

Toward the Establishment of a System for Sharing Knowledge Created at Universities

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Institutional Repositories Promotion Committee

The Institutional Repositories Promotion Committee will define strategic priority issues based on its recognition of the current situation of scholarly communication and the related future outlook as outlined below, and will address these issues through further promotion of institutional repositories (IRs).

1. Recognition of the Current Situation

Institutional repositories (IRs) in Japan began with the operations of Chiba University's Repository for Access to Outcomes from Research (CURATOR) and Waseda University's repository in 2005. These resources grew rapidly thanks to support from the Next-Generation Academic Information Infrastructure project run by the National Institute of Informatics (NII) and the NII Institutional Repositories Program. Due in part to the launch of the JAIRO Cloud shared repository service in 2012, Japan currently has 394 IRs – the second-highest number in the world. Meanwhile, the total number of documents archived in IRs reached one million in fiscal 2011, and the total number of accesses reached 83.03 million. A breakdown of usage types shows that, in addition to complementing communication among researchers, IRs are also used extensively by the public. Although these are all steps in the right direction, IRs have not contributed sufficiently to the promotion of open access because most of the documents they contain (such as departmental bulletin papers and theses or dissertations) are made public only to a limited extent. Possible reasons for this include difficulties in maintaining human and financial resources for IR operation. As such, their value as a system for sharing knowledge created at universities is not sufficiently recognized.

2. Future Outlook

IRs have seen a certain level of growth as platforms for the publication and sharing of results through research at universities and as a showcase for the outcomes of university education and research work. However, their further expansion and development as self-archiving apparatus for the daily output of individual university researchers requires coordination and collaboration between the university library community and NII to address the issues described in Section 1 above. This will allow the results of all

education and research activities conducted at universities to be preserved in IRs and help such repositories achieve thorough open access. IRs will then serve as nucleus of university information infrastructure in Internet environments, thereby providing universities with information necessary for education/research strategies and changing scholarly communication systems.

3. Strategic Priority Issues

Outlined below are strategic issues requiring attention so that IRs can serve as nucleus of university information infrastructure and help to change scholarly communication structures as a system for making university knowledge widely available.

(1) Development and implementation of open access policies

The committee will produce open access guidelines stating how universities should make the publication of education and research results mandatory, improve research infrastructure, diversify content and implement other strategies. These activities will support their development of open access policies at various levels in consideration of the growth of open access journals (gold open access).

(2) Upgrading of infrastructure for future IRs

The committee will upgrade the IR infrastructure in academic cloud environments to improve IR management and operation environments.

(3) Content enhancement and utilization

The committee will use results from the NII Institutional Repositories Program to assess IR content, improve undeveloped areas of content in fields where high demand is expected, and promote the diversified use of content in education and research.

(4) Training and human resource development

The committee will provide training and other opportunities that will foster the development of professionals capable of handling a variety of content (rather than only research data and other documents), helping to upgrade IRs and collaborating with the international community.

4. Immediate Action Plan

With the support of NII, the committee will formulate the programs outlined below and promote them in collaboration with university libraries based on the strategic priority issues.

(1) Development and implementation of open access policies

a. Development of guidelines to assist universities in the establishment of open access policies. Efforts will include enhanced collaboration with executives, other officials, Research Strategy Office staff and other relevant parties at universities.

b. Understanding of international trends involving governments and research funding agencies in the development of open access policies, and collaboration with related parties

(2) Upgrading of infrastructure for future IRs

a. Establishment of functional requirements for IRs in cloud environments and support for the implementation of such functions into the JAIRO Cloud system

b. Examination of feasibility regarding joint operation and maintenance of the JAIRO Cloud system by NII and universities, and drafting of a related plan

(3) Content enhancement and utilization

a. Improvement of areas where content is undeveloped, particularly with regard to research papers

b. Expansion of content to include non-literature resources

c. Collaboration with researchers/research groups from the initial stages of their projects for comprehensive accumulation and publication of research results (interim and final)

d. Improvement of metadata quality through activities such as the assignment of digital object identifiers (DOIs) to departmental bulletin papers and theses or dissertations, and the implementation of changes to relevant schemas

(4) Training and human resource development

a. Implementation of investigative study concerning the handling of non-literature electronic content (e.g., metadata schemas, data management planning) in collaboration with relevant institutions, and related human resource development

b. Implementation of training programs for IR managers in collaboration with university library associations and other organizations

c. Promotion of information sharing in collaboration with the IR manager community in Japan

d. Promotion of international collaboration concerning IRs, such as membership of relevant international organizations and attendance at related conferences in collaboration with the IR manager community in Japan