# OPEN ACCESS: AN 'OPEN ACCESS 101' AND WHY IT IS IMPORTANT FOR ROMANIA

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***Abstract:*** *This paper is an introduction to Open Access, rather like a '101' foundation course at an American university. Its intent is to both explain the concept and its implementation and its desirability. It takes the form of a series of questions whose answers build a good overall picture of Open Access. The questions are actual ones put forward by a US university policymaker when he was gathering together information to make the case for an Open Access policy within his own institution.*

***Keywords:*** *open access, open data, science commons, open access policies, scholarly communication, institutional repositories, research metrics.*

## 1. What is Open Access in a university setting and what is meant by the Open Access movement?

Open Access is the immediate, free-to-use access to the scholarly literature. In practice, it is more often applied to journal literature, but there are a number of advances in Open Access for textbooks and research monographs, too. It is provided by authors in two ways: either by placing an electronic copy of every article, when it is ready for publication, in an Open Access repository (institutional repository or a centralised, subject-based repository) or by publishing in an Open Access journal (Open Access journals make their content freely available online).

The Open Access 'movement' is composed of researchers, research institutions, universities and research funders that have come together to provide and promote Open Access. The movement provides information, advice and guidance, and promotes the development of policies that deliver Open Access to the scholarly literature.

## 2. Why are universities thinking that developing an Open Access policy is important at this time?

Universities benefit from Open Access in two main ways. First, the research that is carried out in the institution enjoys huge visibility, usage and subsequently impact. All those things 'tick the box' for universities in terms of fulfilling their mission to create and disseminate knowledge.

Second, Open Access means that for the first time universities have a means of collecting together their research outputs and analysing their research programmes. Their repositories can aggregate all the products of these programmes and the research managers can then monitor, assess and manage research effort in the best ways for the future.

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Other benefits for universities in making a policy to provide Open Access for their research are that the repository acts as a formal digital archive, preserving the complete record of the university's work for the long term, and that the university is playing its part in helping to bring to an end the situation where journal prices (and price rises) erect a barrier to information for many – and in some cases most – scholars.

## 3. What are the benefits to faculty; to the university; to the world?

For faculty (researchers), the benefits are the increased visibility, usage and thus impact of their work. Scholars are rewarded in career terms by the impact their work has had – its contribution to the advancement of thinking and the growth of knowledge and understanding in society. Open Access dismantles the barriers to information for all constituencies – not just other scholars, but also for the professional sector (family doctors, lawyers, teachers), the practitioner sector (engineers, public sector services), the industrial and commercial sector (research-based businesses, analysts, investment and financial services) and the lay public. One area of work for the future is to develop ways of measuring the efficacy of the transfer of knowledge to these constituencies who can use it to benefit society as a whole. Open Access certainly removes the obstacles and the challenge now is to optimise the 'findabilty' of knowledge for those outside the scholarly environment.

The university enjoys the aggregated visibility, usage and impact of the work of all its scholars. It may also enjoy greater interaction with, and partnership and funding from, the industrial sector as a result of the greater visibility of research

through Open Access. The ability to monitor, assess and manage research better through being able to collect together and analyse all the university's outputs is also a major benefit, as explained above.

For the world – society as a whole – the benefits of Open Access are better progress of research and a better return on its investment in research.

## 4. What are issues that faculty should understand and consider in thinking about Open Access?

Researchers should understand that Open Access provides the first opportunity in human history for a researcher to put his or her ideas, results and theories before all the people who might be interested and able to use those things. Until now, the results of scholarship have been disseminated effectively only to the few who could afford to buy them. That has all changed with the internet and Open Access.

Researchers should also understand that Open Access means that new ways of measuring the influence and impact of research can be developed: no longer are we limited to assessing someone by the impact of the journal in which they publish (which is a bad, proxy measure of an individual scholar's worth), but new metrics for measuring the impact of individual articles and scholars can now be created.

They should also understand that Open Access means that, now that the full-text version of research articles is available on the web, new computer technologies can be set to work to create new knowledge by 'mining' the information in those articles in new ways. This is the so-called 'semantic web' technology at work. Data-mining and text-mining will be very big things in future.

## 5. What are the anticipated costs to the university and individual faculty members?

The university needs to set up a repository and maintain it. Repository software is mostly free (open source), so if there is suitable technical expertise in the university the repository can be established simply and cheaply. Alternatively, the job can be outsourced to organisations that provide repository-building services[1].

To the researcher, the cost is only represented by a little bit of time, the time taken to deposit each article published into the university's repository. This involves filling in some information about the article – the title, authors' names, addresses, abstract, etc – and then saving that information along with the full-text of the article, in the repository. The process takes a few minutes.

## 6. Are there good examples of academic institutions that have adopted Open Access?

There are many. The secret of a successful Open Access adoption is to implement a mandatory policy within the institution. If there is mere encouragement or requesting of researchers to deposit their work in the repository then there will only be low levels of material collected. The first Open Access mandatory policy was introduced in the School of Electronics & Computer Science at the University of Southampton in 2003. That school's repository now has around 20,000 items in it.

The first university to adopt a university-wide mandatory policy on Open Access, in 2004, was Queensland University of Technology in Brisbane, Australia. Since that time the repository has filled with articles and other materials and is fulfilling its role as QUT's 'shop window' for the world. Over the ensuing years, many universities have put in place similar policies, including Harvard and University College London. At the time of writing (June 2010) there are 90 whole-institution mandatory policies around the world, plus 24 from university departments or schools and 45 from research funders[2].

## 7. What are the legal issues involved?

Researchers often worry that making their work Open Access will contravene the agreement that they have with their publisher. This certainly need not be the case. Open Access is compatible with publishers' needs. Two thirds of journals already allow researchers to deposit their work in a repository. For those that do not, the authors can use an 'author addendum' to the standard publisher copyright agreement: this permits the publisher full publishing rights, but retains for the researcher the right to make the work Open Access through a repository. In some cases, universities themselves have worded their policies on Open Access to ensure that researchers grant the institution the right to make the work Open Access through the repository prior to any agreement with publishers. This ensures that authors feel secure about depositing their papers, and both the researchers and the university enjoy all the benefits Open Access brings.

## 8. After Open Access, what's next on the horizon in terms of academic information sharing on the internet?

As indicated earlier, Open Access's current main target is journal content. The next targets are books and research datasets. There are already many explorations by university presses and

other publishers on making books Open Access (usually provided free online with costs covered by selling the print edition). Open Data is becoming a big thing, with research funders requiring grant-holders to make their data freely available when they have published the results from their work. There is now a set of principles about making research data open, developed by a group of notable senior researchers[3].

**Notes**
[1] For example, see the University of Southampton's service provision built on its open source EPrints repository software: http://www.eprints.org/
[2] See the registry of these policies: http://www.eprints.org/openaccess/policysignup/
[3] The Panton Principles on Open Data: http://pantonprinciples.org/

**References**

1. OASIS (Open Access Scholarly Information Sourcebook): this is a comprehensive resource on all aspects of Open Access, particularly suitable for researchers and librarians as well as students and research managers. www.openoasis.org

2. EOS (Enabling Open Scholarship): this resource has been developed primarily for senior managers in universities and research institutes. It explains Open Access, its advantages and how it can be implemented in an institution, including advice on policy development.
   www.openscholarship.org