

Bookshare: A Global Approach to Bring Accessible Books to People with Disabilities

Realizing the Promise of the Marrakesh Treaty

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Bookshare

A BENETECH INITIATIVE

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Summary

Bookshare, the world's largest online library of accessible ebooks for people with disabilities that interfere with reading, offers a better way for libraries and schools around the world to help these readers benefit from the **Marrakesh Treaty**. This paper explains how Bookshare solves the legal, logistical, and technical challenges of bringing the world's books to people who are blind, dyslexic or have another disability that stops them from equal access to print (i.e., "print disabilities"). The paper also explains how Bookshare's domestic and international partnerships enable fast, efficient transfer of books to qualifying readers anywhere in the world. As the largest and first international library serving people under Marrakesh Treaty-style copyright exceptions in different countries, Bookshare provides an indispensable model, and potential partner, for organizations hoping to implement Marrakesh access in their country.

- Bookshare supports **both national and international distribution of books**. It implements its mission in alignment with best practices in copyright exceptions and accessibility. Bookshare can layer publisher requirements and distribution rights on top of national copyright exceptions to easily incorporate locally published material, resulting in legal access to **the most content for the most people with qualifying disabilities**.
- Bookshare currently operates in more than 80 countries and has the capability to deliver books to **any country in the world**. Bookshare technology leverages publisher-supplied geographic permissions blended with locally scanned exception-based distribution to **customize what is available and visible to users in each country**.
- With Bookshare, eligible readers have the choice to search for and download titles themselves or to work through a librarian or educator. The Bookshare direct-to-consumer model **reduces the workload** of educational and library professionals, while enhancing access and independence for individual readers with disabilities.
- Bookshare's **Seven Point Digital Rights Management Plan** helps ensure that Bookshare's partners and readers honor distribution limitations, and that copyrighted works are securely distributed only to qualified individuals with bona fide disabilities.
- Bookshare offers several ways for librarians and readers to broaden access to content for people who are blind or print-disabled, including **hosting library collections** and **federating national and educational collections** so they are available to wider audiences.

Ending the “Book Famine” and Improving Accessibility

Access to knowledge is a basic and transformational human right – and a critical first step on the path to economic and educational development. However, hundreds of millions of people around the world cannot access the nearly 95 percent of all published knowledge that is “locked” in printed form, according to the [World Blind Union](#). They struggle to read due to print disabilities such as blindness, low vision, dyslexia, or mobility impairments. Because they are unable to read printed text, they face enormous barriers accessing educational and employment opportunities.

One way to provide equal access to information for people with print disabilities is through an exception to copyright law that allows books to be converted into accessible formats without repercussions from copyright holders. Without copyright exceptions, the process of providing books to people with print disabilities, especially across borders, is difficult and time-consuming, and often is regarded as making unauthorized copies of copyrighted works. While a copyright exception like the U.S.’s Chafee Amendment (see page 5) allows librarians and nonprofit organizations like Bookshare to make material accessible for people with print disabilities, the process of reproducing books and making publisher requests is often government funded. Frequently, that funding is constrained to only make accessible books available within that country’s borders.

Even if libraries have accessible versions of books, they usually cannot export those accessible versions to readers who need them in other countries. When no copyright exception exists, organizations must ask and wait for a publisher’s permission to reproduce a work nationally; the publisher can refuse such permission, or simply ignore the request. The process is even more time-consuming and complicated when cross-border transfers are involved. The time commitment is multiplied for countries with large publishing industries, whose books are in high demand by readers in other countries.

Because the process of obtaining approval is slow and labor-intensive, access to books by people with print disabilities is uneven. In many wealthier countries, national libraries have built their collections organically by manually recording audio books and transcribing books into braille. In countries that lack significant funding for national libraries, accessible collections are meager, sometimes consisting of fewer than 100 braille or audio titles.

To make it easier to reproduce and distribute published works in formats accessible to people who are print-disabled, the [Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled](#) (the “Marrakesh Treaty” or “Treaty”) was adopted in 2013 and became effective in 2016. The Treaty creates mandatory limitations and exceptions to copyright rules, both domestic and cross-border, for the benefit of people with print disabilities worldwide. In the 30 countries that have ratified the treaty as of November 2017, libraries and organizations serving the disabled can now create and distribute accessible books to people with qualifying disabilities and to organizations serving them, in their country and in other ratifying countries.

The Marrakesh Treaty is a significant step toward ending the “book famine” affecting people with print disabilities. As countries ratify the treaty, they implement copyright exceptions and allow for cross-border transfers, enabling people in other countries to access these books.

Countries with large libraries can expect to receive many requests for books, especially if they have books in languages widely used in multiple countries such as English, French, Spanish, Portuguese, Russian and Mandarin. The requests can add to librarian workloads and result in lengthy delays in responding to readers; requests can also strain budgets of government-funded libraries who make the choice to fulfill book requests from people outside their home countries.

To reduce the time and work involved in delivering books to readers with print disabilities, librarians, educators and organizations need highly efficient systems for handling the production, storage, and transfer of millions of books to millions of readers with disabilities in scores of countries. At the same time, these professionals and their organizations need to comply with local, national, and international law, striking a balance between the reading needs of people with disabilities and the rights of content creators.

An Introduction to Bookshare

[Bookshare](#) is a project of [Benetech](#), a nonprofit that empowers communities with software for social good. Bookshare provides access to a growing collection of more than 600,000 ebooks and other educational materials that can be distributed in formats such as audio and braille to match readers' needs.

Bookshare has delivered more than 12 million books to people with print disabilities all over the world. Using Bookshare materials, more than 500,000 people in more than 80 countries now can enjoy books on computers, MP3 players, smartphones, tablets, and dedicated assistive technologies such as refreshable braille displays.

Bookshare at a Glance

- **600,000 books in collection – and rapidly growing**
- **Over 12 million books delivered to people with print disabilities**
- **More than 550,000 members in 80 countries**
- **Books in 34 different languages**
- **Works with more than 25,000 U.S. school districts and agencies**

Bookshare operates in the U.S. under an exception in the U.S. copyright law, 17 U.S.C. § 121, commonly known as the Chafee Amendment. This exception grants certain nonprofit organizations the ability to make books available to people with print disabilities without publisher permission, as long as they are only available to people with verified disabilities. Bookshare converts printed books to accessible ebooks under this copyright exception; approximately 15 percent of the books in the American Bookshare collection are in this category.

Bookshare India operates under India's copyright exception, Section 52(1)(zb) of the Indian Copyright Act. Most of the 2,500 accessible ebooks we've created in India have been produced under the Indian copyright exception.

Bookshare also places roughly 7,000 new books in the collection each month through the voluntary support of publishers. These publishers supply high-quality digital versions of their books, as well as provide permissions to export these books to other countries. To date,

Bookshare has partnered with more than 850 publishers who contribute their digital content to Bookshare in support of its social mission. Publishing partners include Penguin Random House, HarperCollins, Hachette, Macmillan, John Wiley & Sons, Springer, Taylor & Frances, Scholastic India, and Oxford University Press, India (read the full list of publisher partners [here](#)).

Bookshare also partners with 38 university presses, including those at Cambridge, Harvard, Yale, and Princeton (read the full list [here](#)), as well as other institutions such as the World Bank, the International Monetary Fund, the World Health Organization, Brookings, and the RAND Corporation. Other trusted partners include the U.S. Department of Education, private educational institutions, and organizations serving people with visual or mobility impairments.

Together, Bookshare’s publisher partners have made over 400,000 titles available around the world. Bookshare also has a large amount of educational content for all grades in math, literature, sciences, social studies, and other subjects, making it an ideal collection for students. This is particularly valuable to Bookshare members who are now empowered to read new titles side by side with their peers. While the collection is heavy in English-language content, there are over 30,000 titles in 33 other languages with over 13,000 in Spanish alone.

How Bookshare Implements the Marrakesh Treaty

Much in the same model as the Chafee Amendment to U.S. copyright law, the Marrakesh Treaty facilitates access to published works by people with print disabilities worldwide. Countries that want to participate in the treaty must implement a standard set of limitations and exceptions to their copyright rules to permit reproduction and distribution of published works for people with qualifying disabilities.

The treaty also enables authorized entities (such as libraries and disability organizations) to transfer books across borders to people with print disabilities or to organizations, as long they are in a ratifying country (the recipient needs to be in a ratifying country as well) and are compliant with their own practices in several areas. Examples of such practices include providing services only to certified permitted users, discouraging unauthorized uses of copies, and maintaining “due care” in handling copies of works.

Bookshare’s methodology supports both national (within a single country) and cross-border distribution of accessible books. As one of the prototype services envisioned during the Marrakesh Treaty negotiations, Bookshare already implements all of the requirements of the Treaty. This makes it easy for Bookshare to comply with national copyright laws that are intended to comply with the Marrakesh Treaty, which means Bookshare can provide locally sourced titles to individuals in the country that created that accessible work. Bookshare can combine publisher requirements and distribution rights, typically on internationally distributed materials, along with national disability laws, to easily incorporate locally published material, resulting in legal access to the most content for the most people.

The Bookshare membership model can be adapted easily per national requirements, where a proof-of-disability is required. Books added to the local collection under local copyright exception will be made available locally. Any book added to a local collection under copyright exception in one ratifying country can be made available automatically to eligible users in all

ratifying countries. Bookshare ensures the transfer is only to people with disabilities or to authorized organizations in ratifying countries.

Each book entered into Bookshare is protected from unauthorized distribution. Bookshare implements a [social digital rights management and digital watermark plan](#) that typically exceeds national requirements for encouraging compliance with distribution restrictions.

For permission-based titles provided voluntarily by publishers, the geographic restrictions provided by publishers will determine where that book is available. A book that is not available in a country will not be displayed in Bookshare search results there.

Bookshare's collection, a blend of permission-based and copyright exception-based books, maximizes the number of books available to members in each country. The distribution rights are invisible to the registered user: if they can see a book in standard search results, they will be able to download and read it.

Bookshare Worldwide

Bookshare currently operates in more than 80 countries and has the capability to deliver books to any country in the world. Bookshare technology uses title metadata, such as publishers' geographic permissions and locally scanned titles' copyright exceptions, to customize what is available and visible to users in each country. This process enables hundreds of thousands of books to be distributed legally on a country-by-country basis.

Several large institutional libraries use Bookshare's technology. In the United Kingdom, for example, Bookshare powers the library for the Royal National Institute of Blind People (RNIB), providing development, member management, book intake, format conversion, fingerprinting for digital rights management, and electronic distribution via the RNIB website and partner applications. RNIB readers can access the RNIB collection, as well as the Bookshare collection, with appropriate qualifications. Books entered into the collection via copyright exception in the UK are limited in distribution to the UK, and books added through publisher permission are available in other countries subject to the distribution rights provided by the publishers.

In Canada, Bookshare hosts the collection of the Canadian National Institute for the Blind; books are distributed through the Centre for Equitable Library Access (CELA). In India, Bookshare partners with the DAISY Forum of India to provide Bookshare services. The same capabilities that benefit the RNIB are available to CELA and in India, enabling both national collections and international transfer of books.

Because so much of our larger collection is provided by publishers where we need to have proof-of-disability for access, we work with international partners to provide a proof-of-disability certification for individuals to access the large Bookshare collection. At a country level, we can implement more flexible rules for access to books sourced under national laws for national collections hosted by Bookshare. For example, self-certification of disability is accepted under UK practice, but not in the United States. Our UK implementation supports UK practice, as developed in partnership with the RNIB.

We give our partner organizations both individual memberships and organizational memberships. With these memberships, the partner organizations can enable readers to download their own books, or the organizations can download books and then provide them to readers.

Since we only show members the books that they can access in their country, the direct-to-consumer download service empowers individuals to find and read the books they want. However, the process does not limit the library, school, or nonprofit agency from providing organizational assistance to members who require more help.

Memberships to U.S. Bookshare content for people in other countries are provided in two ways:

- **Signing up at the Bookshare website.** Individual members are responsible for providing the proof-of-disability certification and subscription payment (with a sliding scale based on the income level of the recipient's country as determined by the World Bank). In these cases, the member pays Bookshare directly.
- **Working with a trusted partner.** If members work through a trusted partner, that partner will collect the proof-of-disability in their country and provide Bookshare with confidence that each member has a proof-of-disability on file. The partner organization will purchase a block of memberships to make available to members. In these cases, the partner can supply us with the names of the members, but often the partner chooses to only send us tokens that represent members, removing any personally identifiable information. Bookshare supports memberships in this manner to comply with national privacy laws in each country.

Bookshare can also provide memberships to an entire country in either manner, either via purchase by a national organization in that country or through sponsorship from a philanthropic partner.

How Bookshare Distributes Books

Bookshare members read books directly in their web browsers, or download material in a compressed, encrypted file to read using mobile devices, tablets, computers, or assistive technology. Bookshare provides access to books in two ways:

Traditional consumer-based model. Bookshare readers can search the collection through reading apps or through the Bookshare website, locate the book they want to read, and read that book in a web browser or download it to a device. Most of our adult readers use this model, which enables access to the entire collection.

Organizational memberships for readers requiring assistance. For children and other readers who require assistance, we offer organizational memberships where the responsible partner organization, such as a school or blindness service organization, can download books on behalf of a Bookshare member. Many of our U.S.-based students access Bookshare this way. Bookshare

provides these members with the ability to move to the consumer-based delivery model when appropriate.

Bookshare transfers books in numerous formats. Every ebook received from a publisher is converted to DAISY, BRF, synthetic speech, large print, and EPUB3. Titles received in specialized formats, such as PDF, human-narrated audio, or human-transcribed braille are either attached to the existing ebook or put in the collection in the format in which they are received. Each of those formats contains the fingerprinting and other digital rights management components that are intended to limit distribution only to qualifying individuals.

Bookshare Options for Libraries

There are three ways for libraries and other organizations to work with Bookshare and provide access to books under the Marrakesh Treaty:

Access the Bookshare collection: Libraries can provide access to Bookshare content, allowing readers to search for and request titles from their library or directly through from Bookshare. Bookshare requires users to certify their eligibility to access the collection.

Allow Bookshare to host a collection: The Bookshare Private Label Solution provides libraries and organizations with an advanced platform, built on Benetech technology, for hosting and distributing accessible content to qualified users. With this approach, libraries can put their own brand on world-class technology that manages the input, conversion, storage, and distribution of their collection, enabling the library to focus on collection development and member outreach rather than on technology development. Libraries using the Private Label Solution can choose the access rules they want to apply to their collection.

Federate a collection: By providing access to a collection, Bookshare can federate the local collection with other collections – making a larger collection available to readers in ratifying countries. Titles are added to a Global Accessible Library index, which means the number of available titles around the world is increased. Each title added with multinational distribution rights provides another reading opportunity for a person with a print disability. Bookshare can, but does not need to, host a collection in order to federate it. Books in the federated collection will inherit the distribution rights from the original collection; if those books are from a ratifying country, they can be automatically made available to people with disabilities in all ratifying countries without intervention from staff.

The options above can all operate together, or organizations can choose to implement one or two approaches.

Technology That Benefits Libraries and Disability Organizations

Bookshare has invested heavily in its core technology, assuring its users – both readers and organizational partners – a fast and easy user experience. Bookshare provides a proven platform for hosting and distributing accessible materials to qualified people:

- A cloud-based solution that can scale to store an effectively unlimited number of books

- A flexible membership model that allows library readers to access books from web browsers or industry-standard applications and devices
- Titles available in 34 languages (with plans to grow that number through synthetic speech and human-narrated audio)
- The ability to work with both publisher-provided works (permission-based distribution) and scanned works (copyright exception-based distribution)
- A robust API that allows developers of assistive technology solutions to create devices and applications that can directly access the Bookshare collection
- A wide array of accessible formats:
 - DAISY (word-by-word highlighting synchronized with audio)
 - BRF (braille-ready files)
 - Transcribed braille
 - DAISY audio or MP3
 - Large print
 - EPUB 3
 - PDF (as a pass-through only)
 - Microsoft Word

Specialized libraries around the world have done much to enable access to books and positively impact the lives of their readers, but they also face significant challenges and limited resources:

- **Technology:** Collection development, storage, membership development, security, book intake, format conversion, watermarking, fingerprinting, and appropriate distribution technologies are extremely costly.
- **Content:** Libraries must reach a critical mass of relevant content to be useful to their readers. Acquiring books and continually growing the collection with the latest releases from major publishers, managing the rights for these titles, converting them into various accessible formats, and building a high-quality, searchable collection requires significant resources often unavailable to small libraries.
- **Formats:** An effective national library requires a broad range of accessible formats, including large print, digital braille, EPUB, and audio. Each format presents technical challenges and requires a high level of in-house expertise.
- **Legal compliance:** Libraries must ensure that laws concerning security and access rights are followed, including using digital rights management and adding the required legal language to content distributed from the library.
- **Reading tools:** Technology has unlocked a wide array of opportunities for reading accessible content. However, that requires a library to manage a constantly changing and fluctuating environment of phones, tablets, and computers running multiple operating systems, such as Android, iOS, and Windows.
- **Membership:** Libraries serving specific communities must be able to validate that each member qualifies for access based on a set of criteria, and offer portions of the collection to readers based on qualification.

Bookshare and Digital Rights Management

Bookshare implements a digital rights management (DRM) plan designed to limit access to copyrighted works to people with bona fide disabilities, and limit the making of unauthorized copies.

Bookshare's [Seven Point Digital Rights Management Plan](#) goes above and beyond the requirements of copyright exceptions. The plan was designed and implemented with input from consumers, publishers, copyright attorneys, and leading organizations, including the Association of American Publishers, the Library of Congress, and Learning Ally (formerly Recording for the Blind & Dyslexic).

Some of the elements of Bookshare's Digital Rights Management Plan are as follows:

Qualified Users

Only blind people or those with disabilities that affect their ability to access print are permitted to download copyrighted books. A Bookshare user registers with a unique ID and needs to have a certification from a recognized expert in the field of disability services, education, medicine, psychology, or a related area, who can attest to the physical limits on the applicant's use of standard print.

Different certifying experts (also known as a competent authority) are generally appropriate for assessing differing disabilities. For example, in the case of blindness and visual impairments, an appropriate certifier may be a physician, ophthalmologist, or optometrist. In the case of a perceptual disability such as dyslexia, a neurologist, learning disability specialist, or a psychologist or special educator with a background in learning disabilities may be appropriate.

In addition, any U.S. resident who has previously submitted a proof-of-disability certification to the National Library Service for the Blind and Physically Handicapped (NLS) or Learning Ally would qualify. Our cooperative agreements with NLS and Learning Ally allow us to confirm that a specific reader already qualifies for our service. Some of our trusted partners around the globe play the same role in their countries by collecting and approving proof-of-disability certifications for the readers they send to Bookshare.

We scrutinize each of our potential partnerships to ensure they help us fulfill our commitments to publishers and legal obligations under copyright law. We require partners to adhere to our policies on distribution of titles, and we reserve the right to audit their records to ensure the members they send us have a qualifying disability. By upholding the social bargain with publishers, we can ensure that even more books are available to people with bona fide disabilities that interfere with reading.

Contractual Agreements

All Bookshare users must agree to terms of use that include restrictions on redistribution and use of copyrighted material. Users who violate these terms will lose their access to Bookshare and may face other legal consequences as appropriate. Bookshare incorporates guidance from publishing industry attorneys when developing these agreements.

Technology-Based Rights Management

In compliance with copyright exceptions, all Bookshare materials bear a copyright notice (with owner and date), and language reminding users of their obligations to use the material only as permitted by their agreements with Bookshare and the law, and stating that any further reproduction or distribution in any form is prohibited. It also informs non-Bookshare users that their possession of a Bookshare digital book is a violation of the copyright law and that they should not use, copy, or share it. Bookshare encrypts each requested book for each user, and the files are delivered through secure/encrypted channels.

Additionally, as part of the encryption process, all copyrighted material delivered is watermarked to show it comes from Bookshare. Downloaded material is also fingerprinted with the identity of the Bookshare user. If a user illegally redistributes that material, it is possible to confirm that the materials came from Bookshare and which user was responsible.

Monitoring

A security program monitors all transactions and automatically limits any user whose account downloads more than a set limit in a given month (typically 100 titles). Also, Bookshare regularly searches the web for illegal copies of content originating from Bookshare, and suspends the accounts of users found to have been the source of such content, as well as issuing takedown notices to websites hosting such unauthorized content.

Another Implementation Option: The Accessible Books Consortium

Libraries and schools expanding their services to people with print disabilities should also be aware of a second implementation option that complements Bookshare's offering. The Accessible Books Consortium (ABC) is an initiative led by the World Intellectual Property Organization (WIPO). The ABC Global Book Service is an online catalogue that allows participating libraries for the blind and organizations serving people with print disabilities to exchange accessible content. Like Bookshare, the ABC Global Book Service offers access to titles under the Marrakesh Treaty. However, there are key differences between the two organizations' approaches:

- The ABC Global Book Service uses a business-to-business model, meaning that its purpose is to enable collection development for organizations such as libraries. ABC Global Book Service does not provide services to individual readers.
- When one of the parties in a book exchange is in a country that has not implemented the Marrakesh Treaty, publisher permissions are requested on a per-title basis once a participating organization requests a title. The request process is often lengthy and sometimes unsuccessful when publishers decline to provide permission or ignore the requests.
- When both organizations in a book exchange are in countries that have implemented the Marrakesh Treaty, ABC Global Book Service does not require the permission of the rights holder, and the exchange is legally possible immediately. Library patrons contact their librarian to request the book. The librarian can request the book from an

authorized entity in a Marrakesh-ratified country, which can then be transferred by a local librarian to the requesting library.

At present, the ABC approach is best suited to organizations with their own libraries, seeking to add individual titles to their existing collection.

The Marrakesh Treaty: The Path Toward Ending the “Book Famine”

The Marrakesh Treaty provides a framework for ending the “book famine” for people with print disabilities. As an increasing number of countries ratify it, the creation of accessible books and the national and international transfer of them provides a path to millions of books available to millions of people all around the world who cannot otherwise read. Many wealthier countries have tens of thousands of books, and in Bookshare’s case, hundreds of thousands, to share.

To take advantage of the treaty’s benefits, we must provide the infrastructure to easily create and transfer books. Librarians need tools that streamline access to titles, while reducing the barriers that commonly impact cross-border book requests. Bookshare’s direct-to-consumer model allows librarians to focus on serving readers and managing collections, while also bringing the world’s titles to print-disabled readers everywhere.

Learn More

- [Bookshare](#)
- [Marrakesh Treaty](#)
- [DAISY Consortium](#)
- [Accessible Books Consortium](#)

If you have questions about Bookshare, please contact us at Marrakesh@Bookshare.org.