

Towards Full Open Access in 2020

Aims and recommendations for university leaders and National Rectors' Conferences

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The publication and dissemination of scientific outcomes is part of the backbone of scientific activities. In general, the conditions for publishing and publication usage in recent years have become more cumbersome, and prices have rocketed sky high. A more efficient use of public research funds and swifter scientific progress could be achieved by opening access [OA] to research outcomes.

Achieving full open access to scientific publications and data by 2020, as the Amsterdam Call for Open Science stated in 2016¹, requires concerted efforts by all stakeholders and political support at European and national levels. The work of EUA², namely the outcomes of EUA's Open Access surveys between 2014 and 2017 and the Expert Group on Science 2.0/ Open Science, has shown that universities are in need of further guidelines regarding the implementation of open access, both at strategic and at operational levels.

In order to support its membership in this transition period towards OA, EUA takes a step forward in its <u>EUA Roadmap on Open Access to Research Publications</u>, by providing an updated vision and recommendations for turning OA into reality by 2020.

Aims for an open publishing system

Reaching full OA by 2020 is a step closer towards a publication and dissemination system that enables and promotes a seamless and transparent flow of knowledge within and beyond academia. The scientific community has regained its 'scientific sovereignty' over the knowledge it generates. This open system facilitates the progress of research and benefits society at large. It contributes to knowledge transfer, increases societal acceptance and engagement with science, creates spillover effects in the economy, and enables interdisciplinary approaches to major societal challenges.

We wish for an open scholarly knowledge exchange system that:

- Guarantees the quality of the peer-review process for the good advancement of knowledge and gives appropriate credit to researchers for their career development;
- Ensures that the author and/or institution retains copyright, allows unrestricted reading, use and re-use of information with open licences and rights to mine content and data;

A new impetus has been given by the European Commission's <u>policies</u> on OA within Horizon 2020, the <u>Council conclusions</u> on the transition towards an Open Science system, <u>Amsterdam Call</u> for Action on Open Science during the Dutch Presidency of the EU and the activities of the <u>Open Science Policy Platform</u>. The OA 2020 <u>Expression of Interest</u> was also supported by a wide array of stakeholders in different parts of the world.

An overview on policy developments in the area of Open Access were published in the report <u>Open Access to Research Publications: Looking Ahead</u> (2014). The results of the EUA Open Access Survey 2014 have been published jointly with practical guidelines in the area of open access addressed to universities in the report <u>EUA's Open Access checklist for universities: A practical guide on implementation</u> (2015). The results of the <u>EUA Open Access Survey 2015/2016</u> were published in June 2017 and the outcomes of the survey conducted in 2016/2017 will be published by the end of the current year.

Provides services with an equitable cost-benefit ratio for publishers and public institutions.
The costs related to researchers as providers of both research outputs and peer review
are recognised in the publication system; thus, universities, research centres, research
funders and publishers use public funds for research more efficiently, in particular by
handling multinational negotiations.

Recommendations

Transition towards Open Access to Research Publications

The transition towards full and immediate OA must be as short as possible and ideally be accomplished by 2020. Today, the majority of scholarly journals are only available via subscriptions and many consortia in Europe are still engaged in processes renegotiating 'big deal' subscription contracts for the coming years. While the subscription model persists, the two main routes towards OA, green and gold, coexist.

- Both 'gold' and 'green' OA routes have their advantages and should be pursued. Other routes towards OA, such as the hybrid model, should be assessed to ensure that they avoid duplication of fees and contribute to OA within equitable business models:
 - Concerning 'green OA': this indicates that the publications are deposited (self-archived) in institutional or shared repositories. Support for institutional or shared repositories is needed, as well as support for e-infrastructures that link them¹. Those countries that have not yet stipulated embargo periods in accordance with the European Commission and other major funders' mandates should do so². It can be a mismatch between the period of time required by funders to make publications available in open access and the embargo periods established by publishers' policies. It is thus important to ensure that the embargo periods established at national level cannot be overruled by publishers.
 - Concerning 'gold OA': this indicates that the publications are free and re-usable without any restrictions. Support for the development of new sustainable 'gold OA' models is needed³. While there are many models to make gold OA sustainable, one such model refers to the payment of Article Processing Charges (APCs) to make publications openly available. There is a need for more transparency⁴ on overall and disaggregated costs for the composition of APCs and contractual open access (i.e. offsetting). It is also necessary to gain knowledge of and to control APCs at institutional and collective levels (regional, national, European).
- Cost transparency in the scientific publishing market is a non-negotiable requirement, on the basis that it is largely financed by public funds and relies heavily on unpaid work by editors and reviewers from universities and public research centres. Universities must strive for more economically sound or budget-neutral solutions by taking control of the total costs of publication through, e.g. combining funding streams from both APCs and licensing, thus achieving greater leverage with publishers in negotiations to achieve a rapid transition to full OA.

¹ OpenAIRE

² i.e. 6 months for Science, Technology, Engineering and Mathematics (STEM); 12 months for Social Sciences, Humanities and Arts

For instance, the flat rates suggested by flipping models or the gathering of several institutions to support projects as Knowledge Unlatched or the Open Library of Humanities.

⁴ Science Europe position "Shaping Open Access and Creating Transparency. Recommendation by Science Europe for the Disclosure of Publication Fees" (2017).

• Governments and research funders should further their support in the transition towards OA by contributing to costs incurred by institutions and researchers with OA, such as those related to infrastructures and APCs.

Institutional Development of Open Access

Institutional leaders play a crucial role in leading the transition of the current publishing system into a full OA publishing system. It is estimated that 55% of European universities have an OA policy in place, 24% are planning to develop one within the year and 21% have not yet developed and implemented such a policy (EUA Survey 2015/16). In order to make progress on OA across Europe, it is important that institutions engage in dialogue and cooperation with other universities and/or their National Rectors' Conferences to develop and implement institutional OA policies. A transition must be accompanied by suitable and effective measures helping researchers to publish their results openly accessible. Institutional leaders can further promote OA by:

- Developing and/or linking platforms for openly available publications, for each institution or groups of institutions (open institutional repositories) and at national, European and/ or worldwide levels;
- Adapting, developing and implementing institutional policies on OA and thereby creating a nurturing environment for OA to research publications and to research data, in which OA activities are properly recognised;
- Incentivising researchers to publish in OA platforms, including rewards and compliance measures with institutional, national and/or European policies;
- Urging governments and research funders to adopt copyright regulations that remove legal barriers and facilitate open access between countries.

Mobilisation of researchers and developing human capital

Achieving full OA requires the mobilisation of all researchers, including robust incentive and rewards systems to ensure a quick transition and take-up of OA across disciplines. Involving researchers is also important at all stages in the transition, to ensure that research assessment and reward systems take into account the specific characteristics of different scientific disciplines.

We need to raise awareness of OA to all researchers. It is estimated that only 30% of researchers are aware of what publishing OA means (EUA Survey 2015/16). Researchers need to receive updated information and training. Incentives could include institutional policies for career progression rewarding publishing in open access repositories and/or scholarly journals; the sharing of research data with proper open licences and accessible e-infrastructures. In this framework, identifying best practices from different research communities and actively involving graduate and doctoral schools are key activities to further the uptake of OA among researchers.

The development of policies favourable to open access to research results requires new competences at both university and country levels. Universities should prepare themselves and plan for building expertise in the following areas: a) negotiations of 'big deals'; b) legal matters (copyright, data protection); c) management of platforms (access, security, application development); d) management of research data; e) training of researchers, students and university staff in general.

Research assessment systems

Research assessment systems need to evolve to recognise a variety of approaches and activities in open science, and reliance on the impact factor of journals should be reduced. Researchers from all scientific fields should obtain appropriate recognition for their open access and open science practices. European universities and their leaders must promote and support an evolution of the current assessment systems, while safeguarding the career perspectives of researchers.

In research assessment, quantitative metrics (e.g. number of publications, journal impact factors) should not replace a meaningful, qualitative evaluation of an individual's work. In the transition to an open publishing system, research assessment processes could, for example, include incentives for open access publishing and reward article quality per se, irrespective of the chosen journal's impact factor. This recognition should be reflected in the evaluation of research funding proposals, as well as in the assessment of research activities and outcomes. In addition, activities such as reviewing, evaluating, curating and managing research data, as well as sharing data and developing open resources, should be explicitly and directly acknowledged in the framework of researchers' evaluation.

Research Data Management (RDM)

Institutions need to increase their capacity in the areas of research data management and Text and Data Mining (TDM) practices, including, in particular, articles and e-books. The OA EUA Survey 2016/17 estimated that only 25% of European universities have policies in place regarding research data (EUA Survey 2016/17). However, research funders are increasingly requesting Research Data Management Plans (RDM) as part of the applications for research funding. For these reasons, it is recommended to:

- Establish an institutional policy with clear guidelines for the management of research data (validation, preservation, curation, availability), adopting the set of guiding principles to make data Findable, Accessible, Interoperable, and Re-usable (FAIR) and make them part of the European Open Science Cloud (EOSC).
- Make metadata publicly available when data must be closed due to its nature or for reasons of confidentiality or security.
- **Develop institutional capacity in the field of research data management** (e.g. improving technical and legal expertise, developing skills in data management and in Text and Data Mining (TDM).
- Provide legal advice, training and incentives for researchers to deposit their data and develop TDM practices.

Negotiations of 'big deals' with publishers

The negotiation of 'big deal' contracts should include provisions for protecting institutions' current and future interests, in terms of overall costs and possibility to use and re-use information. 'These contracts provide access to a large number of scientific journals through subscriptions and can include APCs. The following points need to be taken in consideration:

- Subscriptions and all APC-related costs at institutional or national level, including fees in hybrid journals, are an integral part of the overall publication costs in scientific systems.
- It is necessary to obtain a non-restricted usage of journals during and after the contract period has ended and, eventually, the possibility to transfer copies to a national platform for long-term preservation and access. This is particularly important in case of a subsequent breach of contract, takeover or bankruptcy of a publisher. Without these clauses, all previous investments could be lost.
- The ability to perform TDM using in-house algorithms and software should be included
 in the contract for all of the articles purchased, i.e. without being restricted to the use
 of algorithms provided by publishers, namely APIs (Application Programming Interface).
- Open licences should be actively negotiated and included in new contracts, supporting the deposit of publications in repositories to be used by research infrastructures and allowing TDM without restrictions.

Steps forward

Full Open Access in 2020 can be achieved if all stakeholders act together. However, aiming at achieving that goal only through APCs and implementing a gold OA route is unrealistic given the differing needs and interests of researchers in different disciplines and given the different economic and organisational situation of European countries. For the time being, both the gold and green OA routes coexist.

It is of utmost importance to find new, appropriate large-scale economic models that ensure the sustainability of OA through public funds to move to an open, transparent knowledge exchange environment.

EUA will continue to support its members in their efforts to move towards open access to research outputs (peer reviewed publications and research data) through its regular dialogue fora, yearly surveys and dialogue with relevant stakeholders. Future plans include the creation of an observatory of OA journals and platforms for the sharing of best practices and fostering collaboration.

The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 47 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations EUA ensures that the independent voice of European universities is heard wherever decisions are being taken that will impact their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, website and publications.



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