Efforts to promote Open Science in European Research Libraries

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Agenda

- Open Science - a definition
- LIBER - Association of European Research Libraries
- LIBER promoting Open Science
- LIBER strategy for 2016–2017; vision for 2018–2022
- Open Science Initiatives
  - European Commission
  - The Finnish Open Science and Research Initiative
- The National Library of Finland promotes Open Science and Digital Humanities
  - National Library strategy
  - Open National Library policy
- The role of libraries in enabling Open Science
Open Science - a definition

“The practice of science in a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, with terms that allow reuse, redistribution and reproduction of the research, it’s underlying data and methods”

https://www.fosteropenscience.eu/foster-taxonomy/open-science-definition
LIBER is the largest research library network in Europe.

Founded in 1971.
Based in The Hague.
Libraries across Europe

We began with 86 libraries in 15 countries.
420+ libraries
40+ countries
University, national, and special libraries.
LIBER Team
Enable Open Science
(Open Science, Open Access, RDM)

Lead in Changing Scholarship
(Leadership Seminars, Skills Development)

Shape Innovative Research
(Advocacy, Text and Data Mining)
Enable Open Science
(Open Science, Open Access, RDM)

WHY? We believe Open Science will deliver:
- increased transparency
- better quality research
- higher level of citizen engagement
- faster scientific discovery

How?

- **Research Data Management (RDM)**
  - [LERU Roadmap for Research Data](http://learn-rdm.eu/)
  - case examples, best practices, factsheets

- **EU projects**
  - All related to different aspects of Open Science

- **Advocacy**
  - OA, RDM, Infrastructures, copyright & Text and data mining (TDM)
Mobilising our Libraries: RDM

How to get started?
The following messages are intended to assist you in making the case for your library’s role in research data management.

- Provide a permanent home for research data.
- Develop new services roles for implementation.
- Continue exploring requirements and synergies.
- Learn more about disciplinary practices and needs.
- Curate and think of future needs.

Securing the future use of research data.
Research Data Services in Europe’s Academic Research Libraries

LIBER and DataONE have carried out a survey on Research Data Services (RDS).

Europe’s academic research libraries are working collaboratively to help ensure that the scientific data of today is curated properly, so it can be accessed, shared and reused by future generations.

Information on LIBER web: http://libereurope.eu/blog/2016/10/13/research-data-services-europes-academic-research-libraries/
2 Lead in Changing Scholarship
(Leadership Seminars, Skills Development)

WHY? Research libraries are facing unprecedented change and opportunity.

We need to embrace new ways of leading, to effectively deal with new opportunities and challenges.
Emerging Leaders Programme
- For senior librarians who aim to be Directors
- 2 year programme

Journées Programme
- For Library Directors
- Two day seminar

New sessions launching in 2017 – international participants are welcome!
Shape Innovative Research
(Advocating for libraries and their researchers)

WHY? As research libraries, we need to **speak up for** the topics that matter:
- Copyright Reform
- Text and Data Mining
- Open Science
Strategy

EXECUTIVE BOARD

STRATEGIC PRIORITIES
(Steering Committees, Working Groups, EU Projects)

- Metrics
- Scholarly Comms & Research Infrastructures
- Research & Education
- Scientific Information Infrastructures
- Leadership & Workforce
- Reshaping the Research Library
- Digital Collections
- Advocacy & Comms
- Copyright
- Open Access

Strategic Priority #1 - Enable Open Science
Strategic Priority #2 - Lead in Changing Scholarship
Strategic Priority #3 - Shape Innovative Research
LIBER strategy 2018–2022 / Draft

RESEARCH LIBRARIES POWERING SUSTAINABLE KNOWLEDGE IN THE DIGITAL AGE

- In 2022:
  - Open Access is the predominant form of publishing
  - Research data is Findable, Accessible, Interoperable, and Reusable (FAIR)
  - Digital skills underpin an open and transparent research life cycle
  - Research infrastructure is participatory, tailored, and scaled to the needs of diverse disciplines
  - Cultural heritage of tomorrow is built on today’s digital information
LIBER WEBSITE http://libereurope.eu/
European Commission and Open Science
Drivers for Open Science

- Availability of digital technologies and their increased capacities: 76% totally agree, 22% partially agree, 2% I don't know
- Researchers looking for new ways of disseminating their output: 47% totally agree, 43% partially agree, 7% I don't know
- Researchers looking for new ways of collaboration: 43% totally agree, 43% partially agree, 3% I don't know
- Increase of the global scientific population: 30% totally agree, 46% partially agree, 4% I don't know
- Growing criticism of current peer-review system: 34% totally agree, 42% partially agree, 6% I don't know
- Public demand for better and more effective science: 36% totally agree, 39% partially agree, 2% I don't know
- Public funding supporting 'Science 2.0': 32% totally agree, 41% partially agree, 6% I don't know
- Growing public scrutiny of science and research: 26% totally agree, 44% partially agree, 8% I don't know
- Public demand for faster solutions to Societal Challenges: 26% totally agree, 45% partially agree, 6% I don't know
- Scientific publishers engaging in 'Science 2.0': 22% totally agree, 40% partially agree, 6% I don't know
- Citizens acting as scientists: 11% totally agree, 33% partially agree, 6% I don't know

L I B E R
Europe’s Transition to Open Science

• European Commission (EC) Recommendation 2012:
  • “Access to and preservation of scientific information”
  • “Towards better access to scientific information: boosting the benefits of public investments in research”
• Horizon 2020 principles
• EC’s public consultation on Open Science 2014 and report 2015: “Validation of the results of the public consultation on Science 2.0: Science in Transition”
• 2015: “European Research Area Roadmap 2015-2020”
• 2015: “Open, data-intensive and networked research as a driver for faster and wider innovation”
• European Open Science Cloud
• 2016: Open Science Policy Platform
EU Horizon 2020 Mandates

- Open Access Mandatory (2015)
- Open Data Pilot (7 funding areas, 2015)
- Open Data pilot extended to all funding areas from 2017

More information:
Guidelines on FAIR Data Management
The European Open Science Cloud

BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES

- A trusted, open environment for sharing scientific data
- Linking data
- Connecting scientists globally
- Improving science
- Long term and sustainable
- Open and seamless services to analyse and reuse research data
- Connecting across borders and scientific disciplines

European Member States Commitment

- All member states to transition towards Open Science (council conclusion May 2016)
- Open access the default by 2020
- Research data from publicly funded projects for the public good
- Follow FAIR principles
- Data Management Policy obligatory
Open Science Policy Platform (OSPP)

- The European Commission has established a Commission Expert Group to provide advice about the development and implementation of open science policies in Europe.
- The group consists of 25 high-level representatives of the broad constituency of European open science stakeholders.
- The term of the OSPP is 2016–2018
- More information: Open Science Policy Platform (Let’s have a look at the web)

Photos: © European Union, 2016
Open Science Policy Platform - mandate

- advise the Commission on how to further develop and practically implement open science policies, in line with the priority of Commissioner Moedas to radically improve the quality and impact of European science
- function as a dynamic, stakeholder-driven mechanism for bringing up and addressing issues of concern for the European science and research community and its representative organisations, following the five broad guidelines for action which are presented in the Draft European Open Science Agenda
- support policy formulation by helping to identify the issues to be addressed and providing recommendations on the policy actions required
- support policy implementation, contributing to reviewing best practices, drawing policy guidelines and encouraging their active uptake by stakeholders
- provide advice and recommendations on any cross-cutting issue affecting Open Science
OSPP stakeholders

- Universities
  - EUA; LERU
- Research organisations
  - EARTO; EU-Life: EMBO, Living Labs
- Scientific societies
  - European Physical Society; EUCHEMS
- Research funding organisations
  - Science Europe;
- Citizen science organisations
- Publishers
  - STM Publishers; OASPA
- Open Science Platforms
  - RDA; GEANT, OpenAIRE, EGI, Business Europe
- Libraries
  - Liber
Working groups supporting the OSPP

- FAIR open data
- The European Open Science Cloud
- Altmetrics
- New business models for scholarly communication
- Rewards
- Research integrity
- Open science skills
- Citizen Science

Photo: © European Union, 2015
Open Science and Research Initiative

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Open Science and Research Initiative 2014-2017

- Ministry of Education and Culture initiative for the promotion of information availability and open science
- Goal to make Finland a leading country in open science and research
- Scope includes publications, research data, and methods
- Provides researchers with practical knowledge in how they as individuals can implement open science
- Open Science roadmap
- Several services offered by the Ministry to researchers www.openscience.fi
Open Science and Research vision

Vision 2017: Open research leads to surprising discoveries and creative insights

- Reinforcing the intrinsic nature of science and research
- Strengthening openness-related expertise
- Ensuring a stable foundation for the research process
- Increasing the social impact of research
Libraries active in the Open Science and Research Initiative

- Governance of the initiative
  - Strategy group
  - Expert group
  - Special working groups
- Projects
  - Subproject at NLF; Helsinki University Library, Jyväskylä University Library
  - Subproject in coordination with NLF and the Federation of Finnish Learned Societies
- Coordination of Open Science training for research institutes is done at NLF

Vision: Our National Treasures Available for Everyone

Goals:
- We provide digital services which are extensively accessible to the public.
- Our information resources and services support openness.
- We provide the necessary conditions for digital research and learning environments.

2. Open National Library Policy
   - Policy; Implementation plan

3. The Digital Humanities Policy of the NLF
Open National Library

We are an open organisation that plans its operations together with its key stakeholders. Openness builds trust.

The openness of resources and services means that customers have better access to them and they can achieve a greater social impact.

The National Library
1. promotes open science and open access to the cultural heritage.
2. develops open services.
3. plans and develops services together with customers and partners.
4. integrates its open services into national and international infrastructures and services.
5. prepares its strategy and key operational policies together with its key stakeholders.
6. promotes knowledge sharing, shares its knowledge and learns from others.
7. influences the development of legislation by extensively supporting open access to resources and services.
8. aims to ensure maximum access to resources in its agreements.
The Digital Humanities Policy of the NLF

1. The National Library will promote the conditions necessary for research in digital humanities.
2. The National Library offers digitised and born-digital research resources in formats, which are broadly available for research.
3. The National Library can curate its resources and services for digital humanities research.
4. The National Library participates in the development of the tools and methods of research.
5. The National Library cooperates with national and international research infrastructures.
6. The National Library's development work focuses on the modelling of data, metadata, data management and data mining, and associated practical applications.
7. When planning research cooperation projects and their funding, the National Library will consider the services to be developed for the project as well as the maintenance work required after the project.
8. The National Library is an active and renowned institution in the field of digital humanities.
Libraries promoting Open Science
The Role of Libraries in Fostering Open Science

- Raising awareness and providing training
- Coordination of the implementation of data management policies and procedures in institutions
- Support for data management and discovery
- Development of infrastructures
- Curation and preservation
- Data publishing and archiving
- Access to data resources
- Open access licensing, knowledge of APC payments

- Libraries operate on an institutional, national, and international level
Open Science is Global

- Knowledge as a public good
- Open data by default
- Access via publicly owned infrastructure
- Data literacy

- Libraries need to collaborate on a global level!
Further reading:

- Council conclusions on open, data-intensive and networked research as a driver for faster and wider innovation
- DIRECTORATE-GENERAL FOR RESEARCH AND INNOVATION (RTD): Draft European Open Science Agenda
- European ERA Roadmap 2015-2020
- European Open Science Cloud
- The Finnish Open Science Initiative
- FOSTER: Open Science Definition
Further reading (cont.):

- H2020 Programme Guidelines on FAIR Data Management in Horizon 2020
- HORIZON 2020: The EU Framework Programme for Research and Innovation
- LEARN Project summary
- LERU Research Data Working Group: LERU Roadmap for Research Data
- LIBER: EU Projects
- LIBER: An Open and Community Driven Open Science Cloud
- LIBER: Research Data Services in Europe’s Academic Research Libraries blog
- LIBER: Research Data Services in European Academic Research Libraries Manuscript
- LIBER Statement on Enabling Open Science
- The National Library of Finland: Duties and Strategy
- Open Research Data in Horizon 2020
- Open Science Policy Platform
- Reports of the Ministry of Education and Culture, Finland 2014:21: Open science and research leads to surprising discoveries and creative insights
- Validation of the results of the public consultation on Science 2.0: Science in Transition
Further reading (cont.):

• **Interesting Finnish initiatives. These are not mentioned earlier.**

• **National Digital Library**
  • **Finna**-discovery service for libraries, archives and museums in Finland
  • **Finto**-ontology service
Thank You!

Any questions?

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