

Accessibility Workarounds Recommended by Blind and Low Vision Workers

Encountering inaccessible and hard-to-use digital content was the most common challenge reported by Assistive Technology (AT) in the Workplace Study participants who were blind or had low vision. More than 95% of participants experienced a challenge with inaccessible and/or hard-to-use websites, software, documents, and images at work!

Because these types of challenges were so common, we asked participants to tell us about any workaround strategies for handling three specific accessibility issues: (1) inaccessible digital documents, (2) inaccessible software, and (3) providing a signature on a PDF document. A brief summary of the responses for each issue is provided, along with a list of some helpful and unique participant responses, provided as direct quotes. An important point to remember is that there are multiple potential solutions to these common accessibility challenges that are worth trying. However, sometimes sighted assistance is the most efficient strategy.

Workaround strategies for inaccessible digital documents

Using OCR tools was the most common strategy to deal with inaccessible digital documents. Some people print the digital document and then scan it with an OCR app, while others use OCR built into software such as JAWS. Using AI tools such as Be My AI was another common strategy, as was getting sighted assistance either from an app (Aira, Be My Eyes) or a coworker. Several people mentioned converting the document to another format, including using free software like SensusAccess, Pandoc, or RoboBraille.

"Google Drive does a pretty good job with OCR, so I upload PDFs into Docs and access them that way. Browsers are also better at rendering inaccessible PDFs, so perhaps try using Chrome's OCR feature as well. In addition, AI tools do a pretty good job at reformatting documents and at summarizing content, so this can also potentially be a workaround."

"Will try with JAWS Picture Smart, or use the OCR option to convert a PDF to a Word document, which will fix most accessibility issues. Switch between iPhone and Windows to access a document and see which one works better."

"Between JAWS' Picture Smart and VoiceOver's recognition capabilities, the information/content can be extracted off most any inaccessible document, website, or app. For example, one app I use daily is completely inaccessible to the blind on all platforms, however VoiceOver on iOS' Screen Recognition enables me to interact with the app at a 70% solution."

"Turning a PDF into a Word doc, by doing insert space, then 'o' then 'r.'"

"Convenient OCR with JAWS, Be My AI for images, or SensusAccess to convert scanned PDFs as an alternative to Convenient OCR."

"I will often return the inaccessible document to the creator identifying the document is not accessible. I kindly ask them to resubmit it when it has been made accessible. I believe the senders should be responsible for ensuring their products are fully accessible, and it should be their responsibility to learn how to ensure they are creating accessible work, not mine."

"I use OCR to Word with JAWS from the context menu in File Explorer."

"I open the document on my iPhone - often there can be better OCR on there."

"Put these documents through Chat GPT asking for a detailed description. When the documents are pictures, use the Picture Smart JAWS feature. Use Be My Eyes for Windows. Explore technology options. Tech makes so much available."

"I use Pandoc and MS Word to convert documents into readable form."

"Use JAWS built-in OCR functions to extract text. Use JAWS Picture Smart to interpret image documents. Use Aira service to help translate documents. I also perform a Select and Copy All command and paste the document contents into Notepad -- which does well to strip out all of the visual formatting that may be hard to navigate."

"I use Be My Eyes screenshot, I use AIRA, or my personal assistant, who is overseas, will give me feedback. I also will OCR documents if needed. For academic papers, I use: <https://papertohtml.org/> For maps, I'll have them put into: <https://audiom.net>."

"I use RoboBraille quite a bit."

"I frequently use screen reader-provided OCR to get around this problem. Adobe Acrobat can also do OCR in PDF files, so sometimes I'll use that to give me a more seamless reading experience. All that failing or not applicable, I have OmniPage [OCR software] and I will sometimes use that."

"(1) Convert them into other formats, like Markdown, Word, or plain text, with a word processor, Pandoc, or other such tools. (2) If possible, run them through OCR or AI. (3) If you have access to AIRA, give it to them to transcribe."

Workaround strategies for inaccessible software

The most common strategy to deal with inaccessible software was getting sighted assistance, which could come through an app (Aira, Be My Eyes) or a coworker. Many people also utilize OCR tools when they encounter inaccessible software. Several people mentioned using a screen reader to access content under the mouse cursor. Several people also try to learn how to utilize the software despite it being inaccessible. Some people also suggested trying another screen reader or an alternative AT to access the software.

"For this, I'll try various combinations of screen reader features. If I'm on a system that allows it, I will also try multiple screen readers. Sometimes NVDA works where JAWS doesn't and vice versa. Finally, sometimes there are alternative technologies available that do the same thing, and my employer is usually pretty good about letting me use one of those."

"Become as comfortable as possible with mouse navigation, and use element labeling features where possible."

"I have much to share on this topic... Essentially, getting familiar with more advanced screen reader features, various navigational techniques, making use of OCR either in or out of screen readers, trying different AT software, and accessing remote assistance through a visual interpreting app can all help. Many inaccessible software can be traversed with a bit of patience and creativity if one is familiar enough with the tools available to them."

"It depends on how inaccessible the software is. I might occasionally use AI tools to read unlabeled elements, and I hope simulating mouse commands will move me forward. If all else fails, I'll call Aira."

"Systematically try various strategies, e.g., explore unlabeled buttons to find out what they actually do, use review cursor or object nav to try to get a better sense for what is actually on the screen if

moving the system focus isn't working."

"Using AIRA with Remote Incident Manager. This has been a lifesaver in several situations."

"Depends on level. Using custom labels and PC prompts from JAWS manager list with insert F2, and building frames with hot keys, are all steps short of scripting that can help."

"Step 1: I try to make time to reach out to the software company or developer to identify their software is not fully accessible to me as a screen reader.

Step 2: I copy the communication (or a summary of a conversation) to our state's Office of Accessibility to inform them of the inaccessible software.

Step 3: I notify the specific department in my agency so they can also put pressure on the software company/developer to correct. It also tells the agency department that they should not continue to use this software if it is not made accessible moving forward."

"Using the JAWS cursor can help, or sometimes turning off virtual navigation, especially in Google or Microsoft store apps. If that doesn't work, I will test with other screen readers. I will also get picture descriptions of the screen if I am not sure what is going on."

"It depends on the software. With JAWS, knowing how to perform virtual mouse movements and right and left clicks using the mouse cursor often helps get past issues."

"Ask for the accessibility or customer service information for that particular software and reach out to ask if there are any accessible versions or if there is any training available."

"Browser specific - adjust settings so that NVDA will read anything under the mouse pointer."

"At times, another screen reader can help; at others, using very advanced features of JAWS can make a difference."

"Working with a sighted colleague to memorize where the locations of everything are, what word strings I need to search to find something, and writing down all of these steps."

"I OCR the screen with the JAWS OCR feature, then use the JAWS cursor to click the text I think coincides with an actionable control. This works pretty well for basic screens, such as installer screens or to regain access following an app error, but it does not work for tasks like filling out forms, checking radio buttons or checkboxes, or more advanced controls."

Workaround strategies for signing a PDF document

Getting sighted assistance was also the most common strategy to sign a PDF document. Many people reported that DocuSign, a document signing software, is fully accessible. Several people use a digital copy (an image) of their signature to place in documents, although sighted assistance may still be required to place it correctly.

"Just use DocuSign. It's fully accessible."

"Best is either in Acrobat Reader on Windows and Preview on a Mac. You can insert a digital signature by adding it from the menu bar, but placement still requires sighted assistance for correctness."

"Other than Adobe, I have a bunch of digitized signatures that I can copy and paste where needed."

"I have a picture of a signature, and it is a picture on my computer. I have a sighted coworker join me in a TEAMS meeting and I give them control and they pull the picture into the right spot on the document and then enter the date. I use this for all inaccessible documents that I receive regularly, and meet at least twice a week to accomplish this task."

"I will often contact the document owner and ask if I can alternatively submit a written statement

signifying my statement can suffice as my agreement or signature. Often this works."

"Use Aira (Team Viewer or Quick Assist session) or use Quick Assist with a coworker to help complete inaccessible signature fields. Otherwise, I create a fillable form with a digital signature field that can be typed into."

"I use Kami." [Kami is an online software with a signature tool that works with Google Drive and Google Classroom.]

"I often use Aira with Team Viewer to add a signature. You can also save a photo of your signature to put into the PDF, but I have not been able to add it to the document successfully without assistance like Aira."

"It really depends on the PDF. Most of my solutions though involve another person when it comes to signing official documents, as the last thing I want to do is print the document off and then sign it in the wrong place so I look like a slob. I'd use Be My Eyes to get assistance in this rare case, unless the document is confidential, in which case I have to contact the sender and let them know that because the signature field is not accessible, and because the document must be restricted, it's up to them to fix it since they didn't create an accessible document to begin with. I do offer to give my permission to sign and also let them know that if they have a Word version of the file, I may be able to digitally sign it."

"(1) I have a sighted person sign them. (2) I ask for a digital signature software like DocuSign or Adobe Sign. (3) I tell them there is a way to make Word documents read-only by adding a Microsoft Signature line, and show them how to do that."

"If it's something I need to sign, I ask for sighted assistance. I am aware that I could probably use scanning apps for this, but it's too time-consuming. I am strongly advocating for my employer to adopt something like DocuSign."



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