

# Open access to Books—The Perspective of a Non-profit Infrastructure Provider

EELCO FERWERDA, RONALD SNIJDER AND NIELS STERN

This article describes the open access (OA) book platforms OAPEN Library and Directory of Open Access Books (DOAB). Both platforms support the transition to OA, regardless of the publishing model, whether the publisher is transitioning from print or is born OA, whether for profit or not. The requirements to join OAPEN and DOAB only relate to quality assurance and licensing policies.

The article is structured in three sections: (1) the development and activities of OAPEN in the first 10 years; (2) the underlying technical approach behind the platforms; and (3) the current role of OAPEN and DOAB and future outlook.

## Section 1: The First 10 Years

### *Development and Activities in the First 10 Years*

**The Start of OAPEN.** The first discussions about what later would become the OAPEN platform were held at the opening conference of the Seventh Framework Programme (FP7) in Brussels in early 2007. At one of the sessions, Sijbolt Noorda, then president of the University of Amsterdam, argued that OA should be extended to the humanities and therefore include books. After that session, a number of directors of university presses gathered to talk about OA books. Noorda pointed to a potential funding opportunity from the European Commission, the *eContentplus* grant. Amsterdam University Press (a subsidiary of the University of Amsterdam) coordinated with some of the university presses from the meeting and contacted other potential partner presses in Europe to prepare an application for *eContentplus*.

Our proposal was submitted to the European Commission in September 2007 under the acronym OAPEN (Open Access Publishing in European Networks) with seven participants from six countries. Six participants were European university

presses: Amsterdam University Press (project lead), Göttingen University Press, Manchester University Press, Museum Tusulanum Press (connected to the University of Copenhagen), Presses universitaires de Lyon (a department of Université Lumière Lyon 2), and Firenze University Press. The seventh participant was the Digital Production Centre of the University Library of the University of Amsterdam as a technical partner to develop the central infrastructure. In addition, there were several other participants in the project, among them the Books and Digital Media Studies program of Leiden University as a research partner and subcontractor.

We include here the abstract of the proposal:

OPEN ACCESS PUBLISHING IN EUROPEAN NETWORKS (OAPEN) is a 30-month target project to develop and implement an open access (OA) publication model for academic books in the humanities and social sciences (HSS). The project aims to achieve a sustainable European approach to improve the quantity, visibility, and usability of high-quality OA content and foster the creation of new content by developing future-oriented publishing solutions, including an online library dedicated to HSS.

The main results will be:

- 1) a sustainable OA-publishing process dedicated to academic works in HSS;
- 2) a publishing platform primarily dedicated to monograph content in HSS, in all its dimensions (text, multimedia, data, reviewing, reader interaction), based on an existing publishing infrastructure; and
- 3) Networked Online Library: the largest freely available multilingual collection of current, coherent content in various fields of HSS.

OAPEN addresses the needs of SME and not-for-profit publishers and seeks to offer solutions to both publishers and other stakeholders, such as authors, libraries, research funding bodies, and policy makers. OAPEN will aggregate content from other SME publishers in HSS, in order to expand the available open access content by achieving critical mass and building up the European Digital Library.

The project, in which European university publishers take the initiative to develop an OA model geared towards quality book publishing, is the first of its kind.

It is interesting to note that many of the main characteristics of OAPEN today were already present at its inception in 2007: dedicated to OA books, with a focus on the humanities and social sciences; establishing an infrastructure based on open source software and existing standards to build a large international collection and support the publication of high-quality OA books; and working with the main stakeholders apart from publishers, including authors, libraries, research funders, and policy makers.

The OAPEN project was selected for funding by the European Commission and ran from September 2008 to March 2011. The project had three main outcomes: a publishing model for OA books, the OAPEN Library, and a user needs study into OA book publishing. The OAPEN Library (described in more detail in the next section) was launched at the Frankfurt Book Fair in October 2010, with 750 OA books from 13 publishers. The study *Digital Monographs in the Humanities and Social Sciences: Report on User Needs* was published in 2010 (Adema and Rutten 2010).

**OAPEN Foundation.** As the project progressed, it became clear that one of the assumptions behind the project—that the participating presses would take ownership of the OAPEN Library and would develop shared publishing services for OA books—was not viable. The presses did not have the resources to cover the organization and running costs of the OAPEN Library and would not be able to invest in expanding the organization to introduce additional publishing services. Amsterdam University Press sought support for an alternative approach, to create a separate entity that could be funded for a limited period by academic institutions in the Netherlands. This eventually led to the establishment of Stichting OAPEN, a non-profit foundation under Dutch law, with its registered office in the National Library in The Hague, in 2011. Stichting OAPEN was founded by the University of Amsterdam, the University of Leiden, Utrecht University Library, the Royal Netherlands Academy of Arts and Sciences (KNAW), the National Library of the Netherlands, and Amsterdam University Press. The founding partners committed to financial support for an initial period of three years, with matching funding from the Dutch Research Council (NWO).

OAPEN's mission was:

- to build a branded collection of open access peer-reviewed titles;
- to increase the visibility and retrievability of high-quality publications; and
- to promote open access book publishing.

**OAPEN Services.** The OAPEN Library has been set up to host and disseminate OA books. OAPEN supports the transition to OA, regardless of the publishing model, whether the publisher is transitioning from print or is born OA, whether for profit or not. The requirements to join OAPEN only relate to transparency

and quality assurance. OAPEN works with publishers to build a quality-controlled collection of open access books and provides services for publishers, libraries, and research funders in the areas of dissemination, quality assurance, and digital preservation.

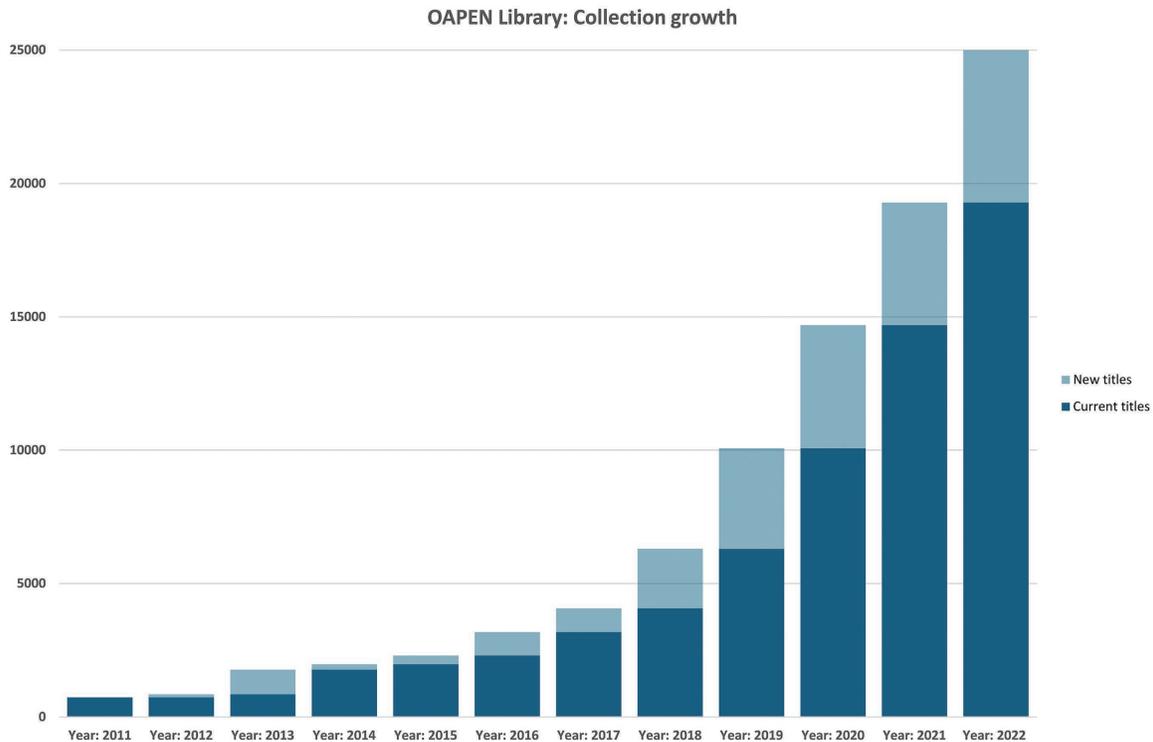
- **Hosting:** OAPEN hosts freely available books in a repository providing various means to upload and aggregate publications.
- **Dissemination and discovery:** OAPEN provides freely available metadata feeds in various formats and works with intermediaries to optimize dissemination and discovery of the collection.
- **Digital preservation:** OAPEN works with partners to provide a stable repository infrastructure and a digital preservation service in collaboration with Portico.

OAPEN introduced a deposit and collection management service in 2012. The deposit service supports open access policies of research funders and practitioners (research institutions, universities, and their libraries) and provides an institutional uploading service for researchers and publishers. The Austrian Science Fund (FWF) became the first partner. In the following years, OAPEN expanded the service for Knowledge Unlatched (2013), Wellcome (2014), the European Research Council (through three consecutive two-year grants, starting in 2015), the Swiss National Science Foundation (SNSF, as part of the OAPEN-CH pilot project, 2015), and the Dutch Research Council (NWO, 2020). OAPEN's collaboration with research funders is detailed in the last section of this article.

In 2013, OAPEN improved its reporting by providing COUNTER-conformant usage statistics in collaboration with IRUS-UK. The next section will describe the technical development of the OAPEN Library, including usage reporting.

The OAPEN Library grew into one of the largest full-text collections of freely available peer-reviewed books: in 2011, the year that OAPEN became a foundation, the OAPEN Library contained fewer than 1,000 books from 30 publishers; at the time of writing, the collection consists of close to 25,000 books from more than 400 publishers.

**Pilot Projects to Explore OA Book Publishing.** From the start, OAPEN was set up to promote the transition to OA books, often in the form of pilot projects and studies in collaboration with other stakeholders. The first of these projects was OAPEN-NL, a project exploring open access monograph publishing in the Netherlands.



**Figure 1.** OAPEN collection growth

OAPEN-NL was a two-year project, starting October 2010, as a collaboration of NWO and SURF Foundation and supported by the Ministry of Education, Culture and Science. NWO provided a publication fund to publish OA editions of monographs. Nine publishers took part in the pilot, among them Amsterdam University Press, Leiden University Press, Brill, Springer Science and Business Media, and Wageningen Academic Publishers.

The pilot made use of the model that was developed in the OAPEN project. The publishing model for OA books was based on a hybrid approach, publishing both an OA edition and a conventional edition that is offered for sale. The cost of the OA edition is calculated as the first copy costs of the book, which is all the costs that go into producing the digital file of the publication, including editorial costs and additional expenses for the peer review process, marketing, distribution, and image rights. Publishers charge a fee for the OA edition based on the first copy costs. They can choose to make a printed edition available through print-on-demand or a print run and recover all remaining costs through sales. The pilot involved publishing 50 OA books and 50 comparable conventional books and collecting data about usage, sales, and costs to study the effect of OA on monographs. The pilot included a qualitative component to gather the perceptions and expectations of publishers and authors.

OAPEN-NL found no evidence of an effect of OA on sales, and nor was there an effect on citations (within the timeframe of the project<sup>1</sup>). However, there was a clear effect on online usage, measured through book visits and page views in Google Books, and also in comparing online discovery and usage with sales, with on average 20 times more downloads than copies sold. Average costs for the books (averaging 350 pages) amounted to just over €12,000, with almost half these costs, just under €6,000, relating to the first digital copy. The findings of OAPEN-NL were published in a final report in October 2013 (Ferwerda, Snijder, and Adema 2013).

As OAPEN-NL got underway, OAPEN approached Jisc Collections to set up a similar pilot in the United Kingdom. This project came to be known as OAPEN-UK, in which Jisc played a more prominent role than OAPEN. The OAPEN-UK research project (Collins and Milloy 2016a) was a five-year study into open access monograph publishing in the humanities and social sciences. OAPEN-UK was designed to work collaboratively and in an agile manner, supporting and responding to developments in the wider monograph publishing environment. Part of the project consisted of the OAPEN-UK matched pairs pilot (Collins and Milloy 2016b), which ran from 2011 until 2014 to understand what happens when a book is made available as open access. This pilot also covered the effect on sales and usage of the book, but the matched pairs consisted of books that had already been published, although relatively recently. OAPEN-UK didn't attempt to investigate the costs of OA books, but it did look at how publishers and their supply chains are affected when trying to make an open access monograph available. In total, 47 pairs of books from six publishers were submitted to the pilot. From each pair, a title was randomly selected to be made OA. Publishers received a fixed fee of 6,000 GBP per pair to take part in the pilot. This fee was based on the average outcome of the OAPEN-NL project for first copy costs.

The OAPEN-UK research project also resulted in two guides. The *Guide to Creative Commons for Humanities and Social Science Monograph Authors* (Collins, Milloy, and Stone 2013) addresses concerns expressed by researchers, learned societies, and publishers and is aimed to help academics when they are faced with making decisions about publishing. The *Guide to Open Access Monograph Publishing for Arts, Humanities and Social Science Researchers* (Collins, Milloy, and Stone 2015) provides an overview of OA for books and informs researchers about making their work available in open access.

The final pilot, OAPEN-CH, was set up in 2014 with the Swiss National Science Foundation (SNSF). At that time, SNSF had introduced new funding policies that only covered books that were published online and openly accessible after an embargo period of no more than 24 months. The pilot study set out to learn more about the

---

1. Follow-up research found a slight OA citation advantage; see Snijder (2016).

changes to academic publishing and pave the way for future adaptations to funding policies. OAPEN-CH consisted of 53 matched pairs of monographs from 12 publishers. Of the 53 OA monographs, one group was published in open access upon publication, while the other group was already published in a printed edition and made available OA retrospectively.

The findings of the OAPEN-CH pilot (Ferwerda et al. 2018) concurred with those of OAPEN-NL and OAPEN-UK. Making monographs OA had a positive impact on trackability, visibility, international reach, and usage, while there was no negative effect on sales. Average costs for OA monographs—that is, the costs for the first digital copy and additional expenses for the peer review process, marketing, distribution, and image rights—proved to be considerably higher than the average found for OAPEN-NL, approximately 13,800 Swiss francs (compared to €6,000), although it should be noted that the costs for digital monographs from the participating publishers varied considerably. The findings of OAPEN-CH and engagement with publishers helped SNSF to adapt its OA book policy.

## *DOAB*

During the OAPEN project, there were already ideas about setting up the Directory of Open Access Books, following the successful example of the Directory of Open Access Journals (DOAJ, operating since 2003). A directory for OA books would strengthen OAPEN's mission to improve discovery and dissemination of OA books while complementing its core function to provide a full-text repository as a paid-for service for publishers. The first discussions took place at the first Open Access Scholarly Publishers Association (OASPA) conference in Lund in 2010. DOAB would differ from OAPEN in three ways: it would not host the full text of books but provide a searchable index with links to the full texts of the publications at the publishers' websites or repositories; all books should be published under an open license, allowing re-use of the publications; and the service would be free for publishers that were approved to submit their publications. DOAB would review publishers' peer review processes and licensing policies. The plan was approved by the OAPEN Board in 2011.

DOAB was developed with help from Lars Bjørnshauge, director of DOAJ, and started as a beta service in 2012 on a platform that was adapted from the DOAJ platform, provided by SemperTool. At the time of the launch, DOAB contained metadata of 750 books from 20 publishers. The official launch of DOAB took place at the first international conference on OA monographs in the humanities and social sciences (Open Access Monographs in the Humanities and Social Sciences Conference, 2013), jointly organized by Jisc and OAPEN, which took place in the British Library in July 2013.

DOAB has since more than fulfilled its promise. As the primary aim of DOAB is to increase discoverability of open access books, it requires a wide participation from publishers worldwide. DOAB became one of the fastest growing OA resources and currently lists almost 60,000 OA books from over 600 publishers worldwide. As DOAB gradually developed into a global hub for OA books, it became important to engage with other OA book infrastructures besides OAPEN. The first of these was OpenEdition in 2014, to create a French version of the website and help with the review of French publishers. Other partnerships include SciELO and Project MUSE. We will describe DOAB's role in more detail in the final section of this article, but two elements should be mentioned here: the focus on quality assurance by providing information about the peer review process (which was already a feature of OAPEN) and the importance of bibliodiversity—that is, the notion that varied publishing practices across different language areas, cultures, and academic disciplines should be acknowledged and protected in the transition to OA.

The partnership with OpenEdition developed further when OAPEN and OpenEdition became interested in sharing the responsibility for DOAB. Co-ownership meant that DOAB could become independent of OAPEN and OAPEN could share the costs maintaining and developing DOAB. In 2019, DOAB Foundation was established as an independent, non-profit legal entity under Dutch law (Stichting), jointly governed by OAPEN Foundation and OpenEdition (legally represented by the Centre national de la recherche scientifique [CNRS] and Aix-Marseille University, its governing institutions). In addition, the French Ministry of Science made DOAB part of the national research infrastructure.

### *Open Access Books Network (OABN)*

As the interest in OA for books increased, a number of organizations began thinking about new ways to engage with the wider community around OA books. Eventually a meeting was held in Amsterdam in 2018, with representatives from OAPEN, OpenEdition, Open Book Publishers, SPARC Europe, Göttingen University Press, Knowledge Exchange, and OPERAS, which was followed by a panel session during the 2019 International Conference on Electronic Publishing in Marseille.

The Open Access Books Network (OABN) finally took shape shortly after the conference, when OAPEN, ScholarLed, and SPARC Europe agreed to jointly manage the network's activities. The OABN found a home within the Humanities Commons and has quickly become a vehicle for several valuable conversations within the community, among them a series of events called Voices from the Open Access Books Community, to discuss OA policy issues for books (OA Books Network 2021). Earlier this year, the

OABN received formal support from OPERAS by becoming a special interest group (SIG) for OA books (OPERAS n.d.).

### *OAPEN OA Books Toolkit*

The OAPEN OA Books Toolkit is a free-to-access, stakeholder-agnostic resource that aims to help academic book authors to better understand and increase trust in open access book publishing.

The idea for an OA books toolkit originated from a workshop session organized by Springer Nature and the University of Glasgow as part of the Researcher to Reader Conference in 2019. They approached OAPEN to help develop and ultimately host the toolkit. The idea was further developed through a series of workshops for authors hosted at the universities of Oxford, Glasgow, and Utrecht in collaboration with OAPEN and Springer Nature. The toolkit launched as a separate resource hosted by OAPEN in September 2020.

### *Sustaining OAPEN*

OAPEN benefited from being the first international infrastructure dedicated to OA books in many ways, but on the flip side, it proved to be a struggle to find a path to sustainability. OAPEN sought to transition from a subsidy-based operation, supported by Dutch academic institutions, to a service-based operation, providing paid-for services to stakeholders. OAPEN's customer base expanded by gradually working with more publishers and research funders, but the overall transition to OA books remained a slow process, unable to generate sufficient income to sustain OAPEN's activities. In an effort to attract wider support from libraries, we introduced a library membership program for both DOAB and OAPEN, in collaboration with Knowledge Unlatched. For a few years, OAPEN was in the undesirable position that it covered part of its fixed personnel costs with incidental subsidies from various projects. However, it was equally undesirable that Dutch institutions should continue to cover the costs of an international infrastructure.

Fortunately, we weren't alone in the quest to achieve sustainability. In a series of studies and workshops organized by Knowledge Exchange in Europe, more awareness was created of the importance of independent, not-for-profit community-based OA infrastructures (Johnson and Fosci 2016). This was followed by the creation of SCOSS, the Global Sustainability Coalition for Open Access Services, and Invest in Open Infrastructure, also investigating open infrastructures.<sup>2</sup> Furthermore, OAPEN took part in

---

2. See, for instance, Ficarra et al. (2020).

several workshops and studies investigating OA books, most notably the Knowledge Exchange landscape study on open access and monographs (Ferwerda, Pinter, and Stern 2017) and a gap analysis of open access monographs infrastructure (Ferwerda et al. 2021) commissioned by UK Research and Innovation (UKRI). In addition, OAPEN was one of the early partners in OPERAS (open scholarly communication in the European research area for social sciences and humanities), an initiative led by OpenEdition and supported by the French government to create a pan-European, distributed research infrastructure for the humanities and social sciences. OPERAS was admitted on the European Strategy Forum on Research and Innovation (ESFRI) roadmap in 2021, and OAPEN became its national node for the Netherlands.

In 2018, OAPEN conducted an extensive review of its business model and services, which provided clear evidence of its added value for stakeholders and resulted in a roadmap for 2019–2021. This effort supported our application to become part of the SCOSS funding system. The joint admission of OAPEN and DOAB to the second SCOSS funding cycle in 2019 proved to be a turning point. SCOSS managed to attract financial support from various consortia, which enabled OAPEN to expand the organization with a community manager and widen our effort to attract support from libraries and other institutions globally.

## Section 2: Technical Approach

### *If You Build It. . .*

The OAPEN Library—and the same holds true for the Directory of Open Access Books—is built using open source software, and from the start all our metadata has been made available under a CC0 license. Rather than being optimized to keep visitors as long as possible on the site to show them advertisements or sell them as many things as possible, both online resources aim to maximize the dissemination of books and chapters, regardless of the way the prospective reader has found the title. For us, it is less important whether the books are discovered on the OAPEN Library, DOAB, library catalogues, Google Scholar, OpenAIRE, Twitter, a blog, or by any other means. What matters is that the titles have found their readers, wherever they may reside.

In this section we will discuss the work we have done to enable the dissemination of open access books and chapters. Starting with the data model, we move from there to dissemination and ingestion; measuring usage; and, finally, future developments.

### *The Data Model*

The data model of OAPEN must reflect the diversity of its collection. The collection consists of books and chapters in many languages. The data will be provided by a large and diverse group of publishers but should contain enough information to be useful for libraries and funders. Apart from the “usual” bibliographic data, it should also contain licensing information. A recent development is the description of the peer review process.

The diversity of the collection is reflected in the range not just of subjects and languages but also of the publishers. Adding titles to OAPEN and DOAB must be a manageable task for both small and large publishers, and thus we tried to keep the number of metadata fields to a minimum. However, libraries prefer to have a detailed description, making it easier to merge the data into existing records or allowing for more searching options. We had to find an optimum between these conflicting demands. Two examples are the way contributors and ISBNs are managed. The OAPEN/DOAB data model recognizes just three types of contributors: author, editor, and “other role.” While a library system might be able to recognize roles such as illustrator or translator, we chose to list them under the “other role.” Something similar is applied to ISBNs: if a book is published in several editions, such as hardback, paperback, PDF, and EPUB e-book, each edition would probably have its own ISBN. For the sake of simplification, each book in the OAPEN Library and DOAB has one “primary” ISBN and may have several related ISBNs. However, there is no information about what ISBN is connected to what edition.

Managing a multilingual collection entails more than just listing the language of the publication. Our data model allows us to add abstracts in multiple languages. Where appropriate, a German-language book is described with an abstract in German and another in English. Keywords are unrestricted, and we encourage publishers to add keywords in languages other than English. Subject description is standardized using the BIC (Book Industry Communication Ltd) classification scheme, a taxonomy that is widely used in the publishing community.

Since the launch of the OAPEN Library in 2010, the data model has been extended to accommodate funding and peer review information. Funders have become a more important stakeholder: OAPEN now hosts several collections of books and chapters that received support from, among others, FWF, SNSF, Wellcome, NWO, or the European Research Council. This is also reflected in the books’ descriptions, allowing a direct link to the funding program. DOAB now offers the opportunity to store peer review procedure descriptions. Publishers listed in DOAB can create one or more descriptions using a short list of questions about whether the full text is reviewed, by whom, the level of openness, and so forth.

All this metadata is gathered and curated to make sure that the books and chapters in OAPEN and DOAB can be found to the largest extent possible. The next subsection will describe how the dissemination takes place.

### *Dissemination and Ingestion*

Disseminating open access books and chapters might be seen as the essential task of the OAPEN Library and DOAB. From the launch in 2010 up until now, we have been putting much effort into creating and maintaining dissemination channels that fit all our stakeholders. But apart from the dissemination channels, which will be discussed in more detail later, the OAPEN and the DOAB websites should also be places where visitors would be able to discover open access books.

The website of the OAPEN Library was launched in 2010, and from the start much emphasis was placed on both searching and browsing the collection. The front page prominently listed a search bar but also featured subject facets. In contrast, the DOAB website, launched two years later, was quite austere: much white space and a search bar. In 2020 and 2021, as part of the OPERAS-P project, we migrated both collections to the same technical platform, and now both our visual identities and our search and browse interfaces adhere to the same principles. With the deployment of DSpace 6, we made it possible to browse the collections based on even more facets in combination with the built-in search functions. And, of course, our websites are now also optimized for mobile devices.

As mentioned before, our primary goal is to make sure that the books and chapters are found. This means that we have put a lot of effort into ensuring that our metadata can be ingested in several quite different environments. Simply put, we provide different ways to “transport” the metadata, where the metadata has been “translated” into several formats. We aim to make it simple for all our stakeholders to connect to our collections, either through harvesting, metadata ingestion, web scraping, or an application programming interface (API).

From the start, both the OAPEN Library and DOAB were based on repository software. From a technical perspective, both platforms are part of the web of institutional and disciplinary repositories and can be accessed in the same way. In fact, we use the harvesting possibilities of our platforms in several ways: DOAB automatically adds new OAPEN hosted titles, and OAPEN harvests the repositories of the FWF e-book library and the Knowledge Unlatched collection at the Open Research Library. The ingestion of titles will be discussed in more detail later in this section.

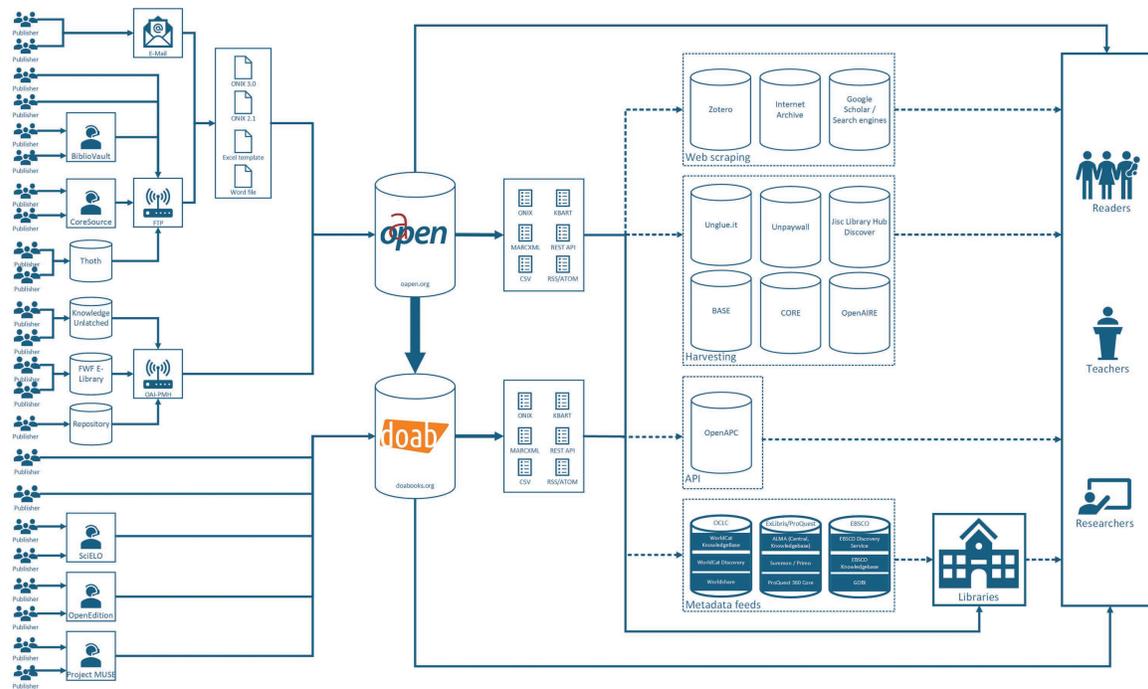
Apart from the harvesting protocol, we provide other means to automatically access the titles. We provide freely available metadata feeds, optimized for specific groups. Within the publishing world, the ONIX protocol is widely used. This XML-based standard is optimized for books, and thus it was a logical option to provide. To make our data easily accessible to the library world, we provide MARCXML and KBART feeds. MARCXML is based on the MARC21 standard and like ONIX allows for an extensive description of all aspects of books. For those who need a more lightweight description, we provide KBART metadata. The RIS metadata export is perhaps a bit less expected. This format is used for importing title descriptions into reference management programs. While it is more appropriate to export smaller selections, the option to export the whole collection is available. Apart from these strictly defined export formats, we also provide a comma-separated export to be used in a wide variety of situations.

Search engines do not use metadata feeds but use web scraping instead. So, in order to optimize indexing, we have added machine-readable metadata to each landing page describing a book or a chapter. Starting November 2019 we had several discussions with colleagues at Google Scholar, resulting in updated specifications for the metadata to be used in our environment. As a result, newly added titles to the OAPEN Library are quickly indexed in Google Scholar. And, finally, our current environment contains an API. This API can be used to create other web-based applications. We use the API to display the latest titles on the DOAB home page, an overview that changes daily.

The overview of new books in DOAB changes quite often as new titles are added almost every day. From 2019 onwards, the collections of both the OAPEN Library and DOAB have grown considerably. To facilitate this, our ingestion procedures have evolved to cater to a growing group of publishers. These publishers are quite diverse and range in size. Some smaller publishers send us books and metadata directly via mail, others upload it to our FTP server, and some publishers collaborate with intermediaries—distribution partners specialized in the dissemination of e-books.

Managing large amounts of metadata is only possible by using industry standards, in this case ONIX. Even this standard comes in several variants: the current version (3.0) has a short and long notation. Furthermore, many publishers have invested heavily in the older 2.1 version, which also comes in two variants. Currently, there is no ready-made application available, so we built one ourselves.

This chart depicts the whole process, from publisher to reader.

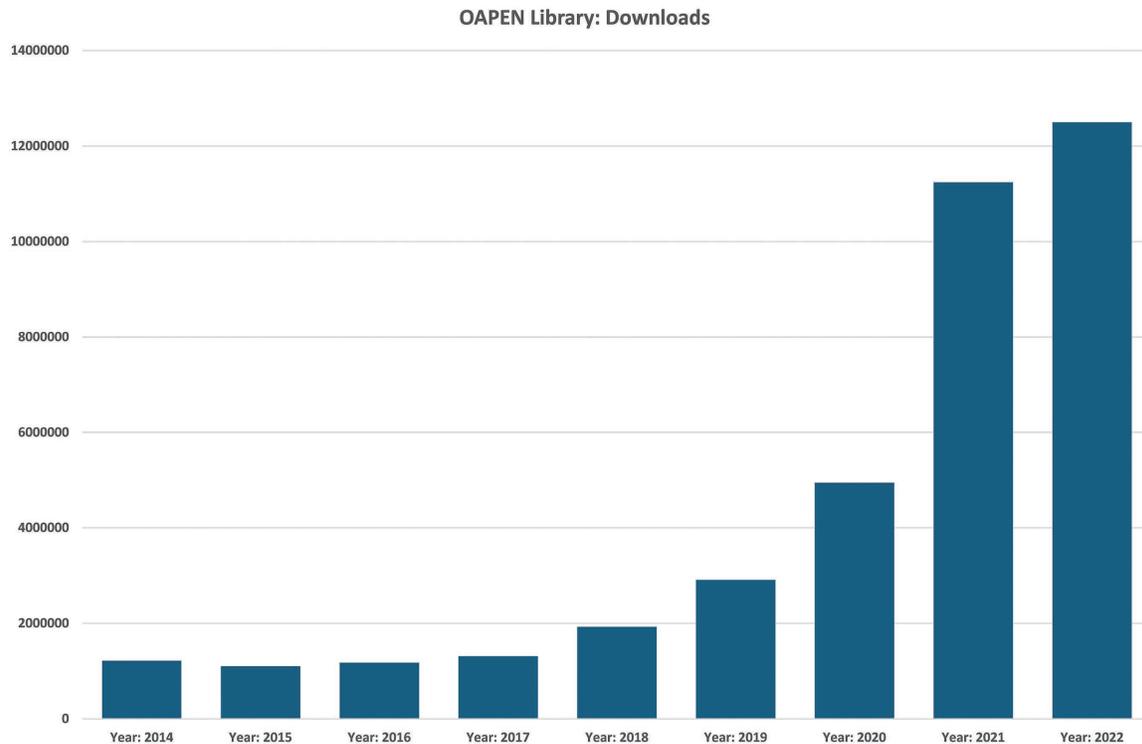


**Figure 2.** Ingestion and dissemination chart

### Measuring Usage

To measure the usage of the OAPEN Library, we rely on a widely accepted standard: the COUNTER Code of Practice (COUNTER n.d.). The reporting is created in cooperation with IRUS-UK, which started in 2013. In short, OAPEN provides IRUS-UK with raw usage data for items in the OAPEN Library, and IRUS-UK converts it into COUNTER-conformant statistics. Crucial to COUNTER reporting is the removal of data reflecting usage that is not the result of intentional human actions. Thus, automated downloads by “bots” are excluded. This helps us to provide usage statistics that are not inflated, and the standardization makes it possible to compare our usage statistics to the number from other providers.

Usage was constant in the first four years: between 2014 and 2017, we saw just over one million downloads per year. Starting 2018, the numbers went up: from 1.8 million in 2018, 2.5 million in 2019, 4.9 million in 2020, and 11 million in 2021. Based on the downloads in the first half of 2022, we expect to see an even higher total usage for 2022. The large difference in 2020 and beyond might have several causes. The COVID-19 pandemic forced many people to rely on online sources. In the same period, we also launched the OAPEN Library on a new platform, which—apart from other dissemination improvements—has been optimized for indexing by Google Scholar.



**Figure 3.** OAPEN Library downloads

The usage data has been shared with our partnering publishers and research funders since 2013. Based on the collection of books and chapters that the publisher or the funder has made available in the OAPEN Library, a report was created. Apart from the total number of downloads—or more specifically, the monthly “Total\_Item\_Requests”—we also provide an overview of usage per country.

Up until the first quarter of 2022, the reporting was limited to publishers and funders. However, libraries are another important stakeholder, and with the development of an online dashboard, we are now able to provide an automatically updated overview to libraries, publishers, and funders.<sup>3</sup> The main difference between libraries and the other stakeholders is the selection of titles to include. While the reporting for publishers and funders is based on the titles that they have made available, the usage of the libraries is based on IP ranges they have provided. These IP addresses help to determine how many downloads have occurred from the libraries’ networks. In addition, we provide an overview of downloads that originated from the vicinity of the library. After all, library users do not have to log into the library catalogue to actually access the titles in the OAPEN Library.

3. See also <https://youtu.be/fXc62RGaybU> (publisher dashboard); <https://youtu.be/rQTBGYoM1xE> (funder dashboard); and <https://youtu.be/gACD9lTl8To> (funder dashboard).

*Future Technical Developments*

In the previous subsection, we discussed the current state of our technical infrastructure; this subsection will look at the future developments. The impact of open access books is not limited to downloads from the OAPEN Library, and in the second quarter of 2022, we started the Book Analytics Dashboard Project. This three-year project—which is being managed in cooperation with Curtin University and Educopia—is focused on creating a sustainable OA book analytics service and will consider a much broader range of data sources. This service aims to safeguard and support diversity in the voices, perspectives, geographies, topics, and languages made visible through open access books. Funded by the Mellon Foundation, the Book Analytics Dashboard Project is building on an earlier Mellon-funded initiative: Developing a Pilot Data Trust for OA Ebook Usage (2020–2022). In addition to scaling workflows, infrastructure, and customer support, the project is developing a long-term plan for housing, maintenance, and funding of the analytics service as a sustainable community infrastructure.

Less eye-catching but quite important for the dissemination will be the planned work on metadata improvement and our cooperation with libraries and library aggregators. Some of this will be small, incremental improvements on the metadata feeds we already provide. We are also discussing the possibility of providing the metadata in other formats, which will simplify the ingestion for a specific library aggregator or a group of libraries.

And, finally, the growth of the OAPEN Library means that a large corpus of texts is available, leading to another possible development: building services based on text mining techniques (Snijder 2021). In 2021, we created a proof of concept: a privacy-friendly recommendation service. Commercial web retailers recommend items based on stored information about people's preferences. The better the retailer knows a person, the better its recommendations. At OAPEN, we do not track people. Instead, we used the full text of the books and chapters in our collection. In an experiment—based on over 10,000 titles—we took the complete text of a book, cut it up into blocks of three consecutive words (called trigrams), and filtered out all the common phrases. This leaves a small group of terms that are unique for that particular book. The next phase is finding other titles that share the same terms. The more terms they share, the more they are connected. Based on the different levels of connectivity, it is possible to build a recommendation service that does not rely on privacy violation but instead relies on the contents of the publications. This is something we will pursue further in the coming years.

### Section 3: Current and Future Role

#### *An Expanded Role for OAPEN*

The growth of the OAPEN Library from an original base of six university presses to over 400 academic publishers today has changed the role of OAPEN from being a distribution instrument for a limited number of presses to a significant infrastructure for OA books connecting funders, publishers, and libraries in a fast-growing landscape. Many more publishers, libraries, and funders rely on OAPEN to maintain and develop its core services, ensuring an efficient and stable flow of OA books between the main actors as described in the previous section.

However, in addition to that crucial role, OAPEN increasingly has matured its role as a connecting link between stakeholders, facilitating important conversations about the development of policies, business and publishing models, usage metrics, and so on. As a major infrastructure provider for OA books and as the operator of DOAB, OAPEN holds a position to follow the entire landscape in an unbiased way. The advent of the OA Books Network was a tangible result of this new and expanded role of OAPEN. Likewise, the development of the OAPEN OA Books Toolkit furthermore highlighted this role and the trust that has been placed in OAPEN over the years, relying on its impartiality when connecting and providing services to the OA books community.

**Research Funders and OAPEN.** A prominent example of OAPEN's expanded role is its engagement with research funders. As mentioned in the first section, OAPEN provides deposit and collection management services to a handful of research funders: the Austrian Science Fund (FWF), the Swiss National Science Foundation (SNSF), the Dutch Research Council (NWO), Wellcome, and the European Research Council (ERC).

The deposit service supports open access policies of the research funders by providing an uploading service for researchers and publishers of funded OA books. The service is adapted to the specific demands for academic books, making use of the existing metadata standards, classification schemes, and distribution channels for academic books. Within the OAPEN Library, the deposited books become part of their respective funder collection. These collections are distributed and preserved like other books in the OAPEN Library but with the added service that the funder receives usage statistics for its own collection. Next to the deposit service, OAPEN provides flexible services to capture funded books by specific funders that are then added to the respective

collection. In a dialogue with the funder, OAPEN can also perform communication activities that promote its collection and policy. OAPEN also manages collections for entities other than research funders—such as the ScholarLed collection and books funded through Knowledge Unlatched—and recently OAPEN agreed with CERN, the European Organization for Nuclear Research, to host their SCOAP<sup>3</sup> for Books pilot (OAPEN Foundation 2021).

The deposit service and collection management services have in part been developed as a result of three low-value grant projects through the ERC.<sup>4</sup> The latter of these projects included a feasibility study for the future provision of OAPEN services to research funders that uncovered a very interesting new role for OAPEN. To understand this role, some background to OA book policy development might be helpful.

**OA Book Policy Developments.** While the few research funders in Europe mentioned above (FWF, SNSF, NWO, ERC, and Wellcome) have been developing and implementing OA book policies over the last five to 15 years, books generally have been omitted from funder open access policies. There are several reasons for this.

Early and important OA initiatives such as the Budapest Open Access Initiative (BOAI) from 2001 focused specifically on the journal article, omitting the book in its scope. This focus has remained central to the development and discussions around open access. Furthermore, research funding of and institutional spending on journal acquisitions is much higher than on books, which is also a reason why journal publishing has been given more attention in open access strategies and policies than books.

Yet another and perhaps more important reason is the complexity and diversity of book publishing in terms of the variety of national, regional, and disciplinary contexts, including culture and language (multilingualism), quality assurance standards, transparency, publishing traditions, rewards and incentive structures at universities (including royalties and symbolic capital), and the publishing industry and its market mechanisms in general. This rich and varied book landscape is often referred to as *bibliodiversity*. Respecting and fostering bibliodiversity should be a cornerstone of open access policies for books to ensure a healthy ecosystem where researchers can continue to communicate their work in the best possible way.

---

4. See “Support to the OAPEN Initiative (2020–2021),” <https://cordis.europa.eu/project/id/964352>; “Support towards the OAPEN Initiative (2018–2019),” <https://cordis.europa.eu/project/id/810640>; and “Support towards the OAPEN Initiative (2015–2016),” <https://cordis.europa.eu/project/id/683680>.

However, the complexity and fragility of the academic book publishing ecosystem requires fine-grained insight and informed attention of policy makers, so they can develop efficient policies that allow the ecosystem to develop and flourish. This complexity, the difference of economies, and the initial high-level focus on journals have led many research funders to neglect books in their policies or to explicitly postpone policies for OA books. Consequently, policies for OA to books have only recently become a focus of attention for research funders (and research performing organizations). However, some recent developments have taken place that are likely to accelerate OA book publishing.

Three important policies were launched in 2021. First, the European Commission updated its OA policy for the Horizon Europe framework program to also mandate immediate OA to peer-reviewed monographs, book chapters, and other long-text publications. The open access policy of the Horizon Europe framework defines the requirements that ERC and the European Commission impose on their grantees during the period 2021–2027. While peer-reviewed monographs were already part of the Annotated Model Grant Agreement for ERC actions (European Commission 2019, 396) under the previous framework program Horizon 2020, the new framework program Horizon Europe has mainstreamed this requirement to all actions: “Beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results. This includes articles and long-text formats, such as monographs and other types of books” (European Commission 2021, 154). Following deposit in a trusted repository, open access to the peer-reviewed publication must be provided immediately upon publication (151). The requirement for immediate OA to books has to our knowledge not previously been demanded in any funder policy.

In the summer of 2021, the UKRI open access policy was published (UKRI 2021). It includes monographs and requires that “the final Version of Record or the Author’s Accepted Manuscript must be free to view and download via an online publication platform, publishers’ [*sic*] website, or institutional or subject repository within a maximum of 12 months of publication” under a Creative Commons license. There are a number of exceptions related to the licensing part of the policy that allow for some flexibility. The policy applies to books published on or after January 1, 2024, and it is accompanied with some funding.

In the early autumn of 2021, cOAlition S published a statement on OA books as specified by the implementation guidance of Plan S (cOAlition S 2021). The statement, which is not a policy, presents five recommendations that taken together state that all academic books funded by cOAlition S members should be OA upon publication under a Creative Commons license but allow for an embargo period of up to 12 months. As such, the cOAlition S statement balances well between the Horizon Europe and the UKRI policies, including its important fifth recommendation:

“cOAlition S funders should financially support Open Access of academic books via their funding schemes and open access publishing business models via dedicated arrangements.”

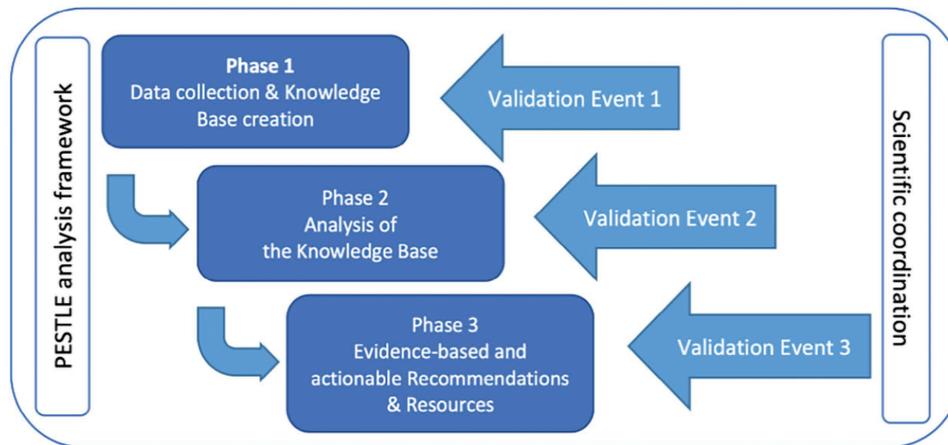
**Funder Forum.** While these policy developments took place, OAPEN performed the abovementioned feasibility study bringing together a dozen research funders to discuss OAPEN’s role as infrastructure, service provider, and knowledge exchange coordinator. The timing of this initiative seemed appropriate as a response to the acceleration of OA book policies caused by those three major policy announcements in 2021. The idea of creating a forum for research funders to share ideas and experiences related to OA book infrastructure developments in support of policy implementation was embraced by the participating funders. In fact, one conclusion that came out of talking with the funders was that they would also appreciate such a forum to be able to discuss technical developments of the infrastructures supporting the implementation of their policies—in other words, a forum where decisions also could be made about the development of OAPEN.

At the time of writing, OAPEN is in the process of establishing the documents defining such a Funder Forum (FF). OAPEN has hired a dedicated manager to facilitate this process with a group of funders that have shown initial commitment to the FF. The aim is to kick off the FF in January 2023 with the participation of major European funders and hopefully also with participation from the United States. The FF will be inclusive and open to all funders who are dedicated to enable more open access to books, are specifically interested in sharing experiences of success and challenges, want to engage in the development of the OAPEN infrastructure, and may also want to make use of the deposit and collection management services provided by OAPEN.

**PALOMERA.** Alongside the development of the FF, OAPEN collaborated with OPERAS in the coordination of an application to a Horizon Europe call for policy alignment of open access books.<sup>5</sup> The European Commission was calling for improved understanding and analysis of the challenges and bottlenecks preventing more policies for OA books from emerging in the European Research Area (ERA) and for recommendations on how to overcome these challenges and advance OA to books.

---

5. See “Supporting the Development of Aligned Policies for Open Access Books and Monographs,” <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-widera-2022-era-01-42>.



**Figure 4.** PALOMERA methodology

OAPEN gathered a consortium of 16 partners and proposed a project called Policy Alignment for Open Access Monographs in the European Research Area (PALOMERA) in April 2022. The application was successful, and the project will start in January 2023 and last for 24 months.

Based on surveys, interviews, and workshops, the PALOMERA project will perform a hitherto unseen mapping of the challenges preventing OA book policies from being developed across the ERA, analyze this data, and present recommendations and resources that can facilitate further developments and alignment of OA book policies. A cornerstone of the project's methodology is to consult the wider OA books community during the process through a series of validation events as shown in the figure below.

The validation events are integrated into the project process to first check that we don't overlook important data, that our analyses are valid, and that our final recommendations are sound. The overall purpose of the project is to speed up the transition to open access to books. Policies are important drivers to create that transition, and therefore it is crucial to understand how we can help foster more policies that align on a common understanding of the nature of the landscape and that consider the diversity of book publishing as highlighted above. The validation phases will seek to include the variety of stakeholder perspectives that exist to help funders and institutions develop efficient policies and strategies that consider these multifaceted perspectives. The community will be invited to engage in these validation events in different ways, one of which will be through the OABN.

PALOMERA will make all of its results openly available through the OAPEN OA Books Toolkit and through other means of communication. If successful, the project will contribute to the further advancement of open access to books. However, it will only be one step on the road which hopefully will be followed by other projects and activities.

*Future of OAPEN*

There is considerable convergence between the PALOMERA project and the FF. OAPEN's key role in both activities emphasizes the expanded and new role of OAPEN as described above. The growth of OAPEN has increased its ability to connect stakeholders and in particular engage research funders in discussions about the transition to OA books. This aligns well with OAPEN's mission to promote and build trust in OA book publishing.

With this expanded role and as a provider of a global infrastructure for OA books, OAPEN has also for quite some time transcended its initial name (Open Access Publishing in European Networks). This project name made sense when OAPEN was designed as a European Commission co-funded project in 2007 developed by European university presses; however, today the name is no longer appropriate. Therefore, OAPEN has replaced its original project name to the acronym followed by a tagline: OAPEN—Open Access Books.

**OAPEN and DOAB.** While OAPEN may have been the first aggregator of peer-reviewed OA books from multiple publishers worldwide, it is by far not the only one operating today. It lives alongside other important aggregators such as JSTOR, Project MUSE, SciELO Books, and OpenEdition. These aggregators—as well as other local and national repositories—have commonalities and overlaps but also differ as a function of their geographical foundation, in the composition of content on their platforms (OA and non-OA books combined, journals, blogs, etc.), and in their criteria for inclusion.

DOAB weaves these aggregators together or, at least, the books within them that fulfill the requirements of DOAB: namely, peer-reviewed, academic books in open access with a license that allows for re-use (for instance, a Creative Commons license). The recent rapid growth of DOAB solidifies its role as a global hub for OA books that supports DOAB's mission of increasing the discoverability of OA books. Moreover, bringing together the OA books from the platforms and from the long tail of small presses around the world in a comprehensive directory places DOAB in a unique position to also facilitate conversations around different aspects of OA book publishing. Two such aspects will be addressed here: namely, bibliodiversity and quality assurance in book publishing.

**DOAB and Bibliodiversity.** The diversity in book publishing practices—academic book formats, technical platforms, languages, specific national book publishing practices,

type of publishers, and economic models—also known as bibliodiversity, is defining for a healthy scholarly book publishing environment. Respecting bibliodiversity is independent of open access, but as DOAB is a directory of OA books, open access remains the focus when pursuing diversity, equity, and inclusion in the development of DOAB. To ensure diversity, equity, and inclusion, DOAB makes itself available to all academic publishers across the globe fulfilling the DOAB requirements.

This is no trivial task. DOAB already holds books in more than 80 languages; however, these books mainly come from publishers based in Europe, North America, and South America. Engaging with publishers in other parts of the world requires special language skills and knowledge about publishing practices in particular geographical regions. In addition, it requires substantial coordination capacity within DOAB to manage a truly global directory.

Still, it remains the ambition of DOAB to pursue this goal. The invention of the DOAB Trusted Platform concept has been one fruitful steppingstone towards that goal. In 2021, SciELO Books became a DOAB Trusted Platform and has since very efficiently helped DOAB in assessing applications from Latin American publishers. This collaboration with SciELO Books has also led to an increase in the number of applications coming from Latin America, enriching DOAB and helping those Latin American publishers become more discoverable to readers across the world. Provided DOAB can raise funding to establish similar initiatives in Africa and Asia, bibliodiversity would be significantly supported through global inclusion of publishers in DOAB, ensuring equal access for all publishers (independent of size, publishing language, legal status, etc.) to the state-of-the-art OA book distribution that DOAB offers.

**DOAB and Quality Assurance.** As mentioned above, one of the criteria for publishers to be included in DOAB is that their books must undergo some form of quality assurance process—that is, external (to the press) peer review. To become part of DOAB, publishers are required to make their peer review policy publicly available (e.g., on their website) to be as transparent as possible about their quality assurance process for their books.

DOAB has developed a service to support this transparency, the so-called Peer Review Information Service for Monographs (PRISM), which is part of the OPERAS service catalogue. This service, which is currently being implemented, provides academic publishers with the opportunity to display information about their peer review procedures across their entire catalogue, for individual book series or even for single books. The goal of the service is to provide transparency around the peer review procedures and thereby build trust in academic book publishing.

The peer review information provided by the publisher is visible to any reader and is also added to the metadata of the books distributed worldwide by DOAB, thus making the information available through library catalogues and all other places where the DOAB data is being used.

To steer this service and its implementation, DOAB will be helped by its Scientific Committee.<sup>6</sup> The Scientific Committee consists of members with experience or knowledge in humanities and social sciences scholarship and the editorial side of publishing.

## Conclusion

Recent developments show that there is currently a strong momentum for open access to books. As presented in this article, OAPEN and DOAB were developed when only little attention was given to books and open access. However, this is rapidly changing. The growth of the OAPEN Library and DOAB clearly indicates this, as does the emergence of research funder policies increasingly including books in their OA requirements. While these are very promising developments, tasks and responsibilities taken up by OAPEN and DOAB will grow—not only to maintain and develop reliable infrastructures for the fast-growing number of OA books but also to coordinate and engage in discussions around OA book policy developments, including their implementation and monitoring, quality assurance of OA book publishing, and the continuous support of bibliodiversity. In short, we are striving for a healthy scholarly book publishing ecosystem. This is, of course, far more difficult than it sounds, and although we now see a momentum for OA books, most academic books are still not openly available. A strong need for investment in the OA book community, including the infrastructures supporting it, is evident as expressed in a recent call for action (Mournier, Sondervan, and Stone 2021).

Promoting the transition to open access to books, which is at the heart of the mission of OAPEN and DOAB, is a small—however, in our opinion, important—contribution to the grand turn towards open science. Open science should, of course, also embrace the humanities and social sciences disciplines where books still play an important role in the dissemination of research results. At the end of the day, our goal is to ensure that this research is disseminated as efficiently and widely as possible for other researchers and readers in general to make as much use of it as possible to the general advancement of humankind.

---

6. The members of the Scientific Committee are listed at “About DOAB,” <https://www.doabooks.org/en/doab/purpose-of-doab>.

## References

- Adema, Janneke, and Paul Rutten. 2010. *Digital Monographs in the Humanities and Social Sciences: Report on User Needs*. OAPEN Open Access Publishing in European Networks. <https://oapen.fra1.digitaloceanspaces.com/b59f85bb2be5455ba48492b3112197c7.pdf>.
- cOAlition S. 2021. "COAlition S Statement on Open Access for Academic Books." Plan S. <https://www.coalition-s.org/coalition-s-statement-on-open-access-for-academic-books/>.
- Collins, Ellen, and Caren Milloy. 2016a. *OAPEN-UK Final Report: A Five-Year Study into Open Access Monograph Publishing in the Humanities and Social Sciences*. Jisc. <https://oapen.fra1.digitaloceanspaces.com/7a65d73f1087444d80807833a320fa36.pdf>.
- . 2016b. *OAPEN-UK Matched Pairs Pilot: Final Report*. OAPEN-UK. <https://oapen.fra1.digitaloceanspaces.com/3bcb7895c4b3477d91c538b245ba248c.pdf>.
- Collins, Ellen, Caren Milloy, and Graham Stone. 2013. *Guide to Creative Commons for Humanities and Social Science Monograph Authors*. London: Jisc Collections. <https://eprints.hud.ac.uk/id/eprint/17828/>.
- . 2015. *Guide to Open Access Monograph Publishing for Arts, Humanities and Social Science Researchers*. <http://eprints.hud.ac.uk/25391>.
- COUNTER. n.d. "7.0 Processing Rules for Underlying COUNTER Reporting Data." Project Counter. Accessed October 28, 2020. <https://www.projectcounter.org/code-of-practice-five-sections/7-processing-rules-underlying-counter-reporting-data/>.
- European Commission. 2019. "H2020 Programme: AGA—Annotated Model Grant Agreement." [https://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/amga/h2020-amga\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf).
- . 2021. "EU Grants: AGA—Annotated Model Grant Agreement: EU Funding Programmes 2021–2027." [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf).
- Ferwerda, Eelco, Tom Mosterd, Ronald Snijder, and Pierre Mounier. 2021. *UKRI Gap Analysis of Open Access Monographs Infrastructure*. UKRI. <https://doi.org/10.5281/zenodo.5735021>.
- Ferwerda, Eelco, Frances Pinter, and Niels Stern. 2017. *A Landscape Study on Open Access and Monographs: Policies, Funding and Publishing in Eight European Countries*. Knowledge Exchange. <https://doi.org/10.5281/ZENODO.815932>.
- Ferwerda, Eelco, Ronald Snijder, and Janneke Adema. 2013. *OAPEN-NL—A Project Exploring Open Access Monograph Publishing in the Netherlands: Final Report*. OAPEN Foundation. <https://oapen.fra1.digitaloceanspaces.com/0cdef1a177b6470ea5257240682b38e3.pdf>.
- Ferwerda, Eelco, Ronald Snijder, Brigitte Arpagaus, Regula Graf, Daniel Krämer, and Eva Moser. 2018. *OAPEN-CH—The Impact of Open Access on Scientific Monographs in Switzerland: A Project Conducted by the Swiss National Science Foundation (SNSF)*. Swiss National Science Foundation. <https://doi.org/10.5281/zenodo.1220607>.
- Ficarra, Victoria, Mattia Fosci, Andrea Chiarelli, Bianca Kramer, and Vanessa Proudman. 2020. *Scoping the Open Science Infrastructure Landscape in Europe*. SPARC Europe. <https://doi.org/10.5281/zenodo.4159838>.
- Johnson, Rob, and Mattia Fosci. 2016. *Putting Down Roots: Securing the Future of Open Access Policies*. Knowledge Exchange. <https://repository.jisc.ac.uk/6269/10/final-KE-Report-V5.1-20JAN2016.pdf>.
- Mournier, Pierre, Jeroen Sondervan, and Graham Stone. 2021. "Investing in the Open Access Book Infrastructure—A Call for Action." May 17. <https://doi.org/10.5281/zenodo.4768388>.
- OA Books Network. 2021. "Voices from the OA Books Community—Open Access Books Network." *Open Access Books Network: A Place to Discuss Open Access Books* (blog). <https://openaccessbooksnetwork.hcommons.org/voices-from-the-oa-books-community/>.

- OAPEN Foundation. 2021. “SCOAP<sup>3</sup>—The Sponsoring Consortium for Open Access Publishing in Particle Physics: Enabling Open Dissemination of Global Research Outputs in High-Energy Physics.” <https://www.oapen.org/topic/10449907-scoap3-the-sponsoring-consortium-for-open-access-publishing-in-particle-physics>.
- “Open Access Monographs in the Humanities and Social Sciences Conference.” 2013. Jisc. <https://oapen.fra1.digitaloceanspaces.com/8cb24c0741404ab08cdd0425d2b908a4.pdf>.
- OPERAS. n.d. “Open Access Books Network.” <https://www.operas-eu.org/special-interest-groups/open-access-books-network/>.
- Snijder, Ronald. 2016. “Revisiting an Open Access Monograph Experiment: Measuring Citations and Tweets 5 Years Later.” *Scientometrics* 109: 1855–1875. <https://doi.org/10.1007/s11192-016-2160-6>.
- . 2021. “Words Algorithm Collection—Finding Closely Related Open Access Books Using Text Mining Techniques.” *LIBER Quarterly: The Journal of the Association of European Research Libraries* 31 (1). <https://doi.org/10.53377/lq.10938>.
- UKRI. 2021. “UKRI Open Access Policy.” <https://www.ukri.org/publications/ukri-open-access-policy/>.