Impact Statement
for Proposed Policy: Accessibility of Cornell Web sites

Responsible Executives:  Vice President for Information Technologies and Vice President for University Communications
Representing Offices: Information Technology Policy and Office of Web Communications

I. Background
This impact statement proposes that Cornell University approve the development of a policy to adopt Web accessibility standards for official Web sites that are paid for with Cornell University funds and/or hosted on its servers. The federal government requires its agencies to comply with the Rehabilitation Act of 1973, 29 U.S.C. 794d, “Section 508” (29 U.S.C. 794d, subpart B 1194.22 “Web-based intranet and internet information and applications”).

Currently, higher education is not required to comply with these standards. This proposed policy initiates proactive adoption of these standards in anticipation of federal mandate. More important, a Cornell Web accessibility policy comports with our founding motto, “Where any person can find instruction in any study…”

“Web Accessibility” refers to the practice of making Web pages accessible to all users, especially those with disabilities, by applying specific principles for Web page design and programming that enable assistive technologies to function properly. Assistive technologies are adaptive, rehabilitative devices that promote greater independence for individuals with disabilities by changing how these individuals interact with technology. Such devices include screen-reading software, which can read aloud for the user the details of material displayed on a monitor.

Web accessibility standards evolve with technology. Currently, the two most widely accepted standards for Web accessibility are the aforementioned Section 508 and the Web Content Accessibility Guidelines (WCAG) of the World Wide Web Consortium (W3C). For more information about W3C’s Web Accessibility Initiative, see www.w3.org/WAI/.

Higher education institutions have taken varied approaches to Web accessibility standards, some choosing W3C or Section 508, others choosing to adopt “hybrid” standards.

The responsible offices, together with relevant stakeholders, have considered carefully all three approaches. These offices recommend that Cornell’s policy be based on the Section 508 standard for the following reasons:

• W3C’s guidelines are undergoing considerable revision at this time, and may change significantly, even while Cornell’s policy is moving through the approval process.
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- Because current law requires federal agencies to abide by Section 508, and many states have followed suit, including New York State, it is highly likely any similar legislation for higher education would adopt Section 508 as the standard.
- Checklists, software, and other tools already exist to help Web developers assess their sites’ compliance with Section 508.
- A hybrid approach would render existing checklists and diagnostic tools for assessing compliance useless to Cornell Web developers. New tools would have to be created in-house. Moreover, these tools and standards would have to be reworked to conform to any potential federal or state mandates.

II. Policy Statement
All official Web pages within the Cornell University Web space, including but not restricted to those within the cornell.edu domain, those paid for with university funds, and/or those residing on university servers, must be made accessible to the widest range of users, including those with the more common sensory, motor and cognitive disabilities. To that end, all official pages within the Cornell University Web space must maintain all requirements of Section 508 of the Rehabilitation Act of 1973.

III. Reason for Policy
Cornell University is committed to a diverse and inclusive educational and work environment that encompasses its presence on the World Wide Web. Consequently, Cornell voluntarily adopts “Section 508” standards to enhance accessibility to the widest range of users, including those with the more common sensory, motor, and cognitive disabilities.

IV. Overview of Policy Content
For the purposes of this proposed policy, “Cornell Web space” refers to the entire collection of Web sites whose purpose for existence can be legitimately connected with Cornell University activities, including academic, research, and outreach activities, wholly or partially sponsored with Cornell funds. A Web site may reside on a non-Cornell Web server, or may not have a cornell.edu domain name, but may still be considered part of the Cornell Web space.

A Web site is a collection of Web pages residing under a single domain, whose content is centered around a single organizational unit or workgroup, a university course, a research or business activity, or an area of academic content.

Official Cornell Web Space to Which Web Accessibility Requirements Will Apply
Official Web sites within the Cornell Web space are those that were created by the university, its schools, departments, units, or other administrative offices, and represent these areas. Web applications—both those developed in-house and those purchased from outside vendors—also are considered official.

This policy proposes that the following areas of Cornell Web space be required to adopt Section 508 standards:

    Administrative
    Central unit sites—www.cornell.edu and central administrative unit sites
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Academic unit sites – college and department sites constructed for marketing and university business functions

Academic  
Teaching  
Course sites  
Course collaboration tools  
Pages created by students to fulfill an academic requirement which also fall within one or more of the official categories listed here

Research  
Research results presented online  
Sites created for the purpose of conducting research

Outreach  
Outreach program sites  
Professional organizations  
Collaborative sites

Information Repositories  
Collections  
Databases

Official Cornell Web Space to Which Web Accessibility Requirements Will NOT Apply

1. Web applications for which no accessible functionally equivalent alternative exists
2. Research collaboration sites
3. Sites and Web pages created to conduct research and experiments in developing new technologies and applications for the Web  
o If these sites or Web pages fulfill any university purpose other than the conduct of research (example: also serve as a course Web page), then alternate accessible sites or Web pages must be provided
4. Archival sites  
o Web sites that are (a) intended to represent an historical snapshot of a course, research project, or other Web information, and (b) not used to gather or disseminate information about any current course, currently active research project, or current administrative function of the university
5. Undue burden: compliance with this proposed policy would necessitate a major administrative or financial alteration of the critical function or nature of the program or service  
o Any unit claiming undue burden must file a statement with the Director of Web Communications

Web Accessibility Requirements
In accordance with Section 508, for the above categories of Cornell Web space, the following will be required of Web developers. This list is taken directly from the Section 508 provisions, which can be found at www.section508.gov/Web.
(a) A text equivalent for every non-text element shall be provided (examples: via "alt," "longdesc," or in-element content).

(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.

(c) Web pages shall be designed so that all information conveyed with color is also available without color. For example, from context or markup.

(d) Documents shall be organized so they are readable without requiring an associated style sheet.

(e) Redundant text links shall be provided for each active region of a server-side image map.

(f) 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.

(g) Row and column headers shall be identified for data tables.

(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

(i) Frames shall be titled with text that facilitates frame identification and navigation.

(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

(k) A text-only page, with equivalent information or functionality, shall be provided to make a Web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.

(l) When pages utilize scripting languages to display content or create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.

(m) When a Web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).

(n) Online forms shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

(o) A method shall be provided that permits users to skip repetitive navigation links.

(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.
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◆ Notes:
1. Section 508 includes the following provision: “A text-only page, with equivalent information or functionality, may be provided to make a Web site comply [Section 508 requirements], when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.” In short, providing a fully accessible, text-only alternative with equivalent information or functionality will satisfy accessibility under this proposed policy.
2. This proposed policy does not cover the accessibility of sites outside of Cornell University to which a Cornell University page might be linked. Sites outside of the Cornell Web space containing required content for courses should be reviewed for accessibility before making the course assignments, and faculty will advise students of available accommodation for any inaccessible content assigned. In the case of equivalent content being available from multiple sources, faculty will give preference to the accessible alternative.

Unofficial Cornell Web Space to Which Web Accessibility Requirements Will NOT Apply
Unofficial Web sites within the Cornell Web space are those that have been published by students, university employees, or non-university organizations and that do not represent university-related business.

For the purposes of this proposed policy, unofficial Web pages at Cornell include the following:

- Student, faculty, and staff personal pages
- Pages created by students to fulfill an academic requirement that do not fall within one or more of the official categories listed previously
- Sites that reside on Cornell University servers that do not conduct university business (example: mirror sites)
- Pages hosted on ResNet servers that do not fall within the official Web site categories listed above
- Alumni classes and organizations pages
- Student organization pages

Recommendations for Web Accessibility of Unofficial Cornell Web Space
For the above unofficial sites, the policy will encourage developers creating and maintaining these sites to avail themselves of the tools and educational materials available for enhancing their skills in the area of Web accessibility.

V. Consistency with Cornell University’s Mission and Goals, Other Policies, and Related External Documents
In addition to the consideration that, from the floor of law, this proposed policy proactively places the university in an advantageous position should legislation come to require compliance, this proposed policy achieves the following aspects of consistency.

Further, this proposed policy enhances the university’s outreach mission by making its Web-based material more accessible to a wide range of users, including those with disabilities. Because more than 50
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percent of people over age 55 have a disability, and as the population shifts more into that demographic category, Cornell will make its Web presence available to an increasingly large population.

It is also important to note that, by their very nature, implementing prescribed practices for Web accessibility requires site developers to re-elevate the overall quality of how information is presented and organized on their sites. The result is that sites communicate more effectively to every audience, not just to those audiences with disabilities.

Particularly vital for Cornell, is that this proposed policy directly speaks to both the university’s motto of “Any person…any study,” and to the President’s Statement on Diversity and Inclusiveness.

Finally, the proposed policy relates to existing policies that likewise encourage inclusiveness:

- University Policy 6.13, Disability Accommodation Process
- President’s Statement on Affirmative Action and Diversity in Employment
- Cornell University Equal Education and Employment Opportunity Statement

VI. Entities, Offices, and Other Cornell Community Members Affected By This Policy
All units of the university, excluding the Weill Cornell Medical College (TBD)

VII. Impact on the University
According to Web developers, accessible design is good Web design. The effort spent on making a Web site accessible to individuals with disabilities produces a site that communicates more effectively to all of its audiences. Impact of this proposed policy on the university should be understood within this context.

The degree of administrative burden experienced by any given unit as a result of this proposed policy will depend on the technologies that have been used to implement existing sites, or that will be used to create new sites, for example:

- Sites implemented with basic technologies, such as static HTML pages, images, minimal interaction, will impose the lowest degree of administrative burden on the unit.
- Sites implemented with an intermediate level of technology, such as a significant degree of user interactivity, may impose significant administrative burden on the unit.
- Sites implemented with more advanced technologies, such as extensive multimedia content, cutting-edge Web technologies, and Web applications programmed here at Cornell that are not already accessible, will impose the greatest degree of administrative burden on the unit.

Regardless of chosen technologies, the sheer volume of pages on a site may create significant additional administrative burden for a unit. Use of some specific technologies, such as digital video or animations, impose a much higher level of administrative burden with regard to the requirements of this proposed policy, even though they may not be considered advanced technologies.

To mitigate these burdens, professional development, tools, and education will be available for all Web developers using all levels of technology. Those creating new Web sites will be the first beneficiaries of these offerings, because they will be able to incorporate accessibility concepts into their sites from the
beginning. For all other sites, this document proposes a very liberal timeline that will allow units an
opportunity to plan and amortize this burden in order to comply.

VIII. Stakeholders Who Will Be Consulted in Developing This Policy

- IT Policy Advisory Group
  o University Audit
  o University Counsel
  o Cornell University Libraries
  o Office of Human Resources
    - Office of Workforce Diversity, Equity and Life Quality
- IT Managers’ Council
- Cornell Web Developer’s group (CU-Web Forum)
- Student Academic Services
  o Student Disability Services
- College Business Officers/Business Service Center Directors
- Faculty Advisory Board for Information Technology
- University Office for Purchasing Services
- Weill Cornell Medical College administrators

IX. Systems Changes Required
The nature of this policy implies considerable reform of official Cornell Web pages.

In addition to the requirements of this policy, the Procurement Office should require all vendors to declare
if any portion of the product or system under consideration does not fully conform to this proposed policy,
and the ways in which the proposed product is out of compliance.

X. Communications and Training Activities to Build Awareness and Enable Implementation
Traditionally, the Office of Information Technologies uses the University Computer Policy and Law
Program to disseminate initial information and education to the university community. The Office of Web
Communications promotes ongoing conversation with and professional development opportunities for
Web developers on campus, and will incorporate this proposed policy into its Web developer community
activities. In particular, the CU-Web Forum, sponsored by the Office of Web Communications, will be
used as a key communication vehicle with Web developers. Various offices on campus are developing a
full-time position responsible for conducting professional development and consultation on Web
accessibility issues for Web developers at Cornell.

In addition to professional development and education described above, the sponsoring offices will work
together to identify (and procure any necessary funding for) software tools that will assist Web developers
in assessing their site against Section 508 accessibility criteria.

The Offices of Information Technologies and University Communications have consulted with offices of
Workforce Diversity, Equity and Life Quality and Student Disability Services about this proposed policy
and have garnered their enthusiastic support.
Pursuant to University Policy 6.13, Disability Accommodation Process, individual accommodations are made for both students and employees. In contrast to 6.13, this proposed policy proactively addresses accessibility without requiring individuals with disabilities to self-identify or navigate bureaucratic processes. In addition to addressing the internal Cornell audience, this proposed policy eliminates barriers to access for external audiences.

**XI. Compliance Mechanisms Existing or To Be Created**
Normal university policy enforcement mechanisms will be employed. For undue burden exceptions, and general assistance with enforcement of the policy, the policy process will include requests to stakeholders to form an oversight committee. Such stakeholders might include the Office for Workforce and Diversity, Student Disability Services, and the Industrial Labor Relations Office of Disability.

**XII. Timing Requirements for This Policy**
This proposed policy should be promulgated as soon as is practicable within the normal parameters of university policy development. Risks that attach to a failure to promulgate include potential future legal liabilities, impediments to forming effecting collaboration with academic and non-academic partners (examples: research, government, corporate, and community), barriers in communication to external audiences (examples: prospective students, media, and the academic community), and dilution of the university’s outreach mission.

**Timeline for Implementing Web Accessibility Standards:**

<table>
<thead>
<tr>
<th>Implementation Deadline</th>
<th>Web Page(s) or Site(s) to Comply</th>
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<tbody>
<tr>
<td><strong>Within six months of promulgation</strong></td>
<td>All new and redesigned(^1) Web sites published by any university college, department, program</td>
</tr>
<tr>
<td><strong>Within two years of promulgation</strong></td>
<td>All official administrative and academic instructional Web pages</td>
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<tr>
<td><strong>Within three years of promulgation</strong></td>
<td>All academic research and outreach Web pages</td>
</tr>
<tr>
<td><strong>Within three years of promulgation</strong></td>
<td>All Web applications developed completely within the university, by any university college, department, program, or unit</td>
</tr>
<tr>
<td><strong>Within three years of promulgation</strong></td>
<td>All licensed or open source Web applications not purchased by Cornell but in use within the Cornell Web space</td>
</tr>
<tr>
<td><strong>Within three years of promulgation, or upon the next renewal of contract with the vendor</strong></td>
<td>All Web applications purchased from an external vendor(^2) or obtained under contract with other institutions</td>
</tr>
<tr>
<td><strong>Within five years of promulgation</strong></td>
<td>All official Web pages</td>
</tr>
</tbody>
</table>

♦ **Notes:**
1. Web site redesign refers to any phase during the development or maintenance of a Web site in which significant alteration or update is made to the visual design, institutional branding, information architecture, or technical functionality of the site. Minor content updates are not considered Web site redesign projects.
2. If the vendor does not offer a compliant product, all market alternatives must be explored.