

2nd Floor, Prama House
267 Banbury Road
OXFORD, OX2 7HT, UK

Science Foundation Ireland
openaccess@sfi.ie

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Dear Sir/Madam

STM Response to Science Foundation Ireland (SFI) Policy Relating to the Open Access Repository of Published Research

STM noted with interest SFI's policy statement on the Open Access Repository and is pleased to provide a response during the public comment period.

STM is the leading body representing the interests of scientific, technical and medical publishers throughout the world. Our members are from every sector of the industry, from university presses, learned societies and commercial companies, collectively responsible for publishing over 65% of the annual global output of learned journal articles alone. STM is agnostic about publishing business models, but does believe that the models used should be economically self-sustaining and allow for continued investment in future publishing developments.

STM wishes to register its concerns with a number of aspects of your proposed draft policies in respect of the open access repository:

- The policy as an adoption of best practice
- Rights required for deposit
- An embargo period of six months or less
- The absence of any provision for financial support of those authors who wish to publish in journals offering immediate open access

This policy makes reference to other statements as examples of "best practice". These other statements omit any evidential basis for their embargo periods and in most cases are copying from earlier statements, also without an evidential basis. Nowhere has there been any impact assessment of the likely effects of six, nine or even twelve month embargo periods on the viability of journals. We refer SFI to the eContentPlus-funded PEER project, due to commence in Europe in September 2008, which will be the first attempt to find out what the effects may be. We believe undue commitment to any embargo period (but especially less than twelve months) is premature until the results of this study become known.¹

We further urge SFI to consider refining its draft policy mandate regarding rights which must be granted to the "deposit" archive. We feel the present language risks entangling SFI in violations of Ireland's international treaty obligations under the Berne

Convention for the Protection of Literary and Artistic Works and the Agreement on Trade Related Aspects of Intellectual Property (“TRIPS”).

For our member publishers, making access to research articles free at any point after – or even upon – publication presupposes a means of recovering revenues that allow the journal to exist. To make articles free to read immediately upon publication means that funds equal to 100% of the “pay to read” revenues have to be found from another source: be it government subsidy, charitable donations or publication charges. Of these three options, only one is potentially sustainable and scalable for the estimated 25,000 active learned journals published worldwide and involves publication charges (equal to potential lost revenues) paid either directly by the author or indirectly by the funder of the piece of research. This model has been adopted by a number of funding agencies, especially the Wellcome Trust in the UK, who are prepared to pay a fee for immediate free access. SFI policy does not propose to do this.

An alternative route to open access involves making the article freely available online following publication after some embargo period, typically six, twelve or more months in duration. This approach assumes that an article has little value after its embargo period. For the vast majority of journals this is a dangerous and fallacious assumption. Data from the DC Principles Group of Publishers shows that only about 1% of active learned journals have business models that allow this approach: even in this small group of titles very few indeed, 0.1% (30 journals) make content available by the embargo period in SFI’s draft policy.

Data on the proportion of downloads (or uses) that occur on a wide variety of journals show that 100% is not reached even **ten** years after publication for any subject, and that the proportion of lifetime downloads at six and twelve months can be as low as 27% and 36% respectively in the social sciences, and varies from 34% at six months for mathematics to 51% at six months for a rapid publication life science journal (see attached charts courtesy of Elsevier and a recent article in *J. Amer. Soc. Info. Sci. & Technol.* **57**(13):1840-51 (2006)). It is clear that one size does not fit all disciplines and that even within the area of health there is considerable variation from 37% at six months to 48% at twelve. **With up to 63% of downloads still to occur, a six month embargo would seriously undermine the economic viability of these journals.** These arguments have been accepted by the US National Institutes of Health who decided to retain a twelve month embargo period despite strong pressure to reduce it.

Many commentators have argued that all these arguments are invalidated if the deposited item is the peer-reviewed author manuscript version. They base this assessment upon the assumption that to date no journals have been cancelled because such author manuscript versions were made freely available on the internet. Leaving aside the potential human harm that might result (through injudicious use of non-final, non-copy-edited drafts of medical papers with potentially fatal errors in drug dosages and the like), there is now evidence that for many libraries availability of the peer-reviewed author manuscript is good enough, will lead to cancellations, and that a 6-month embargo will have very little impact on such cancellationsⁱⁱ. Evidence from many publishers is showing that public availability of peer-reviewed author manuscripts on the physics server ArXiv is causing a major migration of downloads away from the journal to the free version. At some point the cost per download of the journals involved will become so high that librarians will be forced to cancel.

STM is sure that the consequences of this scenario will be immediately apparent to SFI: deposit of “good enough” copies in repositories will lead to cancellations and the eventual demise of the journal upon which their peer-reviewed status depended. Such parasitism puts almost all peer-reviewed journals at risk, which we are sure was never the intention of the authors of the SFI policy.

The STM industry is at the forefront in developments in electronic delivery, which have in the past 10 years dramatically increased access to peer-reviewed scientific literature worldwide, reduced the effective cost of access and increased researcher productivityⁱⁱⁱ. This has been done through investment in technology and industry-wide development of standards and tools such as CrossRef^{iv} as well as initiatives such as HINARI, AGORA and OARE^v to enable low-cost or free access in the developing world. All of these benefits have depended upon the industry being able to use self-sustaining business models that have allowed substantial investment in future developments.

STM urges SFI to review its draft policy and to consider carefully the issues we have raised here, especially those relating to the period of the embargo and the option to pay to publish.

Best wishes

Yours sincerely



Michael A Mabe
Chief Executive Officer
International Association of STM Publishers

i See p18 of STM's recent white paper *An Overview of STM Publishing and the Value it adds to Research Outputs* <http://www.stm-assoc.org/documents-statements-public-co/2008.4%20Overview%20of%20STM%20Publishing%20%20Value%20to%20Research.pdf>

ii “Self-Archiving and Journal Subscriptions: Co-existence or Competition?” by Scholarly Information Strategies, can be accessed at www.publishingresearch.org.uk

iii Of all professional information users reviewed in a recent study by Outsell, scientists and engineers were the only group to show a reduction in the time spent accessing information, leaving more time to analyse the information (Outsell I-Market Hot Topics, vol 1, May 6, 2005: “2001 vs 2005, Research study reveals dramatic changes among information consumers”); Further, Dr Carol Tenopir et al present original data at www.dlib.org/dlib/october03/king/10king.html which shows the average number of articles read by scientists was 150 in 1977 and 216 in 2000-2003.

iv CrossRef is an initiative of publishers through which references in one journal article (recorded as a DOI or Digital Object Identifier) can be immediately linked to another article. As of May 2006, CrossRef had over 1,600 publishers and societies with publishing programmes and over 14,000 journals participating in the linking system, with more than 20m registered DOIs of articles, and linking resolutions of more than 13m per month.

v HINARI, a collaboration between publishers, WHO and Yale University Library, offers free access to over 3300 biomedical journals to countries with the lowest per capita incomes, and access for a nominal fee (\$1000 for the full collection) for the next band of countries, 113 countries in total. Downloads by developing country researchers are running at an annual rate of well over 4 million articles.

HINARI's sister programme, AGORA, provides access to the journal literature in food and agriculture, and a third programme, OARE, was launched in 2006 to provide access in environmental sciences.

Article usage over time: first 5 years only

- Chemistry
- Life Sciences
- Life Sciences – Rapid usage imprint
- Mathematics
- Health Sciences
- Physics
- Social Sciences

