Scholarly communication in the context of Open Science: the need for infrastructures

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Ecole des Hautes Etudes en Sciences Sociales
OpenEdition / OPERAS

Open Access in the Humanities – Academic Book Fair
Ljubljana
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(Introduction): starting points...
Putting down roots

Support and dissemination services assist authors and institutions in implementing OA and complying with OA policies. The most widely used are the SHERPA services, which are consistently relied on to support OA repository workflows.

OA repository services encompass a wide range of repository and related services that are crucial to the implementation of open access archiving. The critical dependency in this case is not on one or two individual services, but on the success of efforts to improve interoperability across the OA repositories landscape.

We also considered a range of OA publishing services and OA monitoring services. At the present time, policies are not highly dependent on these services but they seem likely to grow in importance in the future.

1.3 Priorities for action

The fundamental challenge for the implementation of OA policies is the need to develop a fully-functioning OA infrastructure from the current disparate collection of services. This study has taken the form of a broad survey of the current OA policy and service landscape, and further work is needed to translate our findings into specific, costed recommendations. Nevertheless, the broad direction of travel is clear: OA policies are to be successfully implemented. Four priorities for action have therefore been identified:

1. Adopt sound governance structures with greater representation from funders and policy makers, promoting the wider use of crucial identifiers and standards.

2. Ensure the financial sustainability of critical services, particularly the DOAJ and SHERPA services.

3. Create an integrated infrastructure for OA repositories based on central ‘nodes’, interoperability across the broader landscape, and increased engagement with the European Commission’s OpenAIRE project and the work of the Confederation of Open Access Repositories (COAR).

4. Invest strategically in OA services in order to create a coherent OA infrastructure that is efficient, integrated and representative of all stakeholders.
A landscape study on open access and monographs

- Eelco Ferwerda (Oapen)
- Frances Pinter (KU Research)
- Niels Stern (Nordic Council)

- Knowledge Exchange
- FWF
- CRIStin
- Couperin
A comparative study in 8 countries

• UK
• Germany
• France
• Denmark
• Netherlands
• Austria
• Norway
• Finland

• Methodology:
  • Data gathering (DOAB, EBSCO, OCLC, OpenAIRE, ROARMAP, etc.)
  • Literature review
  • Online survey (libraries, publishers, funders)
  • In-depth interviews
<table>
<thead>
<tr>
<th>245</th>
<th>85</th>
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</thead>
<tbody>
<tr>
<td>OA policies worldwide including books or sections of books</td>
<td>of these are mandates</td>
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<tr>
<td>Est. 10,000</td>
<td>At least 200</td>
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<tr>
<td>OA monograph titles available globally in English</td>
<td>publishers offering OA options for monograph authors</td>
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</table>
KE study in a nutshell

• Something is happening: existence of policies, remarkable initiatives in all countries
• Diversity: the models are deeply rooted in national systems and cultures
• There is money in the system (mainly to subsidise print copies)
Models to support OA monographs

<table>
<thead>
<tr>
<th>Models to support OA monographs</th>
<th>Publishers</th>
<th>Institutions</th>
<th>Librarians</th>
<th>Funders</th>
<th>Academics</th>
<th>Policymakers</th>
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<tr>
<td>Library-university press collaboration: from providing a basic publishing platform through to a full-service publisher</td>
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<td>New university press – traditional press collaboration: universities manage some aspects of publishing while outsourcing other elements to traditional publishers</td>
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<td>Including monographs in OA policies/mandate</td>
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<td>Allowing BPOs to be paid from general OA publication funds; giving space for experimentation by authors, publishers and funders</td>
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<td>Co-ordinated approach to OA monographs: several funders working together to create joint policies and eventually mandates</td>
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<td>Supporting investigation and experimentation through pilot projects and research</td>
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<td>Collaborative funding: aggregating funds from different institutions and individuals to crowd-fund OA monographs</td>
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<td>Public funding of an OA platform; government support of a platform and business model that facilitates OA monograph publishing</td>
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<td>Supporting infrastructure development to set up OA book publishers: establishing new processes and sharing the learning that arises from this</td>
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<td>Building a disciplinary academic community around a new publishing venture: discipline-specific monograph ventures developed with academic support to ensure credibility</td>
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<td>Examples of clear governance and structure around new presses; involving range of groups in new university presses to build credibility/engagement</td>
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<tr>
<td>Collaboration on developing standards and sharing of services for infrastructure: publishers in different territories have shared access to/understanding of infrastructure</td>
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<tr>
<td>Joint label to support quality assurance and dissemination; building scholar and trust in the outputs of OA monograph labels</td>
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<tr>
<td>OA fund for aspects/types of monographs: providing flexibility that allows authors to cover all relevant costs associated with their OA monograph</td>
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Open Access in Humanities and Social Sciences: a milky way
OPERAS-D Project
In examining all emerging trends in journal and monograph publishing, the report outlines key challenges and potential issues to be addressed by future initiatives. Recently introduced and experimental models (such as scholar-led publishing bodies, and new university presses) share common orientations towards increased participation of researchers in the publishing process and overcome certain deficiencies of the commercial publishing model.

Notwithstanding the importance of such initiatives, as the Report concludes, fragmentation (both in terms of the size and nature of publishers and of their business models) is a key characteristic in the academic publishing landscape. In this context, the main challenge in adopting effective open access publishing practices is to identify and assess current needs and limitations that permeate the academic publishing landscape, in operational as well as communicational terms.

The landscape study confirms that successful research relies primarily on unrestricted access to high quality scientific output and cross-disciplinary, international collaboration. Shared and remotely accessed digital infrastructures constitute an important feature towards the realisation of the European Research Area, and OPERAS aspires to be actively engaged in the implementation of a new mode of science that overcomes fragmentation and enables unrestricted access to high quality scientific output.
Survey on publishers

### spring survey | autumn survey | total
--- | --- | ---
Started surveys | 79 | 38 | 117
Completed surveys | 42 | 17 | 59

#### PUBLISHING SOFTWARE

<table>
<thead>
<tr>
<th>Software</th>
<th>spring survey</th>
<th>autumn survey</th>
<th>total</th>
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<td>XM Lmind</td>
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<td>Wordpress</td>
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<td>RUA</td>
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<td>ipublishcentral</td>
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<td>InDesign (Adobe)</td>
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<td>Hyperwave</td>
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<td>Highwire</td>
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<tr>
<td>Dreamweaver (Adobe)</td>
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<tr>
<td>Acrobat (Adobe)</td>
<td>3%</td>
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</table>
## OPERAS partners technical mapping

<table>
<thead>
<tr>
<th>PARTNER</th>
<th>Huma-Num (Isidore)</th>
<th>EKT</th>
<th>IBL PAN</th>
<th>MWS</th>
<th>Open Edition</th>
<th>OAPEN</th>
<th>OAPEN (DOAB)</th>
<th>Ubiquity Press</th>
<th>UCL press</th>
<th>Univ. Coimbra</th>
<th>Univ. of Turin</th>
<th>Univ. Zadar</th>
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</thead>
<tbody>
<tr>
<td>DB Size (GB)</td>
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<td></td>
<td></td>
<td>1024GB</td>
<td>60GB</td>
<td>60GB</td>
<td>200MB</td>
<td>270 GB</td>
<td>OAPEN [60GB]</td>
<td>419GB</td>
<td>8GB</td>
</tr>
<tr>
<td>Storage Size (TB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>400TB</td>
<td>40TB</td>
<td>5,5TB</td>
<td>0,7TB</td>
<td>5TB</td>
<td>OAPEN [5,5TB]</td>
<td>25TB</td>
<td>2TB</td>
</tr>
</tbody>
</table>
OPERAS partners technical mapping

| PARTNER                      | OPENEDITION | Huma-Num (Isidore) | EKT | Ubiquity Press | MWS | Unito | OAPEN | OAPEN (DOAB) | Univ. Coimbra | Univ. Zadar | IBL PAN | UCL press |
|------------------------------|-------------|-------------------|-----|----------------|-----|-------|-------|-------------|---------------|-------------|---------|---------|----------|
| CPU cores                    | 724         | 192               | 72  | 31             | 12  | 12    | 4     | 4           | 6             | 4          | Open Edition | OAPEN    |
| Servers (nb)                 | 21          | 8                 | 6   | 10             | 1   | 1     | 4     | 4           | 4             | 4          | Open Edition | OAPEN    |
| RAM (GB)                     | 3000        | 1000              | 1100| 115            | 24  | 32    | 32    | 32          | 28            | 8          | Open Edition | OAPEN    |
| Provider                     | CC IN2P3    | CC IN2P3          | EKT | Amazon         | BSB | Cineca| UvA   | SemperTool   | Univ. Coimbra | SRCE       | Open Edition | OAPEN    |
Visibility of OA monographs

The Visibility of Open Access Monographs in a European Context

A report prepared by Knowledge Unlatched Research

30 January 2018

Cameron Neylon,1,2 Lacy Montgomery,1,2 Alkim Ozaygen,1,2 Neil Saunders3 and Frances Pinter1,2
1. Centre for Culture and Technology, Curtin University, Kent St, Bentley, Western Australia
2. Knowledge Unlatched Research, United Kingdom

This project received funding from European Union’s Horizon 2020 research and innovation programme under grant agreement 731011.

A number of respondents expressed a desire for a “dashboard” or other visualisations that could bring multiple data sources together. The consequent need for data integration and standardisation to achieve this was mentioned in one or two responses but awareness of the challenges of comparison across sources appeared to be limited. There was some evidence of a conflation of visualisation with data integration.

Respondents are small organisations with limited capacity. There is a desire for coordination and shared services, infrastructures, standards. A common thread in the responses was that the publishers and platforms who are engaged in Open Access scholarly book publishing are relatively small. This is both a challenge and an opportunity. They have limited capacity to develop internal processes and systems are looking for shared services and platforms to assist in developing usage data capabilities.

It would be of great help if we could have a route service from where we could manage all the information related to statistical usage data.

If we engage more effectively with usage data we would like to see a collaboration agreement with Google on how to gather and access usage data.

We would like to see a usage aggregation service that consolidates usage data from different hosting partners into one standardised report in an institution-wide way. In turn, this should translate into a usage dashboard that can be embedded into platforms and allows institutions to use different filters to analyse usage by publishers, region, etc.

Some of our biggest challenges include optimising workflows, how to do more work with smaller amounts of data.

What emerges overall is a picture in which platforms and publishers are implementing tools and approaches locally and using what they are provided with to some degree. There is generally a good technical awareness of the tools being deployed, but less apparent awareness of data curation and quality assurance issues.

Many of the challenges arise from issues of data integration and standardisation. Small, and even medium-sized, players have limited capacity to engage with detailed standards or technical development. Equally there are limitations on what capacity a small organisation can provide to investigate the economic content of the data being generated. The majority of data are seemed to be in raw form.
KU Research findings

• The metadata held and managed by OPERAS partners is inconsistent and variable in quality
• The visibility of OPERAS partner books in catalogues varies by publisher.
• Evidence can be obtained that books relevant to specific regions gain interest and attention in that region
• The variable quality of book metadata creates challenges in analysing visibility consistently
• The variable quality of book metadata creates challenges for downstream data aggregation and analysis providers
OPERAS proposition: a distributed infrastructure for open scholarly communication in SSH
THE SITUATION
before OPERAS

In STEM
Scientific community lost control to commercial publishers

In SSH
Fragmentation of the publishing community, mostly university led
Early Open Science adopters in SSH

Opportunity
Reclaim control by uniting researchers, libraries and publishers in a common effort
To provide a pan-European infrastructure for open scholarly communication
Integration of the long tail into Open Science
OPERAS PARTNERS

OPERAS is led by OpenEdition (France)

- **35** Partners
- **11** Countries
- **9** Core group Members
- **2 H2020** Projects
OPERAS members serve the researcher’s needs **all along** the research cycle
A federation of publication platforms...

... to deliver Open Science services...
Coordinated by the Core Group
OPERAS Working Groups

1. **Advocacy**: MWS (contact point), AISA, UGOE, IBL PAN, KU Research, OpenEdition, University of Turin, The Arctic University of Norway

2. **Publishing Tools**: OpenEdition (contact point), Hypothesis, IBL PAN, C²DH, Roma Tre University, Stockholm University Press, Ubiquity Press, University of Turin, University of Milan

3. **Standards**: EKT (contact point), OAPEN, OpenEdition, University of Milan

4. **Business Models**: UCL Press (contact point), AEUP, IBL PAN, KU, KU Research, Lexis, OLH, UC Digitalis

5. **Best Practices**: OAPEN (contact point), AEUP, Hypothesis, LingOA, OpenEdition, OLH, QOAM, Lexis, Stockholm University Press, Ubiquity Press, University of Milan, University of Zadar

6. **Multilingualism**: UC Digitalis (contact point), UGOE, Huma-Num, EKT, ISCTE-IUL

7. **Platforms and Services**: OAPEN (contact point), OpenEdition (contact point), Huma-Num, LingOA, Open Books Publishers, QOAM, University of Zadar
Operas white papers and conference
HIRMEOS: a proof of concept for OPERAS collaboration
• 5 OA books platforms:
  • Oapen
  • OpenEdition Books
  • Göttingen University Press
  • Ubiquity Press
  • Ekt e-publishing

• Other participating: OBP (UK), Perspectivia (De), Sirio (It)

• 5 services implemented
  • Identifiers: DOI, ORCID, Funding Registry
  • Named entity recognition: places, names, periods
  • Certification: DOAB PR types
  • Annotation: hypothes.is
  • Metrics: OA metrics, alternative metrics
HIRMEOS in a nutshell

HIRMEOS takes place within the larger network OPERAS (open access in the European research area through scholarly communication) that joins more than 20 partners to build up a distributed research infrastructure for the Humanities and Social Sciences. The Project is run by nine European partners committed to innovative scholarly communication and is based upon five Open Access books publishing platforms giving access to more than 8000 scholarly books. HIRMEOS is funded within the European Union’s Horizon 2020 research and innovation programme aiming at user-driven e-infrastructure innovation.

http://www.hirmeos.eu/animation-video/
(Conclusion): to be continued...
On the road to ESFRI...

ESFRI launched the 2018 Roadmap Update process on 17 January 2017 during a dedicated Info Day in Malaga. New proposals for the ESFRI Roadmap can be submitted by National ESFRI Delegations and EIROforum members until 31st August 2017, 18:00 CET.

Roadmap 2018

The Roadmap 2018 submission process will remain open until August 31st and welcomes submissions of new proposals. Following the official presentation of the ESFRI Roadmap 2018 update process at EIRO2016 in Cape Town, and the Roadmap 2018 Info Day in Malaga, ESFRI published important documents with the aim to provide a complete description of the requirements, the procedure and the methodology of selection of proposals for the Roadmap Update and thus facilitate new submissions by ESFRI Delegations and EIROforum Members.

The ESFRI ROADMAP 2018 GUIDE offers support to proposers preparing a submission and to the Projects and Landmarks involved in the update procedure. It contains the definitions, models and methods, and describes the procedures applied for this update. It represents ESFRI’s best effort in road-mapping methodology and may thus serve as reference to complementary national exercises. ESFRI invites and welcomes the engagement of the research and innovation communities, as well as of the stakeholders from Europe and beyond, to identify potential new Projects and the ways to strengthen the running ones, and to maximise the return from the pan-European RI investment in terms of science, international collaboration and innovation.
THANK YOU