, I came to realize that there are high hurdles to overcome in order for that to happen (laughs).

● **Hayashi** I believe that the conversation has moved towards asking Paul and Heather to come back to talk to university administrators, starting with an explanation of what exactly science is. I would like end this session and move on to the panel discussion in the latter half. Thank you very much.