

EMS Paper on Open Access

In the Editorial of the EMS Newsletter published in June 2013, the following statement was made:

“The EMS endorses the general principle of allowing free reading access to scientific results and declares that in all circumstances, the publishing of an article should remain independent of the economic situation of its authors. We therefore do not support any publishing models where the author is required to pay charges (APC)”.

Establishing sound and sustainable procedures for OA, if possible in co-operation with other learned societies and institutions, is among the priorities of the Society.

The EMS endorses the goals of the ICSU document *Open access to scientific data and literature and the assessment of research by metrics*¹ that the scientific record should be:

- free of financial barriers for any researcher to contribute to and for any user to access immediately on publication;
- made available without restriction on reuse for any purpose, subject to proper attribution;
- quality-assured and published in a timely manner;
- archived and made available in perpetuity.

The mechanisms for financing publications should be chosen and adjusted taking into account the scientific judgement of the end users, as opposed to a "supply side economy" of knowledge that is extremely costly.

A clear distinction should be made between open *diffusion* of knowledge and ideas—as offered for example by arXiv—and *publications*. Publications should be validated by a refereeing process of proper quality, and their long-term availability assured. This was made more relevant than ever by the explosion of electronic OA publications. Many of these publications claim to be peer reviewed, but a lack of standards and a large number of papers has led instead to a vast grey area between diffusion and publications.

There is a necessity to establish a code of good practice in publication encompassing all its aspects, including the peer reviewing system, contribution to the creation of a searchable scientific corpus, deposit in an open repository after a reasonable embargo period, and long-term accessibility.

¹ <http://www.icsu.org/general-assembly/news/ICSU%20Report%20on%20Open%20Access.pdf>

Scientific libraries in co-operation with user committees have played an important role in evaluating, organizing, and preserving scientific documents. This must be maintained. Moreover, scientists should use their expertise to help their libraries to adapt to the new environment provided by the new digital technologies.

For non-commercial purposes, mathematical papers and data, including metadata, should be freely accessible.

The EMS will strive to develop the following.

A charter of good practice in publication

The *EMS Code of Practice* prepared by the Ethics Committee and approved by the Executive Committee in 2012 emphasises ethical aspects of publication, dissemination, and assessment of mathematics. These and other crucial aspects of publication, like the contribution to a searchable scientific corpus, the depositing of papers in an OA archive after a reasonable embargo period, the guarantee of free long-term access to published scientific articles, should comprise a *Charter of Good Practice in Publication*. It is recommended to have this *Charter* elaborated in consensus with other learned societies, and adhered to by all mathematicians, editors, and publishers of mathematics.

The EMS will recommend its members to pay close attention to the ways in which particular publishers follow good practices, and to take responsibility in their publication, editorial, and evaluation activities for avoiding publications that fail to follow good practices. This is to help stabilize the publishing system and to discriminate good publishers from predatory ones.

Public funding for scientific documentation

By exerting its influence in Europe, the EMS will encourage European and national research funding agencies to become concerned with the future of scientific documentation and with the control of its costs. It is an obligation for public research institutions to fulfil their responsibility for the organized preservation of knowledge. Libraries will not be able to adapt to their new roles without specific funds. The costs should be taken into account in the research budgets.

The EMS joins ICSU in the recommendation that the terms of contracts governing the purchase of scientific periodicals and databases by libraries serving universities and research establishments should be publicly accessible.

Databases and digital libraries

Databases and data mining are fundamental for research activities. The comprehensive database in the mathematical sciences, zbMATH, edited by the EMS, FIZ Karlsruhe, and the Heidelberg Academy of Sciences, will enlarge the

scope of its activities to become a stronger and scientifically more reliable search and data-mining instrument for all types of mathematical documents.

Digital libraries provide access to digital documents. The EMS has been supporting the development of the European Digital Mathematics Library (EuDML)—an access platform for digital mathematical content hosted by different organizations across Europe. There is a necessity to continue its development as an open library and archive, and to make it part of the world project *Global Library for Mathematics Research*.

The EMS makes the following recommendations.

Libraries in the new era

With the new digital technologies, mathematical and all scientific libraries have become a very complex environment, and the notion of *document* much broader (it now includes software, videos, blogs, and so on). Nevertheless, the crucial role of libraries and librarians remains essentially the same, although the tools needed to carry out the tasks are much more numerous. Helping the adaptation to this new sophisticated environment will benefit the users and contribute to the advancement of research. The EMS strongly recommends its members to play an active and co-operative role in this important task.

Quality indicators

Decisions on subscriptions to journals should be guided by the services they render, the quality of the reviewing process, the editing, the contribution to the advancement of mathematics, deposition in free access archives in a way compatible with the currently available search engines, the guarantee of long-term preservation, etc. These are more meaningful qualities than impact factors.

Endorsement by scientific users and libraries of these quality indicators would provide support for the best journals, help to identify quality in the jungle of new publications, and assist in the careful selection of subscriptions to bundles.

It should be in the best interest of universities and other research institutions to adopt these guidelines for an optimal use of funds devoted to libraries.

San Francisco Declaration on Research Assessment

The EMS endorses the San Francisco Declaration on Research Assessment (DORA), which recognizes the danger in the use of impact factors in evaluation. Corporate and individual members of the EMS are strongly encouraged to sign the declaration.

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