

# Sections 508 and 504: Closed Captioning and Web Accessibility Requirements

## Overview

The Rehabilitation Act, enacted in 1973, is a federal anti-discrimination law that implicates federal and federally funded programs in their treatment of individuals with disabilities<sup>i</sup>. This law replaced and expanded the Vocational Rehabilitation Act to broaden both the protection of individuals with disabilities and the funding for disability programs and services.

The Rehabilitation Act of 1973 originally placed the most emphasis on equal employment practices, reasonable accommodations, and federally subsidized programming for individuals with disabilities. However, amendments to the act have led to a more far-reaching interpretation of the law. With the advent of the Internet, an amendment (Section 508) was signed into law in 1998, expanding the Rehabilitation Act to include equal access to electronic and information technology.



## Section 504

Section 504 was originally the last line of the Rehabilitation Act, but did not have any implementing rules. Four years later, in 1977, Section 504 regulations were signed, in essence affording individuals with disabilities the same rights as groups protected by the Civil Rights Act of 1964<sup>ii</sup>. Although these regulations were met with political opposition, they were successfully signed into law.

### The Rehabilitation Act of 1973

Section  
504

**Section 504** declares civil rights for individuals with disabilities. **Section 508** sets requirements for accessible technology.

Section  
508

In 1990, the rules of Section 504 were extended to many public sector organizations by the Americans with Disabilities Act (ADA)<sup>iii</sup>.

Section 504 is widely considered to be the first statute to declare civil rights for individuals with disabilities. It states specifically that:

***"No otherwise qualified individual with a disability in the United States [...] shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or any program or activity conducted by any Executive agency or by the United States Postal Service."***

It further defines individuals with disabilities as "persons with a physical or mental impairment which substantially limits one or more major life activities." For purposes of employment, Section 504 also clarifies that qualified individuals with disabilities "are persons who, with Reasonable Accommodation, can perform the essential functions of the job for which they have applied or have been hired to perform."

In addition to federal programs and agencies, the law implicates programs that receive federal funding, which subsidizes airports, colleges and universities, federally assisted housing, and public libraries, among others. Section 504 further implicates any "local educational agency, system of vocational education, or other school system," meaning that K-12 schools are prohibited from denying public education or extracurricular activity participation because of a child's disability. Section 504 in fact expands the Individuals with Disabilities Education Act, which also implicates K-12 schools, to protect a broader range of children with disabilities (as opposed to a small subset).

## Section 508

Section 508<sup>iv</sup> was first introduced in 1986, but it was not successfully enforced. A new and improved Section 508 was signed into law in 1998 as an amendment to the Rehabilitation Act<sup>v</sup>. Section 508 covers access to federal programs and services in regards to electronic and information technology<sup>vi</sup>. This law requires that alternative, accessible information technology – meaning, a system that can be operated in a variety of ways and does not rely on a single sense or ability of the user – be provided to disabled employees and members of the public. Similarly, it ensures accessibility to web content.

While it is up to some debate as to whether federally funded programs must comply with Section 508, there are certain stipulations that often require these programs to provide accessible technology and web content. For example, the Assistive Technology Act<sup>vii</sup> will not provide funding to states unless they guarantee that all programs – including colleges and universities – will comply with Section 508<sup>viii</sup>. Many states have enacted laws similar to Section 508 that extend to state funded programs<sup>ix</sup>.

Section 508 states that, "When developing, procuring, maintaining, or using electronic and information technology, each Federal department or agency [...] shall ensure, unless an undue burden would be imposed on the department or agency, that the electronic and information technology allows, regardless

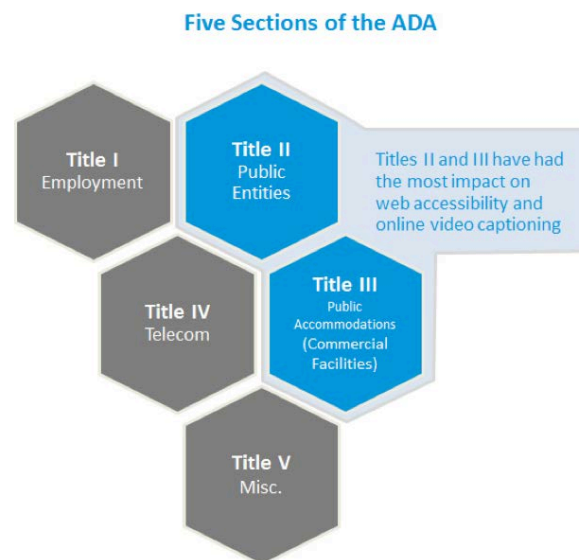
of the type of medium of the technology, individuals with disabilities [...] to have access to and use of information and data that is comparable to the access of [those] who are not individuals with disabilities." The technical standards go on to include accessible alternatives to:

- ▶ Software Applications and Operating Systems
- ▶ Web-based Intranet and Internet Information and Applications
- ▶ Telecommunications Products
- ▶ Videos or Multimedia Products
- ▶ Self Contained, Closed Products
- ▶ Desktop and Portable Computers

Keep in mind that the law does make exceptions for programs where the implementation of the above standards would cause undue hardship. However, even still, such agencies and departments are still required to supply the information conveyed in the above standards to individuals with disabilities through some alternative means. For instance, if a training video does not have closed captions, and the agency can prove that the cost of captioning would cause undue hardship, the agency would still be required to convey the information in the training video to deaf or hard of hearing employees, perhaps through transcription or with a sign language interpreter.

## What's the Difference Between the Rehabilitation Act and the ADA?

The Americans with Disabilities Act (ADA) applies to public entities and commercial entities that can be construed as "places of public accommodation." The Rehabilitation Act applies to federal agencies and federally funded programs. The ADA exists separately from the Rehabilitation Act, but is generally perceived as an expansion of Section 504 that protects a broader range of individuals with disabilities. The ADA is not limited to Federal agencies and federally funded programs, as the Rehabilitation Act is, but affords similar protections to individuals with disabilities in the public sector. The ADA, in fact, contains a provision that nothing within the law amends, overrides, or cancels anything in Section 504.



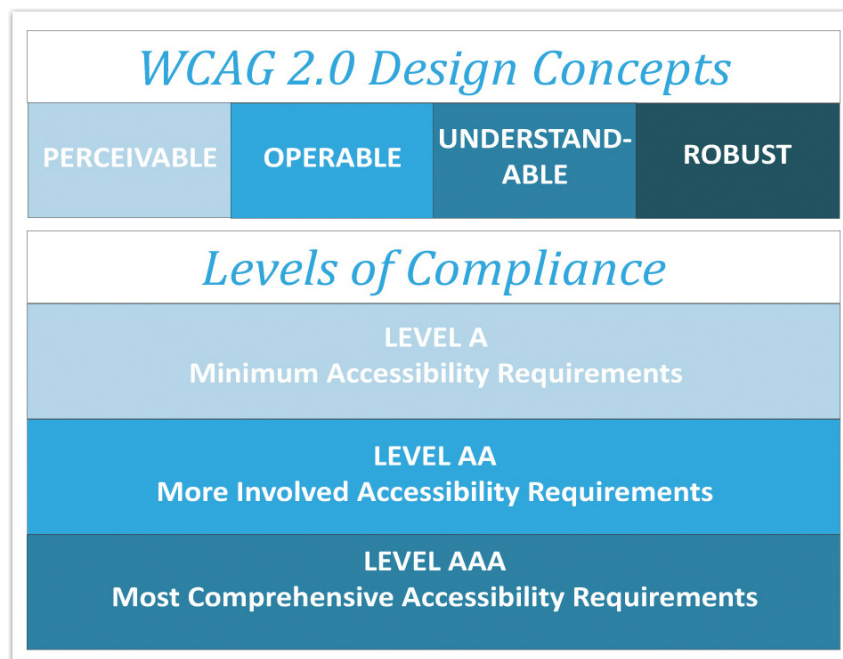
While the ADA did not originally set forth requirements for electronic and information technology similar to Section 508, recent court decisions have implicated online businesses as being in violation of the ADA. For instance, in a lawsuit against Netflix, the court construed that Netflix was as a "place of public accommodation," a provision of the ADA that had previously only been applied to physical structures<sup>x</sup>. If the court's trend of implicating electronic and information technology in its interpretation of the ADA continues, it would extend the requirements of Section 508 to the public sector.

## How is Section 508 Related to WCAG 2.0?

The World Wide Web Consortium's collection of Web Content Accessibility Guidelines (WCAG) is quickly becoming the international standard for web accessibility<sup>xi</sup>. While WCAG is the most comprehensive accessibility guide, it has no legal backing in the United States.

Section 508 includes a set of standard technical specifications for web accessibility. While Section 508 has been heavily influenced by WCAG standards, it only adopted a portion of the guidelines. WCAG is far more detailed and comprehensive. Also, WCAG specifies levels of compliance and testable provisions, whereas Section 508 only assigns a simple "pass" or "fail" for criteria.

Section 508 standards were published in 1998 when most web pages were static HTML without dynamic media. 17 years later, websites are much more complex and hold a much more prominent place in our everyday lives; yet Section 508 standards remain unchanged.



## Section 508 Refresh

... But not for long! On January 18, 2017<sup>xii</sup>, the U.S. Access Board published a rule modernizing Section 508 standards. This refresh updates and clarifies the Access Board's "standards for electronic and information technology developed, procured, maintained, or used by Federal agencies covered by Section 508 of the Rehabilitation Act of 1973." State laws that reference Section 508 could soon follow suit. The rule directly references WCAG 2.0 level A and AA success criteria, not only for web content but also for web applications, software, and documents. The final rule is effective March 20, 2017 but compliance with the new standards is not required until January 18, 2018.

## Closed Captioning Requirements According to the Rehabilitation Act

### Technology Requirements

According to the Technical Standards of Section 508<sup>xiii</sup>, all analog and digital television displays, as well as all computers, must be equipped with the technology necessary to properly decode and display closed captions. Further, any video – online or otherwise – that is not raw footage, is used for training or information purposes, contains audio that is essential for understanding the presentation, and/or supports the organization's mission, must have open or closed captions. The technical standards also note that the captions should incorporate important non-speech sounds.

The difference between open captions and closed captions is that open captions are "burned in" to the video and cannot be turned off, while closed captions appear with a "CC" button that allows the viewer to turn the captions on or off. While Section 508 specifies that the equipment used to play the video must be able to decode and display *closed* captions, both open and closed captions are suitable for fulfilling captioning requirements. However, transcripts are not sufficient for video content as they are not time synchronized with the media.

### Captioning Requirements

Who is implicated by Section 508's captioning requirements? This is a gray area that is often interpreted differently<sup>xiv</sup>. While Section 508 does not directly call out federally funded programs, many people believe that because these programs are implicated by Section 504, electronic and information technology requirements should extend to federally funded organizations. However, Section 508 only directly mentions federal agencies.

While there is some debate over Section 508's direct influence, there are many other laws that extend Section 508's impact to non-federal programs. As mentioned earlier, the Department of Education requires that states that receive funds under the Assistive Technology Act – and most states do – are also required to comply with Section 508<sup>xv</sup>. In addition, certain states have imposed laws that reference Section 508's requirements, extending web and electronic technology accessibility law to the state level<sup>xvi</sup>. This means that even if you are not a federal program, it is possible that your organization is still indirectly required to comply with Section 508 standards, either through state law or through the Assistive Technology Act.



As the prevalence of video content increases, the captioning requirements for these programs are becoming more and more pressing. For instance, many college and university courses include video components; further, many of them in fact have online programs with video lectures. Because most colleges and universities are required to comply with Section 508 either by state law or because of the Assistive Technology Act, they must caption those videos for students who are deaf or hard of hearing<sup>xvii</sup>. Keep in mind that Title II and Title III of the ADA expand this requirement to state funded universities as well as most private colleges and vocational schools.

## Section 508 Web Accessibility Audit Criteria

If you are wondering whether or not your institution satisfies Section 508's web accessibility requirements, consider performing an audit so that you can better scale your accessibility initiatives. All sites should meet the following criteria, at a minimum, to satisfy Section 508<sup>xviii</sup>.

1. Text equivalent shall be provided for every non-text element.
2. Equivalent alternatives shall be provided for any multimedia presentation, synched with the presentation.
3. Information conveyed with color must also be made available without color.
4. Documents shall be readable without an associated style sheet.
5. Text links shall be provided for each active region of a server-side image map.
6. Client-side image maps shall be provided instead of server-side image maps, except where the regions cannot be defined with an available geometric shape.
7. Row and column headers shall be identified for data tables.
8. Markup shall be used to associate data cells and header cells for data tables with two or more logical levels of row or column headers.
9. Frames shall be titled with text that facilitates frame identification and navigation.
10. Pages shall be designed to avoid causing the screen to flicker (frequency 2 Hz – 55 Hz).
11. A text-only page, with equivalent and up-to-date information, shall be provided when compliance cannot be accomplished in any other way.
12. When utilizing scripting languages to display content or to create interface elements, the information provided by the script shall be identified with functional text so that it can be read with assistive technology.
13. When a web page requires that an applet, plug-in, or other application be present to interpret page content, the page must provide a link to a plug-in or applet.
14. Electronic forms shall be designed to allow people using assistive technology to access the information, field elements, and functionality as to complete and submit the form, including directions and cues.
15. A method shall be provided that permits users to skip repetitive navigation links.
16. When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

## Video Captioning Best Practices

Captions allow deaf and hard of hearing viewers to understand the spoken content of videos by displaying words in sync with the audio. While captioning, transcription, and subtitling standards are preferential and can vary slightly, below are some generally accepted best practices<sup>xix</sup> for captioning that take into account both accessibility law and the FCC's caption quality<sup>xx</sup> requirements.

- ▶ Each caption frame should hold 1 to 3 lines of text onscreen at a time, viewable for 3 to 7 seconds. Each line should not exceed 32 characters.
- ▶ Each caption frame should be replaced by another caption.
- ▶ All caption frames should be precisely time-synched to the audio.
- ▶ A caption frame should be repositioned on the screen if it obscures onscreen text or other essential visual elements.



- ▶ Spelling should be at least 99% accurate.
- ▶ When multiple speakers are present, it is sometimes helpful to identify who is speaking, especially when the video does not make this clear.
- ▶ Both upper and lowercase letters should be used.
- ▶ The font should be a non-serif, such as Helvetica medium.
- ▶ Non-speech sounds like [MUSIC] or [LAUGHTER] should be added in square brackets.
- ▶ Punctuation should be used for maximum clarity in the text, not necessarily for textbook style.
- ▶ Captions should preserve and identify slang or accents.

## Lawsuits

Accessibility court cases generally ask, "Can the user actually use your website? Can a blind user use your website? Can a deaf user use your website? A user with a mobility disability?" While most Section 508 lawsuits have not specifically called out closed captioning, there have been many applicable cases that implicate web content for not being accessible to users. Target Corporation, the US Department of Education, the Social Security Administration, and the Small Business Administration (among others) have all been sued for violating Section 508 by not providing accessible web content to users with sensory disabilities<sup>xxi</sup>.

## Conclusion

The Rehabilitation Act sets the context for accessibility law as it stands today. As the first mandate to extend civil liberties to Americans with disabilities, it has played a crucial role in the development of anti-discrimination policies as well as state, local, and commercial accessibility laws.

When the Access Board makes its decision about refreshing Section 508 to make its standards more applicable to the modern Web, accessibility requirements for online video and other Internet content are likely to increase. It is important to set up workflows that can easily be expanded to incorporate WCAG 2.0 standards, as it is likely that the Section 508 refresh will require legal compliance with WCAG 2.0. Assuming that this is the case, Section 508 requirements for closed captioning and web accessibility will only increase.

## Endnotes

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- <sup>i</sup> <http://www.law.cornell.edu/uscode/text/29/701>
  - <sup>ii</sup> [http://en.wikipedia.org/wiki/Section\\_504\\_of\\_the\\_Rehabilitation\\_Act](http://en.wikipedia.org/wiki/Section_504_of_the_Rehabilitation_Act)
  - <sup>iii</sup> <http://info.3playmedia.com/wp-ada.html>
  - <sup>iv</sup> <http://section508.gov/>
  - <sup>v</sup> <http://www.access-board.gov/the-board/laws/rehabilitation-act-of-1973#508>
  - <sup>vi</sup> <http://www.law.cornell.edu/uscode/text/29/794d>
  - <sup>vii</sup> <http://www.section508.gov/assistive-technology-act-1998>
  - <sup>viii</sup> <http://www.ataporg.org/overviewact.html>
  - <sup>ix</sup> <http://www.section508.gov/state-policy>
  - <sup>x</sup> <http://nad.org/news/2011/6/nad-files-disability-civil-rights-lawsuit-against-netflix>
  - <sup>xi</sup> <http://www.3playmedia.com/2013/11/13/future-section-508-504-ada-guided-wcag/>
  - <sup>xii</sup> <http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh?highlight=WyJpY3QiLCJyZWZyZXNoliwiaWN0IHJlZnJlc2giXQ==>
  - <sup>xiii</sup> [http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards/section-508-standards#subpart\\_b](http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards/section-508-standards#subpart_b)
  - <sup>xiv</sup> <http://www.washington.edu/doit/Faculty/articles?2>
  - <sup>xv</sup> [http://www.htctu.fhda.edu/divisions/webaccess/508/top\\_10\\_faqs.htm](http://www.htctu.fhda.edu/divisions/webaccess/508/top_10_faqs.htm)
  - <sup>xvi</sup> <http://www.section508.gov/state-policy>
  - <sup>xvii</sup> <http://www.rit.edu/ntid/deafplus/section-504>
  - <sup>xviii</sup> <http://www.3playmedia.com/2013/11/13/future-section-508-504-ada-guided-wcag/>
  - <sup>xix</sup> <http://www.3playmedia.com/2014/05/06/transcription-captioning-subtitling-standards/>
  - <sup>xx</sup> <http://www.3playmedia.com/2014/04/03/fccs-new-quality-standards-closed-captioning-video-programming/>
  - <sup>xxi</sup> <http://evengrounds.com/articles/section-508-lawsuits>



## About 3Play Media

3Play Media provides cost-effective, premium quality captioning, transcription, and subtitling solutions to hundreds of customers in higher education, enterprise, entertainment, media, and government. Our mission is to simplify the process by providing a user-friendly account system, flexible API's, and integrations with a multitude of video players, platforms, and lecture capture systems. 3Play Media is based in Boston, MA and has been operating since 2007.

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