
Accessibility Roadmap for Tertiary Institutions

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ABSTRACT

Tertiary education is in the unenviable situation of operating like a large business whilst often struggling with access to funds like a small-to-medium business. However, all tertiary education institutions are alike and therefore it is possible to provide a standardized roadmap that can be used across organizations. Gian Wild has developed a roadmap that is applicable to all different types of tertiary institutions, and that can take them from knowing nothing about accessibility to incorporating accessibility into every aspect of operations. This roadmap consists of five phases: (1) Quick wins, (2) Develop an Accessibility Plan, (3) Ensure websites and applications meet accessibility requirements, (4) Develop accessibility knowledge within the institution and (5) Promote accessibility compliance.

Keywords: Accessibility, Tertiary education, Higher education, College, University, Accessibility action plan, WCAG, Section 508, Disability

INTRODUCTION

Tertiary education institutions have unique web accessibility requirements. These institutions consist of every different type of research, along with teaching, marketing and e-commerce requirements, like promoting courses, collecting fees and providing course materials. They also have very specific accessibility requirements, often with teeny-tiny budgets! However, as different as these institutions are from other organizations, the more similar they are to one another. Often these organizations are fully aware of student accessibility needs, but online accessibility is often left behind (Galanek and Gierdowski, 2019). This article covers the various phases of an online accessibility roadmap that suits a variety of tertiary institutions.

PHASE A: QUICK WINS

Quick wins, incorporating issues such as building an accessibility committee, developing a Disability Reference Group and Accessibility Champion, funding Disability Services, developing accessibility resources and capturing accessibility complaints.

Build an Accessibility Committee

Create an accessibility committee within the tertiary institution to oversee the ensuing accessibility projects. Both staff and students should be included.

The following groups must be represented in the committee: HR; Library; Faculty; IT; Student Services; Disability Services; Student Affairs; Academic affairs, such as the provost, deans, department chairs, etc.; Academic senate, such as the college council, council of chairs, etc.; Student affairs; Office of Technology Services or similar campus IT unit; Business outreach units; and Change and Release management.

It is recommended that some members of this accessibility committee are funded to attend at least one accessibility conference per year. The recommended accessibility conferences are:

- CSUN Assistive Technology Conference in Anaheim, California in February/March (University et al., 2014)
- Equity & Excellence: Access in Higher Education Conference in various locations and on various dates (ahead.org, n.d.)
- Accessing Higher Ground in Denver, Colorado in November (Accessing Higher Ground, n.d.)

Develop a Disability Reference Group

A Disability Reference Group is a volunteer group consisting of people with various types of disabilities, including:

- Vision impairments
- Hearing impairments
- Physical impairments
- Cognitive impairments
- Language difficulties
- Speech difficulties

The Group can consist of students and staff and should meet with the Accessibility Committee. While processes are being put in place to ensure accessibility compliance, the Disability Reference Group can be used as a sounding board for any policies, or to conduct testing of certain websites and applications. It is important to note that this testing cannot take the place of proper WCAG2 testing, but it will identify serious accessibility issues while the tertiary institution is addressing accessibility compliance.

Appoint an Accessibility Champion

To begin, appoint an accessibility champion. Give this person(s) the authority to interpret, edit, implement and enforce the accessibility roadmap.

Senior leadership should empower this person(s) and give them the authority to update and change the roadmap when necessary. They should have the ability to give (new and updated) tasks to employees throughout the tertiary institution so that the roadmap is successfully carried out and maintained over time.

To enable the accessibility champion to carry out the necessary and appropriate tasks to ensure success, clearly designate accessibility roles and responsibilities throughout the tertiary institution within each phase and action point of the roadmap. The tertiary institution leadership should be

intimately involved with this process and communicate their commitment and enforcement of the designated roles and responsibilities.

It is important to make accessibility management part of the accessibility champion's official job expectations. Reduce other job expectations to give them time to dedicate to the roadmap. Provide a monetary incentive to the person(s) that step up and take on the role.

Hire Additional Disability Services Staff

In anticipation of promoting these services, more staff should be hired to assist in creating accessible formats and consulting with Faculty. It is expected that during the implementation of the roadmap that the Disability Services staff will need to take on the majority of Faculty accessibility work. Once the roadmap is implemented, this should be more evenly distributed between Faculty, with Disability Services playing an advisory role.

It is important that accessibility services provided by Disability Services are not publicized to Faculty until it is appropriately staffed.

The following full-time roles are recommended. More roles may become apparent during the implementation of the roadmap:

- Two to three staff skilled in document accessibility: PDF tagging, creating accessible Word, Excel and PowerPoint documents. A person with an administrative role would be able to take on this job with appropriate training. These staff will be responsible for making lecture documentation accessible while Faculty is trained up to take over this task.
- One staff member skilled in digital assistive technologies: screen readers, onscreen magnifiers, joysticks, Braille keyboard etc. This person will be responsible for assessing a student's requirements for assistive technologies, suggesting assistive technologies to existing students, and providing training as required.
- Approximately 20 students to take on tasks such as writing transcripts, captions, audio descriptions, testing websites, identifying owners of content, etc.

Develop Accessibility Resources

Develop a website of accessibility resources available to all staff, especially Faculty. Information could include:

- How to make videos accessible
- How to make maps accessible
- What to do if a student has a disability
- How to contact Disability Services
- Web form for reporting web accessibility issues

Provide a Communication Method for Staff and Students to Comment on Accessibility

Create a grievance procedure compliant with Section 504 (Office for Civil Rights, 2008). Provide and publicize a mechanism by which students, faculty, staff, and members of the public can report access barriers.

Create an online accessible form and modify templates so that a link to this form appears in the footer of all websites. Where this is not possible, ensure that a link is provided on the homepage and any appropriate page of the website.

Train any phone helpdesk staff to recognize an accessibility complaint and escalate it to the Accessibility Committee immediately.

Any accessibility complaint should be responded to within 24 hours (this does not mean that the issue needs to be rectified in this timeframe). Fixes should be completed as soon as possible. If a fix cannot be completed immediately for a time-sensitive request, then a member of Disability Services should get involved to assist the student, staff member or other to ensure that they meet their requirements immediately. This may involve a staff member submitting a form for a person or reading aloud sections of a textbook. This type of work will be immediate and therefore a standard budget should already be allocated so that work can commence immediately.

PHASE B: DEVELOP AN ACCESSIBILITY PLAN

Develop an Accessibility Plan, incorporating issues such as writing an accessibility statement, developing an Accessibility Action Plan, adding accessibility to tertiary institution policies and procedures, communication the Accessibility Plan and the changes to the tertiary institution policies and procedures.

Write an Accessibility Statement

The Accessibility Committee should develop an Accessibility Statement appropriate to the tertiary institution. This should be approved by Executives as an indication of the tertiary institution's commitment to accessibility. Examples of an accessibility statement are:

- “The tertiary institution is committed to diversity and proudly supports people with disabilities in their further education.”
- “Temple University is committed to providing students, faculty and staff with access to its facilities and the technology and information they need to succeed in and out of the classroom, and that these resources are accessible in accordance with applicable law.” (temple.edu, n.d.).
- “We are committed to providing equitable access to library resources and services, mindful of accessibility standards, user feedback, and support and accommodations for persons with disabilities. We advocate for equitable experiences in light of universal design to make the Gottesman Libraries more welcoming, accessible, and usable for all members and affiliates.” (Teachers College - Columbia University, n.d.).

Develop an Accessibility Action Plan

The Accessibility Action Plan provides additional detail to each section of the roadmap, including:

- Dates for each of the requirements;
- People or roles assigned to each of the requirements;
- Estimated effort for each of the requirements.

The Accessibility Committee should create an Accessibility Action Plan for both internal institutional use and current and potential students and staff. Provide contact information for the accessibility point of contact. Provide an appointed person's email address who will quickly respond to questions, comments and inquiries - not a general email address or the help desk.

These should be reviewed on an annual basis. Require that grant proposals must include a budget line item for accessibility. Avoid ad-hoc solutions to individual requests for accommodation and resolve globally. What penalties are in place, e.g., for purchasing inaccessible software? How will training be available for staff and faculty? What types of testing will take place and how often?

Digital technologies utilized by the tertiary institution for their students should be evaluated across the institution. Evaluation should be conducted by compliance experts qualified in the best practices and knowledge of the following standards:

- WCAG 2.0 (W3C, 2008), WCAG 2.1 (W3C, 2018) and WCAG 2.2 (W3C, 2023);
- Americans with Disabilities Act of 1990 (ADA) (ADA.gov, 1990) and the Amendments Act of 2008 (U.S. EEOC, 2008);
- Section 504 of the Rehabilitation Act of 1973 (U.S. DOL, 1973);
- Section 508 of the 1973 Rehabilitation Act as amended (section508.gov, n.d.);
- Section 255 of the Federal Telecommunications Act (fcc.gov, n.d.);
- Twenty-First Century Communications and Video Accessibility Act of 2010 (FCC, 2011);
- W3C's WCAG 2.0 A and AA (U.S. DOC OCIO, n.d.), Authoring Tool Accessibility Guidelines (ATAG) 2.0 (W3.org, 2015), User Agent Accessibility Guidelines (UAAG) 1.0 (W3.org, 2002), WAI-ARIA 1.0 (W3.org, 2014), MathML (W3.org, n.d.), WCAG2ICT (W3C WAI, 2022), DAISY (The DAISY Consortium, n.d.), EPUB 3 (W3.org, 2023), W3C Media User Requirements (W3.org, 2015), Mobile Web Best Practices and WCAG2 (W3C WAI, 2018), Mobile Accessibility: How WCAG2 and other W3C guidelines apply to mobile (W3.org, 2015);
- The BANA Guidelines and Standards for Tactile Graphics (2010) (BANA, 2012) along with any successors to those standards that become effective during the life of the policy.

It may be necessary to develop different Accessibility Action Plans for different areas of the tertiary institution.

Add Accessibility to the Tertiary Institution Policies and Procedures

A specific Accessibility Policy should be developed, similar to any current policies. This policy will mean that there will not be as many changes to existing policies and procedures.

Reference to accessibility should be included in relevant the tertiary institution policies and procedures, such as:

- Student Academic Code of Ethics;
- Student Code of Conduct;
- Emergency Notification;
- Admissions.

Communicate the Accessibility Plan, Changes to the Tertiary Institution Policies and Procedures

When the Accessibility Statement, Accessibility Action Plan and changes to policies and procedures have been approved, it is important to communicate these changes to staff and Faculty. These could be communicated via an email sent to all staff, in conjunction with a series of accessibility seminars (see Phase E).

PHASE C: ENSURE WEBSITES AND APPLICATIONS MEET ACCESSIBILITY REQUIREMENTS

Ensure websites and applications meet accessibility requirements, incorporating issues such as ensuring all future tertiary institution websites and applications are accessible, creating an inventory of ICT, identifying websites and applications to be tested, contacting vendors and undertaking fixes.

Ensure All Future Tertiary Institution Websites and Applications are Accessible

Ensure budget is allocated to make all future the tertiary institution websites and applications accessible prior to launch. This can be achieved by:

- Ensuring accessibility requirements are included in the RFQ (if the project is outsourced);
- Ensuring accessibility requirements are included in any Functional Specifications;
- Training developers and content authors;
- Testing wireframes and designs;
- Testing templates;
- Testing the final site.

Create an Inventory of ICT (Software, Websites, Classroom Technologies, Videos)

Create a list of all ICT within the tertiary institution, including any known accessibility problems. This can be done by checking products' documentation, asking others about product accessibility (e.g., through the Access Technology Higher Education Network [ATHEN] mailing list [athenpro.org, n.d.]) and evaluating products. Check for Vendor Product Accessibility Templates (VPATs) (section508.gov, n.d.). Check and update vendor contracts for an accessibility clause. Check recent ICT procurements—did they have accessibility language?

Identify Websites and Applications to Be Tested

Identify which should be fully tested or have just a high-level evaluation. In some cases a system may need to be rebuilt. Identify videos that require alternatives (transcripts, captions and audio descriptions). Identify PDFs that have not been tagged.

Conduct Testing

For each website or application identified, the tertiary institution should decide what level of testing should be conducted: none; high-level accessibility evaluation; or a detailed accessibility audit.

If testing is not being conducted on a web site, *it is essential that an accessibility form for any complaints* is available on the website and linked from every page.

High-level accessibility evaluations should be conducted for websites or applications that cannot be edited or modified by the tertiary institution, such as Blackboard, virtual tours, twitter feeds etc.

Detailed accessibility audits should be conducted for websites and applications that are aimed at the public, specifically aimed at people with disabilities, are required in order to communicate or engage with the tertiary institution or which have received accessibility complaints.

The tertiary institution should consider outsourcing this testing to an accessibility firm. If the testing will be conducted in-house, the tertiary institution must undertake training on testing. the tertiary institution will also need to purchase an automated accessibility testing tool to assist in the testing process.

Contact Vendors

Once testing has been completed, the tertiary institution should reach out to applicable vendors and share the accessibility results and request that they be fixed.

Undertake Fixes

Once testing has been completed the tertiary institution should undertake fixes on their own websites and applications.

PHASE D: DEVELOP ACCESSIBILITY KNOWLEDGE IN THE TERTIARY INSTITUTION

Develop accessibility knowledge in the tertiary institution, such as providing training for web staff, faculty and Disability Services.

Provide Training for Web Staff, Faculty and Disability Services

There is a variety of training that can be provided. For instance, training aimed at web staff can include accessibility activities to perform at key stages of the web development lifecycle; how to write content such as ALT attributes, link text and headings; and how to write accessible code such as forms, tables and JavaScript. Training aimed at faculty and Disability Services

can include an overview of the types of disabilities, assistive technologies etc.; how to write accessible content; how to create accessible documents, such as Word, PDF and PowerPoint; and how to provide accessible video through developing transcripts, captions and audio descriptions.

PHASE E: PROMOTE ACCESSIBILITY COMPLIANCE WITHIN THE TERTIARY INSTITUTION

Promote accessibility compliance within the tertiary institution, by running frequent accessibility sessions and developing case studies.

Run Frequent Accessibility Sessions

These should be available to all staff, recorded and catered. Consider bringing in external speakers, as well as internal staff. Use these sessions to communicate with staff and assess their accessibility knowledge and motivations.

Develop Case Studies

Develop case studies of accessibility projects and share them across the tertiary institution.

CONCLUSION

There are five phases that are recommended to improve accessibility within a tertiary education institution: Phase A: Quick Wins; Phase B: Develop an Accessibility Plan; Phase C: Ensure websites and applications meet accessibility requirements; Phase D: Develop accessibility knowledge in the tertiary institution; and Phase E: Promote accessibility compliance at the tertiary institution.

Phase A consists of providing supporting resources for building the awareness and knowledge of accessibility within a tertiary institution, including building an accessibility committee that can direct accessibility resources; developing a Disability Reference Group that can advise on accessibility needs; and appointing an Accessibility Champion that can take a leading role in increasing accessibility awareness. In addition to these three tasks, it is also recommended to hire additional Disability Services staff and develop accessibility resources to support increased accessibility needs within the organization; and provide a communication method for staff and students to comment on accessibility issues.

Phase B consists of documenting accessibility requirements within a tertiary institution, including writing an accessibility statement to indicate the institution's commitment to accessibility; developing an Accessibility Action Plan to direct and inform the accessibility roadmap of the institution; and adding accessibility requirements to tertiary institution policies and procedures to provide technical detail on accessibility compliance. In addition to this, it is recommended that there is comprehensive communication of the Accessibility Plan, including changes to policies and procedures so that all staff are aware of these updates and what they entail.

Phase C consists of technical updating of ICT to ensure accessibility compliance, including ensuring all future tertiary institution websites and applications are accessible, to ensure that accessibility is front-of-mind. To address existing ICT, it is recommended that an inventory of ICT is conducted to identify all possible systems that require accessibility review. Once this is completed it is recommended that websites and applications be categorized to determine which require high-level accessibility evaluation; which require a full evaluation; and which need to be completely rebuilt. This should be followed by testing and evaluation of vendors to support the technical accessibility testing. Once a system has been tested, the errors identified need to be fixed.

Phase D consists of increasing accessibility knowledge in the tertiary institution, through providing training to web staff, faculty and Disability Services.

Phase E consists of promoting accessibility compliance within the tertiary institution by running frequent accessibility sessions for staff and developing case studies of successful accessibility projects.

Hopefully this roadmap can assist tertiary education institutions across the world, when dealing with accessibility. It is the researcher's desire that institutions can utilize this document and spend money on improving accessibility within the organization, instead of on developing roadmaps.

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