Continuing CERN action on Open Access

Scientific Information Policy Board
Chairman: Guido Altarelli

In the original convention for the establishment of CERN, more than 50 years ago, the founding members laid down the principle that all the scientific results of the Organization, including both experimental and theoretical work, should be published or otherwise made generally available.

For the first time ever, the Internet offers the possibility of making knowledge universally accessible. As a result, publishing practices and the system of quality assurance are expected to undergo considerable changes.

The first practical actions toward the realization of Open Access to knowledge in the sciences and in the humanities were formulated at a meeting on the implementation of the recommendations in the Berlin Declaration[1] held at CERN in May 2004. During this meeting, the Declaration was signed by CERN. So far the Declaration has been signed by 55 organizations throughout the world, which are now taking concrete measures for its implementation.

The process of transforming scholarly communication towards the Open Access model pioneered by the high-energy physicists has now taken up additional momentum. With the CERN Executive Board's approval of the policy document ***Continuing CERN action on Open Access : journals and conference proceedings*** a major step has been made toward Open Access publishing in physics. Changing the publishing model for scientific journals is one part of the Open Access movement, however, it is one where CERN is in a position to lead and influence the scientific community.

The recommendation from the Berlin 3 meeting, held in Southampton in March 2005, on how the Berlin Declaration should be put in place is fully in line with the CERN policy that was actually presented at the same meeting:

1. Implement a policy to require their researchers to deposit a copy of all their published articles in an open access repository.
2. Encourage their researchers to publish their research articles in open access journals where a suitable journal exists and provide the support to enable that to happen.

Point 1 has been the official position of CERN since November 2003 (Annex 1).
Point 2 is the official position of CERN as of March 2005 (Annex 2).

Practical measures to reinforce point 1 and implement point 2 are being prepared.

[1] Berlin Declaration < http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>

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An electronic publishing policy for CERN

Considering that

the physics community has always been at the forefront of the creation and use of electronic archives and electronic journals for the communication of scientific results;

CERN has invented the World-Wide Web, and has made important contributions to the development of other Internet-based communication services;

CERN is a leading institution in science and promotes the role of science in the information society;

the cost of traditional journals is constantly increasing and represents a great burden for library budgets at CERN and other scientific institutions;

it is vital that CERN establishes a policy that encourages, by all possible means, the development and usage of electronic publishing methods, while respecting the responsibility and the freedom of choice of individual authors.

We therefore propose that the following elements of an electronic publishing policy be adopted:

All CERN Scientific Documents that are submitted to the CERN library should also be submitted to the relevant e-archive. Moreover, CERN should support and encourage the extension of electronic publishing wherever possible to include, for example, conference proceedings.

CERN should support and encourage publishing in low-cost, easily accessible electronic journals. The choice of a journal for publication should take into account the publication costs and the subscription policy of the journal. Physics collaborations and authors in general should ensure that a sizeable fraction of their papers is published in such journals.

In selection boards for positions at CERN, the same *a priori* relevance that is attributed to refereed articles in traditional journals should be equally given to refereed articles in electronic journals. CERN should encourage the implementation of similar policies in the scientific community at large.

Scientific Information Policy Board
Chairman: Guido Altarelli
Membership: Isabelle Bejar Alonso, Mick Draper, Nick Ellis, Klaus Freudenreich, Maximillian Metzger, Jean-Pol Matheys, Francesco Navarria, Linda Orr-Easo, Corrado Pettenati, Ezio Todesco, Joachim Tuckmantel, Gabriele Veneziano, Rudiger Voss.

Continuing CERN action on Open Access
journals and conference proceedings

Introduction
Open Access (OA) is an idea that would change the publishing landscape to bring benefits to all readers and authors. New publishing models based on electronic dissemination and OA are emerging. Active measures taken by CERN at this time could have an important impact on the wider adoption of OA principles.

CERN has supported the principles of open access to scientific information since its creation in 1954. CERN's Scientific Information Policy Board (SIPB) adopted the modern OA philosophy into its publishing policy in November 2003, encouraging submission of scientific documents to the relevant e-archive and also stating that "CERN should support and encourage publishing in low-cost easily-accessible electronic journals". By signing the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities in May 2004, CERN made a further commitment to the wider OA movement.

Current trends
Technological innovation has enabled greater efficiencies for publishers and allows quicker and wider dissemination of results. Supplementary material can also be made available, as can new search capabilities and document management techniques. The digitisation of information makes OA technically possible. However, this revolution in publishing has not resulted in a decrease of costs as was hoped; on the contrary, costs are still rising and the amount of information published continues to grow. Even CERN Library is unable to offer complete coverage across its core subjects. Although a move to OA is unlikely to lower costs initially, the long term projections for OA suggest it might ultimately be more efficient and would certainly lead to increased access for all.

Emerging new publishing models: Many publishers are experimenting with new publishing models in response to pressure from the OA movement. Their common aim is to provide free and unrestricted access to readers by recovering their costs from sources other than the traditional subscription route.

The alternative journal forms include some traditional and some new features:
- Available free to readers everywhere.
- Maintain peer review or similar validation techniques.

- Qualify for impact factor measurements.
- Address long-term availability issues (archiving).
- Indexed by traditional database indexes as well as new OA databases.
- Often only published in electronic form.
- Make papers available more quickly than traditional journals.
- Recover costs through author fees, sponsorship or other mechanisms.
- Allow authors to retain greater control over copyright.
- Encourage submission of preprints and/or postprints to institutional (or subject) archives.

Areas for CERN involvement:
OA journals: A small number of OA journals already exist in which CERN authors are encouraged to publish. Some of these charge author fees which should be paid from research budgets. Alternatively, as a transitional measure, CERN could consider arranging an institutional fee for certain popular titles which would allow all CERN authors to then submit to that journal.

OA conferences: The accelerator physics community is already using JACoW to make their proceedings available via OA. The scientific community should use this as a model for publishing their own respective series of proceedings with costs absorbed by the conference fees.

Publishers experimenting with new models: Some publishers are experimenting with different OA business models but policy and funding in institutions are not yet organised in such a way as to respond to these options. CERN could consider encouraging authors to pay fees and/or work in collaboration with other institutions to support emerging titles.

Pioneer OA journals: CERN strongly supported the start-up of the first OA peer-reviewed journal in the particle physics field, the Journal of High-Energy Physics (JHEP), which quickly achieved an impressively high impact factor. For financial reasons, the marketing of JHEP had to be outsourced to the IOP and is not OA at present. At the end of 2006 the contract with the IOP will expire and JHEP could then revert to a fully OA form, provided that reliable and adequate means of financial support can be guaranteed by the community.

Long-term archiving: OA journals are currently only considered as one route to a revolution in publishing, and stability in the environment has not yet been achieved. Institutions have a much greater motivation than publishers to ensure papers are preserved in the long term and many policies and procedures are already in place for archiving documents that are in institutional electronic archives. Publication and repository submission should be seen as complementary actions.

CERN OA Policy
As part of its OA policy, CERN will:

- Actively promote the support of peer-reviewed, "author pays" OA journals in the scientific community.

- Explicitly endorse the "author pays" model, implying that CERN will contribute publication fees for OA journals from its research funds.
- Support the idea of making arrangements between Institutions and such journal publishers, so that the medium and long-tem future of OA journals through an “author/Institution pays” system can be assured. For example, one could envisage that researchers from a particular institution would be entitled to publish their articles in a certain journal by making an annual contribution to that journal.
- Encourage Institutions participating in the CERN scientific programme to enter into similar arrangements with OA journals
- Act in a way to support new OA journals and to support the transition of existing titles into OA form.
- Attempt to duplicate the success of HEP with arXiv in other disciplines by encouraging submission of documents to a relevant OA repository. This includes enforcing the requirement to submit CERN papers to the CERN Document Server until there is complete coverage.
- Give the same *a priori* relevance that is attributed to refereed articles in traditional journals to refereed articles in the new OA journals.

Changing the publishing model for scientific journals is only one part of the OA movement, but it is one where CERN is in a position to lead and influence the scientific community. Scientific communication in the whole research community will benefit from the more rapid adoption of OA principles.