
Accessibility for Publishers

Practical Tips That Demonstrate it's Well Within Your Reach

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A report from



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Compelled by clear ethical reasons and compliance requirements, most publishers are working to make content fully accessible. Creating content that is “born accessible” also opens up new opportunities for publishers to expand the reach of content and connect with new audiences and markets. The same technologies and guidelines that improve access to materials for people with visual, hearing, mobility, perceptual and cognitive limitations, or who face other barriers to reading printed materials, can also be tremendously useful to all customers.

Accessibility of books, journals, digital products, websites, and other content is essential to individuals with disabilities. Accessibility also holds important benefits for users (including students, researchers, and libraries) and publishers. Yet it remains a misunderstood and secondary topic among many in the publishing community.

When accessibility is well executed, it can expand readership and provide a higher-quality user experience for everyone. It aids publishers with the rapidly growing area of voice search and keeps content nimble for future repurposing.

Overlooking accessibility now is akin to ignoring the mobile optimization of a website in 2010. Swift consequences became evident as search engines and customers pushed back on those static sites. Compliance with key standards in accessibility will become increasingly important as libraries, consortia, and governmental bodies require publishers to verify that content complies with the many well-established standards such as the Americans with Disabilities Act and others.

What does accessibility actually mean to publishers, and how do these diverse content creators go about taking advantage of this important opportunity? Many don't believe there is an ROI for making content accessible. This report defines the importance of accessibility for a publishing organization and provides key takeaways to implement accessibility into publishing strategies and workflows.

What Is Accessibility?

Accessibility is an approach to publishing and design that makes content available to all, including those with disabilities who use assistive technologies on the computer. The aim of accessible publishing is to make reading easier for users who have difficulties or disabilities including the blind, partially sighted, and people with learning disabilities. Making content accessible enables readers to experience content in

the most efficient format and allows them to absorb the information in a better way. The term “accessibility” is used to address issues of content structure, format, and presentation.

Accessibility is related to but different from Open Access and access to the Internet. While all three do relate to a user's access to content, the term *accessibility* is used to address issues of content structure, format, and presentation.

The most tangible form of accessible publishing, predating the digital era, is Braille. Today, accessible publishing means much more. It allows users to adjust font, font size, color schemes, and other features on a host of devices. The expectation is that content, including text, tables, equations, and images, reflows and retains a logical presentation and reading order.

Visual items such as images that are important to the content should include alternate-text descriptions (alt text), which allows users to understand visual information. Alt text descriptions should capture information that is not included in the caption or surrounding text, and convey meaningful information to the user from the visual item. Descriptive alt text is critical to understand the full meaning of an image for the visually impaired reader. Figure 1 illustrates an example of accessible alt text that provides a more useful description for a visually impaired reader compared with alt text that simply repeats a figure legend.

Simple tables should be tagged per the accessibility guidelines, and complex tagged tables should be accompanied with a table summary. Complex math content should also be made accessible through the integration of MathML (a recognized XML markup language).

The accessible content should support reading by screen readers in a logical reading order. It should also be navigational to facilitate easy navigation, allowing a user to jump to a specific location.



Figure 1. When the mice are away, the cats sleep.

Useful and Accessible Alt Text

```
<imggroup>  
  
</imggroup>
```

Valid Alt Text But Not Accessible

```
<imggroup>  
  
</imggroup>
```

These basic attributes apply not only to traditional books and journals, but also to more visual content, including videos. Audio transcript and closed captioning is a minimum requirement for audio/video content.

The content should come with complete, accessible metadata that allows users/stakeholders to discover the content and know the accessibility features available in the product.

These points seem basic, but still many ask if the effort is necessary.

Why Make the Effort? Building a Business Case for Accessibility

The question of “why make the effort to have content accessible to readers with disabilities” still lingers. Of course, accessibility comes with a cost. Publishing indeed benefits from embracing this essential initiative and following are some business cases that can be brought to leadership and stakeholders in a publishing organization.

The first reason is market size. Many in publishing have incorrectly assumed that there are few customers

in their market with disabilities. The statistics say otherwise. A study from [The Lancet Global Health](#) found, “an estimated 253 million people live with vision impairment: 36 million are blind and 217 million have moderate to severe vision impairment.” This does not even address the fact that up to 10% of any given population has dyslexia. [The National Center for College Students with Disabilities](#) stated that US colleges include 10% to 20% of disabled students in their ranks. This makes the market for accessible content very significant. Accommodating this expanding market is as essential as considering publishing in other languages or being readable on both iOS and Android devices.

The second reason is a better product experience.

When content is “[born accessible](#),” the reader enjoys a better experience, whether they have a disability or not. The content flows better. The navigation is cleaner. Tables are more thought out. Higher quality content structuring promotes increased usage.

An emerging reason for creating accessible content is that it plays better in the Siri and Alexa era.

Voice search is exploding. Amazon’s Echo Dot was the top-selling device in 2017, as well as the top-selling product available from any item supplied across

all categories at Amazon. Accessible content with high-quality metadata is perfectly positioned to take advantage of this rapidly growing opportunity. Content that does not meet accessibility standards will likely be penalized in search rankings, a strike no one wants.

A fourth reason is compliance with a growing series of mandates and requirements for universities and libraries, particularly when public funds are used. Publishers selling content to these large customers, including consortia, increasingly need to provide documentation such as a [Voluntary Product Accessibility Template](#) or VPAT, which documents how accessible a product is according to the Section 508 Standard).

The fifth reason to make content accessible is to have an edge over competitive products or companies. Many times, the features and benefits touted by marketing may be very similar to other products being considered by institutional customers. Including statements that trumpet the “robust nature of fully accessible content, independent of device or operating system” speaks volumes.

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The sixth reason is future-proofing the content. Many publishers have contended with incorporating legacy content into a new platform or system. Some have had to convert older content not once, but twice due to lack of foresight. Having content meet accessible standards ensures a robust and vibrant format that will serve future reuse well.

The final reason to have content accessible for people with disabilities, and certainly not the least important one, is that it is the right thing

to do. Anna Selden, the Associate Director of Journals and Publications, Georgetown Law, said, “We are committed to accessibility from the moral viewpoint. We have incorporated accessibility measures into our current workflow and are exploring the best method for making legacy content accessible.”

Accessible Content Begins with Structured Content

Many publishers find they are well along the road to accessibility if they are creating content with a current workflow that implements markup language. Taking additional steps on the path, or just getting started, might be easier than you think.

Principles of Accessibility

It’s important to understand the basic attributes and principles of accessibility. Following are some of the core standards and ideas related to accessible content:

- **EPUB3:** The most widely supported XML-based eBook format independent of a specific platform. EPUB3 is the format of choice for accessibility. The standard is developed and maintained by the World Wide Web Consortium ([W3C](#)).
- **HTML5:** The current version of the markup language that is the cornerstone of the Internet. HTML5 has many advantages, including cleaner markup of text, consistency, and support of rich media elements. For years, most browsers have incorporated accessibility into their settings option.
- **XML-first Workflow:** This practice helps content creators simultaneously deliver print, online, and EPUB files. The process is cleaner and helps reduce costs once implemented.
- **Layout and Design:** A well-thought-out approach to content layout, including a logical reading order, goes a long way not only for readers with disabilities, but for all users. This includes a design that takes into account the basic principles of accessibility for all elements within the content.
- **Alt Text or Alt Attributes:** An essential trait for accessibility that involves including meaningful description for important non-text items. This practice helps in content discovery and aids in voice search.
- **Closed Captioning:** This practice is a must for all video content. This benefits not only disabled readers but also users who watch countless hours of videos in a library or the workplace and choose to use closed captioning versus the audio, a growing trend.
- **Well-Structured Metadata:** This is a crucial step, often overlooked. This task assists from a semantics point of view and aids content discovery.

- **MathML:** This is a mathematical markup language for describing mathematical notations and capturing structure in documents.

There are other attributes to accessibility, but these make up the core concepts. Many publishers may be (or should be) practicing the vast majority of these points for other business reasons already. Accessibility may then just be a side benefit!

Standards

It's important for publishers to understand the key standards that come into play with accessibility.

- **Section 508:** The US Congress amended the Rehabilitation Act to require Federal agencies to make their content and technology accessible to people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology.
- **WCAG 2.1:** The Web Content Accessibility Guidelines are a series of web accessibility guidelines published by the World Wide Web Consortium (W3C), the main international standards organization for the web. They are a set of guidelines that specify how to make content accessible, primarily for people with disabilities.

- **DAISY:** The Digital Accessible Information System is a technical standard for audiobooks, periodicals, and digital text. It is designed to be an audio substitute for print material and is specifically designed for use by people with print disabilities.
- **NIMAS:** The National Instructional Materials Accessibility Standard. It is a provision of the Individuals with Disabilities Education Act and was endorsed by the U.S. Department of Education as the preferred approach for publishers to provide accessible curricular materials to students in grades K-12. The NIMAS standard guides the production and electronic distribution for digital versions of textbooks and other instructional materials. A NIMAS fileset comprises an XML content file, a PDF that contains important content metadata, images, and a package file (see Figure 2).

By adhering to the concepts in the Principles of Accessibility list, the majority of publishers will be compliant with many of the items in the Standards list, as well as creating superior rich content.

Content organizations are multi-faceted. Some products might be fully compliant and others only partly compliant. The important part is knowing where your products are on the continuum.

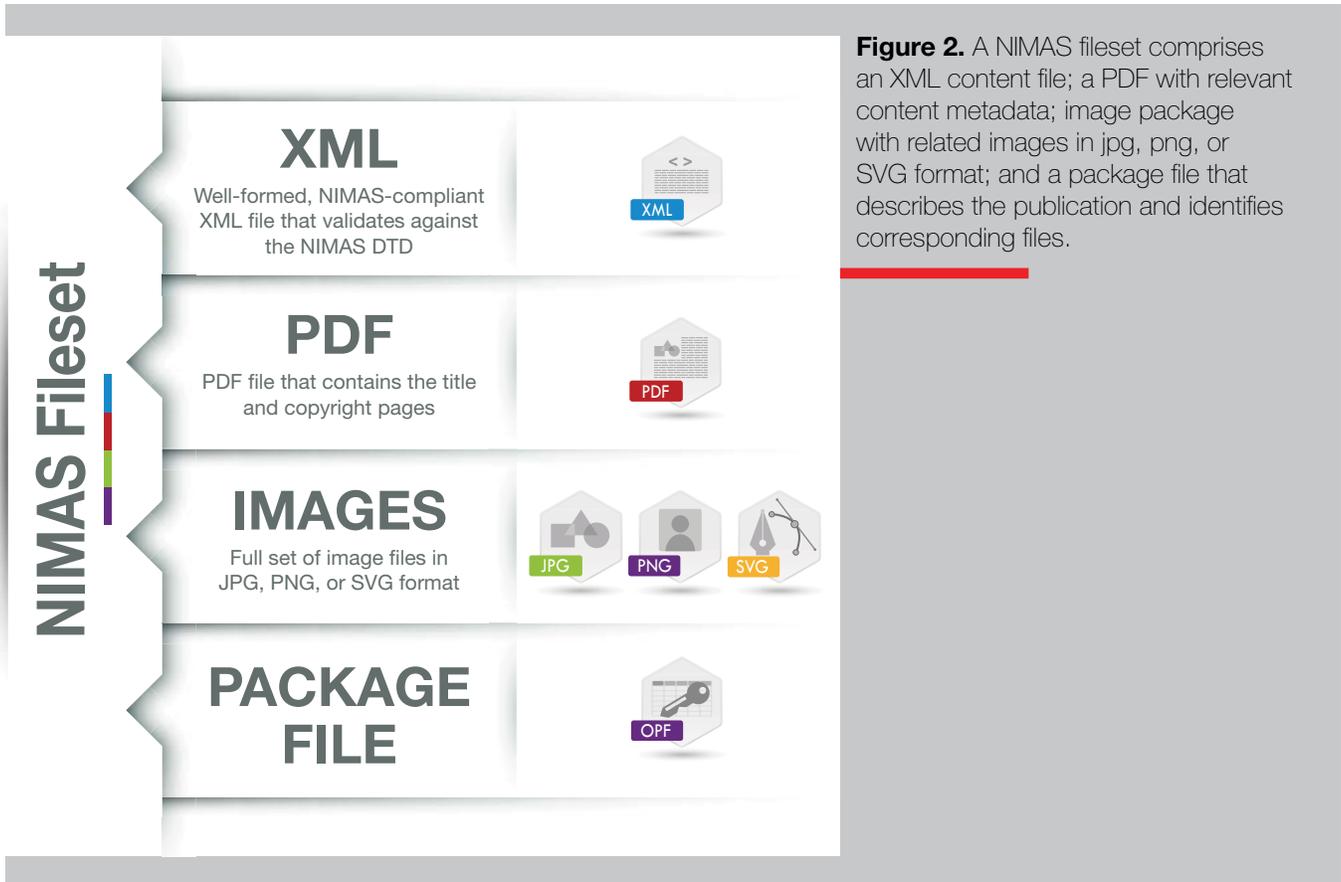


Figure 2. A NIMAS fileset comprises an XML content file; a PDF with relevant content metadata; image package with related images in jpg, png, or SVG format; and a package file that describes the publication and identifies corresponding files.

The final link in this chain has to do with knowledge and partnerships. It is important to have a go-to person in an organization who understands the broad concepts behind accessibility. They also need to be familiar with the mechanics and the process, as well as be able to make the case for the idea. This person needs to be a key player in meetings dealing with content creation and launch as well as all major online initiatives.

Also, this person (or people) should be supported in their professional educational needs, such as attending publishing trade meetings, webinars, etc. A great starting point is to be a member of the [Society for Scholarly Publishing](#). Membership includes access to the valued journal *Learned Publishing*; a recent issue is devoted solely to accessibility in academic and professional publishing.

Additionally, when a publisher selects a partner for composition or publishing services, choosing one with a deep experience in working with structured content and accessibility (and other key industry initiatives) is vital. Due diligence with this decision will pay off when content is assessed for compliance with the previously mentioned standards. Being connected with a partner that understands proper testing, including quality-control checks on multiple devices/platforms before delivery, can make all the difference in the world.

How to Start

At end of the day, having the knowledge is helpful, but action is required.

Important initiatives that might be new to an organization can sometimes lead to “analysis paralysis.” Accessibility does not need to get mired down in this way. Following are some simple steps to get started today:

- **Understand the basic concepts:** Look through the list of attributes and terms above. Compare these to the current products being published in your organization.
- **Understand the key standards:** Review the list of standards above. Click on the links and browse the actual requirements.
- **Designate a lead on accessibility:** To start, tap someone as the person who will be the key individual on accessibility.
- **Assess the current status:** Next is for key personnel to understand the current status with accessibility; this may not be a full-fledged audit to start, but a good assessment of which products comply, and which do not. Also, knowing where they fall short is helpful.

- **Decide on priorities:** If there is a shortfall with current accessibility standards, then decisions need to be made. Will current products/production be the focus, or will a legacy product be first up? Products with high usage or significant revenue generation should point the way.
- **Determine costs:** Once a product is chosen to be made fully accessible and comply with the standards, the next step is an assessment of what needs to change, including at what part of the workflow. Connect with a publishing services partner to understand how much can be done upstream at the publisher, and how much the partner can accomplish.
- **Establish a timeline:** Create a timeline for: approval, implementation of the work, testing, and rollout, including marketing and notifying current customers.
- **Make the business case:** Review the reasons listed above for making products accessible. Then put together the best business case to bring to stakeholders or leadership for moving forward with making a product fully accessible for customers with disability.
- **Execute/evaluate/repeat:** Once approval is received, execute the plan for accessibility. When the project is complete and rolled out, evaluate how things went. Document additional benefits, such as decreased time to market or increased usage. Use this new-found information to move forward with other products and other workflows.

Staying Ahead of the Curve

In the future, publishers will need to assess the additional users and markets that can be reached by providing highly accessible content – including new people and devices and delivery channels.

Accessibility is here to stay. The topic may not have been at the top of the list for many in academic publishing a few years ago, but it has moved up and will continue to increase in importance.

The primary reason for making content accessible is the market demand by customers who have some visual impairment or learning disability. Publishers can no longer ignore the needs of these customers, especially in the face of compliance demands from large institutional customers.

A higher-quality product emerges when accessibility standards are implemented. Logically organized content in flexible containers means happy customers. And happy customers keep coming back.



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