Ten years on from the Budapest Open Access Initiative: setting the default to open (BOAI10)

Prologue: The Budapest Open Access Initiative after 10 years

Ten years ago the Budapest Open Access Initiative launched a worldwide campaign for open access (OA) to all new peer-reviewed research. It didn’t invent the idea of OA. On the contrary, it deliberately drew together existing projects to explore how they might "work together to achieve broader, deeper, and faster success." But the BOAI was the first initiative to use the term "open access" for this purpose, the first to articulate a public definition, the first to propose complementary strategies for realizing OA, the first to generalize the call for OA to all disciplines and countries, and the first to be accompanied by significant funding.

Today we’re no longer at the beginning of this worldwide campaign, and not yet at the end. We’re solidly in the middle, and draw upon a decade of experience in order to make new recommendations for the next ten years.
We reaffirm the BOAI "statement of principle,... statement of strategy, and... statement of commitment." We reaffirm the aspiration to achieve this "unprecedented public good" and to "accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge."

We reaffirm our confidence that "the goal is attainable and not merely preferable or utopian." Nothing from the last ten years has made the goal less attainable. On the contrary, OA is well-established and growing in every field. We have more than a decade’s worth of practical wisdom on how to implement OA. The technical, economic, and legal feasibility of OA are well-tested and well-documented.

Nothing in the last ten years makes OA less necessary or less opportune. On the contrary, it remains the case that "scientists and scholars... publish the fruits of their research in scholarly journals without payment" and "without expectation of payment." In addition, scholars typically participate in peer review as referees and editors without expectation of payment. Yet more often than not, access barriers to peer-reviewed research literature remain firmly in place, for the benefit of intermediaries rather than authors, referees, or editors, and at the expense of research, researchers, and research institutions.

Finally, nothing from the last ten years suggests that the goal is less valuable or worth attaining. On the contrary, the imperative to make knowledge available to everyone who can make use of it, apply it, or build on it is more pressing than ever.

We reaffirm the two primary strategies put forward in the BOAI: OA through repositories (also called "green OA") and OA through journals (also called "gold OA"). Ten years of experience lead us to
reaffirm that green and gold OA "are not only direct and effective means to this end, they are within the reach of scholars themselves, immediately, and need not wait on changes brought about by markets or legislation."

Ten years of experience lead us to reaffirm the definition of OA introduced in the original BOAI:

By "open access" to [peer-reviewed research literature], we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

The problems that previously held up the adoption and implementation of OA are solved, and the solutions are spreading. But until OA spreads further, the problems for which OA is a solution will remain largely unsolved. In this statement, we reaffirm the ends and means of the original BOAI, and recommit ourselves to make progress. But in addition, we specifically set the new goal that within the next ten years, OA will become the default method for distributing new peer-reviewed research in every field and country.

Recommendations for the next 10 years

1 On policy

1.1. Every institution of higher education should have a policy assuring that peer-reviewed versions of all future scholarly articles
by faculty members are deposited in the institution’s designated repository. (See recommendation 3.1 on institutional repositories.)

• Deposits should be made as early as possible, ideally at the time of acceptance, and no later than the date of formal publication.

• University policies should respect faculty freedom to submit new work to the journals of their choice.

• University policies should encourage but not require publication in OA journals, and should help faculty understand the difference between depositing in an OA repository and publishing in an OA journal.

• When possible, university policies should be adopted by faculty vote, should require immediate OA, and should welcome repository deposits even when not required (e.g. datasets, conference presentations, books or book chapters, work published before the policy’s adoption, and so on).

• When publishers will not allow OA on the university’s preferred terms, we recommend either of two courses. The policy may require dark or non-OA deposit in the institutional repository until permission for OA can be obtained. Or the policy may grant the institution a nonexclusive right to make future faculty research articles OA through the institutional repository (with or without the option for faculty to waive this grant of rights for any given publication).

1.2. Every institution of higher education offering advanced degrees should have a policy assuring that future theses and dissertations are deposited upon acceptance in the institution’s OA repository. At the request of students who want to publish their work, or seek a
patent on a patentable discovery, policies should grant reasonable delays rather than permanent exemptions.

1.3. Every research funding agency, public or private, should have a policy assuring that peer-reviewed versions of all future scholarly articles reporting funded research are deposited in a suitable repository and made OA as soon as practicable.

- Deposits should be made as early as possible, ideally at the time of acceptance, and no later than the date of formal publication.

- When publishers will not allow OA on the funder’s terms, funder policies should require grantees to seek another publisher.

- If funder policies allow embargoes before new work becomes OA, the embargoes should not exceed six months. Policies should allow no embargoes at all for uncopyrightable work.

- Funders should treat publication costs as research costs, and should help grantees pay reasonable publication fees at fee-based OA journals.

- When possible, funder policies should require libre OA, preferably under a CC-BY license or equivalent.

- A repository is suitable for this purpose when it provides OA, supports interoperability with other repositories, and take steps toward long-term preservation. The funder’s choice should be determined by ongoing research into questions such as which choice best fosters the deposit of covered articles, the utility of deposits, the convenience of funders and authors, and incentives for the further growth of OA.

1.4. All university and funder OA policies should require deposit in a suitable OA repository between the date of acceptance and the
The metadata should be deposited as soon as it is available and should be OA from the moment of deposit. The full-text should be made OA as soon as the repository has permission to make it OA.

1.5. We discourage the use of journal impact factors as surrogates for the quality of journals, articles, or authors. We encourage the development of alternative metrics for impact and quality which are less simplistic, more reliable, and entirely open for use and reuse.

- Insofar as universities, funding agencies, and research assessment programs need to measure the impact of individual articles, they should use article-level metrics, not journal-level metrics.

- We encourage research on the accuracy of the new metrics. As the research shows them to be useful and trustworthy, we encourage their use by universities (when evaluating faculty for promotion and tenure), funding agencies (when evaluating applicants for funding), research assessment programs (when assessing research impact), and publishers (when promoting their publications).

- We encourage the development of materials to explain how journal impact factors have been misused, and how alternative metrics can better serve the purposes for which most institutions have previously used impact factors.

- As impact metrics improve, we encourage further study into the question whether OA and OA policies increase research impact.

1.6. Universities with institutional repositories should require deposit in the repository for all research articles to be considered for promotion, tenure, or other forms of internal assessment and review.
Similarly, governments performing research assessment should require deposit in OA repositories for all research articles to be reviewed for national assessment purposes.

Neither policy should be construed to limit the review of other sorts of evidence, or to alter the standards of review.

1.7. Publishers who do not provide OA should at least permit it through their formal publishing agreements.

Publishers should refrain from lobbying against governments acting in the public interest, and refrain from lobbying against research institutions acting in the interests of researchers and research. Publishers should disavow lobbying campaigns carried out in their name by their professional or trade associations against the public interest and the interests of researchers and research.

The minority of subscription-based publishers who do not yet allow author-initiated green OA, without payment or embargo, should adopt the majority position.

We remind researchers that they need not work as authors, editors, or referees for publishers who act against their interests.

2 On licensing and reuse

2.1. We recommend CC-BY or an equivalent license as the optimal license for the publication, distribution, use, and reuse of scholarly work.

OA repositories typically depend on permissions from others, such as authors or publishers, and are rarely in a position to require open licenses. However, policy makers in a position to
direct deposits into repositories should require open licenses, preferably CC-BY, when they can.

- OA journals are always in a position to require open licenses, yet most of them do not yet take advantage of the opportunity. We recommend CC-BY for all OA journals.

- In developing strategy and setting priorities, we recognize that gratis access is better than priced access, libre access is better than gratis access, and libre under CC-BY or the equivalent is better than libre under more restrictive open licenses. We should achieve what we can when we can. We should not delay achieving gratis in order to achieve libre, and we should not stop with gratis when we can achieve libre.

3 On infrastructure and sustainability

3.1. Every institution of higher education should have an OA repository, participate in a consortium with a consortial OA repository, or arrange to outsource OA repository services.

3.2. Every publishing scholar in every field and country, including those not affiliated with institutions of higher education, should have deposit rights in an OA repository.

- This will require more institutional repositories or more disciplinary repositories, or both. It may also require, at least in the short term, more universal repositories or repositories of last resort for scholars who don’t have an OA repository in their institution or field. The interface text in these universal repositories should be available in several languages.

3.3. OA repositories should acquire the means to harvest from and re-deposit to other OA repositories.
Researchers who have reason to deposit into more than one repository should only have to deposit once. When possible, institutional repositories should offer to re-deposit articles in disciplinary repositories requested by authors (e.g. arXiv, PubMed Central, SSRN), and should harvest or download copies of faculty publications deposited in disciplinary repositories.

3.4. OA repositories should make download, usage, and citation data available to their authors, and make these data available to the tools computing alternative impact metrics. Journal publishers should do the same, whether or not their journals are OA.

Repositories should share these data with one another in standard formats, making it possible (for example) for authors to learn the total downloads for an article on deposit in multiple repositories. No author and no repository should have interest in blocking re-deposit in an additional repository simply to preserve an accurate measure of traffic.

3.5. Universities and funding agencies should help authors pay reasonable publication fees at fee-based OA journals, and find comparable ways to support or subsidize no-fee OA journals.

In both cases, they should require libre OA under open licenses, preferably CC-BY licenses or the equivalent, as a condition of their financial support.

Supporting peer-reviewed OA journals in these ways should be a top priority for any money saved from the cancellation or conversion of subscription journals.

Supporting peer-reviewed OA journals can be particularly important for journals with a more limited audience, such
as journals focusing on national law in smaller countries or journals published in a local language, and for journals where publication fees are inappropriate, such as review journals which solicit review articles from authors.

3.6. When subscription-based or non-OA journals permit any kind of self-archiving, or deposit into OA repositories, they should describe what they permit in precise human-readable and machine-readable terms, under an open standard. These descriptions should include at least the version that may be deposited, the timing of deposits, and the licenses that could be attached to deposited versions.

3.7. OA repositories should provide tools, already available at no charge, to convert deposits made in PDF format into machine-readable formats such as XML.

3.8. Research institutions, including research funders, should support the development and maintenance of the tools, directories, and resources essential to the progress and sustainability of OA.

• The list of essential tools will evolve over time, but includes OA repositories and journals, free and open-source repository software, free and open-source journal management software, tools for text- and data-mining, directories of OA journals and repositories, directories of university and funder policies, providers of open licenses, digital preservation services, current awareness services, services for cross-linking and persistent URLs, and search engines.

• Research institutions should also support the establishment of worldwide, open standards for metadata and querying that publishers and repositories could implement to make OA research more discoverable, retrievable, and useful.

3.9. We should improve and apply the tools necessary to harvest the references or bibliographic citations from published literature. The
facts about who cited whom are in the public domain, and should be OA in standard formats for use, reuse, and analysis. This will assist researchers and research institutions in knowing what literature exists, even if they don’t have access to it, and in the development of new metrics for access and impact.

- We urge all publishers to cooperate with this effort.
- We recommend the development of infrastructure where reference data may be deposited by publishers, authors, volunteers, third-party entrepreneurs, or software, and where the reference data may be hosted for OA distribution.

3.10. We should assist in the gathering, organizing, and disseminating of OA metadata in standard formats for all new and old publications, including non-OA publications.

3.11. Scholarly publishers need infrastructure for cross-linking and persistent URLs based on open standards, available at no charge, and supporting linking and attribution at arbitrary levels of granularity, such as paragraph-level, image-level, and assertion-level identification.

3.12. We encourage the further development of open standards for interoperability, and tools to implement those standards in OA journals and repositories.

3.13. We encourage experiments with different methods of post-publication review, and research into their effectiveness.

- OA through repositories, OA through journals, and OA through books are all compatible with every kind of traditional pre-publication peer review, and OA does not presuppose any particular form of peer review. We recommend experiments with post-publication peer review not because it will be superior, although it might, but because it would reduce delays
before new work becomes OA and could reduce first-copy costs.

3.14. We encourage experiments with new forms of the scholarly research "article" and "book" in which texts are integrated in useful ways with underlying data, multimedia elements, executable code, related literature, and user commentary.

- We encourage experiments to take better advantage of the digital medium, and digital networks, for the benefit of research.
- We encourage experiments to take better advantage of the ways in which OA articles remove access barriers for machines, and not just for human readers.
- We encourage the use of open standards and formats to foster these uses, and research on their effectiveness.

4 On advocacy and coordination

4.1. We should do more to make publishers, editors, referees and researchers aware of standards of professional conduct for OA publishing, for example on licensing, editorial process, soliciting submissions, disclosing ownership, and the handling of publication fees. Editors, referees and researchers should evaluate opportunities to engage with publishers and journals on the basis of these standards of professional conduct. Where publishers are not meeting these standards we should help them improve as a first step.

- As one means for evaluating a new or unknown OA publisher or OA journal, we recommend that researchers consult the Open Access Scholarly Publishers Association (OASPA) and its code of conduct. Members of the association are screened
according to this code. Complaints about OASPA-member publishers and suggestions for improving the code of conduct should be sent to OASPA.

- We encourage all OA publishers and OA journals to apply best practices recommended by OASPA or to seek membership in the association, which would entail a review of their practices and an opportunity to amend these where necessary.

4.2. We should develop guidelines to universities and funding agencies considering OA policies, including recommended policy terms, best practices, and answers to frequently asked questions.

4.3. We encourage development of a consolidated resource where it is easy to follow the progress of OA through the most relevant numbers and graphics. Each bit of information should be updated regularly, and its provenance or method of computation clearly indicated.

4.4. The OA community should act in concert more often. Wherever possible, OA organizations and activists should look for ways to coordinate their activities and communications in order to make better use of their resources, minimize duplication of effort, strengthen the message, and demonstrate cohesion.

- We should create better mechanisms for communicating and coordinating with one another.

- We should reach out to our academic colleagues, to the academic press, and the mainstream non-academic press. The academic and non-academic media are better informed about OA, and more interested in it, than at any time in our history. This is an opportunity for helping to educate all stakeholder groups about OA and new proposals to advance it.

4.5. The worldwide campaign for OA to research articles should work more closely with the worldwide campaigns for OA to books,
theses and dissertations, research data, government data, educational resources, and source code.

- We should coordinate with kindred efforts less directly concerned with access to research, such as copyright reform, orphan works, digital preservation, digitizing print literature, evidence-based policy-making, the freedom of speech, and the evolution of libraries, publishing, peer review, and social media.

- We should look for ways to amplify our separate voices when defending common principles.

4.6. We need to articulate more clearly, with more evidence, and to more stakeholder groups the following truths about OA:

- OA benefits research and researchers, and the lack of OA impedes them.

- OA for publicly-funded research benefits taxpayers and increases the return on their investment in research. It has economic benefits as well as academic or scholarly benefits.

- OA amplifies the social value of research, and OA policies amplify the social value of funding agencies and research institutions.

- The costs of OA can be recovered without adding more money to the current system of scholarly communication.

- OA is consistent with copyright law everywhere in the world, and gives both authors and readers more rights than they have under conventional publishing agreements.

- OA is consistent with the highest standards of quality.

ABSTRACT: Ten years after the Budapest Open Access Initiative, the same proponents prepare the plan for setting the default on Open Access during the next ten years. KEYWORDS: BOAI; Open Access; Scholarly communication.