

Free on the Net: accessing digital research output with no barriers

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Abstract. This paper aims to present efforts to improve the visibility of full-text scientific literature produced in Italy in the field of public health and related areas. It focuses particularly on the features of two digital archives established and maintained by the Istituto Superiore di Sanità (ISS, Italian National Institute of Health), the leading centre for biomedical research in Italy: a) Dspace ISS, the institutional OAI-compliant repository of scientific works produced by the Institute's research staff; b) the DataBase of Italian Translations (DBIT) of publications issued by the World Health Organization (WHO) and collected by the ISS in its capacity as WHO Documentation Centre.

With reference to the potentialities of both these online archives, the authors discuss the questions of free access to full-text documents and compatibility with copyright issues. Special attention is devoted to the benefits of the Open Access (OA) publishing model either in OA repositories or in OA journals.

A standardised form has been developed for use when applying to a publisher for permission to place full-text publications in the above archives. It is hoped that this may help to encourage agreements between authors and publishers and enhance the necessary trust between them.

Crucial questions regarding free access to full-text documents remain unsolved. Nevertheless, the policy of making digital contents available on the Net is gaining increasing support. New tools that are able both to maximise the help available to authors and minimise the input required of individual staff are strongly recommended in order to support the provision of free online access to research material.

Introduction

The growing number of free information resources available on the Net represents a real opportunity for the scientific community and is at the same time a challenge for both authors and publishers. From this point of view, Internet can be considered as a democratic revolution aimed at eliminating the great disparities between rich and poor countries in the quest for information. One important free-based initiative is the *Health InterNetwork Access Research Initiative* (HINARI)¹ launched by the *World Health Organization* (WHO) in January 2002 with the aim of providing free or very low cost online access to the major journals in biomedical and related social sciences to locally based non-profit institutions in developing countries². However, the real challenge is represented by the Open Access (OA) movement in scholarly publishing, which has introduced innovative principles that are upsetting the traditional publishing model.

This paper aims to illustrate the measures being taken to improve the visibility of full-text scientific literature produced in Italy in the field of public health and related areas. It focuses particularly on two digital archives established and maintained by the Istituto Superiore di Sanità (ISS), the Italian National Institute of Health: a) DSpace ISS, the institutional OAI-compliant repository that indexes the scientific works produced by ISS research staff; b) the DataBase of Italian Translations (DBIT) of publications issued by the World Health Organization (WHO) and collected by the ISS in its capacity as a WHO Documentation Centre.

¹ HINARI Program. Available from: <http://www.who.int/hinari>. Last visited: 20 April 2007.

² More than 70 publishers (among which *Blackwell*, *Elsevier*, *Harcourt*, *Kluwer*, *Springer* and *Wiley*) are offering their content in HINARI for a total amount of 3750 journal titles, available to health institutions in 113 countries.

In order to gather an increasing number of full-text documents into both the existing online archives, a standardised form has been designed. This is conceived as a tool to seek publishers' permission to archive material in one of the above online containers. As part of this initiative a further goal would be to support copyright-owners (authors) or their intermediaries in approaching the publishing industry.

The Open access scene and ISS initiatives

At the heart of the Open Access (OA) movement is access to scientific information and promotion of the spread of new ideas and knowledge for the public benefit. Briefly, OA actions are strongly aimed at ensuring immediate and free Internet access to research publications. According to the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities³ - a milestone on the road to further declarations in favour of OA - signed by national and international scientific organisations including the ISS⁴, scientific contributions should be deposited in at least one online repository. Moreover, research-funding organisations such as the National Institutes of Health (NIH, USA) advocate that publicly-funded medical research be deposited in OA archives⁵.

In addressing the issues thrown up by the OA debate, it is essential to bring the publishing industry over to the side of the research community. This should become the shared goal of all the stakeholders involved in the field of scholarly communication as a step towards bridging the gap between those with easy access to research results and those who cannot afford it. There is an urgent need for action in the wake of important declarations and statements of intent to endorse OA.

The European Commission announced (at a Conference on scientific publishing held in Brussels in February 2007)⁶ that "Guidelines" will be issued to encourage researchers to deposit their papers in the repositories, following a period of embargo, and to publish them in "author pays" OA journals. The EU Commission did not introduce a mandate on Open Access, as the OA petition organisers had expected, but merely endorsed a voluntary approach to the issue.

Within this framework OA should not be considered as just a set of standards and protocols to ensure interoperability between archives and to share resources on a global scale, but as a factor of social growth. Today OA has become an international paradigm expressing the principle of the right of free access to scientific literature. Authors should be convinced that making their texts accessible in digital form in institutional repositories means increasing the critical mass of scientific works available for the benefit of the whole research community.

According to the Budapest Open Access Initiative⁷, the most commonly debated means for achieving OA are: 1) the *gold road*, represented by publishing in OA journals, a new generation of journals that do not charge subscription or access fees; 2) the *green road*, leading to the practice of self-archiving articles published in non-OA journals in publicly accessible containers of research findings (i.e. institutional repositories).

The scientific community of the ISS is attempting to follow both roads by working to foster a combination of the two systems, a sort of "goldgreen road", to be achieved by entering research material already appearing in non-OA journals in the ISS repository, in accordance with the relevant copyright regulations. To this end the ISS can count on the potentialities and further development of both DSpace ISS and DBIT.

³ Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. Available from: <http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>. Last visited: 20 April 2007.

⁴ Up to April 2007, 228 organisations from all over the world (including 77 Italian institutions) signed the Berlin Declaration.

⁵ National Institutes of Health. Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research. Available from: <http://publicaccess.nih.gov>. Last visited: 20 April 2007.

⁶ Conference "Scientific Publishing in the European Research Area: Access, Dissemination and Preservation in the Digital Age". Brussels 15-16 February 2007. Presentations given during the Conference available from http://ec.europa.eu/research/science-society/page_en.cfm?id=3460. Last visited: 20 April 2007.

⁷ Budapest Open Access Initiative. Available from: <http://www.soros.org/openaccess>. Last visited: 20 April 2007.

DSpace ISS institutional repository

In 2005 the Istituto Superiore di Sanità launched a Project aimed at aggregating the biomedical resources (mainly scientific publications) produced by Italian research institutions. To this end, ISS has established an OAI-compliant⁸ institutional repository using the DSpace open-source platform⁹, version 1.3.2, which has been installed on a dedicated server.

This digital archive is designed to provide both data and services regarding primarily research articles published by ISS researchers. For this purpose efforts are being made to maximise the potential of the internal bibliographic database, which maintains a regular record of the research output of ISS researchers.

DSpace is a digital library system consisting of a database and a web interface developed jointly by Hewlett Packard and the Massachusetts Institute of Technology (MIT) of Cambridge (USA). It has been conceived to store digital information and index it by assigning descriptive metadata (title, author, identifiers such as ISSN and ISBN, etc.), to keep research material accessible and to preserve content in a safe archive (avoiding loss of data in the long term). The web interface is used for browsing, searching and viewing as well as for submitting items.

DSpace ISS¹⁰ currently holds 16.811 items. The bulk (16.007) of the stored material consists of scientific works published in the series issued by the Institute and most of these, dating from 2001 on, are available in full text in the DSpace archive. The others (804) are represented by metadata referring to papers produced by partner institutions acting in the public health field in Italy which periodically send their data to the ISS DSpace central repository (Fig. 1).

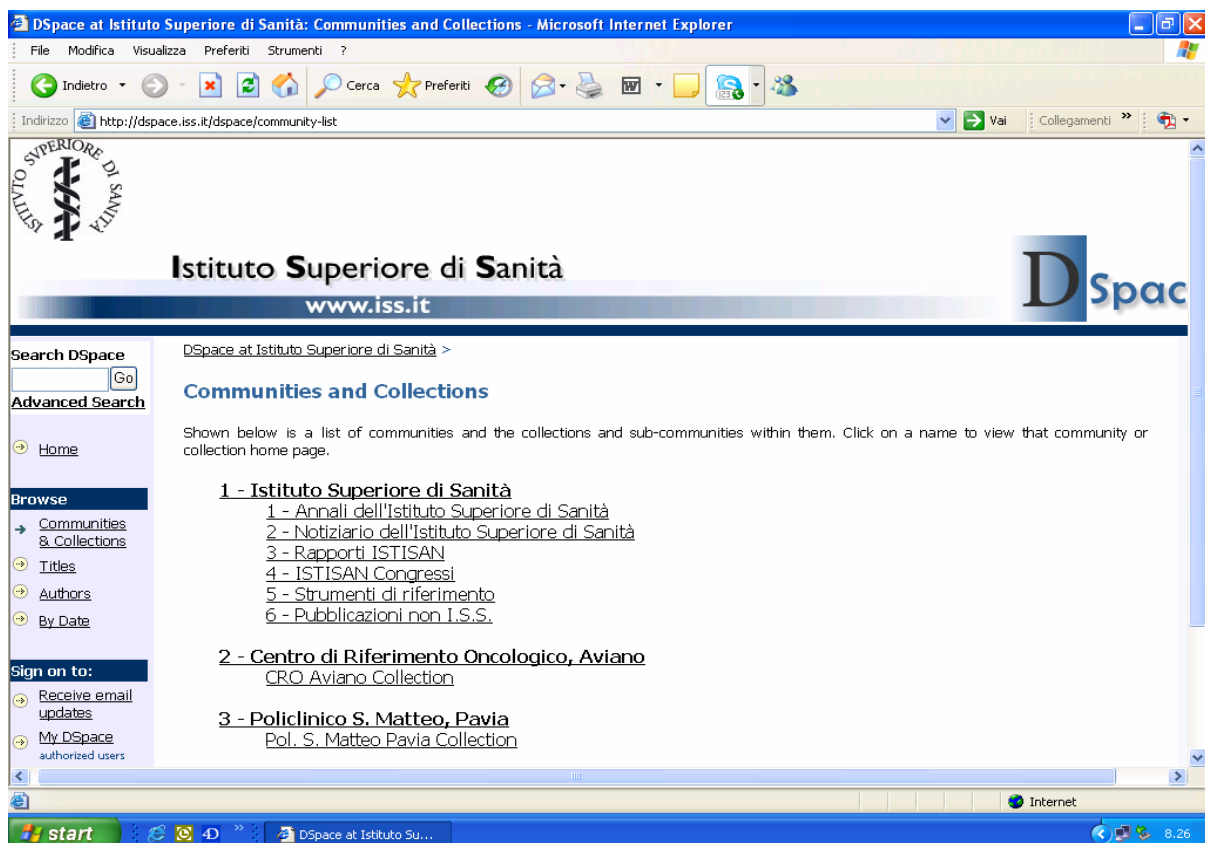


Fig. 1 - DSpace ISS, *Communities and collections* web page

DSpace ISS currently comprises only published works: scientific papers that have appeared in print or e-journals and in volumes (i.e. monographs, reports). Pre-prints (authors' versions of a

⁸ Open Archive Initiative. Available from: <http://www.openarchives.org>. Last visited: 20 April 2007.

⁹ DSpace digital repository system. Available from: <http://www.dspace.org>. Last visited: 20 April 2007.

¹⁰ DSpace ISS. Available from: <http://dspace.iss.it/dspace>. Last visited: 20 April 2007.

paper not yet submitted to referees,) and post-prints (final drafts of authors' manuscripts, refereed, as accepted for publication) are deliberately excluded. This is because the issue of archiving pre-publication material still raises problems for both publishers, who require conditions to prevent any commercial loss linked to the free circulation of pre-prints, and authors, who fear plagiarism and illegal use of their scientific works.

As the leading research institution in the field of public health in Italy - with over 1600 papers produced each year – the ISS is keen to help internal researchers find a suitable approach to publishers in the matter of copyright. A further step towards an agreement between authors and publishers is expected and a simple form to be filled in by authors when applying to publishers for permission to place their published papers in the repository has been prepared (Annex 1).

ISS database of Italian translations of WHO documents

In 1991 the Istituto Superiore di Sanità was appointed as a Documentation Centre of the World Health Organization (WHO)¹¹. The Centre - located within the ISS Library – has, since its inception, promoted the translation into Italian of WHO documents of special relevance and has been reviewing WHO publications on specific issues¹² in order to favour the dissemination in Italy of information emanating from the WHO. This task has also been facilitated by the contract between the WHO and the publishers of Italian translations, which states that one copy of the translated document(s) must be sent without charge to the ISS/WHO Documentation Centre (ISS/WHO DC).

Within this framework the DataBase of Italian Translations (DBIT) was established with the aim not only of supplying users with a tool to aggregate this material but also of contributing to a more effective distribution of public-health related information in Italy. Today the ISS Centre acts as the national reference point for Italian translations originating from all parts of Italy and DBIT offers the most effective means of searching and obtaining translations in Italian (Fig. 2).



Fig. 2 - DBIT web page layout

¹¹ The Documentation Centres are set up by the WHO Regional Office for Europe with the aim of promoting and distributing its documentation in each Member State.

¹² These reviews are published in *Annali dell'Istituto Superiore di Sanità*, available in full text online since 2000

DBIT was launched in June 2005 and is freely available on the ISS/WHO DC website¹³. It is an in-house database, built up by the technical staff of the ISS Data Management Sector: it contains over 400 references and adopts a user-friendly interface which is designed to search documents by title in both the original language and Italian. DBIT is still being developed. Since January 2007 the full texts of Italian documents are gradually being made freely accessible on the Net, in accordance with copyright laws, but it is hoped that the number of texts available, at present only a few, will be rapidly increased until the database is able to offer the full texts of all the translations it contains. The main concern in fulfilling this objective is to establish an arrangement with the publishers of translations whereby the ISS/WHO DC is authorised to obtain or make an electronic copy of the document for inclusion in the database. A form has been drafted to normalise this procedure and simplify the process (Annex 2).

As part of the DSpace ISS project, DBIT will be evaluated with a view to integrating it in the institutional repository as a separate searchable collection. This will imply the attribution of metadata in order to make it an OAI-compliant tool.

Agreements with publishers

The number of institutional repositories set up by research institutions worldwide is increasing. One of the key aspects to be addressed is the placing of full-text papers in these free-access “containers” without infringing copyright. This is an issue on which agreement will have to be found between authors as copyright owners and library staff in charge of repositories.

One may well wonder why research institutions, which in most cases pay to allow their staff to publish the scientific literature that is so important to the publishing industry, should not be free to post copies of their own researchers’ papers in their internal repositories. Any solution to this question calls for the joint engagement of all stakeholders. The common goal is to harmonise reciprocal interests by enabling authors and their affiliated institutions to maximise the impact of the research output while enabling publishers to obtain a reasonable return on their investments.

However, the underlying issue still remains of who is to pay for the costs of publishing. The OA system charges no fee for access but demands a fee to publish. Because of the uncertainty regarding the system’s economic viability, many authors still hesitate to participate in the new model.

The editorial policies established by STM publishers include rules to be followed when placing research material on the web or in institutional archives. Authors should be given permission to deposit their own papers, as the rules for publishing in STM journals are not always compatible with the principle of open access to contents. Moreover, author self-archiving policies for posting material established by publishers may vary.

Conclusions

The initiatives undertaken by the ISS and its experiences in the field of OA have proved both useful and efficient for the institution’s internal research staff, whether users or information professionals. On the one hand it has been possible to examine the crucial question of agreements with publishers with a friendly approach to copyright issues; on the other hand the creation of new tools such as DSpace ISS and DBIT have proved of great benefit to the scientific community. Finally, an increasing awareness of the advantages of adopting the OA model in scholarly publishing has been registered within the ISS research staff.

Nevertheless, further development is also needed to attain the planned objectives, including comparing the results being achieved with those of colleagues acting in the library field at international level. It would be also advisable and useful to monitor the publishing habits of researchers together with their need for rapid and efficient access to publications.

¹³ ISS/WHO DC website. Available from: www.iss.it/whod. Last visited: 20 April 2007.

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