SPARC Japan NewsLetter
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SPARC Japan NewsLetter provides activity and seminar reports including outline, program with speakers' introductions and their outlines, attendee feedback, and afterword. This issue reports also the NII Practical Training at CERN.

CONTENTS

■ SPARC Japan Activity Reports
SPARC Japan Governing Board
NII Practical Training at CERN

■ SPARC Japan Seminar Reports
Outline
Presentation Abstracts and Speakers
Attendee Feedback
Afterword

■ SPARC Japan Activity Reports

SPARC Japan Governing Board

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Please see materials of SPARC Japan Governing Board on our website:
http://www.nii.ac.jp/sparc/about/committee/

NII Practical Training at CERN

We have aimed at "Expanding the scope of activities for open science" which is one of goals in Phase 4 and 5 of SPARC Japan. Specifically we concluded the Collaboration Agreement for the development of advanced information services and for the benefit of the Japanese and global High-Energy Physics community with the European Organization for Nuclear Research (CERN) and the High Energy Accelerator Research Organization (KEK). To achieve this purpose, a practical trainee worked at CERN in 2016.

- Data Curation of the database for High-Energy Physics (NII Practical Training)

  Based on the Collaboration Agreement between CERN, KEK and NII, Akemi Omura (Kyoto University Library) worked at CERN (2016/3/11-2017/3/2).

  http://www.nii.ac.jp/hrd/ja/jitsumu/h28/index2.html

SPARC Japan Seminar Reports

The 3rd SPARC Japan Seminar 2016

"Future Standard Infrastructure Supporting Creation of Scientific Knowledge: Reconsidering Open Science"

Tuesday, February 14, 2017: National Institute of Informatics
12th floor Conference Room (Attendees: 118)

In this seminar, we summarized this year's seminars and studied how open science could be in the future and the direction from various aspects. The reports of the RDM training tool and a workshop studying research data gave us some tips to plan and put into practice for open science.

See the SPARC Japan website for handouts and other details (http://www.nii.ac.jp/sparc/en/event/2016/20170214en.html).

Outline

The theme of SPARC Japan Seminars throughout the year 2016 is "Articles and Data Distribution in the Trend "Open Science" – Future Standard Infrastructure Supporting Creation of Scientific Knowledge". On this theme, in the 1st SPARC Japan Seminar 2016 "Roads to Open Access for Japan", we discussed the relation between the green OA and the gold OA and their roles. In conclusion, we recognized that we should grasp the amounts of APC (article processing charge) which researchers in Japan pay and develop the SCOAP[3] model.

In the 2nd SPARC Japan Seminar 2016 (Open Access Summit 2016) "Promoting Openness of Research Data: Incentive and Data Management", we studied how we could provide incentives for researchers, such as data citation, data journals, and data ownership. Moreover we discussed specific measures of research data management to support the system of these incentives, such as the balance between costs and gains to open research data and rewards for research data management, and so on.

Based on the examination above, we will summarize the whole seminars this year. We try to think over new standard infrastructure supporting creation of scientific knowledge beyond "Open Science", reconsidering it multidirectionally: something that has to be done, should be done, could be done for profits, and cannot avoid being done.

* standard infrastructure: infrastructure supporting academic research (creating scientific knowledge) is made through

bottom-up activities in many cases on the constructing process, and it is eventually placed as environment of academic research by users unconsciously. This process is just occurring at Internet scale and activities to establish standards of scholarly environment are born over the borders of regions and scientific fields. In this seminar we define the standard which is given through these activities as “standard infrastructure”.

Presentation Abstracts and Speakers

Open Science in a European Perspective

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Ron Dekker (European Commission (DG Research & Innovation))

Open Science is high on the political agenda. During the Dutch Presidency of the European Council in 2016 the 28 Member States adopted Competitiveness Council Conclusions on Open Science, and there was a Presidency Conference on Open Science that resulted in the Amsterdam Call for Action on Open Science. The European Commission has set up a European Open Science Agenda and installed a number of Expert Groups on topics like Open ScienceCloud and Altmetrics. Several European countries have established national open science policies and strategies.

Other stakeholders, like universities, publishers, and funding organizations, are also elaborating on Open Science activities, including Citizen Science. At the same time, major changes in for example the ways of scholarly communication are hampered by first-mover disadvantages, or require major redistribution of means.

So where are we standing now? How could we induce change in the Open Science Ecosystem? How can we catalyse the transition to open access with respect to publishing? What would be needed to stimulate sharing of research data?

This talk will give a European overview, discuss these questions and open up for discussion on possible solutions. It will focus on publications and research data, although other aspects of open science and connecting science to society at large - including innovation - will also be touched upon.

Profile

Ron Dekker studied econometrics and started his career in labour market research at Maastricht University. In 1995 he moved to Tilburg University where his research focus shifted to data management. The latter was his starting point at the Netherlands Organization for Scientific Research (NWO): in 1997 he became the head of the Data Agency. Later he worked as a team coordinator at the Social Sciences Division and at the Central Programmes and Institutes Department. In 2007 he was appointed Director Institutes of NWO.

In 2013 he was seconded to SURF, the Dutch IT-innovation organization for Higher Education & Research, as acting director and in 2014 he was seconded to the Ministry of Education, Science and Culture as project leader Open Science in preparation for the Dutch EU Presidency. As of 2016 he is Seconded National Expert on Open Science at the European Commission, Directorate-General Research & Innovation. In March 2017 he will start as the Director of CESSDA, the Consortium of European Social Science Data Archives. CESSDA is one of the large infrastructures in Europa (a so-called ESFRI Landmark) and has its main office in Bergen, Norway.

Deep Learning and Open Science – Extreme Speed-up of Scientific Research Triggers Shift Toward Friction-Less Information Distribution

Asanobu Kitamoto (National Institute of Informatics / CODH)

We have been studying the value of open science in three dimensions, namely utility, transparency and participation, but with difficulty in persuading others on how these values contribute directly to scientific research. Hence we introduce a new dimension called “speed” to re-consider the value of open science. A hypothesis behind this proposal is that when the speed of research becomes extremely high, information distribution is forced to follow the same speed, hence it evolves into a structure without “friction” that speeds down the distribution, and as a result, scientific research is directed toward openness. We claim that this hypothesis is best verified by the field of “deep learning,” which is part of artificial intelligence and machine learning. What is actually happening in this field? It is not clear how lessons from this exceptional field could be generalized, but we believe that the analysis of the movement in this field suggests one possible future of open science.

Profile

Dr. Asanobu KITAMOTO earned Ph.D. in Engineering from University of Tokyo in 1997. He is now associate professor of National Institute of Informatics (NII), and also the director of Pre-Center for Open Data in the Humanities (CODH) in Research Organization of Information and Systems (ROIS). He started his research in the field of image data analysis, and later extended his research to data-driven science for humanities, earth science and disaster mitigation. He is also interested in open science and trans-disciplinary collaboration.

JST's Activity on the Promotion of the Open Science

Yasushi Ogasaka (Japan Science and Technology Agency (JST))

Since JST announced its policy on open access to research article in 2013, JST has worked on the promotion of public access to and circulation of JST-funded research results. In addition to research articles, JST has been working on research data as well; JST hosted the 9th RDA Plenary Meeting in Tokyo in 2016 and data management plan (DMP) was introduced for some research projects funded by the Strategic Basic Research Programs. In this presentation, we report the current status of the activity on promotion of Open Science.

Profile

Dr. Ogasaka graduated from Gakushuin University, Tokyo, Japan and received PhD. in physics. His research area was high energy astrophysics and development of X-ray telescopes. After his experience as Research Fellow at NASA/GSFC and Nagoya University, he was appointed as Assistant Professor of Department of Physics, Nagoya University in 2000. He joined JST in January 2009. He has been working on the management of several public funding programs such as Strategic Basic Research Programs, Technology Transfer Program and so on. Since Oct. 2015, he has been in charge of information services such as journal platform (J-STAGE) or researcher database (researchmap) as Director of Department of Databases for Information and Knowledge Infrastructure.

Using Data Licensing in Materials Science - a Library Viewpoint

Chie Onodera (National Institute for Materials Science)

Licensing is important for using data because data does not have copyright. I will present the concept of using data licensing based on three library seminars held by the National Institute for Materials Science in 2016. I will also introduce specific examples and discuss the role of libraries in licensing.

Profile

Chie Onodera is a librarian at the National Institute for Materials Science (NIMS). She had previously worked at university libraries. She is in charge of general library operations including communication of research information.

Idea, Reality and Feasibility of Research Data Sharing: the Survey on Earth Environmental Research Infrastructure

Masafumi Ono (Earth Observation Data Integration & Fusion Research Initiative (EDITORIA), the University of Tokyo)

Generally, research data sharing is a good idea to stimulate the advancement of science. This idea is also acceptable for most of stakeholders including researchers, policy makers, funders and citizens. But, it is the current reality that a lot of research data are not shared yet. Why we meet such gap between idea and reality of open science? Because we tried to reveal the barrier, we conducted a survey on earth environmental research infrastructure. We also propose some possible actions to enforce open science.

Profile

Masafumi Ono is a project researcher of Earth Observation Data Integration & Fusion Research Initiative (EDITORIA), the University of Tokyo. Currently, Ono works in the project of "Program of developing the earth environmental information platform". Previously, he has taken part in a working group of ISO/TC211 geographic information standards, task teams of GEO (Group on Earth Observations) or a work package of Belmont Forum E-Infrastructures and Data Management Collaborative Research Action.

Survey and Planning of Information Services on Research Data

Ikki Ohmukai (National Institute of Informatics)

National Institute of Informatics hosts a workshop for cooperative problem solving by librarians from various organizations. In this year, eight participants investigated and designed the information services for research data management. This presentation describes the outline, purpose and outcome of the workshop.

Profile

Ikki Ohmukai received his Ph.D. degree in informatics from the Graduate University for Advanced Studies in 2005. He joined National Institute of Informatics in 2005 and has been an associate professor since 2009. His research interests are the semantic web, social media and open data.

Group A: Planning of the "Institutional Research Information Integrated System (IRIIS)"

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Shunichi Tamura (Shiga University of Medical Science Library)

Our group constructed a system which enables an institution to easily manage its research information all together, and named it IRIIS (Institutional Research Information Integrated System). In the future, if the system becomes a standardized model and the widespread use, it is expected that more institutions can work on their research data management easily.

Profile

In 2013, he started his career at Shiga University of Medical Science Library as a librarian. He takes charge of book accession and managing the institutional repository. JMLA Health Sciences Information Professional, Basic. A participant of the workshop of academic information system held by NII in 2016.

Group B: Planning of the "Open Data Enhancing Network system - ODEN"

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Shigetoshi Kajiwara (Hokkaido University Library)

As Group B, we suggested on idea to construct an open data metadata database which is called “Open Data Enhancing Network system - ODEN”. It enables us to search an open data on one-stop by centralizing metadata of scattered open data. In this presentation, we introduce the concept and outline.

Profile

Since 2014 he has belonged to Hokkaido University Library (the main library). He is in charge of system administration in the academic system division, and responsible for library information system and network management and institutional repository. A member of SPARC Japan Seminar Planning WG in 2015 and 2016.

Introduction to the RDM Training Tool Developed by the RDM Task Force of Institutional Repository Committee of Japan

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Koichi Ojiro (The University of Tokyo Library System)

In these days, world-wide research funding agencies have issued policies which require research data to be preserved and shared among researchers. In order to manage research data properly, not only researchers themselves but also supporting staff must learn skills regarding research data management. In this lecture, the RDM training tool developed by the task force of Institutional Repository Committee of Japan is introduced.

Profile

General Manager, the University of Tokyo Library System from April 2015. He started his career as a librarian at the Nagoya University Library in January 1983 and has worked for Tokyo Institute of Technology Library, National Diet Library, Chiba University Libraries, National Institute of Informatics, and the University of Tokyo Library System.

Panel Discussion:

Moderator: Kazuhiro Hayashi (National Institute of Science and Technology Policy)

Profile

He has been in Scholarly publishing, in a wide variety of roles, for more than 20 years. At Chemical Society of Japan, he has worked successively as an Editor, a Production Manager, an E-journal Manager, and a Promotions Manager. Covering a broad range of roles in publishing, he is focused on scholarly communication through E-journals, and he has reconstructed and improved the way publishing is managed through his skills involving information technology. He now studies a Science for Science and Innovation Policy to give administrative people and policy makers some evidences for Science and Technology policy. His current main task is policy implication of

Open Science and Open Access, together with developing a new way to foresight ST trends. An expert member of the working party of Open Science for G7 Science and Technology Ministry meeting, also an expert member of the OECD/GSF project of Open Science.

Panel members: Ron Dekker (European Commission (DG Research & Innovation)) / Asanobu Kitamoto (National Institute of Informatics / CODH) / Yasushi Ogasaka (Japan Science and Technology Agency (JST)) / Chie Onodera (National Institute for Materials Science) / Masafumi Ono (Earth Observation Data Integration & Fusion Research Initiative (EDITORIA), the University of Tokyo) / Ikki Ohmukai (National Institute of Informatics)

Attendee Feedback

(person affiliated with university library)
– The results of the questionnaire included in the presentation by Dr. Ono of the University of Tokyo were quite interesting.

(university researcher)
– Being able to listen to Prof. Kitamoto's lecture on the newest trends in deep learning was incredibly interesting. Mr. Dekker's presentation summed up nicely the current situation in Europe. The presentation by Mr. Ojiro was practical and looks to be helpful. I would like to try using what was presented.

(person affiliated with business/libraries)
– I was surprised at how quickly information is becoming open.

(other library staff)
– Although I wondered what was up with the open science and open data seminars and forums up to this point that have been far from becoming reality and talked about general concepts or ideals, I was able to listen to talks this time that are in line with what is actually happening on the ground and could feel positive about the future.

– There were a number of lectures that made me think that the former momentum of 'Go, go, open data!' had shifted towards limited sharing and limited openness, and I was quite skeptical until I heard what Dr. Ogasaka and Dr. Ono had to say in the panel discussion. However, after listening to what the final two speakers had to say about how open science and open data do not necessarily have to be negative and how restricted sharing should not be assumed, it really sank deeply into my mind how important it is to proceed in such a way that researchers embrace open data in a form that is satisfactory to them, take responsibility for the results of open access, and provide insights for the way forward. We must drop anchor and not be swept away by the momentum.

(others)
– The relationship between copyright and data became clear. I was able to grasp the concept of DMP through the specific examples that were introduced.

Afterword

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☺ I was able to successfully complete the important task of organizing and carrying out this 3rd SPARC Japan Seminar covering an entire year. I believe this success was made possible thanks to the collective efforts of the presenters, governing board members, secretariat, planning working group, and attendees. I would like to take this opportunity to express my gratitude to eveyrone involved. The SPARC Japan seminars are planned and held in cooperation with researchers and librarians. It is my hope that these seminars continue to incorporate various perspectives on the hot topics that concern the distribution of academic information.

Shigetoshi Kajiwara
(Hokkaido University Library)

☺ I was in charge of disseminating seminar content information through Twitter. 'Reconsideration' was a major theme and with our feet firmly planted on the ground I believe that we were able to 'reconsider' through a review of the more advanced current situation in Europe on topics such as data sharing, DMP, and licensing. Although I was in charge of planning, it was a nice side benefit to listen to the talks that interested me.

Wataru Ono
(Tokyo Gakugei University)

☺ arXiv is a major battleground for the latest achievements in the fields of hierarchical learning and computer science, and I was surprised that program sources and results are released and cited within the timeframe of a single day. Although it may be something that is currenlty applicable in particularl fields, the speed that powers the implementation of open science is one component that is worth keeping in mind. In addition, although the role that funding institutions play in open science looms large, I could understand that Japan is not alone in being unsure about realistic implmentation policies/the formulation of evaluation axes since it it the same situation in the US and Europe. In the days to come we must think about policies that deeply involve the providers of data, namely researchers.

Masahito Nosé
(Graduate School of Science,
Kyoto University)

☺ This seminar that closes out the fiscal year built upon the first and second seminar's respective discussions on open access for research papers and the sharing of research data, explored what a new research platform would look like overall, and was a place to concretely think about what can be done. From the vision of open science with a focus on Europe to making DMP compulsory and assistance in creating them, a wide range of topics was taken up, and although it was quite difficul to control discussion that included a flurry of frank opinions expressed by researchers, since this is highlight of SPARC Japan seminars I hope that it continues to be a place where conversations between various assembled stakeholders can take place.

Kazuhiro Hayashi
(National Institute of Science and
Technology Policy)

☺ I was in charge of disseminating information from this seminar through Twitter. This seminar was meant to be a culmination of the first and second seminars of this year, and although I thought that the conversations would start to converge, as cutting-edge topics came up again and again, I could feel once again the depth of the themes as well as the true feelings of those that participated. In this era of an increasing number of implementation examples coming to the fore in Japan, I look forward to developments in the coming fiscal year.

Yasuyuki Minamiyama
(National Institute of Polar Research)