



## ■ The 4th SPARC Japan Seminar 2015

“The Function of University Libraries in the Context of Research Promotion”

Wednesday, March 9, 2016: Bellesalle Jimbocho Annex

Hall A (Attendees: 161)

### Concept and Purpose

**Kei Kurakawa (National Institute of Informatics)**

This seminar was designed on the basis of the actual work of a single university librarian. Accordingly, the topics were framed from the standpoint of providing guidelines for dealing with questions that come up in the course of an individual’s experience. The aim, however, was not to share the sort of know-how commonly found in practice-oriented venues so much as to share concepts that encourage concrete action. Rather than transmitting individual work knowledge, it aimed to generalize that knowledge in hopes of turning it into a force uniting the community. The program prospectus, drawn up with expectations of large attendance by university librarians, made the following appeal: “As university libraries, we should not be content to mull over and parse the meaning of ‘open access’ and ‘open science’ as exotic foreign concepts. Through our examination in this seminar, we want to tackle these concepts in the context of the advancement of research in Japan and, in the process, forge concrete strategies for the future of research support.”

Since 2003, SPARC Japan has consistently advocated open access to scientific knowledge. Today, the more radical concept of “open science” is beginning to enter mainstream thinking in the community. What course should our university libraries chart henceforth in the context of these trends? A framework for grappling with this question was built into the program. Figure 1 illustrates this framework—a basic narrative beginning with the seminal concept of “open access,” proceeding to the challenges and issues arising from that concept, and ultimately redefining the role of the university library.

To perform the leading roles in this scenario, one would naturally need top-caliber professionals who have demonstrated and acted on a sound understanding of the concepts. Fortunately, the list of speakers reads like a Who’s Who of leading figures in the field. The role of each of our speakers relative to the seminar’s scenario is illustrated in Figure 2. Given the all-star cast, I am inclined to look on the outcome as the “miracle of Jimbocho” (the district in Tokyo where the seminar was held). A “cast of characters,” including each speaker’s topic, is provided below for reference.

1. Koichi Ojio (University of Tokyo Library System): Promotion of Open Access and Research Support—New Challenges for University Libraries
2. Takashi Hikihara (Director-General, Kyoto University Library Network): What the Formulation of Open Access Policies Means for Research Support
3. Hiroshi Manago (Cabinet Office, Government of Japan): Promoting Open Science
4. Setsuo Arikawa (Former President, Kyushu University): The Role of University Libraries in the Advancement of Research in Japan

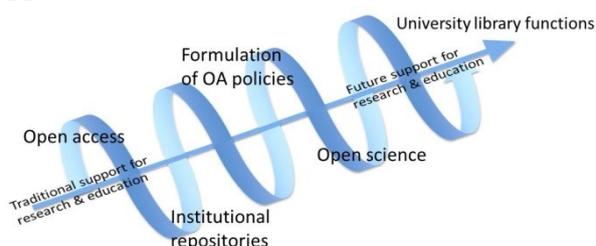


Figure 1. Purpose and Structure of the Seminar



Figure 2. Roles of Seminar Participants

A summary of the seminar is given below. See the SPARC Japan website (<http://www.nii.ac.jp/sparc/event/2015/20160309.html>) for handouts and other details.

### Presentations

#### Promotion of Open Access and Research Support—New Challenges for University Libraries

**Koichi Ojiro**  
(University of Tokyo Library System)

Until now, the research-support functions of university libraries have focused on researchers as readers. Henceforth they need to shift that focus to enhance support for researchers as writers and for the entire scientific process, becoming part of the workflow itself.



#### What the Formulation of Open Access Policies Means for Research Support

**Takashi Hikihara**  
(Kyoto University)



I am aware that the materials housed in university libraries are gradually changing from resources into liabilities. In the light of this trend, we need

to understand that, for researchers, open access can be an important means of maintaining a scientific community that values basic research—particularly in the face of various external pressures—one where researchers respect and assimilate the research priorities of others. Open access is needed to nurture the researchers of tomorrow. In their role of presenting and transmitting the works that have been published in their professional fields, university faculty members have a duty to generously nurture the next generation of scientists. Pursuing open access policies means increasing the number of people who understand the meaning and importance of open access. Today open data and open science are all the rage, but there is much to be done before we move to that phase.

#### Promoting Open Science

**Hiroshi Manago**  
(Cabinet Office)

Open science is not simply an exotic, imported concept. It is the subject of active, ongoing deliberations and efforts to build consensus among the individuals and organizations concerned. Open

science is one of the items on the agenda of the G7 Science and Technology Ministers' Meeting to be held in Tsukuba, Ibaraki Prefecture, this year. I wholeheartedly support the role of our university libraries in promoting open science.



At present, however, there is much confusion on our university campuses when it comes to promoting open access and open science. The first step toward resolving this confusion is to clarify the functions of the university library. We also need to develop better liaison with the university's research departments. The university library is the campus's only base for the collection and distribution of research and educational information. The university's top administrators must clearly establish its position as such.

#### The Role of University Libraries in the Advancement of Research in Japan

**Setsuo Arikawa**  
(Kyushu University)

The university library has actually evolved on a number of fronts. We can gain an objective grasp of this evolution by looking at the relevant laws, standards, reports, and recommendations. In terms of laws and standards, the National School Establishment Act, enacted in 1949 and abrogated in 2004, called for all national universities to have libraries. The 1956 Standards for the Establishment of Universities included detailed requirements for library facilities, but those were reduced to general guidelines in 1991. The requirements set forth in the University Library Standards adopted in 1952 by the Japan University Accreditation Association continue to exert considerable influence over university libraries. Moving on to official reports and recommendations, in March 2006, the Science Information Infrastructure Working Group under the Ministry of Education, Culture, Sports, Science and Technology released the results of deliberations on three basic topics pertaining to scientific information infrastructure: the role of computers and computer networks, the role of university libraries, and the dissemination of scientific information from Japan. Among the subtopics were the



relationship between libraries and electronic journals and the impact on the libraries' financial base; the function of institutional repositories in the context of the open access movement; and the role of library staff with subject knowledge and expertise. In 2010, the working group took up the function and role of university libraries and the development and hiring of qualified university library staff. It is noteworthy that among the keywords that emerged from these deliberations were "direct involvement" in academic support and educational activities and "human resource development" for staffing university libraries. More recently, in a March 2015 report, an expert panel under the Cabinet Office seemed to point the way to new roles and functions for libraries and library personnel in an age of open access and open data.

People are looking to university libraries to shift their emphasis from traditional research support to more direct contributions. This entails the enhancement of research-library functions, the editing and publishing of research results via institutional repositories, appointment of liaison staff and subject librarians, coordination with the university's strategic research planning units, and a more active collaborative role with the University Research Administrator (URA). The future role of liaisons and subject librarians in particular is something that current library personnel should consider seriously in the light of emerging attitudes and expectations attending the advent of open access and open science. In terms of new approaches to research, perhaps librarians could lay the historical and comparative groundwork, while scientists take it from there and focus on meeting society's expectations by devising solutions to current problems.

Kyushu University has gone a step further, embracing a concept of the university library as a partner in collaborative research and implementing organizational reforms to support such functions. For example, the library now has established an Innovation Center for Educational Resource and has embarked on international exchange with libraries overseas. It has also established a Manuscript Library and a Research and Development Division. Especially appealing from a university librarian's point of view is the new Department of Library Science within the Graduate School of Integrated Frontier Sciences, where library staff can enroll as students, teach as faculty members, or both.

In this way, the functions of the university library continue to evolve and deepen, and we need to make organizational changes to accommodate this evolution. A new library is currently under construction.

## Panel Discussion

### How Can University Libraries Contribute to Building Japan's Research Capacity?

**Moderator: Midori Ichiko (Hiyoshi Media Center, Keio University)**

**Panel members: Koichi Ojiro (University of Tokyo Library System) / Takashi Hikihara (Kyoto University) / Hiroshi Manago (Cabinet Office) / Setsuo Arikawa (Kyushu University)**



#### The library's role and functions

**HIKIHARA:** Looking at the university library today, people seem to recognize that there are talented individuals, but they don't see what will be going on their job in a future.

**OJIRO:** The skills and experience of library personnel are not always obvious to outsiders. Researchers tend to take us for granted. We need to work harder for recognition. I think we need to be more aggressive about interacting with the world beyond the confines of the library.

**MANAGO:** Based on my experience as department head, it seems to me that while one recognizes the abilities of individual librarians, library personnel by disposition often find it hard to step over those boundaries. We need systems that facilitate outside interaction. Also, we should be holding discussions about the function of the library at the university level, not just within the library.

#### Open science and the library

**ARIKAWA:** From researchers' standpoint, if data is made open, it will be evaluated. That's an opportunity. I think libraries—subject librarians, for example—could play a part in that process. Open data can create new work for librarians while ushering in new modes of scientific research.

**HIKIHARA:** Some fields have made a lot more progress toward open science than others. When it comes to the expression of data, there are different dialects, and the inconsistency can create problems. The

trend toward data linkage will probably begin with the fields where it most needs to be carried out. There are still some fields that do not want open data. But with data sharing comes the need for data quality assurance.

OJIRO: When I asked about the strengths of library personnel from the URA's perspective, they stressed the collection, storage, and organization of information. It's easy to see how we can apply those skills to books and research papers, but the nature of research data differs by field, so we need to think carefully about how to handle it.

ARIKAWA: Library personnel can't just rely on existing skills; they need to develop. There are any numbers of possible ways to approach this task, so I don't think they should feel too intimidated.

### **Data and infrastructure development and researchers' responsibilities**

HIKIHARA: A typical approach to research until now has been to share benchmark models and then propose new algorithms. From now on it will probably move in the direction of sharing data and then proposing algorithms, skipping over the model. New techniques will doubtless emerge from open access to data.

MANAGO: Where research data are concerned, we might want to consider modes of coexistence with the publishing industry. This is a worldwide trend. We need to talk more about ways of protecting researchers. And we need to approach it in terms of internal mechanisms, since top-down regulation isn't a realistic option.

ARIKAWA: People often bring up open data in connection with research fraud, but most researchers naturally favor open data as a way to protect themselves from suspicion by providing evidence for their findings. In case of building research environment, since it is different activity from writing a research paper, if someone has a good idea about research environment, we had better copy and imitate it for ourselves.

HIKIHARA: Science is built on theory, quantitative calculations, and experimentation, and you need to make at least two of those conform in order to come up with a thesis. Data alone can't guarantee scientific validity. That's why people conduct multiple experiments and accumulate many examples of phenomena in a kind of carpet-bombing approach. That generates a lot of data, which in turn can lead to the

accidental discovery of new phenomena, with theory bringing up the rear. A lot of people are now advocating this approach.

### **From the floor**

FROM THE FLOOR 1: In our modern age, scientific research is a competitive enterprise, with a focus on who gets credit for a given discovery, but I think we need to find new meaning in the idea of making data open to all and opening the door to discoveries that occur by a process comparable to divine inspiration, as in ancient times. From the standpoint of advancing research, it seems to me that libraries can help by creating an environment conducive to open science, which would at least have an impact on the next generation of researchers.

MANAGO: It's definitely important that our work carry over to the younger generation and the next generation. I would hope researchers would let that thinking guide their behavior as well.

HIKIHARA: What and how people learn will naturally change from generation to generation and over time, but there are still basics that everyone needs to study. Our current environment doesn't do enough to encourage and support that sort of learning. In an activity like research, where people are assimilating lots of new information, one needs to tune out society's constant demands for greater efficiency. It's important to realize that there are various steps along the way.

FROM THE FLOOR 2: Can you say a word about digital data and standardization?

HIKIHARA: Japanese industry has generally tried to set standards by controlling the market, but Western countries tend to lay the ground rules first. In an area in which Japan has no market presence, it can't have any say in standards development if it turns up late in the process. We need to attend these meetings from the very start. We're thinking about sending faculty members to participate.

### **Summation**

The choice of the seminar theme —“The Function of University Libraries in the Context of Research Promotion”— served an important purpose by reminding us of the essential role of the university library, which we have a tendency to lose sight of. It seems to me that the conference provided a valuable opportunity to talk about the role

libraries should play in connection with open science and research data, two of the

hottest topics among professionals in our field.

**--Attendee feedback--**

(people affiliated with university libraries)

- It's good to know that Mr. Manago, who formerly worked at a national university library, is now pursuing open science in his Cabinet Office post, and I found his discussion very interesting. I look forward to seeing how the G7 deals with the topic and how Japan makes use of its position as chair.

- I got to hear a fairly involved discussion of open science from two different standpoints, that of the scientists who do research and that of those responsible for policy, and in the process of pondering where they differed and where they converged, I think I began to get an understanding of open science and what it is libraries need to do.

- As an event devoted to this topic, it was useful in that it gave me an opportunity to hear the issues

discussed at the level of management.

- I had been feeling a lack of clear direction regarding the function of the university library today. The speakers suggested some directions and helped clarify the issues. I plan to continue thinking about the function of the library within the university when I get back to work.

(person affiliated with an academic society and scholarly journal)

- Although it didn't pertain directly to my work, I was able to hear some different perspectives on open access and open science that will be useful to consider when deliberating policy in the future.

(people affiliated with business/others)

- The blunt language some of the speakers used suggested that they were responding with honesty and passion, and I appreciated that.

**-----Afterword-----**

😊 At meetings and symposiums of librarians, one rarely has a chance to hear researchers air their strong feelings on these subjects. My special thanks to Dr. Hikihara and Dr. Arikawa for their contributions. If open science can help solve humanity's most pressing problems, as Michael Nielsen suggests, then researchers will naturally play the starring role, but this seminar made me realize how much I want to be involved in some way in my capacity as a librarian, if only from the shadows. But it will be quite a challenge getting the scientific community to embrace a whole new set of values!

Midori Ichiko  
(Hiyoshi Media Center, Keio University)

😊 I want to convey my heartfelt appreciation to all those who turned out for this seminar in such impressive numbers. While adhering to the theme of open science and the promotion of research, the speakers made many essential observations with relevance far beyond their individual topics. It was a valuable opportunity to think more deeply about ways I can contribute to society as a librarian and as a human being. I want to thank everyone involved for their helpful suggestions and advice at each step along the way, from the planning stages to the event itself.

Nami Hoshiko  
(Kyushu University Library)

😊 Helping to plan the final SPARC seminar of this fiscal year was a rewarding and educational experience. The seminar itself was highly stimulating, and I would imagine it was a meaningful event for university librarians standing on the threshold of the era of open science. I hope I can continue contributing something to the cause of scholarly communication, including open science, by sharing information and collaborating with colleagues.

Shigetoshi Kajiwara  
(Hokkaido University Library)

😊 I think this particular seminar came about as a result of some unique circumstances. Watching various developments surrounding scholarly information infrastructure and university libraries over these past 10 years at NII, I feel I've learned to sense how the wind will blow from various sectors. I decided to try analyzing the direction of the winds that are now blowing by focusing on a single university librarian, Ms. Hoshiko. Before I knew it, my analysis was being improved on from various quarters, and I was able to watch as dispersed energy converged at a single point. Perhaps we have the special magic of Jimbocho to thank for that.

Kei Kurakawa  
(National Institute of Informatics)