

# PDF Document Accessibility: Regulations, Risks, and Solutions for Compliance

Co-authored by the American Foundation  
for the Blind (AFB) and OpenText™ Corporation

Many financial, insurance, healthcare, and other institutions wish to provide electronic access to financial and personal information for their customers who are blind or visually impaired—and there are even several federal laws/regulations requiring they do so. This paper examines some of the challenges that these institutions face as they work to provide information in accessible formats. It will outline traditional problems related to meeting those requirements, and the solutions that can help them overcome those problems and meet the requirements—all while delivering a quality customer experience.

Table of Contents

Introduction.....3

Regulatory and Legal Requirements .....3

Forthcoming Legislation: ADA Revised .....5

ADA Litigation Case Studies .....5

What Does a Financial Institution Need to Do?.....7

How Do You Make PDF Accessible? .....8

Solution .....9

Conclusion .....10

## Introduction

Studies show that more than 21 million Americans report experiencing some form of vision loss. For the purposes of these studies, the term “vision loss” refers to individuals who reported that they have trouble seeing, even when wearing glasses or contact lenses, as well as those who reported they are blind or unable to see at all.<sup>1</sup> The people who make up this very large demographic find it difficult or impossible to read traditional paper-based or modern electronic account statements and financial documents. There are techniques for preparing these documents in electronic formats, including portable document format (PDF), so people who are blind or have low vision can independently access and read them using computers and mobile devices. However, because proper techniques are often not followed, the information in the documents remains inaccessible to people with vision loss.

Inaccessible documents may lead to late bill payments or other missed deadlines while the blind or visually impaired customer waits for a friend or relative to have availability to read the information to him or her. Those same customers also may not want to divulge financial and personal information to others and will likely find it more dignified to take care of their personal business independently.

To access computers and mobile devices, people with vision loss use screen reader and screen magnification software that will be discussed later in this paper. When electronic documents are not prepared properly, these software tools cannot interpret the logic of the page, and the numbers can get mixed up. For example, the amount due may appear as the account balance. Similar problems occur when a blind customer prints out a financial statement and then scans the document using optical character recognition software that speaks the content of the scanned page.

When financial institutions or other organizations commit to universal design processes that accommodate all of their customers, blind or visually impaired customers have the same access to products and services as their sighted customers. It is obviously the right thing to do to treat all customers equally and not segregate blind and visually impaired customers into a different pool of products and services. However, beyond any moral or ethical considerations, it simply makes good business sense to properly address such a large market segment.

This market will most certainly grow as America’s “baby boomer” generation eases into retirement. The first set of baby boomers turned 65 in 2011, and aging baby boomers are among the most wealthy population segment. According to data from the US Census survey, 42 percent of Americans who have a disability are over age 65.<sup>2</sup>

When a business fails to commit to universal design processes, either by conscious choice or simply by not being aware of the issues, lost business is not the only consequence. Failing to accommodate people with disabilities can result in expensive litigation, which can be considerably more expensive than doing the right thing in the first place. Additionally, with the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and the creation of the Consumer Financial Protection Bureau, people with vision loss now have a vehicle through which to get their complaints heard.

## Regulatory and Legal Requirements

As banks and other financial, insurance, and healthcare institutions face an increasingly regulatory environment, they also need to be aware of regulations that affect how they accommodate their customers with disabilities. When it comes to providing customers who are blind or visually impaired with accessible customer correspondence in electronic formats, the Americans with Disabilities Act (ADA) is the federal law that applies.



1 Centers for Disease Control and Prevention. (2013). 2012 National health interview survey [Data File]. Retrieved from [http://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NHIS/2012/srvydesc.pdf](http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2012/srvydesc.pdf)

2 U.S. Department of Health and Human Services. Office on disability: prevalence and impact [Data Set]. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-29.pdf>

The ADA states: “A public accommodation<sup>3</sup> shall take those steps that may be necessary to ensure that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently than other individuals because of the absence of auxiliary aids and services, unless the public accommodation can demonstrate that taking those steps would fundamentally alter the nature of the goods, services, facilities, privileges, advantages, or accommodations being offered or would result in an undue burden, i.e., significant difficulty or expense.”

When determining whether or not a bank or other institution needs to meet federal requirements for accommodating their customers with disabilities, two legal issues need to be considered. First, as a threshold matter, a bank must be covered under the ADA before federal law obligates the bank to do anything for blind customers. Second, if the ADA applies, it is necessary to analyze the nature of electronic statements as an independent benefit and whether the information on a statement is being effectively communicated to blind or visually impaired customers using a particular format.

Regarding the threshold issue, the Americans with Disabilities Act (“ADA”) applies to banks that are places of public accommodation. Providing information in a statement is very likely a communication and/or a benefit of the public accommodation. That benefit offered by a bank must be accessible to blind customers. However, a bank with no brick and mortar presence or no nexus between its services in the physical branches and the information contained in the statement would likely not be covered by the ADA unless the bank was doing business in Maine, Massachusetts, New Hampshire, Rhode Island, or Puerto Rico.<sup>4</sup>

Notwithstanding this jurisdictional variance, it should be noted that the Department of Justice is promulgating regulations that will apply the ADA to services that have no nexus to a brick and mortar facility.<sup>5</sup> Further, states such as Massachusetts and California currently apply their public accommodation statutes to online-only activities.<sup>6</sup>

Assuming federal law applies, the ADA prohibits banks from providing blind customers with unequal benefits in inappropriately segregated settings.<sup>7</sup> A different or separate benefit may be offered only if it is necessary to provide equally effective access to the service.<sup>8</sup>

Moreover, the Department of Justice requires that banks ensure that they effectively communicate with blind customers by providing auxiliary aids, such as accessible Electronic Information Technology (EIT), brailled materials, and audio recordings.<sup>9</sup> The Access Board defines EIT to include World Wide Web sites, software, services (including support services), and related resources.<sup>10</sup> In order to be effective, EIT, brailled materials, or audio recordings must be provided in a timely manner and in such a way as to protect the privacy and independence of the individual with vision impairment.<sup>11</sup>

A commercial bank may not elect to offer alternative braille and audio formats in place of accessible electronic statements. Braille and audio formats do not provide all the advantages of electronic statements. The “electronic” quality of an electronic statement provides additional conveniences and advantages that a paper statement or other physical mediums do not allow. For example, unless the bank delays delivery of electronic statements to all customers, the braille and audio formats will always be less timely than the electronic versions that can be immediately downloaded or sent by email when they are created. The braille and audio formats also cannot be stored, accessed, and retrieved with the same flexibility and convenience afforded by an electronic statement.

In addition, requiring customers to affirmatively request the alternative format unnecessarily invades their privacy because they must disclose their disability or their association with a disabled person. Thus, because braille and audio formats are inferior, banks must provide blind persons with the electronic characteristics of electronic statements and all the conveniences that follow from the expansion of the Internet and advancements in mobile computing.

3 42 U.S.C. § 12181(7)(F).

4 Compare *Weyer v. Twentieth Century Fox Film Corp.*, 198 F.3d 1104, 1114 (9th Cir. 2000) (concluding that, for the purposes of the ADA, “places of public accommodation” is limited to actual, physical spaces) and *Nat’l Fed. of the Blind v. Target Corp.*, 582 F. Supp. 2d 1185 (N.D. Cal. 2007) (finding a nexus between the Target.com website and Target’s physical stores under the ADA) with *Carparts Distrib. Ctr. v. Auto. Wholesaler’s Assoc.*, 37 F.3d 12, 19 (1st Cir. 1994) (holding places of public accommodation” are not limited to actual physical structures) and *Nat’l Ass’n of the Deaf v. Netflix, Inc.*, 869 F. Supp. 2d 196 (D. Mass. 2012) (holding website was a place of public accommodation under the ADA).

5 Accessibility of Web Information and Services of State and Local Government Entities and Public Accommodations, 75 Fed. Reg. 43460-01 (Advance Notice of Proposed Rulemaking published on July 26, 2010) ((to be codified at 28 C.F.R. pt. 36).

6 *Currier v. Nat’l Bd. Of Med. Examiners*, 462 Mass. 1 (2012) (holding medical exam was covered by Massachusetts public accommodations statute even without any physical nexus); *Earll v. eBay, Inc.*, 2011 WL 3955485 (N.D. Cal. Sept. 7, 2011) (holding California state claim could proceed independent of dismissed ADA claim where plaintiff could show intent).

7 42 U.S.C. § 12182(b)(1).

8 *Id.*

9 28 C.F.R. § 36.303.

10 36 C.F.R. § 1194.4.

11 28 C.F.R. § 36.303.

Even if braille or audio formats were as effective as electronic statements, those alternative formats are separate and different from electronic statements provided to non-disabled customers. And promoting such segregation is not permitted unless absolutely necessary to provide the information in the statements. Because accessible electronic statements (an EIT auxiliary aid) can be offered, the bank's offering of braille and audio formats do not relieve its duty to provide blind customers with integrated access to the information in electronic statements. An accessible electronic statement would provide the blind customer with the same advantages of electronic statements available to non-disabled customers. Creating an accessible electronic statement would not constitute an undue burden or fundamental alteration for the bank.

In addition to the federal Americans with Disabilities Act, regulation in this area is gaining traction in individual states. In an effort led by the National Federation of the Blind (NFB) and based on NFB's model Information Technology Act, several states have adopted laws calling for information technology that is accessible to people who are blind or visually impaired.

## Forthcoming Legislation: ADA Revised

When the Department of Justice released ADA Title III regulations in 1991, the Internet was not a consideration. However, in its preamble to the original ADA regulations, the Department of Justice indicated that "the regulations should be interpreted to keep pace with developing technologies." By 2010, the Internet was a major part of Americans' daily lives and, consequently, online accessibility had developed into a hot-button legal issue for government agencies and private organizations. With pressure mounting, the Civil Rights Division of the Department of Justice proposed an amendment to Title III of the ADA that would update the definition of "places of public accommodation" to include the Internet and sites on the web.

The Advance Notice of Proposed Rulemaking (ANPRM) entitled "Nondiscrimination on the Basis of Disability; Accessibility of Web Information and Services of State and Local Government Entities and Public Accommodations" states:

The Department of Justice (Department) is considering revising the regulations implementing title III of the Americans with Disabilities Act (ADA or Act) in order to establish requirements for making the goods, services, facilities, privileges, accommodations, or advantages offered by public accommodations via the Internet, specifically at sites on the World Wide Web (Web), accessible to individuals with disabilities.

With this amendment, Title III will explicitly require organizations to make new web content accessible and retrofit existing content for accessibility within a certain timeframe. It is not yet clear exactly how accessibility standards will be defined or compliance enforced. What is clear, however, is that organizations with public-facing websites will have a definite legal obligation to provide accessible electronic content.

Under the current version of the ADA, companies are already engaged in costly lawsuits and settlements for inaccessible websites and web content, including inaccessible PDF documents. The new legislation will provide a legal platform for disabled persons to force non-compliant organizations to incorporate accessibility into their websites and web content. This can potentially result in costly retrofitting, large payouts, fines, legal fees, and most importantly, damage to the company's brand.

## ADA Litigation Case Studies

The most notable case in the financial sector is the settlement agreement between the Justice Department and a leading financial institution. The Justice Department found the organization to be in violation of Title III of the ADA, and the resulting agreement required the organization to provide appropriate auxiliary aids and services, including documents, in an accessible electronic format.



In the education sector, the Justice Department was involved in two agreements requiring one nonprofit corporation, which provides services to students to ease the admission process for law schools, to meet ADA obligations by making its online law school services and application processes accessible to people who are blind.<sup>13</sup>

**Financial organization case study.** The Justice Department recently announced a settlement agreement with a leading financial institution, under Title III of the Americans with Disabilities Act, which demonstrates the Department's commitment to ensuring that public accommodations provide access for their disabled consumers to their goods, services, and facilities. The Justice Department received a variety of complaints about the organization from people with various disabilities, including vision loss, claiming the organization failed to provide accessible financial documents. The Justice Department initiated its investigation after receiving complaints filed by numerous individuals who are deaf, hard of hearing, or have speech disabilities. The complainants alleged that the organization would not do business with them over the phone using a telecommunications relay service. Instead, the individuals were directed to call a TTY/TDD line that asked them to leave a message, which went unanswered.

The Department determined that these actions violated the ADA. The Department also received a variety of other complaints alleging ADA violations by the financial institution, including the failure to provide appropriate auxiliary aids and services upon request for in-person meetings between the organization's staff and individuals who are deaf and the failure to remove barriers to access for individuals with mobility disabilities.

The settlement agreement required the leading financial organization to provide documents in an accessible electronic format to persons with disabilities when necessary to ensure effective communication throughout its financial services and programs; accept calls made through a relay service by customers who are deaf, are hard of hearing, or have speech disabilities; remove physical barriers to access as identified at its retail stores; provide appropriate auxiliary aids and services, including qualified sign language or oral interpreters, computer-assisted real-time transcription, and qualified readers; ensure that its ATMs and websites are accessible to individuals with disabilities; and remedy all other instances of discrimination, including architectural barriers and operational issues, under Title III of the ADA that were identified during the claims process. In addition, the agreement requires the organization to pay up to a total of \$16 million in monetary relief to persons harmed and to make \$1 million in charitable donations to nonprofit organizations that will assist veterans with disabilities caused by injuries sustained while serving in Iraq or Afghanistan to live independently in the community. Finally, the agreement also requires the organization to pay a \$55,000 civil penalty to the United States Treasury.<sup>12</sup>

**Educational institution case study.** The Justice Department also recently announced its participation in settlement agreements involving the accessibility of a nonprofit corporation's online application service, which is used by law schools nationwide for their application processes. As a result of these agreements, the corporation's online application service and the documentation involved in the online application process will be accessible to people who are visually impaired.

Under one such agreement, which resolved a lawsuit filed against the corporation by the National Federation of the Blind, the corporation must take critical steps to ensure that its online application process and associated content will be fully accessible to individuals who use screen readers. The corporation's website offers several convenient features to applicants including the bundling of applications into the required assembly system. This eliminates the need to obtain multiple transcripts, letters of recommendation, evaluations for applications to more than one school, and online payment of the application fee. The department is a signatory to this agreement, which signifies that the steps the corporation will undertake for its website will satisfy, in part, the law schools' obligations under the Americans with Disabilities Act (ADA) to make their application processes equally accessible to individuals who are visually impaired.

<sup>12</sup> United States Department of Justice Civil Rights Division. (2012). Settlement agreement between the United States of America and Wells Fargo & Company under the Americans with Disabilities Act (DJ # 202-11-239). Retrieved from [http://www.ada.gov/wells\\_fargo\\_wells\\_fargo\\_settle.htm](http://www.ada.gov/wells_fargo_wells_fargo_settle.htm)

<sup>13</sup> United States Department of Justice Civil Rights Division. (2011). Settlement agreement between the United States of America and the Law School Admission Council, Inc. (Complaint No. 202-39-97). Retrieved from [http://www.ada.gov/lscac\\_2011.htm](http://www.ada.gov/lscac_2011.htm)

“Increased use of the Internet or other electronic technologies may enhance convenience for law schools and applicants alike, but the rights of individuals with disabilities may not be violated in the process,” said Thomas E. Perez, Assistant Attorney General for the Civil Rights Division. “In this case, blind students were denied an equal opportunity to apply to law school. The ADA requires equal access to educational opportunities, and the Civil Rights Division is committed to vigorous enforcement of the ADA.”<sup>13</sup>

## What Does a Financial Institution Need to Do?

To meet ADA obligations and avoid litigation, a financial institution needs to develop inclusionary practices that embrace universal design standards. When it comes to designing accessible information technology, universal design calls for the development of information systems flexible enough to accommodate the needs of the broadest range of users of computers and telecommunications equipment, regardless of age or disability.<sup>14</sup>

To a person who is blind or visually impaired, electronic information technology is accessible when it is compatible with a screen reader and screen magnification technology. Desktop and mobile computer users who are blind use powerful screen reader software that communicates, via synthetic speech, the information on the screen and provides for efficient navigation and control of the user interface. Working with a keyboard rather than a mouse, people who are blind use screen reader software to accomplish a wide range of tasks on a computer including: creating, installing, and using software; web browsing; email; and reading, creating, and editing documents, spreadsheets, and presentation slides in many styles and formats.

If a person is visually impaired but has some remaining functional vision, he or she may choose to use screen magnifier software that can enhance the visual nature of the screen by enlarging text and images and adjusting the contrast and colors on the visual display. Most screen magnifier software products also have some screen reading features or can be used in conjunction with screen reader software.

The standards for designing universally accessible websites are found at the Worldwide Web consortium’s Web Accessibility Initiative.<sup>15</sup> The guidelines (Web Content Accessibility Guidelines, WCAG 2.0) and techniques found on that website provide the foundation for designing website structure and content that is accessible to and usable by people with a wide range of abilities and disabilities. However, a large portion of web designers do not follow the guidelines. Many large corporations hire outside accessibility consultants, such as the American Foundation for the Blind, to find expert assistance for their in-house designers.

When financial, insurance, healthcare, and other institutions create account statements for their customers in electronic formats, they most often choose to create them as PDF, which is the most used electronic format for online documentation. This is because of both the inherent security available with PDF documents and because a PDF document visually appears the same regardless of the computer platform used to view it.

For PDF documents to be compatible with screen reader and screen magnifier software, proper design techniques again need to be followed. There are several companies, government agencies, and individuals who can provide consulting services to organizations on the web publishing guidelines, best practices, tips, authors’ guides, etc.

All of those sources provide good reference materials, but regardless of the reasons, designers of PDF documents seem to rarely use those techniques. A Towson University survey reported that inaccessible PDFs are one of the top frustrations among blind people using the Internet.<sup>16</sup> Furthermore, an Australian government study on the accessibility of PDF reported that PDF technology was most often the subject of web accessibility complaints.<sup>17</sup>



14 Waddell, C. D. (1999). Applying the ADA to the internet: a web accessibility standard.

15 <http://www.w3.org/WAI/>

16 Lazar, J., Allen, A., Kleinman, J., & Malarkey, C. (2007). What frustrates screen reader users on the web: a study of 100 blind users. *International Journal of Human-Computer Interaction*, 22(3), 247-269.

17 Australian Government: Department of Finance and Deregulation. (2010). The Australian government's study into the accessibility of the portable document format for people with a disability. Australia: Australian Government Information

## How Do You Make PDF Accessible?

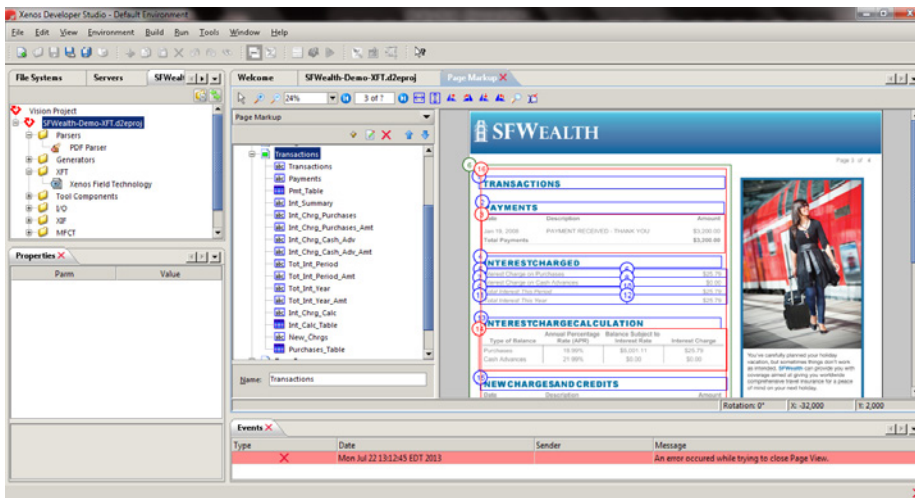


FIGURE 1

Defining the reading order of the document.



FIGURE 2

The tag structure of a properly tagged table with a defined header row

All accessible PDF documents have the following five characteristics:

**A logical structure and reading order.** For screen readers to read a PDF document effectively, the document must have an underlying logical structure and reading order. This logical structure and reading order uses behind-the-scenes elements called tags, which a PDF author adds to the document. Tags define the intended reading order of the content on each page. Screen readers rely on these tags to present text in a way that makes sense when someone is hearing the text spoken out loud. The tags allow a screen reader to interpret page elements, such as headings, sidebars, tables, and multi-column text. Properly tagged tables are particularly important with financial statements because tables are often used to present data, such as monthly balances and account charges. A properly tagged table allows a screen reader user to properly associate data with their associated row and column headings.

**Alternate text descriptions for figures, images, and graphs.** Accessible PDF documents must include descriptive alternate text for non-text elements such as images, graphs, and figures. When screen readers encounter these types of non-text elements, they read their alternate text descriptions aloud. Properly tagged images are particularly important in financial documents, as statements often contain promotions for credit cards, mortgage rates, or terms and conditions that appear as images rather than actual readable text.

**Navigational aids.** Similar to accessible web pages, accessible PDF documents also include navigational aids, such as headings, links, and an optimized tab order for forms and embedded links. These navigational aids enable a user to go directly to a particular point in a document, instead of reading it through line by line and page by page.

**Security that doesn't interfere with assistive technology.** When creating PDF documents, some authors add restrictions to prevent users from printing, copying, extracting, commenting, or editing text. These restrictions can interfere with a screen reader's ability to convert the on-screen text to speech. The content of an accessible PDF document must be available to screen readers, regardless of the security restrictions in place.

**Fonts that allow characters to be extracted to text.** The fonts used in an accessible PDF document must contain enough information for a PDF reader to correctly extract all of the characters as text for purposes other than displaying text on the screen. For example, PDF readers extract characters to text any time you listen to text by using a screen reader, print, copy and paste, or save text to a file.

If the font's underlying information is sufficient, the PDF reader can extract each character correctly each time you perform one of these tasks. If the information is insufficient, the PDF reader cannot substitute characters correctly, and the output will be incomplete. For instance, the screen reader may omit words or characters, or you may see question marks, black rectangles, or similar marks when you print, copy and paste, or save a PDF document as text. If a PDF document contains one or more fonts that do not contain enough information for the PDF reader to correctly extract all characters to text, the document is considered inaccessible.

## Solution

Financial, insurance, healthcare, and other institutions can either develop the skills internally for manually tagging PDF statements to make them accessible, or they can hire an outside firm that specializes in converting non-accessible documents to accessible PDF documents. However, both of those solutions can be cumbersome processes that can take a great deal of time.

The OpenText™ Automated Output Accessibility solution integrates with an organization's existing system to capture high-volume print streams and transform them into tagged accessible documents without the need for manual tagging. It is an automated process, so each statement doesn't have to be done by hand and allows organizations to determine the proper reading order for their customers with vision loss. With the Automated Output Accessibility solution, organizations can ensure that any statement or transaction-oriented document can be accessible on demand for every customer. It makes it possible for people who are blind or visually impaired to independently deal with private and confidential banking information, instead of having a sighted helper do it and thus, they can avoid having to give up personal information. This automated process also avoids confidentiality conflicts that may occur when hiring outside companies to do the tagging.

The Automated Output Accessibility solution creates no accessibility barriers for people who are visually impaired, and all documents produced are compatible with screen reader and magnifier functionality.



## Conclusion

Financial, insurance, healthcare, and other institutions that wish to provide accessible account statements and other financial and personal documents to the 21.5-million (and growing) Americans experiencing vision loss can do so with the Automated Output Accessibility solution. It automates the process and avoids costly manual tagging that would otherwise be required to serve these customers. It is also an efficient way to avoid violating the Americans with Disabilities Act and facing costly litigation.

Beyond the benefits the Automated Output Accessibility solution provides to institutions, it is even more beneficial to customers with vision loss. Accessible electronic documents allow these customers to independently and accurately manage their own affairs without relying on sighted assistance. Having to unnecessarily rely on others to manage your personal business can divulge important personal information to others, even to friends and family. Just as sighted people now prefer to use computers and mobile devices, rather than paper, to manage their affairs, people with vision loss prefer computers and mobile devices over traditional formats, such as audio recordings and braille. Less than 10 percent of blind people use braille, but nearly all of them use computers.

It is not simply just the right thing to do to provide accessible statements and other documentation. It creates goodwill and is a solid business decision. With the aging baby boomer demographic, the numbers of people with vision loss are sure to rise, and this market will want to place their money with institutions that serve them properly.

The Towson study referenced earlier in this document ended with a call for “development tools that more strongly incorporate accessibility into the design process, right from the beginning.”<sup>16</sup> The OpenText™ Automated Output Accessibility solution is a tool that does exactly that.

## About the American Foundation for the Blind

### Our Mission

The American Foundation for the Blind removes barriers, creates solutions, and expands possibilities so people with vision loss can achieve their full potential.

### Our Vision

AFB envisions a world where people with vision loss have equal access and opportunities.

### Who We Are

“Action is our watchword; action will bring results.”

This was our motto when we opened our doors in 1921, and it continues to guide us today. As a national nonprofit with offices in five US cities, the American Foundation for the Blind (AFB) is a leader in expanding possibilities for the more than 20 million Americans living with vision loss. We champion access and equality, and stand at the forefront of new technologies. Our award-winning programs directly address the most pressing needs of people with vision loss and their families. Like Helen Keller, AFB’s most famous ambassador, we are committed to creating a more equitable world for people with disabilities.

**[www.opentext.com](http://www.opentext.com)**

**NORTH AMERICA +800 499 6544 • UNITED STATES +1 847 267 9330 • GERMANY +49 89 4629-0  
UNITED KINGDOM +44 (0) 1189 848 000 • AUSTRALIA +61 2 9026 3400**