Access to Research Data from Public Funding: OECD project towards international guidelines

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OECD

- Organisation for Economic Co-operation and Development;
- Successor to OEEC (Organisation for European Economic Co-operation) to implement the post World War II Marshall Plan for reconstructing Europe;
- Currently thirty member countries which are among the most industrialised in the world, including those outside Europe, notably US and Japan.

OECD Committee for Scientific and Technological Policy (CSTP)

- A body of the OECD responsible for
  - "Encouraging co-operation among Member Countries, and, as appropriate, with non-member economies, in the field of science, technology and innovation policy, with a view to contributing to the achievement of their economic, social and scientific aims, including growth and the creation of skilled jobs, sustainable development, improved well-being of their citizens and advancing the frontiers of knowledge."

At the Ministerial level meeting of the CSTP in January 2004

- *Declaration on Access to Research Data from Public Funding* was adopted by the Ministers;
- Reflecting in part the move towards “open access” to scientific information, including the Berlin Declaration.

In the CSTP *Declaration*

- The Ministers mandated the CSTP:
  - "To develop a set of OECD guidelines based on commonly agreed principles to facilitate optimal cost-effective access to digital research data from public funding, to be endorsed by the OECD Council at a later stage."

CSTP launched a project

- To respond to this mandate,
- By setting up an Expert Group of representatives from: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, Japan, Netherlands, Norway, Poland, Switzerland, UK, US and EC.

The Expert Group has undertaken

- A survey of current practices in government/research funding agencies and research/data institutions;
- Workshop was held to gather the views of diverse stakeholders;
- Draft the guidelines (formally called OECD Recommendation with Principles and Guidelines) through electronic discussion.

Survey

- Australia, Belgium (Flanders), Canada, Finland, France, Germany, Japan, Netherlands, Norway, Poland, UK, US and the European Commission
  - Twenty government/funding agencies
  - Fifty three research/data institutions

General observations on survey responses

- Diverse views on the issue of access to research data:
  - Some very positive, some more reserved, a few that are negative;
- Practices adopted vary considerably: from adoption of explicit policies to bare awareness of the issue;
- Well represent the variety of views and practices across the OECD membership;
  - Although because of the limited number of samples, caution is needed in interpreting the results.

Governments/funding agencies

- recognise more positive impacts than negative ones of increased access in enhancing advancement of science
  - Through efficiency gains and cost savings
  - Implying higher returns to investments in research and boosting the quality of research.
- adopt different types of policies, including
  - Laws, policy statements, accepted practices of specific research communities.

Research/data institutions

- Many have developed data policies to promote advancement of science;
- Think that access to data is a policy issue of high priority;
- Point to barriers to increased access, mainly in legal restrictions regarding privacy of information, national security and ownership of intellectual property;
- But many feel that the barriers should be overcome;
- Felt international guidelines would be useful.

But a few think they are not useful, because

- They already have established binding policies (especially in the case of national statistical offices);
- Uniform guidelines are difficult to apply because of the differences in problems associated with different data sets;
- Research institutions should be autonomous.

Workshop results: the stakeholders' views

- Institutional frameworks to facilitate access still lacking
  - despite advances in ICT that enables this,
  - Leadership to improve the situation important;
- Improved access would benefit
  - Cross-disciplinary research co-operation,
  - Boost quality of research;
- International guidelines could help:
  - In giving guidance to those institutions in need of policies,
  - Facilitate international research co-operation;

Workshop: stakeholders views (2)

- Incorporating flexibility in the Principles and Guidelines will be important
  - To account for differences in needs according to institutions and disciplines;
- There is need to:
  - Create suitable funding arrangements,
  - Formulate policies for long term data curation;
- Need to address intellectual property issues:
  - From the viewpoint of balancing access and protection,
  - IPR protection can in some cases facilitate access.

OECD Recommendation with Principles and Guidelines

- Legal instrument of the OECD adopted by the OECD Council, but not legally binding – a “soft law”;
- Set out collective standards or objectives to be implemented by Member governments;
- An expression of strong political commitment on the part of Member governments; therefore, goes further than the *Declaration;*
- But leaves flexibility to Member governments in implementing the Principles and Guidelines;

Recommendation

- That “Member countries take into consideration the principles and guidelines on access to research data from public funding which are set out in the Annex to this Recommendation and apply them, as appropriate for each Member country, to develop policies and good practices related to the accessibility, use and management of research data;”

- CSTP is instructed to:
  - Review the implementation of this recommendation as necessary,
  - Review the Principles and Guidelines when appropriate, so as to take into account advances in technology and research practices.

Principles and Guidelines: objectives

- Promote a culture of openness and sharing of research data;
- Identify current good practices in data access and sharing
- Raise awareness about potential costs and benefits;
- Highlight the need to consider data access and sharing regulations and practices in science policies;
- Provide a framework of operational principles and good practices;
- Offer recommendations on how to improve international data sharing environment.

Principles and Guidelines: scope and definitions

- **Research data:** factual records used as primary sources for scientific research…the principles and guidelines are restricted to research data in digital, computer-readable format;
- **Research data from public funding:** research data obtained from research conducted by government agencies or departments, or conducted using public funds;
- **Access arrangements**: regulatory and procedural framework established by research institutions, research funding agencies to determine the conditions of access to and use of research data;
- **Research data from mixed public/private sources:** access to such data should be determined by agreements between public and private funding parties and researchers involved.

Principles and Guidelines (1)

- **Openness**: access on equal terms for the international research community at the lowest possible cost;
- **Flexibility**: take into account changes in IT, characteristics of different research fields, research systems, legal systems and cultures, regulatory regimes;
- **Transparency**: information on data be made internationally available ideally through the Internet;
- **Legal conformity**: conform to the national legal requirements on national security, privacy, intellectual property rights; protection of rare species;
- **Protection of Intellectual Property:** data access arrangements should account for ways to obtain access under the specific legal regimes on IP;

Principles and Guidelines (2)

- **Formal responsibility:** access arrangements to promote formal institutional practices pertaining to authorship, producer credits, ownership, usage restrictions, financial arrangements, ethical rules, licensing terms, liability and sustainable archiving;
- **Professionalism:** institutional practices should be based on relevant professional standards embodied in the codes of conduct of the scientific communities involved;
- **Interoperability:** pay due attention to relevant international data documentation standards;
- **Quality:** access arrangements should describe good practices for methods, techniques and instruments employed in the collection and accessible archiving of data

Principles and Guidelines (3)

- **Security:** pay attention to supporting the use of techniques and instruments to guarantee the integrity and security of research data;
- **Efficiency:** goal of improving the overall efficiency of scientific research by avoiding duplication of data collection efforts;
- **Accountability:** access arrangements should be evaluated periodically by user groups, responsible institutions and funding agencies
- **Sustainability**: due consideration to be given to sustainability by taking measures to guarantee permanent access to data

Further steps in the project

- Refine the draft;
- Undertake wide consultation process;
- Finalise the text by October 2006, to be taken to OECD Council towards the end of 2006.
- In parallel, undertake work on best practices.