Digital Accessibility Manual Testing Procedures

I.   Introduction

Dakota State University announced a Digital Accessibility Policy, that sets forth accessibility expectations, all new digital content created and used internally at the University, as well as technology systems, platforms, and applications bought or built by the University. The Policy calls for the University to publish digital accessibility manual testing procedures to provide guidance for site owners, content managers and technology support staff.

II.   Manual Testing Procedures

Automated testing tools speed up the process of evaluation and allow for regular monitoring. However, human evaluation is also essential to assessing a website's accessibility because no single tool can determine to what extent a site conforms to the Standards.

Testing Procedure and Protocols:

For the purposes of this policy, testing must address these protocols and questions, which only represent a starting point, rather than a comprehensive set, for assessing digital technology to ensure access to people with disabilities.

For web pages: Check the following across different browsers using different types of hardware (for documentation, please specify the browsers by version and different desktop/laptop configurations):

Keyboard access: Can users access all functions and content, and complete all tasks, independently by using only the keyboard (<tab>, <enter>, <spacebar>, <esc>, and arrow keys)? Verify in particular:

There are no keyboard traps that would prevent a user from advancing through the entire page, such as an automatically-refreshing social media embedded feed (tip: try to tab very, very slowly through any such feed to observe whether a user can close it, or move past it, at a reasonable point; if the feed keeps refreshing by automatically adding additional entries to be shown, it causes a trap for those who are unable to use quick keyboard strokes – or a mouse – to navigate); Expandable elements can not only be expanded, but can also be collapsed automatically or with a keyboard command, so they do not block other content.

Logical reading order: Does keyboard navigation follow a logical, predictable order?

Skip links: Can keyboard-only users bypass long navigation menus, embedded social media feeds, etc., without having to use excessive tabbing?

Visual focus indicator: Can users visually track where they are on the page while navigating with a keyboard?

Alternative (Alt) text: Are all important images and graphics labelled with meaningful text, associated captions, or adjoining descriptions so, for example, people who are blind and use assistive technology will have access to the relevant information contained in the image or graphic? For linked images, does the alternative text tell users where the link will take them, rather than describe the image?

Links: Are links well-named and unambiguous so users who are blind – without having to read nearby content – will understand the purpose and destination of each link? Common examples of ambiguous

link names include "click here," "read more," "see all," "http://…"-type, or "event notice," and other ambiguous phrases.

Color alone: Are there any instances where color alone distinguishes an object or state? If so, add another way to distinguish the object or state. For example, make sure color is not the only way to distinguish link text from the surrounding paragraph text, and ensure color-coding is not the exclusive way used to convey important calendar dates (e.g., "no school" dates are marked in purple).

Color contrast: Using an eyedropper tool or other manual method (automated testing is generally insufficient unless manually verified), is there at least a 4.5:1 contrast ratio for normal size text and a 3:1 contrast ratio for large scale text, comparing foreground and background colors of all text elements and text inside graphics? Text inside logos can be ignored for these purposes.

Tables: Does the page avoid using layout tables? If data tables are present, are they necessary to convey information, or could a more accessible means of presentation be considered instead? If a data table is used, is it simple, cells span multiple columns or rows? Are column and row headers programmatically labelled?

Buttons, form controls, and other operable elements: Are they labelled appropriately, both programmatically and visually? Do the visual labels continue to be properly associated with the elements when the screen is enlarged? If the elements have different states (such as form fields that are required for successful submission), are those conveyed by something other than color alone?

Heading structure: Are headings programmatically labelled with a meaningful hierarchy, so people who are blind and using a screen reader can navigate a page according to its headings, listen to a list of headings, and skip to where they want to begin reading?

Embedded videos and slide carousels: Where there are embedded videos or carousels, if they launch or rotate automatically, is that behavior necessary? If so, can a user pause or stop the video or carousel, and later replay the video or carousel, with keyboard commands? The ability to stop the video or carousel rotation can be important, not just while users are on the video or carousel, but while they are in other parts of the page.

Magnification: Have you re-tested everything when content is magnified to the "point of reflow," or in "responsive mode," when the formatting changes to be more mobile friendly (typically around 200% on standard laptop screens)? Are all contents and all functionality preserved and useful?

Paying particular attention to any "hamburger menus," or expandable menus, can they be opened, navigated (including any sub-level items), and closed automatically or easily with the keyboard?

Is logical reading order on the page preserved, without the need to scroll right to left? If vertical scrolling is required inside windows or objects, can it be done with the keyboard?

Do elements meant to be together (such as form labels and text entry boxes) stay together upon magnification?

For electronic documents: In addition to addressing the questions above, have you conducted an accessibility review of your documents using the software's accessibility checker (e.g., "Check Accessibility" feature in Microsoft Word, "Accessibility Check" feature in Adobe Acrobat Pro DC, etc.)?

For videos: Is captioning present or is a transcript available? Transcripts should only be used when the audio can be fully understood separately from viewing the video and does not reference video content.

Does the captioning or transcript meaningfully convey the contents of the audio track (not just phonetically)?

Does the captioning or transcript indicate the names or appropriate descriptions of the speakers, if more than one person is speaking?

Does the captioning or transcript use capitalization and punctuation appropriately, if that is important to understanding the contents?

Is important on-screen information also conveyed audibly, so people who are blind or have low vision have access to the contents?

For social media posts: If graphic images are used, are they accompanied by text that conveys the same information?

If videos are used, are they accessible as described above?

Related Documents, Forms and Tools

- **XXX [INSERT LINK]**
- **XXX [INSERT LINK]**

Procedure History

Adopted: XX/XX/XXXX

Revised: XX/XX/XXXX

Revised: XX/XX/XXXX