

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:)	
Media Bureau Seeks to Refresh the)	
Record on Accessibility Rules for)	
Closed Captioning Display Settings)	MB Docket No. 12-108
Under the Television Decoder)	
Circuitry Act)	

Comments of Accessibility Advocacy and Research Organizations

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Summary

Viewers who are deaf, hard of hearing, or DeafBlind continue to face barriers accessing video programming as a result of inaccessible caption display settings. In fact, the problems that were highlighted on the record during the Commission’s previous examination of caption display setting accessibility are in some cases are even worse. Apparatus and navigation devices still implement caption display settings through obscure, hard-to-find, hard-to-use, and inconsistent interfaces. These problems continue to deny viewers who are deaf, hard of hearing, or DeafBlind their ability to access video programming on equitable terms as intended by Congress. A critical need exists for the Commission to require these settings to be easy to find and easy to use.

The Commission should address these long-standing problems by requiring caption display settings to be readily accessible. In elaborating on the “readily accessible” requirement, the Commission should implement its previously proposed proximity requirement—that settings be accessible from no lower than the first level of a menu. The Commission additionally should require that settings be easily discoverable by viewers, previewable in on-screen demonstrations of caption rendering, and consistent and persistent across different devices and services. The Commission should ensure that the video programming and consumer electronics industries act quickly by imposing a deadline of no more than one year both to bring newly manufactured devices into compliance and to issue complying software updates for existing devices.

The Commission has robust authority to enact these requirements under the Television Decoder Circuitry Act of 1990 (TDCA). Enabling viewers to easily access caption display settings is not only required by the letter and spirit of the TDCA as originally drafted, but would be consistent with other federal laws mandating captioning access and a range of Commission actions intended to ensure that captions provide equitable access to video programming for viewers who are deaf, hard of hearing, or DeafBlind.

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Discussion

The above-signed Accessibility Advocacy and Research Organizations respectfully respond to the Commission's Public Notice seeking to refresh the record in the above-referenced docket ("*CC Display Settings PN*").¹ The Advocacy Organizations collectively advocate for equal access to video programming for the more than 48 million Americans who are deaf, hard of hearing, DeafBlind, or have other disabilities. The Research Organizations work in conjunction with the Advocacy Organizations to address the technical challenges faced in securing access to video programming.

As the Commission rightly acknowledges, Congress has long recognized that the provision of closed captions alone is not enough to ensure equitable access to video programming, including by requiring captioning capabilities in a wide range of types and sizes of apparatus.² Viewers who are deaf, hard of hearing, or DeafBlind, including the growing population of older viewers with both hearing loss and declining vision, as well as viewers who are deaf and have cerebral palsy or other disabilities, must be able to easily access closed captions and customize the display of such captions so they can view them in a fashion tailored to their individual circumstances and viewing environments.³ Indeed, the need to maximize access for the broadest population of caption users was among the primary reasons that in 2000, the Commission adopted rules requiring that all digital apparatus enable users to adjust a wide range of caption attributes, including caption sizes, fonts, character edges, opacity, and foreground and background colors.⁴

¹ *Media Bureau Seeks to Refresh the Record on Accessibility Rules for Closed Captioning Display Settings Under the Television Decoder Circuitry Act*, Public Notice, MB Docket No. 12-108 (Jan. 10, 2020) ("*CC Display Settings PN*"), <https://www.fcc.gov/document/media-bureau-seeks-refresh-record-closed-captioning-rules>.

² *See id.* at 2.

³ *See id.* (citing CVAA § 203(a) (47 U.S.C. § 303(u)(1))).

⁴ *See id.* (citing 47 C.F.R. § 79.103). As several of the Organizations noted in 2016, it is also critical for users to be able to adjust the location (or position) of captions on the

Specifically, viewers must be able to adjust their settings as their needs change over time—for example, because they need to make captions larger to adjust to progressive vision loss as they age; across different programs—for example, when caption text becomes illegible because of the color of the captions and color of the programs; and across different equipment—for example, if a user switches across multiple devices with different screen sizes, or acquires a new television, set-top box, or tablet of a different size and needs to make the captions larger or smaller to suit.

However, the critical role that customizing caption display settings can play in ensuring the accessibility of video programming cannot be fully realized until apparatus manufacturers and service providers make these settings easy to find and simple to use. The record established in this proceeding suggests what remains true today: caption display settings remain inaccessible and can deny viewers who are deaf, hard of hearing, or DeafBlind, as well as viewers who are deaf and have other disabilities, such as cerebral palsy, declining vision, or colorblindness equitable access to video programming.

The Commission should address the long-standing inaccessibility of caption display settings by requiring all apparatus and navigation devices to make customizing caption display settings easy to find and simple to use. More specifically, the Commission should

screen. Comments of TDI, et al. at 12 (Feb. 23, 2016) (“2016 Comments”), <https://www.fcc.gov/ecfs/filing/60001486622>. Notwithstanding 2014 Commission rules requiring the proper placement of captions, *Closed Captioning of Video Programming*, Report and Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking, CG Docket No. 05-231, 29 FCC Rcd. 2221, 2244–45, ¶¶ 32–33 (2014) (“2014 Closed Captioning Quality Order”) (codified at 47 C.F.R. § 79.1(j)(2)(iv)), it is our collective experience that closed captions often continue to block other important information on the screen, including faces and other critical text. While we acknowledge that location customization is not currently addressed in Rule 79.103 and will require Commission action beyond the scope of the issues currently raised, we urge the Commission to proactively address this issue in the next steps of this proceeding.

require settings to be proximate, discoverable, previewable, and consistent and persistent within one year. The Commission’s authority to do so is squarely established by the provisions of Television Decoder Circuitry Act (TDCA)⁵ and consistent with the TDCA’s intent and a long line of Commission precedent, including under the Twenty-First Century Communications and Video Accessibility Act (CVAA).⁶

I. Caption display settings remain inaccessible, denying viewers who are deaf, hard of hearing, or DeafBlind equitable access to video programming.

When the Commission last sought comment on proposed rules to require making caption display settings “readily accessible,”⁷ it noted that display settings had “remain[ed] inaccessible to many viewers who are deaf or hard of hearing because they are difficult to locate and use.”⁸ The Commission acknowledged the “long and frustrating history of the difficulties in accessing closed captioning features on apparatus and navigation devices” explained by several of the Organizations during the initial implementation of the CVAA in 2013.⁹

In 2016, several of the Organizations again explained to the Commission that user display settings remained difficult to access.¹⁰ The comments noted that inconsistent implementations of caption display settings by different device manufacturers and

⁵ Pub. L. No. 101-431 (1990).

⁶ Pub. L. No. 111-260 (2010).

⁷ We use the term “readily accessible” to denote the umbrella concept of making user interfaces to adjust caption display settings accessible, consistent with the Commission’s use of the term in the *Second FNPRM*; as we discuss *infra*, Part II, the Commission should elaborate on this concept with specific requirements for proximity, discoverability, previewability, and consistency and persistence.

⁸ *Accessibility of User Interfaces, and Video Programming Guides and Menus*, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd. 13,914, 13,934, ¶ 36 (Nov. 20, 2015) (“*Second FNPRM*”), <https://www.fcc.gov/document/commission-adopts-user-interfaces-accessibility-item>.

⁹ *Id.* (quoting Comments of NAD, et al. at 8 (July 15, 2013)).

¹⁰ 2016 Comments at 7–8.

service providers made it difficult for consumers to anticipate or discover where in a device’s user interface the display settings could be customized.¹¹ The Commission now inquires whether the industry has taken steps to address these problems.¹²

Unfortunately, little progress appears to have been made over the past six years.¹³ Users routinely encounter problems customizing their display settings and are forced to resort to complaints to the Commission.¹⁴ The Commission has received detailed presentations on ongoing “discoverability and ease of use challenges” that are only getting worse “across an increasingly fragmented video programming hardware and software environment”¹⁵ Because viewers now use an increasingly wide and evolving range of different devices, applications, and services to view programming, interfaces for customizing captions have remained esoteric, inscrutable, and difficult to find and use.

Even the specific examples described more than six years ago remain problematic. For example, in the Commission’s first proceeding on this issue, some of the Organizations noted that Netflix’s user display settings for most devices could only be changed from Netflix’s web interface, rather from a device itself.¹⁶ Today, Netflix—the most popular streaming service by number of subscribers¹⁷—still requires users on non-Apple devices to adjust settings via the web by:

1. Leaving their TV;
2. Logging into the Netflix website on a computer, phone, or tablet;

¹¹ *Id.* at 7.

¹² *See CC Display Settings PN* at 4.

¹³ *See id.* at 2.

¹⁴ *See id.* at 2 & n.12.

¹⁵ *See id.* at 3 & n.14 (internal citations omitted).

¹⁶ 2016 Comments at 7.

¹⁷ Christine Persaud, *12 Most Popular Streaming TV Services, Ranked By Subscriber Numbers*, Screen Rant (updated Nov. 20, 2021), <https://screenrant.com/ten-most-popular-streaming-services-ranked-subscriber-numbers/>.

3. Navigating to an “Account” page hidden in a dropdown menu by clicking a small, unlabeled, white triangle;
4. Scrolling down to a list of user profiles (which sit below the “fold” of a page if a user’s screen is not large enough);
5. Expanding the user’s “profile” by clicking an unlabeled downward-facing, light gray caret character on a white background;
6. Clicking a “Change” link next to a “Subtitle appearance” (not “Caption appearance”) label;
7. Changing the settings;
8. On some devices, navigating to the “Settings” menu in the Netflix app on the device;
9. Clicking the “Get Help” button; and
10. Clicking “Reload.”¹⁸

Likewise, YouTube, a widely popular video platform used by 81% of adults,¹⁹ used to have the caption settings available under a menu reached by clicking the “CC” button.²⁰ However, the settings have now moved to a much less intuitive and harder-to-discover location: two levels deep under a generic “Settings” button labeled only with a gear on a web browser.²¹ On iOS devices, customizing captions in the YouTube app is even more difficult; the current workflow appears to require the user to:

¹⁸ See Netflix, Help Center, *How to change the appearance of subtitles and closed captions*, <https://help.netflix.com/en/node/100267> (last visited Feb. 9, 2022).

¹⁹ John Gramlich, *10 facts about Americans and Facebook*, Pew Research Center (June 1, 2021), <https://www.pewresearch.org/fact-tank/2021/06/01/facts-about-americans-and-facebook/>.

²⁰ See 2016 Comments at 8.

²¹ See YouTube Help, *Manage subtitle settings*, <https://www.support.google.com/youtube/answer/100078?hl=en#zippy=%2Cchange-default-size-style-of-captions> (last visited Feb. 9, 2022).

1. Tap the settings menu;
2. Tap “Captions,”
3. Tap a cryptic link labeled “To keep captions on by default adjust caption visibility in your Device Settings.”;
4. After tapping the link, be led to an irrelevant iOS app permissions settings prompt for YouTube;²²
5. Without being prompted, independently know to return to the top-level iOS settings page, tap through to “Accessibility,” and then to “Subtitles and Captioning.”²³

Even if a viewer knows that these settings exist, this procedure requires seven taps from the YouTube app before reaching the customization options. The user then must use the app switcher to return to YouTube. By contrast, the YouTube caption settings on some game consoles, such as the PlayStation 5, appear to be reachable simply by pressing the CC button, upon which the viewer is presented with the options to turn captions on/off and customize their appearance all from a single first-level menu.²⁴ The PlayStation 5 approach is more intuitive, making it easier for caption viewers to identify and use.

The problems and inconsistencies with Netflix and YouTube are not isolated examples. The Commission need only consult the ever-expanding list of popular video programming services to discover a litany of problems. Amazon Prime Video, the second-

²² These initial steps seemingly do not appear in YouTube’s online documentation.

²³ See, e.g., YouTube Help, *Manage subtitle settings*, <https://support.google.com/youtube/answer/100078?co=GENIE.Platform%3DiOS&oco=1> (last visited Feb. 16, 2022).

²⁴ Sony, *Display captions when watching videos on the YouTube app*, <https://www.sony.com/electronics/support/articles/00074269> (last modified Feb. 06, 2020).

most popular streaming service,²⁵ requires three different sets of steps to customize captions, depending on which type of device or browser a user is using.²⁶ Disney Plus, the fourth-most popular streaming service,²⁷ provides eleven different sets of instructions for customizing caption display, many taking up to six steps, and notes that some web browsers “do not support subtitle customization” at all.²⁸ And Peacock, the fifth-most popular streaming service,²⁹ requires three different multi-step customization options, including requiring some users to visit the web.³⁰

Traditional multichannel video programming distributors (MVPDs), many of whom have joined the streaming marketplace, also have not adopted consistent approaches to captioning. For example, Xfinity requires a variety of different approaches to customizing caption display settings: television users must access a menu by holding down a key labeled only “B” on their remote, navigating to the caption settings, pressing exit, and changing the channel,³¹ while its streaming applications offer a range of different steps to customize the captions.³²

²⁵ Persaud, *supra* note 17.

²⁶ Amazon Help & Customer Service, *Turn On Subtitles or Captions on Prime Video on Connected Devices*, <https://www.amazon.com/gp/help/customer/display.html%3FnodeId%3DGYSDCV5YBV4UWQ56> (last visited Feb. 9, 2022).

²⁷ Persaud, *supra* note 17.

²⁸ Disney+, *How do I customize the appearance of subtitles and closed captions?*, https://help.disneyplus.com/csp?id=csp_article_content&sys_kb_id=2822734bdb986858b03cc58a13961978 (last visited Feb. 17, 2022).

²⁹ Persaud, *supra* note 17.

³⁰ Peacock, *Does Peacock content support subtitles (closed captioning)?*, <https://www.peacocktv.com/help/article/subtitles> (last visited Feb. 9, 2022).

³¹ Xfinity, *Turn Closed Captioning On or Off on X1*, <https://www.xfinity.com/support/articles/x1-closed-captioning> (last visited Feb. 9, 2022).

³² *E.g.*, Xfinity, *Set Accessibility Options with the Xfinity Stream Portal*, <https://www.xfinity.com/support/articles/xtv-web-setting-accessibility-options> (last visited Feb. 9, 2022); Xfinity, *Set Accessibility Options in Xfinity Stream App for Apple*

II. The Commission should require all apparatus and navigation devices to make customizing caption display settings proximate, discoverable, previewable, and consistent and persistent within one year.

In 2016, industry commenters urged the Commission not to adopt rules for caption display setting accessibility based on statements that the industry was “working to develop intuitive ways for users to access enhanced captioning display settings,” and that requiring accessibility would “potentially hampe[r] future innovation in methods of selecting display options.”³³ Unfortunately, the industry has not delivered its promise to develop accessible modes of customizing caption displays, and innovation has not brought to bear the basic changes necessary to address obvious accessibility problems. The Commission should wait no longer to act. It should require caption display settings to be readily accessible across all apparatus and navigation devices within a reasonable deadline of one year.

Rules governing the accessibility of caption display settings should address the following specific features: proximity, discoverability, the ability to preview display settings, and consistency and persistence across devices and services, allowing for flexibility to the extent necessary to account for material differences in user interface paradigms across services and applications and over time. These changes are consistent with the Commission’s previous declaration that the cornerstone of enabling accessible

Devices, <https://www.xfinity.com/support/articles/x1-xfinity-tv-app-accessibly-options-for-apple-devices> (last visited Feb. 9, 2022); Xfinity, *Set Accessibility Options in the Xfinity Stream App for Android Devices*, <https://www.xfinity.com/support/articles/xtv-app-android-accessibility-settings> (last visited Feb. 9, 2022).

³³ See Comments of the National Cable & Telecommunications Association (NCTA) at 5 (Feb. 23, 2016), <https://www.fcc.gov/ecfs/filing/60001486398>; see also Comments of the Consumer Technology Association (CTA) at 4 (arguing that requiring caption display accessibility would “threate[n] to chill innovation”), <https://www.fcc.gov/ecfs/filing/60001486490>.

closed captioning interfaces is their “simplicity and ease of use” and would serve that important goal.³⁴

Proximity. In 2016, several of the Organizations urged the Commission to adopt its proposed proximity rule: to require user display settings to be accessible from no lower than the first level of a menu.³⁵ For example, the YouTube application on game consoles offers a first-level menu with options to turn the captions on/off and customize their appearance by clicking the “CC” button.³⁶ Similarly, CNN’s online video player requires a viewer to simply click the settings “gear” icon and select “subtitle settings”³⁷—though, as discussed below, the gear icon raises discoverability problems. We continue to believe that this straightforward proximity requirement would result in a vast simplification of the array of complex and convoluted interfaces that consumers routinely confront. By ensuring that viewers need not navigate a lengthy set of steps—or worse yet, be forced to leave the device on which they are watching a video program to navigate to settings via a web browser—the Commission will make significant inroads on ensuring that consumers can access caption display settings.

Discoverability. In addition to proximity, the Commission should require that caption display settings are prominent and easily discoverable by viewers. It should be simple and intuitive for any viewer to find the location of the caption display settings menu on devices and remote controls. Even if caption display settings are proximate to a

³⁴ *Accessibility of User Interfaces, and Video Programming Guides and Menus*, Report and Order and Further Notice of Proposed Rulemaking, MB Docket Nos. 12-107 & 12-108, 28 FCC Rcd 17,330, 17,380–81, ¶¶ 79–81 (2013); see also *Accessibility Requirements for Television and Set-Top Box Controls, Menus, and Program Guides*, Public Notice, MB Docket No. 12-108, 31 FCC Rcd. 13,300 (Dec. 19, 2016) (same).

³⁵ 2016 Comments at 6.

³⁶ E.g., Sony, *Display captions when watching videos on the YouTube app*, <https://www.sony.com/electronics/support/articles/00074269> (last modified Feb. 06, 2020).

³⁷ See CNN, *Videos*, <https://www.cnn.com/videos> (last visited Feb. 15, 2022), cited by 2016 Comments at 6.

user—e.g., under the first level of a menu—they are unlikely to be accessible if they are hidden under a button or icon that does not communicate to the user that there may be caption display settings under that menu. By way of example, while it is likely users could expect to find captioning settings under a button or icon labeled “Closed Captions,” “CC,” or “Accessibility,” they would have no way of knowing they could find such settings under a button or icon with an unfamiliar or generic description, such as “Information,” the “gear” icon used by the web versions of YouTube and CNN, the three-dots icon used by the iOS version of YouTube, or the “hamburger” icon used in Prime Video on Fire TV devices.³⁸

Previewability. The Commission should require that viewers be able to preview the appearance of caption display settings on programming appearing on their screen while making changes to these settings. A viewer may want to see how a particular color or font works with the show they are watching, but would have no way of doing so if they have to switch off the programming to access the caption display settings.

Consistency and Persistence. Finally, the Commission should require that user interfaces are consistent and persistent across devices and video platforms and across different applications on the same device. The dizzying array of procedures required to customize captions for the same service used on different devices, and for different services accessed on the same device, reduces the likelihood that viewers consistently will be able to adjust captions on the devices and services that they watch.

³⁸ See, e.g., <https://www.youtube.com/watch?v=BRMK77NUsyU> (last visited Feb. 16, 2022) (a randomly selected video showcasing YouTube’s web iconography); CNN, *Videos* <https://www.cnn.com/videos> (last visited Feb. 16, 2022) (showcasing CNN’s iconography); YouTube, *Video options on YouTube*, <https://support.google.com/youtube/answer/3227608?hl=en&co=GENIE.Platform%3DiOS#zippy=%2Ccaptions%2Czoom> (demonstrating YouTube’s iOS iconography); Amazon Prime, *Turn On Subtitles or Closed Captions on Fire TV*, <https://www.amazon.com/gp/help/customer/display.html%3FnodeId%3D201493150> (last visited Feb. 16, 2022) (instructing users how to identify Amazon’s iconography).

As several of the Organizations noted in 2016, both manufacturers and service providers should share responsibility to ensure accessibility.³⁹ Accordingly, the Commission should require these entities to collaborate to ensure that users are not subject to arbitrarily different procedures for accessing caption display settings across similar devices and services. We do not object to the Commission affording flexibility to minor variances in design to account for material differences in user interface paradigms for different devices and services. However, a user should be able to use substantially the same steps to customize the display of captions for a particular video programming service across all of their devices and across all services on a particular device, with the expectation that these settings will remain in place every time a device is used, or until the viewer readjusts them or turns them off.

Deadline. The Commission's initial proposed rules contemplated the possibility of a December 20, 2016 deadline for compliance with these caption display accessibility requirements. Consistent with that approach and given the substantial time the industry has had to address these improvements, the Commission should set a deadline of no longer than one year after the finalization of these rules for newly manufactured devices to come into compliance and for software updates to be made available to users for their existing devices.

III. The Commission has the necessary authority to require caption display settings to be readily accessible.

The Commission notes that the record developed in this proceeding generated significant substantive discussion on the Commission's authority under both the TDCA and Section 303(u)(1) of the Communications Act, as amended by the CVAA, to require caption display settings to be readily accessible.⁴⁰ As several of the Organizations

³⁹ 2016 Comments at 11.

⁴⁰ *CC Display Settings PN* at 1–3 (internal citations omitted).

explained in 2016, the Commission squarely possesses the authority under the TDCA, as amended by the CVAA, to enact the requirements described above.⁴¹

Persistent gaps in the accessibility of caption display settings since 2016 demand Commission action to fulfill the plain language and congressional intent of the TDCA.⁴² As indicated in the first round of this proceeding, we continue to agree with the Commission that “adopting rules requiring that consumers are able to readily access user display settings for closed captioning will ‘ensure that closed-captioning service continues to be available to consumers’” as required by the TDCA, “and, in particular, that enabling viewers who are deaf [or] hard of hearing to set caption display features, such as colors, fonts, sizes, and backgrounds, will ‘ensure that such individuals can benefit fully from digital television technologies.’”⁴³ Requiring caption display settings that are accessible is necessary to fulfill this statutory obligation and is consistent with a wide range of Commission precedent, including under the CVAA and other laws.

A. The Commission has authority to require caption display settings to be readily accessible under the plain language and intent of the TDCA.

The Commission’s 2016 conclusion that it has sufficient authority to facilitate access to closed caption display settings remains supported by the plain language of the TDCA.⁴⁴ The TDCA requires the Commission, “as new video technology is developed,” to take action “it determines appropriate to ensure that closed captioning services . . . continue to be available to consumers.”⁴⁵ Indeed, as many of the Organizations explained in 2016, the ability to easily access captions on television sets was the driving factor behind the TDCA, which eliminated the need to purchase and set up cumbersome

⁴¹ 2016 Comments at 3.

⁴² *Id.* at 10.

⁴³ *Second FNPRM*, 30 FCC Rcd. at 13,933–34, ¶ 35.

⁴⁴ *See* 2016 Comments at 3.

⁴⁵ TDCA § 4 (47 U.S.C. § 330(b)).

and bulky external captioning decoders by ensuring that caption decoders would be integrated into televisions.⁴⁶ For many viewers who are deaf or hard of hearing, customizing caption display settings using complex, convoluted, and difficult-to-find menus requires navigating precisely the type of barriers the TDCA sought to eliminate.

Ensuring easy access to caption display settings also is necessary to fulfill the TDCA's goal of ensuring that closed captions serve the maximum number of potential caption viewers, including those who are DeafBlind, those who are deaf and have mobility disabilities, and the increasing number of older Americans with hearing loss who also have vision loss. It was for this reason that the Commission invoked Section 4 of the TDCA to require closed captioning decoders in digital televisions to include the ability to alter caption size, font, opacity, foreground and background color, and edge attributes.⁴⁷

The Commission took this action to ensure “that television viewers universally can receive and read closed captions” in response to Congress’s concern with the readability of captions.⁴⁸ The display standards were intended to ensure that the “intent of the program producer, captioning agency, and program distributor is conveyed properly to the viewer.”⁴⁹ As the Commission further explained in 2015:

⁴⁶ 2016 Comments at 3 (detailing the history of difficult-to-use pre-TDCA external closed caption decoders) (citing S. Rep. 101-393, 1990 USCCAN 1438, 1440–41).

⁴⁷ See *Closed Captioning Requirements for Digital Television Receivers*, Report and Order, ET Docket No. 99-254, MM Docket No. 95-176, 15 FCC Rcd. 16,788, 16,790, 16,792–93, Summary of Requirements & ¶ 10 (Jul. 21, 2000) (“2000 DTV Captioning Order”) (explicitly rejecting a “one-size fits all approach to caption requirements” in favor of ensuring that the “deaf-low vision population and senior citizens” could use color contrast, larger character sizes, and fonts that would provide them with access to effective captioning).

⁴⁸ See 2016 Comments at 4 & nn.5–6 (citing 47 U.S.C. 330(b) (adopting “display specifications set forth in the Public Broadcasting System engineering report numbered E-7709-C dated May 1980”) and quoting S. Rep. 101-393, 1990 USCCAN 1438, 1446).

⁴⁹ See *id.* (quoting S. Rep. 101-393, 1990 USCCAN 1438, 1446).

[W]hen the Commission adopted the technical standards [in adopting technical display standards for digital television receivers], it explained that **the “capability to alter fonts, sizes, colors, backgrounds and more, can enable a greater number of persons who are deaf and hard of hearing to take advantage of closed captioning.”** Notably, the Commission concluded that “[o]nly by requiring decoders to respond to these various [display] features can we ensure that closed captioning will be accessible for the greatest number of persons who are deaf and hard of hearing, and thereby achieve Congress’ vision that to the fullest extent made possible by technology, people who are deaf or hard of hearing have equal access to the television medium.”⁵⁰

Requiring the contemporary versions of these display standards to be accessible would directly serve the TDCA’s goal of ensuring that captions are readable and afford equitable access to video programming. Simple and easy access to caption display settings is essential to making closed captioning “available” to viewers who are deaf, hard of hearing, or DeafBlind.⁵¹ If caption display settings are not proximate, discoverable, previewable, and consistent and persistent, then closed captioning itself will not be “available” because viewers will be not be able to use captions to fully and effectively understand video programming.⁵²

Indeed, it would be an absurd result and starkly contravene Congressional intent if the Commission required caption decoder functionality but did not ensure that manufacturers and service providers took the necessary steps to ensure that viewers who are deaf, hard of hearing, or DeafBlind can actually use the captions to access video programming. As noted above, the Commission affirmed this reasoning when it relied on

⁵⁰ See *Second FNPRM*, 30 FCC Rcd. at 13,933, ¶ 34 (internal citations omitted) (emphasis added).

⁵¹ 2016 Comments at 3.

⁵² See, e.g., *2014 Closed Captioning Order*, 29 FCC Rcd. at 2239-40, ¶ 23 (“identify[ing] captioning quality standards” to ensure that captions fully and effectively convey the content of television programming to viewers who are deaf or hard of hearing).

the TDCA in the *2000 DTV Captioning Order* to first establish requirements for a full range of caption display settings during the transition to digital television.⁵³

Requiring caption display settings to be proximate, discoverable, previewable, and consistent and persistent is not only consistent with the text of the TDCA; it is the logical next step for the Commission to meaningfully advance its goal of removing technical barriers to ensure the usability and readability of captions. Even more importantly, it is a necessary step to fulfill Congress's objective "to the fullest extent made possible by technology," to afford viewers who are deaf or hard of hearing with "equal access to the television medium."⁵⁴

B. Requiring caption display settings to be readily accessible is consistent with other federal video programming accessibility laws and Commission precedent implementing those laws.

Likewise, a requirement facilitating access to caption display settings is consistent with other federal video programming accessibility laws and Commission precedent implementing those laws, including regulations promulgated to implement the 1996 amendments to the Communications Act requiring closed captioning and the CVAA's various captioning-related mandates. As many of the Organizations explained in 2016, the Commission consistently has relied upon this string of federal laws to address barriers to the accessibility of video programming through closed captioning.⁵⁵

For example, in 2008, to ensure the continued availability of captions, the Commission relied upon the 1996 captioning mandates to clarify that its four-year captioning exemption for new television networks did not apply to networks that were merely shifting from analog to digital transmissions; meaning, there would be no "digital

⁵³ See *2000 DTV Captioning Order*, 15 FCC Rcd. at 16,792–93, ¶ 10.

⁵⁴ TDCA § 2(1).

⁵⁵ 2016 Comments at 5.

exemption” to the captioning obligation.⁵⁶ Likewise, in 2014, the Commission established strict captioning standards for the non-technical components of closed captioning, which it emphasized were necessary to fulfill Congress’s mandate to ensure fully accessible television programming for viewers who are deaf or hard of hearing.⁵⁷ These standards were necessary to ensure that captions effectively convey the content of television programming to people who cannot hear the audio track,⁵⁸ highlighting that the Commission has wide latitude to ensure that captions are not merely provided as a matter of course but actually fulfill the purpose of ensuring equitable access to video programming.

These examples underscore the need for the Commission to act now to ensure that viewers can access the display settings adopted under the TDCA to the full range of apparatuses and navigation devices on which video programming can be viewed. Doing so will fulfill Congress’s intent to ensure that closed captions provide equitable access to video programming for viewers who are deaf, hard of hearing, or DeafBlind.

⁵⁶ *Closed Captioning of Video Programming*, Declaratory Ruling, Order and Notice of Proposed Rulemaking, CG Docket No. 05-231, ET Docket. No. 99-254, 23 FCC Rcd 16,674, 16,678–80, ¶¶ 11, 13 (2008).

⁵⁷ *2014 Closed Captioning Order*, 29 FCC Rcd. at 2238–39, ¶ 23.

⁵⁸ *Id.*