

NEREUS and open archives in the field of economics: Economist online, a European gateway to publications

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Abstract

NEREUS – Networked Economics Resources for European Scholars – represents a consortium of outstanding European academic libraries that have strong collections in economics and that, collectively, are proposing the provision of new content and the development of innovative information services for economists. NEREUS' main goal is to make the most relevant European research in economic sciences more widely available, relaying it online in order to allow faster access to the current research. NEREUS concentrates on the increasing the findability of contents by offering them via Open Access, thus providing, in the simplest way possible, access to full-text literature independent of place and the original format of publication. NEREUS supports its institutional customers and provides feedback to researchers who use it. Working papers, pre-prints, post-prints and articles are all published in the catalogue members' libraries together with refereed Web sites and statistical resources. The principal objective of the project is to create a European network of distributed research libraries and to subsequently extend the network, therefore connecting the resources of top economic scholars. NEREUS institutions have outstanding departments in economic sciences research. These libraries have the major collections in economics along with excellent online services. They provide resources for particular interests as well as for completely specific research topics including *grey literature*, *working papers* and *institutional files* that come from units of research of international reputation.

Online access to the works created by leading academics – *Economists Online* – constitutes a key service provided by NEREUS. The project digitizes, organizes, files and disseminates the whole output of important economists, and providing as much as possible in full-text. One of the principal objectives of NEREUS is to make very recent items easily accessible to the scientific community. *Economists Online* does recognize the added value of the editor to the career of the researcher, but an editor cannot be a substitute for the fundamental role of the universities and their libraries, which provide service to the scholarly community. The university should be interested in archiving its knowledge and in supporting its professors and researchers in their work, including helping them disseminate their research results. This is why *Economists Online* would make academic research more visible through various files including all publications by an author, making the contents accessible through search engines such as Google and Google Scholar, grouping important academic research by discipline and by creating a unified research centre. The resource supplements what editors currently do, and this adds value for the economist (giving him or her free access to the results of important and new research and more visibility for research projects); for the author (providing better presence and publicity, more visibility through free access to his or her research and aiding with publication); for the institution (better diffusion of the works of its authors, making requests for funding easier because of increased visibility of authorship and research), for the library (improvement of supply added value services, seamless cooperation for greater efficiency in terms of costs and for the development and the creation of services; enhancement of the library and university reputations).

Introduction

The scholarly communication landscape has been shaken up by the rapid development and use of the information and communication technologies and of the Internet. A number of factors have contributed to destabilisation of the conventional scholarly communication system: the increasing journal price inflation and a growing number of publications; the merger of publishing companies and the absence of competition; extra costs incurred by electronic access to journals, though all initially believed that the electronic medium would reduce costs... In this context, various types of initiatives have taken place: libraries have created consortia in order to be able to negotiate reduced group prices; some editors have reacted to the over-priced journal policies of some major publishers and have started creating “alternative” journals to some well-known titles ; in parallel, models of scholarly communication other than journals have been created, using the Internet to make research output available free of charge, as in the case of institutional and subject-based repositories.

For such initiatives to be successful, it is important to raise awareness of all the actors involved and to develop library cooperation with all the parties: researchers, authors, academic authorities, funding bodies, scholarly and commercial publishers, libraries, etc. Many projects and conferences are taking place to discuss the issues at stake, to develop and test new economic models, and to support a wider access to scientific information. Some of the major statements and reports have to be mentioned. After the Budapest Open Access Initiative in 2002, there has been the Bethesda Statement on Open Access Publishing, followed by the Berlin Declaration on Open Access in 2003, and the OECD Declaration on Access to Research Data from Public Funding, in 2004¹. More recently, the policies of important research funding bodies request open access to the research output they have funded, urging authors to publish in open access journals and to deposit their articles in open access repositories. This is the case of National Institutes of Health in the US, the Wellcome Trust and the Research Councils in the UK, and others in other countries. By doing so, all these research funding agencies expect to accelerate research on the questions they are funding, to increase the impact of their research, and to enhance the return on their investment in that research.

NEREUS – *Networked Economics Resources for European Scholars* – represents a consortium of European university libraries of first order with major collections in economics². Its objective is to collectively provide new content and to develop an innovative and powerful information service targeted at researchers in economic science at the various institutional partners. NEREUS continues the work of its precursors: DECOMATE I (1995-1997) – DElivery of COpyright MATerials in Electronic form³ – and DECOMATE II (1998-2000) – Developing the Digital European Library for Economics⁴ – both supported by the European Commission (DG XIII Telematics for Libraries programs). This second project developed a service integrating different electronic sources of information (electronic bibliographies, newspapers) in a given field, economics, and using the same search interface based on the Z39.50 protocol. Functions such as navigation, supply of documents and documentary wakefulness were also integrated⁵.

¹ *Science, Technology and Innovation for the 21st Century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level* (29-30 January 2004). Declaration on Access to Research Data from Public Funding : <http://www.oecd.org/document/0,2340,en_2649_34487_25998799_1_1_1_1,00.html>

² NEREUS – Networked Economics Resources for European Scholars : <<http://www.nereus4economics.info/>>

³ DECOMATE I – DElivery of COpyright MATerials in Electronic form :
<<http://lib.ua.ac.be/MAN/T01/t33.html>>

⁴ DECOMATE II – Developing the European digital library for Economics :
<<http://www.bib.uab.es/decomate2>>

⁵ Nathalie BAILHACHE (Institut Universitaire Européen) – *Decomate II : Une expérience européenne de bibliothèque digitale en sciences économiques* (30^e Congrès ADBU, 15 Septembre 2000) : <www-sv.cict.fr/adbu/actes_et_je/je2000/DECOMATE.ppt>

Adresse : http://www.bib.ulb.ac.be/BSH/eco/economie.htm

La BIBLIOTHÈQUE ÉLECTRONIQUE ÉCONOMIQUE de l'Université libre de Bruxelles : un projet documentaire et pédagogique

 L'ÉCONOMIE D'UN SEUL CLIC

SOURCES D'INFORMATION EN ÉCONOMIE, FINANCES, GESTION ET STATISTIQUES

NEREUS NETWORK PARTNER
PATent LIBRARY Bruxelles (PATLIB/ULB)

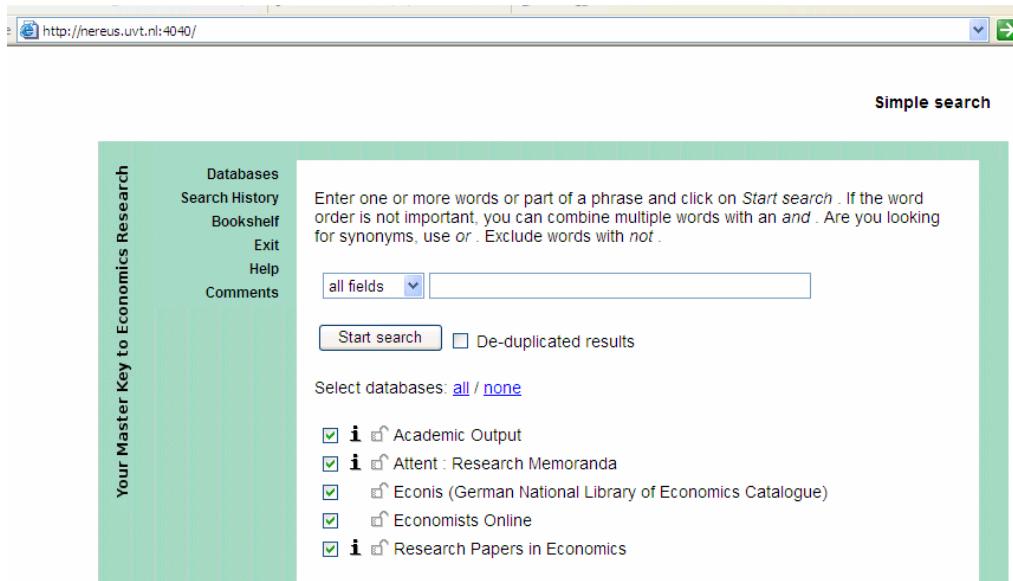
- [Web des Bibliothèques de l'Université libre de Bruxelles](#) – [Catalogue général](#) – [Mémoires](#) – [Thèses](#) – [Thèses électroniques](#)
Listes spécialisées : [Journaux électroniques](#) – [Périodiques](#) – [Quotidiens](#) – [Séries statistiques](#) – [Discussion & Working papers](#)
- [Bases de données](#) – [Liste alphabétique](#) – [Liste systématique](#)
Quelques incontournables : [ABI](#) – [AMADEUS](#) – [Annuaire Statistique International](#) – [BELFIRST](#) – [BLACKWELL](#) – [CHELEM](#) – [ECONLIT](#) – [FMI](#) – [GOOGLE SCHOLAR](#) – [IBSS](#) – [ISI Web of Knowledge](#) – [JSTOR](#) – [NBER](#) – [SCIENCE DIRECT](#) – [REPEC](#) – [SOURCE OCDE](#) – [SSRN](#) – [SWETSWISE](#)
- [Ressources Internet en économie et gestion](#)
 Moteurs de recherche : [Annuaires](#) – [Recherche thématique](#) – [Serveurs d'information en économie et gestion](#)
Ressources bibliographiques : [Bases de données](#) – [Catalogues de bibliothèques](#) – [Catalogues de maisons d'édition](#)
Texte intégral : [Actualité économique et financière](#) – [Bibliothèques virtuelles](#) – [Littérature grise en économie et gestion](#)
Données chiffrées : [Séries statistiques](#) – [Sites classés par pays](#) – [Belgique](#) – [France](#) – [Union européenne](#) – [Organisations internationales](#)

Par le biais de la Bibliothèque Électronique Économique, le Service des Bibliothèques de l'Université libre de Bruxelles participe au projet "Networked Economics Resources for European Scholars" (NEREUS). Il est également dépositaire des publications de l'Institut National de Statistique (INS), du Fonds Monétaire International (FMI) ainsi que des produits de l'Office Européen des Brevets (OEB)

The Library of the Université Libre de Bruxelles, with its electronic library in Economics, is one of the founding members of NEREUS together with the libraries of the London School of Economics, the University of Tilburg, and the German National Library of Savings in Kiel. Today, 16 university libraries share this vision. Other libraries which have subsequently joined include: University College London, Oxford and Warwick in the United Kingdom; Rotterdam and Maastricht in the Netherlands; Katholieke Universiteit Leuven in Belgium; University College Dublin in Ireland; Vienna University of Economics and Business Administration in Austria; Carlos III of Madrid in Spain; Université Toulouse 1 Sciences Sociales and Sciences-Po Paris in France; and, our only Czech partner at the moment, Charles University CERGE. NEREUS constitutes a European network of excellent providers of information in economics and seeks to share throughout Europe its expertise in information, methods and the supply of knowledge. A larger principal goal is to return available European research in economic sciences quickly in order to allow fast access to current research. NEREUS, therefore, concentrates on making it easier to access the full-text of materials in economics without cost and independent of place, type or format of the form of publication, thus disseminating research results as broadly as possible. NEREUS' goal is to make available to the academic community, via an integrated gateway, scientific information in economics to the whole world (not just in Europe), independent of type of format.

NEREUS supports its institutional customers and provides useful feedback to its researchers. It highlights the results of valuable research, since working papers, pre-prints, post-prints and articles all get published in the catalogues of member's libraries together with refereed Web sites and statistical resources. The principal objective is to create a distributed European network of research libraries and to extend the network in order to connect the resources of top economics libraries. NEREUS envisions giving access to the entire spectrum of such research, including unique collections and full-text electronic publications of high quality, where these exist. At this level, the principal tasks of the specialized librarians consist of:

- establishment of a list of the resources in economics (fee-based and free) and a repository of working papers in economics available in the participating institutions;
- the constitution of a prototype gateway allowing simultaneous research across diversified resources in economics.



Economists Online makes the complete scientific production of eminent Europeans economists available

By this means of communication, the NEREUS consortium, in its policy and by the development of the project *Economists Online*, tries to resolve the problems of locating institutional files⁶. An institutional repository is a centralized repository intended to accommodate any scientific work or of university research in numerical format. Maintained by the libraries in order to give them a greater visibility and accessibility over time, the repository provides a framework structured to manage research materials and publications. At the present, there is not any centralized repository at the Université Libre de Bruxelles which gathers research output. Research is housed on a variety of websites, or is never even put online, and is consequently poorly accessible. Additionally, because of the enormous mass of documents available on the Internet, it is difficult to discover useful scientific research and to distinguish it from lesser quality materials. The current problem of the information scientist resides, on the one hand, in the transfer of rights of researchers to commercial editors, and in the drastic increase in the prices for these editors. As a corollary, libraries cannot acquire any more scientific periodicals and are limited in their ability to give access to information useful for researchers. The institutional repository constitutes a solution to these problems by centralizing a university's scientific production, providing one visible and persistent platform containing documents of quality and in disseminating scientific research freely.

One of the objectives of NEREUS made possible today is the project *Economists Online*⁷. This project has two missions: it acts, on the one hand, in providing to researchers increased visibility of the whole of their works and it also provides an archival repository for these documents in order to ensure their conservation by each institution. Considered separately, institutional repositories are of a minimal interest to the scientist. However, interconnected repositories at the international level that integrate a particular set of themes or contents of similar type and quality, can be largely useful to researchers. The development of services and international stores of information, built on the basis of such repositories of contents, will likely constitute the driving force for future initiatives.

Economists Online intends to identify the most prominent European economics material and to make it more available on the web with a numerical format, with the ultimate goal to make material which is not yet accessible or available and to store it in institutional repertoires. The project will thus

⁶ Thierry CHANIER — *Archives ouvertes et publication scientifique : comment mettre en place l'accès libre aux résultats de la recherche ?* Paris : Harmattan, 2004, 186 p.

⁷ Economists online : <<http://www.nereus4economics.info/economistsonline.html>>

allow the creation of a test set of contents for later development of tools and international services. This electronic accessibility to research will be increased by a quarter by the non-numerical loading of material in institutional repositories. The contents will then be placed at the disposal of international scientific community via the international gateway in economics, NEREUS, while being recoverable by other services. The prominence of participating NEREUS institutions is clear – they have outstanding departments in economics and strong research output. Their libraries have major collections in economics along with excellent online services. They provide resources such as gray literature, working papers and institutional files that come from units of research of international reputation. Online access to the production of the principal academics constitutes the key service of NEREUS. It digitizes, organizes, files and disseminates the production of important economists, as much as possible in full-text. One of the principal objectives of NEREUS is to make very new output accessible to the scientific community.

Economists Online recognizes the added value of editors to the career of researchers. However, an editor cannot replace the fundamental role of universities and their libraries and the services they provide to their own authors. Universities should be interested in retaining their knowledge and in supporting their professors and researchers in their work, including helping them disseminate the results of research. This is why *Economists Online* makes visible academic research, by using various lists, together with publications of the whole of an author's works, making contents accessible to researchers using Google and Google Scholar, combining important academic research by discipline, and by using a simple centre of research. The project supplements what the editors currently do. This represents added value for the economist (free access to the results of important and new research and more visibility for research); for the author (better presence and publicity, more visible and accessible research because of free access and not having to seek publication); for the institution (better diffusion of works by its authors, requests for funding are made easier by taking into account increased visibility of production and long-term deposit of authors' works), and for the library (improvement in the supply of value-added services, seamless cooperation for more cost efficiency, for the development and the innovation of services and an increase in the reputation of the library and university).

Logic of free access to scientist and technical information...

Economists Online's underlying logic involves free access to scientific and technique information, as defined by several international declarations:

- The Initiative of Budapest for the Free access to Research (BOAI – Budapest Open Access Initiative)⁸;
- Declaration of Bethesda for the provision of free access⁹;
- Declaration of Berlin on free access to knowledge in hard sciences, life sciences, social sciences¹⁰. In particular, it recommends that researchers file their articles in complete text (pre-prints and post-prints) in open access, electronic files. The history of the movement and a presentation about the stakes of the free access movement are described in a document produced by the INIST entitled: *The Free access to the results of research*¹¹.

Currently, the partners engaged in the project *Economists Online* work with nearly 80 researchers who provided an exhaustive list of their publications (works, contributions to collective works, articles of reviews, working papers, reports/ratios, theses, etc.) and, wherever possible, the text of these publications in paper form or electronic form¹². Questions about copyright or the digitization format of the documents provided on paper are approached collectively and solutions are shared as

⁸ Initiative de Budapest pour l'Accès Ouvert (février 2002) : <<http://www.soros.org/openaccess/fr/index.shtml>>

⁹ Bethesda Statement on Open Access Publishing (avril 2003) :

<<http://www.earlham.edu/%7Epeters/fos/bethesda.htm>>

¹⁰ Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (octobre 2003):

<<http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>>

¹¹ INIST – *Le Libre accès aux résultats de la recherche* (novembre 2004):

<<http://www.inist.fr/openaccess/IMG/pdf/ETUDE.pdf>>

¹² Liste des chercheurs de chaque institution : <<http://www.nereus4economics.info/SUscholars.html>>

broadly as possible although each institution is bound by national legislation and local constraints. NEREUS will take part in the database Romeo (Rights MEtadata for Open archiving)¹³, developed within the framework of British project SHERPA¹⁴, for creation of institutional deposits, making it possible to know the official position of editors in relation to copyright and to electronic auto-archiving. The project *Economists Online*, (and more generally the step of the NEREUS consortium) is offering new information services to researchers in economic sciences while putting in place tools to ensure greater visibility for authors of their work. Within the limit of legislation in force, the project, currently retained by its partners, combines full-text and free access.

... Implementation by the constitution of institutional deposits or opened files

The project *Economists Online* uses decentralized databases called institutional deposits or open files. Each partner library thus creates an institutional deposit within his or her institution in order to coordinate filing of documents and to ensure their durability. According to the logic of free access, institutional deposits are created using free software, the most widespread tools being D-Space¹⁵ and E-prints¹⁶, which currently have more widespread use in the "hard" sciences¹⁷. The partners of *Economists Online* are generally very advanced in the creation of their own depositories, which allows them to share experiences with these tools.

... And consultable thanks to a single interface

In addition to this mutualisation of experiences, consortium NEREUS, and, more specifically, the library of the University of Tilburg¹⁸ deals with the installation of a single interface (website + search engine) allowing the institutional deposits of each partner and other deposits with which NEREUS made agreements to be queried, in particular, REPEC¹⁹ and ECONIS²⁰. The University of Tilburg's Library capitalizes on the experiences of partners and can assist with questions, but cannot install a deposit, which remains the responsibility of each member institution. The constitution of a single interface is made possible thanks to the use of a common protocol, the Open Files Initiative Protocol for Metadata Harvesting (OAI-PMH)²¹, which ensures networking of the deposits through its important standard for exchange of metadata on the Web²².

Practical aspects of implementation

The library must ensure coordination between the partners in other countries, the researchers and the data-processing departments, and must provide the necessary information about the implementation of a project in order to guarantee its coherence and durability. It must also work on precise questions, such as metadata issues (to work, in particular, on standard Dublin Core descriptions of documents) or in the administration of royalties for full-text and free access of articles published in journals.

The installation of an institutional deposit within the framework of the project *Economists Online* implies the collaboration of three actors: the community of economists, data-processing

¹³ RoMEO — Rights MEtadata for Open archiving) : <<http://www.lboro.ac.uk/departments/ls/disresearch/romeo/>>

¹⁴ SHERPA — Publisher copyright policies & self-archiving : <<http://www.sherpa.ac.uk/index.html>>

¹⁵ DSpace : <<http://www.dspace.org/>>

¹⁶ EPrint : <<http://www.eprints.org/>>

¹⁷ le dépôt le plus connu, arXiv, est un dépôt de travaux de physique fondé en 1991, il enregistre en moyenne 15000 connections par jour et compte plus de 300000 documents

¹⁸ Richard BROEKMAN — *Oude wijn in nieuwe zakken. Het aanbieden van full-text in Wetenschappelijke Output*, août 2004 : <<http://drcwww.uvt.nl/~broekman/OudeWijn.pdf>>

¹⁹ RePEc — Research Papers in Economics : <<http://www.repec.org/>>

²⁰ ECONIS — Economics Information System. Online catalogue of the German National Library of Economics : <<http://zbwopc4.zbw.ifw-kiel.de:8080/DB=1/LNG=EN/>>

²¹ The Open Archives Initiative Protocol for Metadata Harvesting : <<http://www.openarchives.org/OAI/openarchivesprotocol.html>>

²² François NAWROCKI (Ministère de la culture et de la communication. Direction du livre et de la lecture. Bureau des politiques documentaires) — *Le Protocole OAI et ses usages en bibliothèque* (15 février 2005) : <<http://www.culture.gouv.fr/culture/dll/OAI-PMH.htm>>

departments and libraries. The economists' community must be sensible about the problems of self-archiving and must understand the stakes of free access in order to fully take part in the project and to adopt the tools. It is expected for the first time that researchers provide complete lists of their publications and the total number of documents available in order to archive their publications for the long term. If *Economists Online* were imagined by the consortium as an innovative project for serving economists, it is nevertheless paramount that researchers are also convinced of the value of such tools. The involvement of data-processing departments must be narrowly defined for this kind of project, insofar as they must set up the software for free storage of data and documents and ensure parameter settings according to OAI-PMH protocol. The pilot project requires methodical work at its basis which consists of:

- A collaboration between librarians, specialists in information and technicians in the Netherlands and abroad for the exchange of expertise and experiments in the field of the institutional repositories and for the development of information services;
- A definition of the concept of "scientific production";
- An analysis of the availability in full text on the Web;
- An inventory of contents already available electronically and of the impact of digitizing, storing and making available in the institutional repositories, recording problems such as royalties, scientists affiliated to several establishments and the treatment of joint authors;
- An action plan for the means of returning accessible contents not yet available in electronic format;
- A retro-digitalization of the contents not-yet available electronically;
- An increase in the stock of contents and of the accessibility of the electronic scientific production by researchers, whose data are stored in the institutional repertoires;
- The generation of web pages, including linking greatest numbers of materials produced by scientists;
- An integration of the digital component of the international gateway.

What about future?

At the request of European Economic Association (EEA)²³, several studies have evaluated the publication of research in economics at 120 European universities in comparison to universities in the United States²⁴. These studies show that only two European institutions have entered the world Top 20. Apart from the universities, research in economics in Europe is also done through a great number of independent institutions of research as in Deutsche Zentralbibliothek für Wirtschaftswissenschaften of Kiel²⁵ and by well-known networks of research such as the Centre for Economic Policy Research (CEPR)²⁶ or University Society European of Financial Research (SUERF)²⁷. Moreover, a number of governmental and nongovernmental institutions and private individuals in the central banks have very strong experience and reputations in research. Improvement in the use of and access to information are a central point of the European Commission's information policies. Information centres are dispersed throughout the continent and, very frequently, are not able to work together because of the absence of a suitable network of cooperation²⁸.

One of the most important developments in this context is the capturing of conscience by the open access movement, aimed at giving access to the sources of human knowledge approved by scientific communities. Open access stresses the fact that authors of research are central to the process

²³ European Economic Association : <<http://www.eeassoc.org/>>

²⁴ Pierre-Philip COMBES & Laurent LINNEMER — *Where are the Economists who Publish? Publication Concentration and Stock Rankings in Europe*. Tom COUPÉ — *Revealed Performances: Worldwide Rankings of Economists and Economics Departments, 1990-2000*. Pantelis KALAITZIDAKIS, Theofanis MAMUNEAS & Thanasis STENGOS — *Rankings of Academic Journals and Institutions in Economics*. Dans : Journal of the European Economic Association, 1, (2003)

²⁵ Deutsche Zentralbibliothek für Wirtschaftswissenschaften : <<http://www.zbw-kiel.de/>>

²⁶ Centre for Economic Policy Research : <<http://www.cepr.org/>>

²⁷ Société Universitaire Européenne de Recherches Financières : <<http://www.suerf.org/>>

²⁸ <http://europa.eu.int/comm/research/era>

of publishing. In the last decade, important progress was made in order to make available scientific information and academic works to researchers, students and others. The results of research are increasingly available on the Internet, through reference publications, international databases, personnel websites, and increasingly through institutional repositories. These are still based on secondary path initiatives, local and national. Information is dispersed and the procedure for the administration of data varies significantly between the institutions. A common approach to metadata, quality control and or access policies does not yet exist. All these problems and limits decrease the total utility of the information available. Missing is an approach based on European themes aimed at enhancing cooperation between institutions in such way that standards can be fixed and the quality of information guaranteed. This type of cooperation and its possible results will have an impact on other European institutions.

The lack of integration indeed impacts institutional repositories containing information related European economic research, and the situation negatively affects the visibility, use of and access to this information by European and non-European users. Therefore, through a small scale project like *Economists Online*, members of the NEREUS consortium (classified among the 20 best academic institutions of economics in Europe) propose the creation of a network which would give open access to information in economics based on institutional repertoires housed at member institutions. This international, standards-based approach guarantees quality information and would likely result in a model which could be followed by others. The project would establish a multilingual gateway of note and its metadata would allow search across the works of over 500 famous researchers working at the partner institution. It would provide suitable services to the user community of students and researchers and generate interest in the public and private sectors, showing how participating institutions can cooperate in such matters.

Projects like NEREUS and *Economists Online* are playing a major role in this respect: they raise awareness at participating institutions and beyond. They involve scholars and encourage them to contribute to the projects by depositing their papers. They develop know-how inside universities and libraries for setting up repositories, and they provide actual repositories to the research community. Through these projects and thanks to your involvement, we are contributing in the development of a network of repositories that are indispensable for researchers, and are also helping make open access to research a reality. The inquiry of the UK House of Commons brought the debate to the fore and urged the UK government to take a stand. The EU DG Research also launched a study on the economic and technical evolution of the scientific publication market in Europe. This study is being performed by a team of economists and librarians from the ULB. The final report was published in January 2006 and available on the Web²⁹. The debate about scholarly publication has indeed gone well beyond the library's walls. However, it seems that we still have some way to go to raise awareness by academic authorities of scholarly communication issues. This has also been underlined by the British government in its response to the House of Commons' report, saying that "academics themselves have an important role to play in this debate and need to become more involved".

²⁹ *Study on the economic and technical evolution of the scientific publication markets in Europe* (janvier 2006) : <http://europa.eu.int/comm/research/science-society/pdf/scientific-publication-study_en.pdf>