



EUROPEAN
COMMISSION

Community research

Scientific information in the digital age: European Commission initiatives

Celina Ramjoué, Ph.D.

**European Commission, Research Directorate-General
Science, Economy and Society Directorate
Governance and Ethics Unit**

**Convegno CNR: Open Access, digital preservation e deposito
legale: Policy, progetti e servizi per la ricerca**

8 May 2008, Consiglio Nazionale delle Ricerche, Rome





Outline

- 1. Scientific information in the digital age: a European Commission approach**
- 2. European developments: Commission and other initiatives**
- 3. Next steps**



Outline

- 1. Scientific information in the digital age: a European Commission approach**
2. European developments: Commission and other initiatives
3. Next steps



EC approach (1)

The need to make the most of the digital revolution

- **Internet: explosion of access, dissemination and preservation possibilities**
 - **Scientific publication market trends: debate on pricing and publishing business models, Open Access movement, development of institutional and subject-based repositories**
 - **Debate on access to research data: OECD guidelines on access to research data from public funding**
 - **Need for digitisation and preservation strategies increasingly urgent**
- **Need to make best possible use of opportunities offered by the digital revolution; perceived room for improvement**



EC approach (2)

Importance of access to scientific information for EU research and information society policy

- **Reliable and easy access to and dissemination of data and scientific publications stimulate research innovation and excellence**
 - **Public funding bodies need to improve the return on their investment and make their expenditure more efficient (multiple payment argument for publishing process)**
 - **A coherent preservation policy will prevent loss of information and cultural heritage**
- **Public bodies like the EC have a vested interest in access, dissemination and preservation of scientific information**



EC approach (3)

Evolving legal foundations

Current: European Community Treaty, Title XVIII (Research & Technological Development)

- Art. 163: “The Community shall have the objective of strengthening the scientific and technological bases of Community industry and encouraging it to become more competitive [...]”.
- Art. 164: In pursuing these objectives, the European Community is responsible for “dissemination and optimisation of the results and activities in Community research [...]”.

Future: Treaty on the Functioning of the EU (Lisbon Treaty, Dec 07, ratification in course), Title XIX (Research & Technological Development and space)

- Art. 179 (ex Art. 163): The Union shall have the objective of strengthening its scientific and technological bases **by achieving a European research area in which researchers, scientific knowledge and technology circulate freely**, and encouraging it to become more competitive [...]”.
- Art. 180 (ex Art. 164): content stays the same



EC approach (4)

Implementing the Treaty: the Lisbon Agenda

- **Lisbon Agenda: EU “to become the most competitive and dynamic knowledge-based economy in the world” by 2010**
- **2005 “relaunch”**: focus on actions to promote growth and jobs
 - **European Research Area (ERA) (2000)**: “Internal market” for research: free movement of researchers, technology, and knowledge; 2007 Green Paper on the future of the ERA; part of the new Treaty to be ratified
 - **i2010 (2005)**: a European Information Society for growth and employment: create single information space, strengthen ICT innovation, achieve better inclusion and public services through ICT

→ **main pillars of EC scientific information policy**



EC approach (5)

Specific programmes and initiatives

- **Framework Programme (FP): part of Community R&D policy; looks to maximise socio-economic benefits of research and development for the public good; FP7 2007-2013:**
 - “E-infrastructure”
 - “Science and Society”
 - **Digital libraries initiative: part of i2010; aims to make Europe’s cultural and scientific heritage accessible to all through improved online accessibility, digitisation, and preservation.**
- **Research and information society policy initiatives**
- **Directorate Generals for Research (DG RTD) and Information Society (DG INFSO) most actively involved**



EC approach (6)

Multiple dimensions of EC activities

- **Issues: access, dissemination, preservation, storage**
- **Digital objects: journals articles, research data, books, other media**
- **Types of content: scholarly, cultural**
- **Roles of European Commission:**
 - **Policy-making body: launch of policy debate at the European level; encourage Member States to take coordinated action**
 - **Research funding body: set access and dissemination rules for the EC-funded research (Framework Programmes)**
 - **Supporting body:**
 - **fund digital infrastructure**
 - **fund relevant research and networking activities**



Outline

1. Scientific information in the digital age: a European Commission approach
2. European developments: Commission and other initiatives
3. Next steps



European level developments (1)

i2010: Digital libraries initiative

http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm

- 2005:
 - Heads of state and government call for European digital library
 - Commission Communication on “i2010: digital libraries”: Aim: make Europe’s cultural and scientific heritage accessible (cultural heritage and scientific information)
- 2006:
 - High Level Group on Digital Libraries (multi-stakeholder)
 - Commission Recommendation and Council Conclusions on “digitisation and online accessibility of cultural material and digital preservation”: Member States to take co-ordinated action; Commission to work towards European Digital Library
- 2007:
 - European Parliament Resolution on “i2010: towards a European digital library”: supports European Digital Library project
- Co-funding of relevant projects through *eContentplus*: improving accessibility and usability of digital content

http://ec.europa.eu/information_society/activities/econtentplus/index_en.htm



European level developments (2)

Promoting e-infrastructures through the research Framework Programmes

<http://cordis.europa.eu/ist/rn/>

- Funding under Framework Programmes; FP7 (2007-2013): €572 million for e-infrastructure
- Aim: to create world-class e-infrastructure for global virtual research community
- Vision of scientific process as a continuum in which scientific information should be easily and widely accessible
- Need to see beyond disciplinary and national frontiers and achieve economies of scale for e-infrastructures
- Work funded includes project focusing on digital repositories for publications and data (DRIVER, DRIVER II)



European level developments (3)

“Study on the economic and technical evolution of the scientific publication markets in Europe”

- 2006: Publication of *Study on the economic and technical evolution of the scientific publication markets in Europe* (Commissioned by Research Directorate-General) http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf

Results: oligopoly, steep price increase (esp. 1975-95), bundling strategies, reader-pay model dominant; recommendations

- 2006: public consultation on results and recommendations of Study http://ec.europa.eu/research/science-society/page_en.cfm?id=3185

170 responses: 95 from research community and academic organisations, 58 from libraries/information organisations, and 17 from publishers



European level developments (4)

Commission Communication COM(2007)56

- Feb. 2007: adoption of “Communication on scientific information in the digital age: access, dissemination and preservation” (COM(2007)56)

In English: ec.europa.eu/research/science-society/document_library/pdf_06/communication-022007_en.pdf

In Italian: eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0056:FIN:IT:PDF

- Commission position:
 - *“Initiatives leading to wider dissemination of scientific information are necessary, especially with regard to journal articles and research data produced on the basis of public funding.”*
 - *“Fully publicly funded research data should in principle be accessible to all.”*
 - Need for *“clear strategies for the digital preservation of scientific information.”*

→ Increasingly inclusive view of issue of digital scientific information; coming together of existing initiatives



European level developments (5)

Stakeholder conference in Brussels, 15-16 February 2007

<http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=550>

- Presentation of Communication COM(2007)56
- Joint Research and Information Society: Commissioners J. Potočník and V. Reding
- Stakeholder debate in run-up to conference:

17 January 2007: Petition (www.ec-petition.eu) by researchers in favour of Open Access to publicly funded research publications (today: over 26.000 individual signatories, around 1.300 institutional signatories)

13 February 2007: Brussels Declaration on STM Publishing: underlines views and principles of STM publishers (today: 58 publishers/publishers' associations)

Petition and Statement presented to Commissioner on 15 February 2007 in context of Conference



European level developments (6)

Green Paper on the European Research Area

- April 2007: adoption of “Green Paper – The European Research Area: New Perspectives” (COM(2007)161)
http://ec.europa.eu/research/era/consultation-era_en.html#greenpaper
 - Knowledge-Sharing axis: four questions (open access, technology transfer to industry, specific R&D issues, science & society relations)
 - Question 21 on open access: *“Is there a need for EU-level policies and practices to improve and ensure open access to and dissemination of raw data and peer-reviewed publications from publicly funded research results?”*
 - September 2007: Hearing on question 21
- Addresses issues from open access to technology transfer and full range of approaches to IPR
- Clearly labels access issues as relevant to the future of the ERA



European level developments (7)

Council Conclusions: scientific information in the digital age

http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/intm/97236.pdf

- Nov. 2007: adopted by Competitiveness Council (Portuguese Pres.)
- Welcomes Feb. 2007 Communication on scientific information
- Invites the Member States to:
 - reinforce national strategies & structures for access, dissemination and preservation
 - Enhance coordination among one another
- Invites the Commission to:
 - Monitor good practices; encourage developments of new models
 - Experiment with Open Access to data and publications in FP7
 - Encourage relevant research and deployment of e-infrastructure

→ Clear mandate for Member States and Commission



European level developments (8)

ERC Scientific Council Guidelines on Open Access

http://erc.europa.eu/pdf/ScC_Guidelines_Open_Access_revised_Dec07_FINAL.pdf

- Dec. 2007: adopted by European Research Council's Scientific Council (published Jan. 2008)
- Highlights importance of efficient access to scientific information
- Recognises peer review as fundamental cornerstone to ensure quality of research that must be safeguarded
- The ERC *"requires that all peer-reviewed publications from ERC-funded research projects be deposited on publication into an appropriate research repository where available [...] and subsequently made Open Access within 6 months of publication"*.
- The ERC *"considers essential that primary data [...] are deposited to the relevant databases as soon as possible, preferably immediately after publication and in any case not later than 6 months after the date of publication"*.



EUROPEAN
COMMISSION

Community research

Outline

1. Scientific information in the digital age: a European Commission approach
2. European developments: Commission and other initiatives
3. Next steps



What's next? (1)

European Digital Library: Launch planned in late 2008

- **Mid-2008: Progress report on digitisation and online accessibility**
- **November 2008: launch of European Digital Library: Europeana (www.europeana.eu):**
 - **Launch of prototype**
 - **Multilingual access point to digital cultural heritage**
 - **Possibility to search directly in different types of collections**
 - **Critical mass of content, user-friendly interface, multilingual**



What's next? (2)

Access to Community funded research results

- Active encouragement of possibility of Open Access publishing (“gold” open access / author pays model) under Framework Programme *during* project duration (FP7 Model Grant Agreement states that Dissemination costs can be claimed at a rate of 100%, annex II, II.16 Upper funding limits)
- Work towards depositing guidelines for Framework Programme funded publications (“green” open access, repository-based): sector-based approach



What's next? (3)

Conclusions

- **The European Commission has recognised the importance of access and preservation issues for its research and technology policies.**
- **First steps taken: issues of access and preservation are now firmly on the European policy agenda.**
- **Concrete access and preservation policies are in the making.**



What's next? (4)

Conclusions

- **European policy solutions must:**
 - improve access and preservation while rewarding publishers for the added value they bring to the scientific process
 - search for a balance between fostering the competitiveness of European industry through protection of IPR and through ensuring the openness of science and wide dissemination of research results
 - take into account the different issues and needs for publications, data, different disciplines, etc.
- **Commission's approach is step-by-step, sector-based, and inclusive of all stakeholder views**



EUROPEAN
COMMISSION

Community research

Scientific information in the digital age: European Commission initiatives

Celina Ramjoué, Ph.D.

**European Commission, Research Directorate-General
Science, Economy and Society Directorate
Governance and Ethics Unit**

celina.ramjoue@ec.europa.eu

http://ec.europa.eu/research/science-society/scientific_publications

**Convegno CNR: Open Access, digital preservation e deposito
legale: Policy, progetti e servizi per la ricerca**

8 May 2008, Consiglio Nazionale delle Ricerche, Rome

