Open Access Developments in Korea

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Preface

- History
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Preface

Brief History of World OA

Unrestricted access to research for all through “self-archiving”

1991 e-print (First preprint server)

1998 (First independent OA journal)

1991 (First independent OA journal)

2000 free archive of journal papers (First post-print IR/SR)

2001 open access licenses

2001 OA science journal publisher (First non-profit OA publisher)

“Flipping” the system from “Back End Paid Access” to “Front End Paid Access”

Gold Road

Green Road

Launched in 2002 by University of Nottingham and Lund University

Launched in 2006 by University of Nottingham and Lund University

Launched in 2003 at Lund University

In 2002 Budapest OA Initiative (BOAI)

In 2003 Bethesda Statement on OA, Berlin Declaration on OA

cOAlition S, 2018

Omnibus Appropriations Act, 2009

SCOAP3 Phase I (2014~16)
Preface

Brief History of OA in Korea


- First pilot project on Institutional Repository
- KISTI & SNU

- Construction of Institutional Repository
- KAIST, SNU

Open Access Korea Project (2009~)
- Operation of Open Access Forum,
- XML construction of articles of open access journal,
- Establishment of institutional repositories, and
- Performing open access legalization research.
- KISTI > NLK

Synapse (2007~)
- Open access Medical journal services
- KAMJE

SCOAP3 participation (2014~)
OA2020 EOI (2018, KISTI, SNU, CODE)

KPubS & Science Central (2014~)
- Open access S&T journal services
- JATS XML web editors
- KISTI & KCSE/KOFST

KISTI Repository (2017~)

Digitization and Archiving of Society Information (1996~, KISTI)
- Digitization print journals
- Provision of websites, e-mail domains, editorial processing system for learned societies

National Project

OA Repository
• ROARMAP registers 81 institutional OA policies from Asia
  – Eastern Asia: 28
  – South-Eastern Asia: 26
  – Southern Asia: 21
  – Western Asia: 5
  – Central Asia: 1

- ROARMAP is a Registry of Open Access Repository Mandates and Policies showing OA policies by country, continent, continental region.
- Europe and North American are leading OA policy continent.
- India and Indonesia are dominant among Asian countries.
- KISTI has registered our OA policy to ROAMAP in 2018.
Preface

OA policy of Korea

General
- Country: Asia - Eastern Asia - Republic of Korea
- Policymaker type: Research organisation (e.g. university or research institution)
- Policymaker name: Korea Institute of Science and Technology Information
- Policymaker URL: https://www.istir.re.kr
- Repository URL: http://repository.istir.re.kr
- Policy adoption date: 17 October 2016
- Policy effective date: 17 October 2016
- Source of policy: Administrative management decision

Policy Terms
- Deposit of Item: Required
- Locs of deposit: Institutional Repository
- Date of deposit: Not Specified
- Content types specified under the mandate: Peer-reviewed manuscripts, Books, Off
- Journal article version to be deposited: Published edition (version of record)
- Can deposit be waived: Yes
- Making deposited Item Open Access: Required
- Can making the deposited Item Open Access be waived: Not Specified
- Date deposit to be made Open Access: As soon as the deposit is completed

Other Details
- Is deposit a precondition for research evaluation (the "LehY-HEFCE Model")
- Rights holding: Author grants key rights to institution
- Can rights retention be waived: Not specified
- Can author waive giving permission to make the publication Open Access: Yes
- Policy's permitted embargo length for science, technology and medicine: Not Specified
- Policy's permitted embargo length for humanities and social sciences: Not Specified
- Can maximal allowable embargo length be waived: Not specified
- Open licensing conditions: Requires CC-BY-NC or equivalent
- Gold OA publishing option: Not specified
- Funding for APs where charged by journals: Institution provides funding

Countries (UN Geoscheme)
- (28)
  - Asia (28)
    - Eastern Asia (28)
      - China (4)
      - China, Hong Kong Special Administrative Region (4)
    - Japan (18)
    - Republic of Korea (1)
    - Taiwan (1)
Preface

- Number of OA journals is rapidly increasing.
  - 136 open access journals are being registered to DOAJ.

- Number of IRs is relatively small.
  - Korean share in OpenDOAR is only 1% while Japanese share over 6%.
GERD/GDP (4.5%) is exceptionally high. This has not yet been translated into output, where productivity is well below G20 averages, or citation impact. The latter may partly be due to lower international collaboration than the G20 average. Female researchers are a relatively small part (20%) of the workforce. **OA is rising and is already above G20 benchmarks.**

OA Policies in Korea

- Government & Funder
- Society
• KISTI studied on ‘open access to research outcomes funded by government’ for two years from 2010-2011
  – Investigated Korean policy and legislative system for the public access to research outcomes
  – Investigated public access policies of foreign countries
  – Analyzed interest and relationship among stakeholders including researchers, universities, learned societies, and DB companies.
  – Prepared a draft bill for public access in Korea

• The study was discontinued till recently because
  – Open access awareness in the field was not matured and
  – Unrelenting opposition of domestic DB companies.
OA Policies in Korea

• Ministry of Science and ICT considers to adopt PA in near future.
  – Korean government has successfully operated National Science and Technology Information Service (NTIS), which is a research outcome management system for increasing the effect of R&D.
  – Technical Reports and Patents are deposited but journal articles and research data are not deposited.
  – A proposal on mandatory OA to research articles has been submitted.

• Korea Center for Disease Control and Prevention (KCDC) has adopted PA policy.
  – Researchers received fund from KCDC must deposit the final manuscript in 12 months after determination of publication.

[Forum on OA policy regulation, 2019]
OA Policies in Korea

- National Research Foundation of Korea (NRF) and Korean Federation of S&T (KOFST)
  - Favor to learned societies publishing OA journals when evaluating to subsidize societies.
- Korean Societies
  - Most domestic journals have been freely accessible since 2000.
  - Some companies began to sell journal articles based on contracts with societies.
  - Some journals adopts OA policy by attaching CCL to each article in order to get favor in evaluation.
  - Resultantly, FA, TA, and OA journals are coexist in Korea.
OA Activities in Korea

- Overview
- OA Implementation
OA Activities in Korea

Overview of OA Activities in Korea

Transformative Route
- OA 2020 Initiative
- SCOAP3
- Transformative agreement
- Publishers...

Gold Route
- Ministry of Science and ICT
- Ministry of Education
- National Research Foundation of Korea
- Financial support for societies
- KISTI
- Digitization of Archiving of Society Information
- ACOMS
- kPubs
- Consulting on OA journal publishing and promoting

Green Route
- Ministry of Culture, Sports and Tourism
- 1st National OA repository
- OAK
- PA to National R&D outcomes
- KOAR
- National Research Council of Science Technology

Research institutions
- DOAJ
- CASPA
- COAR
- Worldwide Science Alliance
- ORCID
- doi

Learned societies
- NRF

Researchers, citizens
- NRF
- Transformative agreement
- Researchers, citizens
- PA to National R&D outcomes
- KOAR
- National Research Council of Science Technology
Transformative Route

Participation in International OA Initiative

• KISTI has led SCOAP3 project in Korea.
  – KISTI participates in SCOAP3 as NCP
  – KISTI played its role in completion of phase 1 (2014-2016) and 2 (2017-2019) despite of low participation rate of libraries.
  – In order to promote SCOAP3, ‘Korean SCOAP3 Council’ has been organized with libraries and some HEP research organizations.

• KISTI, SNU, NLK, and CODE signed EOI of OA2020
  – Four organizations cooperate in promoting OA in Korea
  – Hosting OA seminars.
Transformative Route

OA Transformation of Subscription Journals

Publication volumes and corresponding author shares
Articles and reviews in Web of Science

Number of articles p.a.

Data according to Palzenberger, M. (2015). Number of Scholarly Articles per Country. http://dx.doi.org/10.17617/1.2
Pilot TA between National Research Council of Science and Technology (NST) and Elsevier

- Its 25 member institutions has subscribed e-journal packages individually
- NST is leading the first transformative agreement on behalf of its members with Elsevier for the next 3 years (2021-2023)
- A working group is organized from the representatives of each library and led by KESLI secretariat (KISTI)

* KESLI (Korean Electronic Site License Initiative) is a nation-wide library consortium and cooperates with more than 300 libraries in S. Korea since 1997
Gold Route

KISTI’s Activities for Korean Learned Societies

- National project for digitizing and archiving learned society information (since 1996)
  - Provision of homepage + e-mail service for domestic learned societies
  - Support for digitization of print journals and construction of Korean journal article database (Society Village -> KoreaScience)

- Provision of Online Peer-review system (since 1997)
  - First implementation and provision of online peer-review system (ACOMS)
  - Provision of computing resources, back-up, security SW (cloud service)

- Support for DOI registration (since 2007)
  - Financial and technical support for DOI registration to Crossref (400 titles)
  - Direct management of DOI assignment as a DOI RA (since 2015)

- XML full-text construction (since 2015)
  - Manual construction of full-text XML
  - Support for semi-automatic construction of XML (KPubs)

- Provision of Journal Publishing platform
  - Scholarly open access journal publishing platform (KPubs)

- Support for Distribution and Assessment
  - English landing pages for Korean OA journals (KoreaScience)
Gold Route

OA Activities for Korean Learned Societies

- KISTI with the representatives of learned societies such as KAMJE, KCSE, and KOFST have supported Korean journal publishers to flip their journals to open access.
  - Operating OA journal platforms
  - Providing a guidance on how to publish OA journals and be indexed in DOAJ

116 journals

114 journals

216 journals
Gold Route

OA Activities for Korean Learned Societies

- National Research Foundation (NRF) has monitored and supported learned societies by
  - Providing scholarly journal assessment system (1998~)
    - Incentives are given to journals who agree and provide their journal contents free access
  - Supporting domestic journals financially as to leaping up to internationally qualified journals (2010 ~)
    - 70 titles (as of 2009) -> 120 titles (as of 2019.8)
  <source>
  - Sim, K. (2010) A Strategic report for the world-class scientific journal promotion project
  - Clarivate (2019.8) Thomson Reuters Master Journal List (http://mjl.clarivate.com/)

- Korea Foundation of Science and Technology (KOFST) has supported learned societies financially with similar purposes
  <source>
  - KOFST (2019.3) Scholarly Journal Support Systems

<table>
<thead>
<tr>
<th>Department</th>
<th>Purpose</th>
<th>Budget</th>
<th>Number of titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoSICT</td>
<td>Support for domestic scholarly journal</td>
<td>1,972,000 euro</td>
<td>305</td>
</tr>
<tr>
<td>MoE</td>
<td>Support for international scholarly journal (pub. by domestic societies)</td>
<td>1,928,000 euro</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Support for internalization of domestic journals</td>
<td>136,000 euro</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total Sum</td>
<td>4,036,000 euro</td>
<td></td>
</tr>
</tbody>
</table>

Incentives to open access (Not Open Access) have allowed financially supported journals to contract with global publishers under paywall.
Green Route

Institutional Repositories

- National open access projects performed by KISTI (then NLK).
  - Software: DSpace
  - Number of records: 593,588
  - Number of IRs: 35

No more growth in quantity
Some of the IRs are not sustainable
Challenges & Perspectives

- OA Transition (Transformative Route)
- OA Repository (Green Route)
- OA Publishing (Gold Route)
Overview

Perspectives of OA practices in Korea

1. OA Transition
   - Transition to OA
   - Call for Transformative Agreement by KESLI (2020)
   - Pilot transformative agreement between NST-Elsevier (2021~)
   - More comprehensive and rapid transition is required
   - Implementation of subscription and publication analysis system
   - Development of OA Transition Model

Overseas journals are dominant in subscription and publication by Korean researchers

2. OA Repository
   - OA Repositories
     - OA for Research Outcomes
     - National level OA repository linked to globally

3. OA Publishing
   - Support for OA Publishing
     - Guidelines of OA Publishing
     - Implementation OA Publishing Platform which supports full life cycle
     - Vulnerable publishing infrastructure of domestic journals

According to SHERPA/RoMEO, 80% of publishers have allowed self archiving
Challenges and Perspectives

- National OA repository KOAR (Korea Open Access Repository) launched on Mar, 2020.
- KOAR provides OA article search, repository for self archiving (researcher, journal), collaborative co-authoring tool and predatory journal/conference list.

![KOAR Diagram]
Challenges and Perspectives

National Repository linked to World

<KOAR Main page>

<KOAR in WorldWideScience.org>
Challenges and Perspectives

Full Life-Cycle Management Platform for Scholarly Publishing

- facilitate branding & marketing of journal
- expedite indexing by discovery services
- enable efficient & effective workflow
- facilitate rigorous peer review
- support quality production
- enhance discoverability
- offer various document formats
- enhance article dissemination
- provide robust storage/backup
- support digital curation
- easy to use
- flexible
- extensible
- interoperable

Promotion
- website hosting
- marketing & PR
- facilitate branding & marketing of journal
- expedite indexing by discovery services
- expedite indexing by discovery services

Editorial Management
- submission
- peer review
- expedite indexing by discovery services
- expedite indexing by discovery services

Production
- copyedit, layout
- indexing
- expedite indexing by discovery services
- expedite indexing by discovery services

Publication
- formatting/display
- print & disseminate
- expedite indexing by discovery services
- expedite indexing by discovery services

Preservation
- data hosting
- long-term storage
- provide robust storage/backup
- support digital curation

Korea DOI Center
- expedite indexing by discovery services
- expedite indexing by discovery services

Korean Journal Publishing Service
- expedite indexing by discovery services
- expedite indexing by discovery services

NDSL Open Service
- expedite indexing by discovery services
- expedite indexing by discovery services

ACOMS
- expedite indexing by discovery services
- expedite indexing by discovery services

K'Pubs XML 생성 시스템
- expedite indexing by discovery services
- expedite indexing by discovery services

K'Pubs
- expedite indexing by discovery services
- expedite indexing by discovery services

Korean Journal Publishing Service
- expedite indexing by discovery services
- expedite indexing by discovery services

Korean Journal Publishing Service
- expedite indexing by discovery services
- expedite indexing by discovery services
Challenges and Perspectives

International Collaboration

- OA Journal Publishing
  - Collaboration
  - Demand
  - Standard

- OA Repository
  - Benchmarking
  - Demand
  - Linking

Domestic Collaboration

- Research Data Hub Center
- Content Curation Center
- KISTI IR
- Domestic Journals
- E-Resource Users
- Government

- Pre-print
- Repository Reg.
- SCOAP3
- OA 2020
- OA Policy Reg.

- OA Policy Development
- Benchmarking
- Korean Situation

- Open Access Center
Q&A