

Open Access policy effectiveness

What an Open Access policy covers¹

An Open Access policy covers core issues, such as when and where research articles must be deposited, the length of embargo permitted, whether waivers may be granted. As part of the PASTEUR4OA project, the database of Open Access policies, ROARMAP (<http://roarmap.eprints.org/>), was extended and elaborated. It now records every known policy's conditions under an exhaustive set of categories, and is fully searchable. This database as a whole provides a rich source of data to analyse when studying policy effectiveness, and the data included here are sourced from an analysis by Alma Swan for the PASTEUR4OA project (<http://www.pasteur4oa.eu/>).

The main areas that a policy on Open Access should address are:

- whether or not the policy is to be mandatory;
- whether the policy stipulates how Open Access should be provided (through deposit into an Open Access repository or by publication in Open Access journals);
- where repository-based OA is concerned, in which repository (or repositories) items may be deposited;
- the length of permitted embargoes;
- whether there are to be sanctions in the case of non-compliance;
- whether there are to be any particular requirements regarding licensing, including whether authors should retain certain rights over their work (in practice, this means retaining the right to make the work Open Access by depositing it in an Open Access repository).

What makes an Open Access policy effective

The PASTEUR4OA project looked at the mandatory policies in place at over 120 universities around the world and assessed the effectiveness of each policy. This was measured in terms of the percentage of Open Access material available from each institution compared to the total number of articles published from those institutions each year.

Institutional policies stipulate that articles must be deposited in the institutional repository, making it easy to track them. It was not possible to study funder policies in this way because the outcomes are difficult to measure: many articles, for instance, do not acknowledge funding sources in systematic and traceable ways. For these reasons, the analysis was carried out on institutional policy effectiveness only. However it is reasonable to assume that the principles discovered apply to all policies, including those of funders. Moreover funders' policies are a powerful harmonising driver in informing and influencing the content of institutional policies.

Following these assumptions, the *important elements of a policy*, whether of a funder or an institution, are as follows²:

- The policy states that research articles must be deposited in a repository (that is, the policy is mandatory);

¹The analysis underlying this section was undertaken for the PASTEUR4OA project and follows Alma Swan's briefing paper: Swan, A. 2015. *Open Access policy effectiveness: A briefing paper for research funders*.

² The regression analysis methodology and the results are presented in detail in the full report from the PASTEUR4OA project: Swan A, Gargouri Y, Hunt M and Harnad S (2015) *Open Access policy: numbers, analysis, effectiveness* <http://pasteur4oa.eu/sites/pasteur4oa/files/deliverables/PASTEUR4OA%20Work%20Package%203%20Report%20final%2010%20March%202015.pdf>

- The policy states that this action cannot be waived: that is, whatever the conditions of embargo, the article must be deposited at the point specified by the policy;
- If the policy states that an author should retain certain rights over the published work, this action is mandatory and cannot be waived;
- The policy states that deposited items must be or must be made Open Access, and if there is an embargo then they must be made Open Access immediately the embargo comes to an end;
- The policy links the deposit of articles with research assessment/performance evaluation procedures within the institution: that is, the policy states that articles that are not deposited in line with policy requirements will not count towards performance reviews or research assessment exercises.

Policy element	Positive correlation
Articles must be deposited	✓
Deposit cannot be waived	✓
Deposit of articles is linked to research evaluation (performance assessment)	✓
Articles must be made Open Access	✓
Where the policy stipulates that authors retain certain rights, this cannot be waived	✓

The critical elements of a policy are:

- The policy requires that research articles be deposited in an Open Access repository;
- In addition, the policy must state that this deposit step cannot be waived;
- The policy links deposit with research assessment (performance evaluation).

The first two elements in the list above are significantly correlated with resulting high levels of Open Access and, of course, they make the policy a mandatory one. All three of these policy elements are significantly associated with success.

Policy element	Positive correlation	Significant correlation
Articles must be deposited	✓	✓
Deposit cannot be waived	✓	✓
Deposit of articles is linked to research evaluation (performance assessment)	✓	✓
Articles must be made Open Access	✓	
Where the policy stipulates that authors retain certain rights, this cannot be waived	✓	

The model Open Access policy³

Having identified what a policy needs to contain to have a successful outcome, an optimal Open Access policy can be designed. A policy must make its requirements of authors minimally burdensome: at the same time, it must require the actions (listed above) that are essential to provide Open Access. The policy should therefore address these issues specifically and an optimal policy will include them all as non-negotiable requirements.

It is also recommended that a policy stipulates that deposit is made at the time of acceptance for publication of an article. While the requirement for deposit immediately upon acceptance may seem

³ Further details on the model policy developed by PASTEUR4OA can be found in: Tsoukala, V. and Angelaki, M. 2015, *Open Access Policy Guidelines and Template for Funders*. Available at: http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/FUNDERS_POLICY%20GUIDELINES%20FINAL.pdf

to be in contravention of publisher embargo requirements, it is not. The deposit step is a separate action from making an article openly available and the publisher has no sanction over it. The aim is to get authors to deposit their articles as they are accepted for publication, which is the moment they are dealing with the paper for the last time in practical terms. So long as a paper is deposited, the author need not worry about it any longer: if it is under a publisher's embargo the repository software automatically opens the article and makes it public at the end of the embargo period.

Finally, the version of an article that such a policy should specify for deposit is the author's version, once it has been peer-reviewed and all the changes required by the review process have been made. This is the final version that the author has, the last one submitted for publication once all corrections have been made: it will vary only marginally, if at all, and certainly not in substance, from

A model institutional Open Access policy: criteria to include

Purpose: This policy aims to make the knowledge created in this institution available to all for the benefit of research itself and for society more widely.

Policy conditions: The policy requires the following:

- All peer-reviewed publications must be deposited in the institutional repository [*name*] at acceptance for publication.
- The version to be deposited is the author's final document once the changes required by peer review have been made.
- The deposit must be made, regardless of whether a publisher embargo is to be observed or there are other legitimate reasons for not making the material openly available at a future date.
- Articles must be made openly available immediately wherever possible, or once any embargoes have run their course.
- All assessment and evaluation procedures in this institution will use the institutional repository to source publication lists for candidates: publications not deposited at acceptance for publication will not be eligible for consideration.

the published version in the journal.

Why this type of policy works

A policy that includes all these criteria and is implemented properly by funders and institutions will succeed in gathering a large volume of Open Access content. The requirement to deposit, and the insistence that this step cannot be waived for any reason, ensure that authors deposit their work.

The authors themselves can be reassured that if there is any sound reason for not making the work Open Access at the time of deposit – a publisher's embargo requirement, for example, or ethical or legal reasons why the work should not be made public – then the full text of the item can remain closed for the duration of an embargo period, or even forever in those extremely rare cases where there is a legitimate reason.

Policies of this type

The numbers of institutional policies that are like this model-type policy are growing. The first was from the University of Liège (Belgium) and others that have followed suit include the University of Minho (Portugal), University of Turin (Italy), University of Ghent (Belgium), Durham University (UK) and others.

Turning to funders' policies, There is evidence from the PASTEUR4OA project to show that the adoption of strong policies by funders drives the adoption of policies, particularly aligned policies, in

institutions.⁴ Most importantly the policy for the European Commission's Horizon 2020 research funding programme is also of this type, meaning that institutions making this type of policy are aligning their own policy with that of the European funding programme. This is important, as researchers within the institution may be funded under this programme and will therefore have the agreeable experience of their funder's and institution's policies having matching requirements, making it simple to comply with both through one set of actions.

Other examples of successful funders' policies are:

- *HEFCE (Higher Education Funding Council for England) in the UK* – the policy insists that “to be eligible for submission to the post-2014 REF [the next research assessment exercise], authors’ outputs must have been deposited in an institutional or subject repository” (<http://www.hefce.ac.uk/pubs/Year/2014/201407/>). There is evidence from individual institutions that this policy is already having the effect of increasing the number and proportion of OA deposits. At UCL (University College London) for instance the repository contained 10,000 OA outputs in 2011 and 14,000 OA papers in 2013; OA content then sharply increased to 22,500 papers by September 2015.
- *The Health Research Board (HRB) Ireland* - is the lead funding agency in Ireland for health research. Their most recent Open Access policy, published in 2014 (http://www.hrb.ie/uploads/media/HRB_Policy_on_Open_Access_1_May_2014_01.pdf), requires researchers to deposit their publications in an Open Access repository and ensure they are discoverable, accessible and re-usable as soon as possible.
- *Fundação para a Ciência e a Tecnologia (FCT) Portugal* – insists on deposit as soon as possible on acceptance or publication (https://www.fct.pt/documentos/PoliticaAcessoAberto_Publicacoes.pdf).

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January 2016

⁴ Picarra, M. 2015. *From policy development to effectiveness and alignment: An analysis of the UK's Higher Education Open Access policy landscape*. Available at: http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Brief_from_policy_development_to_effectiveness_and_alignment%20UK.pdf