



SPARC Japan NewsLetter provides activity and seminar reports. The seminar report includes its outline, program with speakers' introductions and abstracts, panel discussion, attendee feedback, and afterword.

All affiliations and titles are current as of the time of the event.

CONTENTS

■ SPARC Japan Activity Reports

SPARC Japan Governing Board
 Completion of the Committee for the
 Promotion of Scholarly Communication
 Publication of Review of SPARC Japan
 Activities and Future Direction
 Support for arXiv.org
 Support for CLOCKSS
 Support for the SCOAP³

■ SPARC Japan Seminar Report

Outline
 Presentation Abstracts and Speakers
 Panel Discussion
 Attendee Feedback
 Afterword

■ SPARC Japan Activity Reports

SPARC Japan Governing Board



Please see materials of SPARC Japan Governing Board on our website:

<https://www.nii.ac.jp/sparc/about/committee/>

Completion of the Committee for the Promotion of Scholarly Communication

SPARC Japan operated as the International Scholarly Communication Initiative from FY 2003 to FY 2018, and then as the Committee for the Promotion of Scholarly Communication from FY 2019 to FY 2021. Through its activities, SPARC Japan has played roles in the conversion of Japanese academic journals to electronic journals, in advocacy activities for open access and open science, and in collaborations with international initiatives (arXiv.org, CLOCKSS, and SCOAP³).

As a result, the activities of various conference bodies and advocacy groups related to open access and open science in the university library community and other stakeholders

have expanded. Therefore, after consideration, the Committee for the Promotion of Scholarly Communication decided to end its activities as of the first term (FY 2019 to 2021).

However, advocacy for such initiatives as open access and open science (SPARC Japan seminars) as well as collaborations with international initiatives (arXiv.org, CLOCKSS, SCOAP³) will continue.

Publication of Review of SPARC Japan Activities and Future Direction

In conjunction with the completion of the Committee for the Promotion of Scholarly Communication, we have prepared the Review of SPARC Japan Activities and Future Direction. This report reviews the past activities of SPARC Japan and proposes the direction of future activities that relevant stakeholders are expected to follow.

The report is available at the webpage below:

<https://doi.org/10.20736/0002000313>

Support for arXiv.org

As a preprint server for physics, mathematics, computer science, etc., arXiv.org <<https://arxiv.org/>> promotes open access and archiving of research results mainly in these fields. In January 2022, the number of available papers exceeded two million. These papers were downloaded more than 370 million times per year, bringing the total number of downloads to 2.3 billion as of April 2022.

Financial support is provided by the top-ranking institutions in terms of usage, and the arXiv.org Membership Program, launched in 2013, had 243 participating institutions in 30 countries as of the end of 2019.

In Japan, a consortium of research institutes with extensive experience using arXiv.org has formed to support this effort. The National Institute of Informatics has been confirming intentions to participate and collecting annual membership fees since 2009.

Surveys of institutions in Japan that frequently use arXiv.org concerning their intention to participate in 2021 showed 16 participating institutions as of the end of March 2022.

Starting in January 2022, new articles submitted to arXiv are automatically assigned DOIs (digital object identifiers).

The website below provides more information about arXiv.org.

<https://www.nii.ac.jp/sparc/about/international/arXiv/>

Related conferences were held as follows, with Professor Hideaki Takeda of the National Institute of Informatics participating on behalf of the Japanese participating institutions.

- Annual Board Meeting: October 4 and 5, 2021 (online)

Support for CLOCKSS

CLOCKSS (Controlled Lots of Copies Keep Stuff Safe) <<https://clockss.org/>> is working to realize long-term preservation of electronic scholarly content for researchers around the world. Specifically, CLOCKSS is working to build an archive as well as a community to manage it, and to make the content in the archive widely available in the event that it is no longer provided by publishers. In addition, the National Institute of Informatics is participating as one of the twelve node institutions in the world that hold such content.

In Japan, the National Institute of Informatics has been confirming intentions to participate and collecting annual membership fees since 2013.

A survey conducted on the intention to participate in 2020 mainly among member libraries of the Japan Alliance of University Libraries Consortia for E-Resources (JUSTICE) showed 101 participating institutions as of the end of March 2022.

Related conferences were held as follows, with Professor Hideaki Takeda of the National Institute of Informatics participating on behalf of the Japanese participating institutions.

- CLOCKSS Board of Directors Meeting: June 23, September 28, 2021 and February 22, 2022 (online)

Support for the SCOAP³

SCOAP³ <<https://scoap3.org/>> is an international collaborative project led by the European Organization for Nuclear Research (CERN) to provide open access to peer-reviewed journal articles in the field of high-energy physics (HEP). In Japan, support is provided for the open access of major journals in the HEP field by transferring the subscription fees that libraries have traditionally paid to publishers to the article publication processing charge (APC), mainly for research institutions that subscribe to SCOAP³ journals.

In Japan, the National Institute of Informatics has been confirming intentions to participate and collecting annual membership fees since 2014.

A survey of domestic institutions supporting Phase 3 (2020-2022) and their intention to participate in 2021 showed 82 participating institutions as of the end of March 2022.

In March 2021, we conducted a survey for institutions participating in SCOAP³ on their level of interest in the SCOAP³ for Books Pilot Project < <https://scoap3.org/scoap3-books/> >, a one-year project for books that was approved in the 2019 Governing Council. Eighteen institutions expressed their support in the survey.

The website below provides more information about SCOAP³.

<https://www.nii.ac.jp/sparc/about/international/scoap3/>

Katsumasa Ikematsu, URA of the High Energy Accelerator Research Organization (KEK), and Professor Kazutsuna Yamaji of the National Institute of Informatics participated in the related conference on behalf of the Japanese participants as follows.

- Governing Council Meeting: November 3 and 4, 2021 (online)

■ SPARC Japan Seminar Report

SPARC Japan Seminar 2021



“What Should Research Data Policies Achieve?”

Tuesday, February 22, 2022: Online (Attendees: 297)

See the SPARC Japan website for handouts and other details

(<https://www.nii.ac.jp/sparc/en/event/2021/20220222en.html>).

Outline



Following the UNESCO's recommendation of Open Science issued in 2021, it has internationally become a paramount importance to promote Open Science and to share and publish research results. In Japan, some concrete steps have been taken to implement this; under the Integrated Innovation Strategy 2021, it is now required for universities, inter-university research institutions, and national research and development institutions to create a data policy within a specific time frame.

In the process of developing a data policy at each institution, a range of challenges has been identified depending on the circumstances they face. It must be noted, however, that creating a data policy is a means to the end of achieving Open Science, not a goal in itself.

This seminar will bring together a wide range of stakeholders, including policy makers, academics and research data distributors, to discuss the significance of data policy and what ideas and actions are required to promote the use of data based on the FAIR Principles, which is one of the visions for the future. We hope that this discussion will help develop a well-grounded research data policy.

Presentation Abstracts and Speakers

The Role of Research Data Policy in the Context of Policy Developments on Research DX Takanori Miyake (Ministry of Education, Culture, Sports, Science and Technology)



In the 6th Science, Technology and Innovation Basic Plan, the promotion of Open Science and data-driven research was positioned as one of the pillars. Under this direction, the "Basic Concept on Management and Utilization of Research Data with Public Funds" was formulated as a specific initiative and creating a data policy is identified as one of the responsibilities of research and development institutions. This presentation will explain the trend of the government policy on the promotion of the Research Digital Transformation (Research DX) and introduce the role, position and current situation of the research data policy within it.

Profile

Completed Master's degree at the Graduate School of Information Science and Technology, The University of Tokyo (Master of Science in Information Science and Technology). Joined the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in 2003. Mr. Miyake engaged in policy making on nuclear, marine, competitive funding, R&D infrastructure, etc. He was assigned to work for the Cabinet Office, Cabinet Secretariat and Reconstruction Agency. He was in charge of the planning and coordination for the installation of the supercomputer Fugaku at Computational Science Promotion Office, RIKEN. Current position since April 2020.

The University of Electro-Communications' Vision of a Co-creative Evolutionary Smart Society and its Development into Science 2.0



Shun'ichi Tano (President of the University of Electro-Communications (UEC))



The UEC is promoting the realization of a "co-creative evolutionary smart society"; a future society that embraces a "co-creative evolutionary function" that creates new value (evolutionary knowledge) through the fusion of human, machine, and natural knowledge, and that continues to develop while solving various problems autonomously. The key phrase is "co-creative evolutionary function consisting of three elements". That is: 1) to make all data on the earth (e.g. data produced by [natural and social] sensors and by information systems) and functions (e.g. physical control functions of machines and equipment, functions of information

systems) accessible via the Internet; 2) to find new insights (e.g. methods for controlling services and equipment, providing information, diagnosis, etc.) via analysis using AI functions or the collaboration of human and machine knowledge; and 3) to advance the society after verifying the stability (from the perspective of society, systems, control, etc.), monitorability, and controllability of the discovered knowledge, and embedding it into the society. When this process "1) ⇒2) ⇒3) ⇒1) ⇒..." is repeated in real time, the society will continue to evolve autonomously. This mechanism even changes the way of scientific discovery. Until now, humans have paid great efforts to make scientific discoveries; however, the

scientific discoveries are expected to be accelerated by freely utilizing data and functions around the world via networks and the co-creation with machine intelligence (AI).

Profile

President of the University of Electro-Communications (UEC). PhD (Engineering). Professor Tano completed his Master's degree at the Department of Computational Intelligence and Systems Science, Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology in 1983; joined Systems

Development Laboratory, Hitachi, Ltd., in 1983; Visiting Research Fellow at Carnegie Mellon University (1990-91); Laboratory for International Fuzzy Engineering (1991-95); appointed Associate Professor at the Graduate School of Information Systems, University of Electro-Communications in 1996; Visiting Scientist at the Massachusetts Institute of Technology (2000-01); and appointed Professor at the University of Electro-Communications in 2002. His research fields include artificial intelligence, ambiguity theory, cognitive modelling, and intelligent HCI.

Research Data Cloud implements the research data management and circulations.

Jun-ichi Onami (National Institute of Informatics)



Before implementing the research data policy, it requires an environment in which research data are managed appropriately on the academic information infrastructure. On the other hand, universities and research institutions had to establish new platforms and standards. Therefore, the National Institute of Informatics (NII) has begun to build a public information platform to reduce the burden of research data management on users. This platform, called the NII Research Data Cloud (NII RDC), has a variety of application functions and high processing capacity to support research data management for institutions and researchers in Japan, and to promote the circulation of knowledge in research activities. This presentation will introduce the process of research data management using the NII RDC, including how to publish and search for research data.

Profile

Project Associate Professor, Research Center for Open Science and Data Platform (RCOS), National Institute of Informatics (NII). Dr. Onami obtained his Ph.D. degree in science at the Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, in March 2009. After working in a private company as a systems engineer for a pharmaceutical corporation, Dr. Onami joined the National Bioscience Database Center, Japan Science and Technology Agency (JST), as a researcher and engaged in research on life science databases and search infrastructures. In April 2020, he took up the current position and had involved in the research and development and the management of an academic discovery platform "CiNii Research" and international collaborations.

Panel Discussion



Summary:

There was an exchange of opinions between speakers and the audience during the panel discussion session.

Part 1: The issues around research data policy

In the first part of the session, participants discussed the data policy development required of Japanese universities and research institutions, and there were questions from the audience. According to their opinions, while data management and publication are required as evidence for papers, a strategy is needed from the perspective of utilizing the data for new research at the national level. Challenges to creating such a strategy included getting researchers involved, developing metadata suitable for reuse, and tracking the status of the reuse.

Part 2: Discussion with stakeholders involved in research data

In the second part of the session, researchers and librarians who are developing and managing data policies joined the discussion. The main points of the discussion included: the need to share case studies and performance evaluations that can serve as incentives for researchers to publish data in order for the policy to be effective; the importance of licenses when publishing data; and the need for appropriate management from the perspective of economic security, rather than necessarily requiring researchers to make their data fully open.

Moderator: Kazuhiro Hayashi (National Institute of Science and Research Unit for Data Application)



Profile

Kazuhiro Hayashi is a senior researcher at the Science and Technology Foresight Center, the National Institute of Science and Technology Policy. Mr. Hayashi started turning literatures of the Chemical Society of Japan written in English into digital journals as a business as a part-time job when he was a graduate school student. Mr. Hayashi accumulated observations and improvements through a variety of work experiences such as peer reviewing digital postings, XML publication, improvement of J-STAGE, establishment of digital journal business, and advertisement activities. He thus established this magazine as the digital journal with one of the fastest

digital publications in the world, started open access in 2005, and established technology which was compatible with digital books (ePub). Using the accumulated experience, he enhanced the attractiveness of the distribution of scientific information in Japan through the Science Council of Japan, SPARC Japan, and other organizations. He is also interested in the future of digital journals and next-generation communication among researchers. Mr. Hayashi has been conducting policy science research at the National Institute of Science and Technology Policy of the Ministry of Education, Culture, Sports, Science and Technology of Japan since 2012. He is investigating and researching styles of open science and policy development in

addition to scientific technology forecasting studies. He is working as an open science expert in projects for the Cabinet Office, G7 Science & Technology Ministers' Meeting,

OECD, and UNESCO. He is a committee member of SPARC.

Moderator: Ui Ikeuchi (Faculty of Language and Literature, Bunkyo University)



Profile

Ui Ikeuchi is an assistant professor in the Faculty of Language and Literature at Bunkyo University since 2019 and a Ph.D. in Library and Information Science. She has a Bachelor of Law degree (1995) and a Master of Library and Information Science degree (1997) from Keio University. After working at Ferris University Library from 1997 to 2005, she

became a housewife and entered the doctoral program at the University of Tsukuba. Her research focuses on research data sharing and open science. She is a senior researcher of Japan Center for Constructing Data Infrastructure for the Humanities and Social Sciences (JSPS) and a Visiting Researcher, National Institute of Science and Technology Policy (NISTEP). She is also a member of the SPARC Japan Seminar 2021 planning working group.



Attendee Feedback

(person affiliated with university library)

– I heard the opinions of stakeholders from different organizations and fields on the current situation of research data utilization in the course of developing research data policy, rather than just a discussion on data policy development itself. I think this will be helpful when I deal with research data management in my organization.

– Research data management is associated with the problems of management and utilization. The former involves evaluation issues from the standpoint of researchers. The latter involves policy considerations of “national interest” and the desire to do better research as a research institution.

– The discussion was very informative and useful, particularly on points to consider when formulating a research data policy while facing a looming deadline. I believe that there are many universities and research institutions currently formulating a policy or moving toward policy formulation. I reconfirmed the need for collaboration with other departments within my institution.

– The discussion was very informative. A particularly helpful point was the discussion on clarifying the direction of research before developing a policy, which included identifying unique characteristics of research conducted at a university and for what purpose a policy is going to be formulated.

(university researcher)

– I really liked the opinion that the development of a data policy is “an opportunity to get back to the mission of the institution.”

– I was surprised to see that a two-hour discussion was scheduled in this session, but it was wonderful and went by very quickly. I’d like to thank everyone involved.

– The discussion on what we should do with data policy in the future was helpful. I hope that another event will be held again when possible.

(person in university)

– It was great to learn about the specific issues that the various stakeholders are facing. Thanks to all involved in the event.

(others)

– It was good to hear about the situation at the national level and the opinions of those who are actually working on the use of research data, such as universities in relation to the situation in the government.

– An official from the Ministry of Education, Culture, Sports, Science and Technology introduced the policy and its outlook. It was helpful in understanding the overall picture, including the schedule for system development.

Afterword



😊 Regarding the data policy we are now formulating, I learned some tips on how to avoid making it a burden on researchers, and instead making something that promotes the use of data and advances science. I also can see the challenges. I hope that sessions like this will be regularly conducted, where we

can have discussions in light of domestic and international changes and progress.

Ui Ikeuchi
(Bunkyo University)

😊 As a member of the SPARC Japan Seminar Working Group, I was involved in

this event for the first time. I faced the subject of “what is the goal of the research data policy?” As a university librarian, I am involved in this subject at my institution, and it was a good opportunity to listen to the direction and issues based on President Tano’s ideas. The seminar was a learning opportunity for those who are involved with research data, with a diverse range of speakers exchanging opinions from many different perspectives.

Tomoki Ueno
(The University of Electro-
Communications)

😊 For various reasons, this year’s SPARC Japan seminar was held only once. Therefore, the project started out as an indiscriminate plan loaded with content. But by focusing on research data and policy, we were able to make the discussion compact in terms of both time and content. We are relieved to see that many people were interested in the discussion.

Kazuhiro Hayashi
(National Institute of Science and
Research Unit for Data Application)

😊 The seminar was very productive, as we heard the perspectives of people from various positions in the general discussions that took place over two parts. This will be the last time I participate in this event as a member of the SPARC Japan Seminar Working Group, and I have learned a great deal by being involved from the planning stage. Thank you very much.

Michiyo Yasuhara
(National Institute of Informatics)

😊 In this seminar, participants held discussions and provided comments from a variety of perspectives on the development of research data policies. I believe that research data policies should be created for better research activities. For this purpose, careful and thorough discussions should be repeatedly held and positively addressed, and not conducted merely because there is a policy requirement to do so. I believe that this seminar was one opportunity for such a discussion.

Nobuhiro Yabuki
(Yokohama National University)

😊 Since there was only one seminar this year, all Working Group members discussed the content of the seminar. This was our first attempt, and although it took more time than usual, including having several meetings, we were able to improve understanding among the Working Group members. The in-depth, wide-ranging talks at the seminar were made possible by these discussions within the Working Group.

Shigeru Yatsuzuka
(National Bioscience Database Center,
Japan Science and Technology Agency)

😊 The discussion alone was two hours long! Moreover, even though the event was held online, the high level of interest and enthusiasm of the audience were palpable from start to finish. We hope that the diverse opinions and experiences shared at this event will assist them in developing research data policies at their institutions.

Tomomi Yamagata
(Hokkaido University Library)