## **Background**

In 2016, Wichita State University (WSU) reached an agreement with the National Federation of the Blind (NFB) that required the university undertake an audit of all student facing Electronic and Information Technology (EIT), defined as “all of WSU's student facing systems and websites, all LMS's used in conjunction with any WSU courses, and all technology used or provided for use by students on the WSU campus.” Additionally, the agreement with requires that “Within 60 days after the completion of the Technology Accessibility Audit, the [Educational Accessibility Technologist] (EAT) will provide written audit findings and recommendations on accessibility improvements to the Accessibility Coordinator.”

## **Scope**

The EIT audit includes the main WSU campus, as well as four remote campuses—WSU West, WSU Old Town, the Metropolitan Complex, and Shocker Studios.

## **Announcements**

Information regarding what student-facing EITs were available across WSU began with internal organization in the MRC. A list of all the common EITs was built from the technologies that are widespread in their campus use, both digitally and physically. In order to account for EIT that is highly specialized, an email was sent out to all university department chairs, requesting that they provide the EAT with a comprehensive list of all student facing tools used in their curriculum as well as tools provided to students outside of class.

## **Methodology**

In preparing to conduct this audit of all electronic and information technology (EIT) found and used at Wichita State University, the Instructional Design and Access department introduced, discussed, and became familiar with the standards laid out in the agreement with the National Federation of the Blind (NFB). These standards included, but were not limited to, ADA, WCAG 2.0 (A and AA), Section 504, and Section 508, although the latter was not explicitly named in the agreement. The EAT researched and trained the IDA staff on all of these standards over several weeks.

The EAT developed a comprehensive rubric for all EIT. This rubric is composed of twenty-one sections. Two of these sections, the first and last, provide brief identifying information about the specific EIT in question and offer overall observations and a summation of what elements of each EIT will need to be remediated and how that might potentially be accomplished. All other sections are structured as a battery of accessibility questions that all EIT must be run through, whether they are applicable to every tool or not.

The Educational Accessibility Technology (EAT) for Wichita State began looking at EIT that were familiar across campus, including the university’s learning management system (LMS), Blackboard, and common tools, such as PowerPoint, Microsoft Word, and YouTube. To identify and isolate more advanced tools, an email was sent to all WSU department chairs requesting that they comply with this audit by compiling and providing a list of all EIT used in their offerings. Many of these tools could be accessed remotely for the purposes of this audit; some required on-site access to review.

In addition to the EAT, employees working with the Ablah Library conducted a review of the different content databases associated with that department. Information Technology Services (ITS) provided review notes on their specialized tools that were locked to specific times of the year, such as the graduation Commencement RSVP system, and tools that were only available to users with international student status in the system.

## **A Breakdown of the EIT Rubric Sections**

#### **Cursory Review Information**

This section collects basic information about the specific tool being audited. This section asks for the name of the auditor, the EIT name and type, the physical or digital location of the EIT, the department responsible for this EIT, the publisher or contractor of the tool, and the nature of use, whether it be education, recreation, retail, etc.

#### **Nature of EIT**

This section simply asks for clarification in regards to whether the EIT is physical or digital in nature.

#### **Audio**

This section determines the accessibility features of potential audio attached to a tool. This section asks the auditor to determine if the tool contains audio, is audio is live or pre-recorded, if audio plays automatically, if audio contains accurate transcripts, and if audio contains accurate closed captions.

***Video***

This section determines the accessibility features of potential video attached to a tool. This section asks the auditor to determine if the tool contains video, if video is live or pre-recorded, is video contains alternate description, and if videos can be resized.

#### **Images**

This section determines the accessibility features of images attached to a tool. This section asks the auditor to determine if the tool contains images, if images contain fully developed alternative text (alt tags), if images contain information, and if any information conveyed in images is also delivered in an alternative format.

#### **Text**

This section determines the accessibility features of text attached to a tool. This section asks the auditor to determine if the tool contains text, if there is a native option for text to be read out loud, if text is selectable or if it’s an image of text, if text is large enough to be seen from an acceptable distance, if the user can resize text without the loss of content or function, and if color contrast found between text and the background is easily readable.

#### **Documents**

This section determines the accessibility features of documents attached to a tool. This section asks the auditor to determine if the tool contains documents, if documents are available in PDF, and if documents are appropriately tagged.

#### **Links**

This section determines the accessibility features of links attached to a tool. This section asks the auditor to determine if the tool contains external links and if links are properly formatted as self-described hyperlinks as opposed to raw URL.

#### **Use of Color**

This section determines whether or not a tool contains color used as the sole means of conveying emphasis or information.

#### **Keyboard Navigation**

This section determines the proficiency of keyboard navigation found in a digital tool. This section asks the auditor to determine if a tool is fully navigable with a keyboard alone, if keyboard navigation is visible to the user at all times, and if the tool contains keyboard traps.

#### **Content Navigation**

This section determines the organization of content found in both digital and physical tools. This section asks the auditor to determine if the user is required to navigate through content while operating a particular tool, if content pages contain clear and helpful page titles, if navigation is logical, if content pages contain a clear and consistent navigation menu, if icons and/or buttons are consistent in a tool, if needlessly complicated navigation is present, if users have the option to “Skip to Content,” if a sitemap is available, and if the tool has a search function.

#### **Language**

This section asks the auditor to determine whether a digital tool has an assigned language in the coding and if it is made clear to the user when the language changes.

#### **Change in Focus**

This section asks the auditor to determine whether a tool experiences a change in focus, such as an automatic pop-up.

#### **Change on Input**

This section asks the auditor to determine whether a tool experiences a change on input, such as a fillable form updating without the user pressing “Submit.”

#### **Error Identification**

This section determines how potential errors are handles in a tool. This section asks the auditor to determine if the tool clearly identifies when a user error has occurred, if suggested fixes are made available when errors occur, and if errors that have potential legal and/or financial consequences, or errors that may potentially affect test data, are reversible, verified, and confirmed for the user.

#### **Labels and Instructions**

This section asks the auditor to determine if the tool contains properly labeled elements and instructions when necessary.

#### **HTML/XHTML**

This section asks the auditor to determine if the tool contains any notable HTML/XHTML errors.

#### **Moving, Blinking, and Scrolling (Dynamic) Content**

This section determines if the tool contains dynamic content that could pose a problem. This section asks the auditor to determine if a tool contains content that moves, blinks, scrolls, or auto-updates, if users have the option to control the frequency of dynamic text or content, and if media flashes more than three times per second.

#### **Time Restrictions**

This section determines if the tool contains time restrictions on content. This section asks the auditor to determine if the tool contains time restrictions, if users have the option to adjust time restrictions, if users have the option to deactivate time restrictions, and if users are blocked from accessing the tool or elements of the tool when time has expired.

#### **Physical Interaction**

This section determines if tools that require physical interaction contain appropriate accessibility measures. This section asks the auditor to determine if the user must physically interact with a tool; if the tool is freestanding, non-portable, and intended to be used in one location; if biometric forms of identification or control are required in operating this tool and if alternative means of identification or activation are provided; if operable controls are accessible from the 48-inch vertical plane; and if operable controls reside ten inches or less behind the reference plane of a tool, and if so, is the height of the operable control within a window of 15 inches to 54 inches above floor level or, if not, are operable controls are more than 24 inches behind the reference plane.

#### **Summary and Suggested Remediation**

This section asks the auditor to provide some overall thoughts on each specific tool, including whether or not there are currently existing offerings or services that are equivalent to the tool, any overall impressions about the accessibility of the tool, and any suggested remediation could be made to address accessibility concerns with the tool.