THE EUROPEAN COMMISSION'S RECOMMENDATION TO THE MEMBER STATES ON ACCESS TO AND PRESERVATION OF SCIENTIFIC INFORMATION

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Introduction

On July 17th 2012 the European Commission issued a recommendation to the member states on access to and preservation of scientific information. The recommendation was long awaited and its wording is very clear and concise. The Commission is basically telling the member states that they need to do something about access to and preservation of the scientific record right now.

History

The recommendation traces its history back to traditional research policy discourse in the European Union, but specifically the February 2007 communication from the Commission to the Council, the Parliament and the European Economic and Social Committee from February 2007. That particular communication built on the i2010 Digital Libraries Initiative and the Community policy on research that looked to enhance the social and economic benefits of research and innovation for the common good in the context of the launch of FP7 (the 7th Framework Programme) running from 2007 to 2013 as well as the then plans to develop the European Research Area (ERA).

The 2007 communication explicitly details how access to documents as well as data will not only prevent duplicate work, but ensure faster and more effective research of a higher quality. It then goes on to discuss Open Access issues and rehashes the debate from the perspective of both researchers, policy makers and publishers. The communication also deals with the aspects of preservation from the blunt, practical aspects of there being quite simply too much information produced to intellectually deal with legal, organisational and technical issues. At the same time, much of what the Commission later went on to finance and aid in terms of Open Access is delineated and a call to debate the challenges is issued.

In November 2007, the Council issued its conclusions under the Portuguese presidency jointly prepared with the preceding German Presidency. The conclusions are noteworthy, because they explicitly acknowledges the constrained and diminishing access to scientific information caused directly by the rising prices of academic journals. The conclusions also call to the member states to handle the challenges at a national level and to collaborate, and they reiterate the preservation issues. The conclusions set forth an ambitious roadmap for the member states and in fact too ambitious as would be evident later.

In Denmark, the conclusions that bound the member states to make ambitious plans at the national level led to the formation of the so-called Open Access Committee; a broad selection of stakeholders charged with composing a report for the minister on how to implement the conclusions in Denmark. The result was published in 2010 and it's a visionary report detailing actions at the government, ministerial and institutional level. Unfortunately, Denmark experienced a very long general election campaign that froze many emerging initiatives. Then, when the new government took office, all the new ministers had two months to get acquainted with their ministries before Denmark had the presidency of the Council of the European Union for half a year in the spring of 2012. Since then, the research councils in Denmark have implemented Open Access mandates as have several universities. This has made it all the more easy for the Ministry of Science, Innovation and Higher Education to act on the report, and the minister has indeed recently publicly endorsed Open Access.

The European Commission has pursued an Open Access agenda while taking more and more of an interest in research data management, sharing and re-use since 2007. The Commission appointed a high-level expert group to write a report on these challenges, which became the very influential "Riding the Wave: How Europe can gain from the rising tide of research data" from October 2010. Also, under the 7th Framework Programme a project called GRDI 2020 (A Vision for Global Research Data Infrastructures) has been issuing statement reports and recommendations. In 2011, the Commission staged an open consultation on access and preservation of scientific information, the result of which was published in January 2012. The consultation received 1140 answers from 42 countries, and the results were very clear in several categories. For instance, 89% of the respondents identified high journal prices as a key obstacle to access, and another 85% pointed to the limited library budgets. A similar majority pointed to

the EU level as a natural level at which to coordinate repository infrastructures and policy creation.

The July 2012 recommendation

At the Nordbib June 11-13 2012 international conference "Structural Frameworks for Open, Digital Research: Strategy, policy and infrastructure," both commissioner Neelie Kroes, commissioner for the Digital Agenda for Europe, and commissioner Máire Geoghegan-Quinn, commissioner for research, innovation and science, made very clear and very sharp video presentations on the need for better access to scientific information as a prerequisite for European growth.

The recommendation was published five weeks later. Unofficially, representatives from the Commission have made it abundantly clear that the recommendation has been written, because the member states are quite simply not doing enough following the 2007 conclusions, and the recommendation is certainly a strongly worded text.

Generally, The recommendation makes observations on the connection between Open Access to all kinds of scientific information and the larger European flagships under the Europe 2020 banner. It reiterates the importance of Open Access for research and innovation, and this time the Commission explicitly calls for publicly funded research results to be available for industry as well. It reiterates the preservation issues and again calls for collaboration and coordination at the national level between member states and the European and global level.

Specifically, the recommendations fall into nine specific categories, which are:

Clear policies for Open Access to scientific publications resulting from publicly funded research - meaning at the government level:

- Concrete objectives and indicators to measure progress
- Implementation plans, including the allocation of responsibilities
- Associated financial planning

When research funding institutions are responsible for the management of public funds, it must be assured that:
- Policies are in place at the institutional level
- Funding for Open Access is in place; also for experimenting with dissemination
- Changing the evaluation system for researchers so that those who participate in a culture of sharing are rewarded for it

- Guide researchers on how to comply with Open Access policies
- Negotiate with publishers to obtain the necessary rights and terms
- Describe sufficiently publicly funded research results technically so that it is easily identifiable

Open Access to research data with the same prerequisites as documents (concrete objectives and progress indicators, implementation plans and roles, financial planning), and:

- Put the necessary digital infrastructures in place to share and reuse. There's the added complexity that data may have reservations attached relating to privacy, secrets (trade or national security), intellectual property rights etc. Also, in public-private partnerships, the private actor can keep their data from Open Access.
- Datasets are made identifiable and linkable to other sets
- Institutions put in place mechanisms to reward researchers who share data
- Advanced degree programmes are developed in the area of data handling

Preservation and curation of scientific information especially for re-use by:

- Defining and implementing policies and clarifying roles among stakeholders as well as financial planning
- Ensuring the necessary digital infrastructure
- Preserving outdated hardware and software to handle old information
- Facilitating the possibilities of building value-added services based on the re-use of information

Further developing e-infrastructures by:
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  Supporting data infrastructures for all stages of the data lifecycle
- Supporting the development of new professions related to data handling
- Building on existing resources to further develop tools for data modelling, visualisation, simulation etc.
- Reinforcing the infrastructures at a national level
- Developing trust in infrastructures through the use of certification mechanisms
- Ensuring interoperability at a national and global level by participating in and supporting

transnational infrastructures and exchange initiatives

Participation in multi-stakeholder dialogues at all national and transnational levels about Open Access and preservation, specifically:

- Linking data to publications
- Improving access while keeping costs down e.g. through joint negotiations with publishers
- Developing new research indicators and bibliographic measurements encompassing both publications and data
- Developing new reward systems
- Promoting Open Access principles in context of national and transnational nal cooperations

Coordinate and follow up on the recommendation by:

- Designating a national reference point that coordinates, serves as an interlocutor with the Commission and reports on the follow-up

Report on the progress in January 2014 and every two years thereafter

Changes

It is obvious that some completely new elements have made it into the talk of the Commission. For instance, the idea of developing new research indicators, impact measures, bibliometric tools and to change reward systems directly addresses the problem of incentive. While most researchers can agree that improved access to publications and data would improve their working conditions, what exactly is the individual researcher's inventive to share data? Especially
 since it may be burdensome, not financed in grants and not netting any merit. There is a lot of work being done on making data have an impact on research evaluation and reward for instance. In April, there will be a two-day workshop arranged by the Knowledge Exchange programme entitled "Making data count."

There is also the added element of developing whole new professions and academic degrees in what is usually known as data wrangling. Data wranglers would find work in Academia and industry supposedly. Using Denmark as an example, there is no data management programme anywhere, no degree, no job opportunities to our knowledge, and there are no current plans to conceptualise something like a data librarian.

The future

The Cypriot presidency working on the resulting Council conclusions that will follow the recommendation. It will most likely not be ready for Council adoption before the Irish Presidency takes over in January 2013. The new Council conclusions will then be signed by the relevant ministers for each member state binding the countries to roadmaps. The cynical view would be that this is what happened in 2007 and not enough happened afterwards anyway. However, though the big national plans and mandates may have been missing, lots of programmes and initiatives have been working at a sub-government level - such as the Nordbib programme. The governments of Europe may find it a lot easier this time to implement national plans, since more and more academic institutions and research councils have already put in place Open Access policies and mandates.

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