IT ACCESSIBILITY TASK FORCE ANNUAL REPORT

DATE: June 30, 2017

SUBJECT: Annual report covering activities from July 1, 2016 through June 30, 2017

TO:
Aaron Powell, Interim Vice President for UW Information Technology and CIO
Randy Hodgins, Vice President, Office of External Affairs

FROM: IT Accessibility Task Force Co-Chairs Sheryl Burgstahler and Gina Hills

TABLE OF CONTENTS

DESCRIPTION OF PROJECT 1
MEMBERSHIP 2
RECOMMENDATIONS TO SPONSORS 3
ACCOMPLISHMENTS AND FUTURE PLANS 3
APPENDIX 10

DESCRIPTION OF PROJECT

CHARGE
Develop and implement plans for promoting information technology (IT) accessibility and establishing best practices campus-wide.

OBJECTIVES

• Continue taking steps toward more accessible University of Washington (UW) websites and other IT and institutionalizing cooperative relationships between key stakeholder groups.
• Develop strategies that can be applied campus-wide, such as accessibility audits, progress reports, and the availability of tools such as SiteImprove.
• Recommend steps toward a more coordinated campus-wide effort in promoting the design of accessible websites and other IT.

ACTIVITIES

• Review the UW home page and other important pages to ensure that they reflect a high level of accessibility.
• Ensure that current and future templates for UW web pages are designed to be accessible and include an accessibility link as part of the templates.
• Review the UW’s Accessible Technology website (uw.edu/accessibility/) and recommend the addition of content useful to the campus community (e.g., best practices, templates, specific campus guidelines).
• Develop plans for promoting web accessibility, including who should be involved, what the processes would be, etc.
• Submit annual progress reports to project sponsors.

MEMBERSHIP
The original members of the task force represented UW External Affairs and UW Information Technology (UW-IT). The number of stakeholder groups engaged in the task force has gradually increased to include the following members that represent all three UW campuses:

UNIVERSITY ADVANCEMENT
• Gina Hills, Director, Web Communications, Marketing & Communications, ghills@uw.edu (co-chair)
• Thom Thorpe, Associate Director, Web Development, Marketing & Communications, twwthorpe@uw.edu

UW-IT
• Sheryl Burgstahler, Director, Accessible Technology Services (ATS), sherylb@uw.edu (co-chair)
• Dan Comden, danc@uw.edu, and Hadi Rangin, hadir@uw.edu, Access Technology Center (ATC), ATS
• Doug Hayman, Technology Specialist (with a specialty in captioning), ATS, dhayman@uw.edu
• Terrill Thompson, Technology Accessibility Specialist, ATS, tft@uw.edu
• Nick Rohde, Web and Content Developer, ncrohde@uw.edu

HUMAN RESOURCES
• Ian Campbell, Manager, Disability Services Office, campian@uw.edu
• Olivia Ramoino, Program Operations Specialist, Disability Services Office, oramoino@uw.edu

STUDENT SERVICES
• Bree Callahan, Director, Disability Resources for Students (DRS), breec@uw.edu
• Krista Greear, Assistant Director, DRS, greeark@uw.edu

COMPLIANCE SERVICES
• Amanda Paye, Deputy Title IX/ADA Coordinator, apaye@uw.edu (served until 11/24/16 this reporting period)

UW PROCUREMENT SERVICES
• Raymond Hsu, Assistant Director, rayhsu@uw.edu

CENTER FOR TEACHING AND LEARNING
• Karen Freisem, Instructional Consultant, kfreisem@uw.edu
RECOMMENDATIONS TO SPONSORS
The task force asks that its sponsors:

- Increase awareness of State Policy #188–IT Accessibility and the UW IT Accessibility Policy, Guidelines and resources—e.g., website resources, consulting from Accessible Technology Services (ATS). Specifically, help educate respective units and leadership groups, perhaps inviting ATS staff or task force members to present to the president’s cabinet, deans, chancellors, etc., so that they can in turn share with their staff the importance of addressing the accessibility of IT in decision making, procurement, development processes, work flows, and staff assignments.

- Ensure the availability of adequate numbers of staff members to promote and support accessible IT. Continue to support the increase the number of ATS staff members to allow them to more proactively provide training opportunities and identify and work individually with staff members who design, develop, and support websites, documents, and videos to help them learn to make IT more accessible.

- Explore ways that permanent central funding might be located to support some specific accessibility incentives, such as the captioning of high-visibility, high-use, and high-impact videos and remediating inaccessible Portable Document Format (PDF) documents.

- Help the task force identify and develop strategies to more broadly communicate to campus leaders about the importance of accessibility and the tools in place to help improve IT accessibility and ensure compliance with UW and state policies as well as federal mandates.

Thank you for your continued support of task force efforts.

ACCOMPLISHMENTS AND FUTURE PLANS
As shared in the September 2012, July 2013, July 2014, June 2015, and July 2016 reports, the full task force meets monthly and subgroups meet regularly to make progress within three areas of concern: enhancement of online resources, promotion of accessible IT, and exploration of policies/processes. Accomplishments since the last report are summarized below.

SUMMARY
The task force is proud of its accomplishments since its inception in 2012, particularly in developing campus policy and guidelines; creating and following IT accessibility plans; increasing campus awareness; developing proactive processes that promote the accessibility of
websites, videos, and PDFs; and engaging accessibility enthusiasts campus-wide as IT Accessibility Liaisons. However, as revealed in data provided in the Appendix, we are far from reaching a high level of accessibility of our IT campus-wide. Tens of thousands of UW websites and documents (mostly PDFs) are not accessible to individuals with disabilities, hundreds of videos remain uncaptioned, and many software products in use are not accessible to people with disabilities. Many of the campuses that are making the greatest progress toward accessible IT nationwide have received formal civil rights complaints from the U.S. Department of Education’s Office of Civil Rights or the U.S. Department of Justice Civil Rights Division. We have not yet received a formal complaint, at least in part because of how UW-IT (under the leadership of ATS) and the task force have used the resolutions that have resulted from these complaints as our guide toward making our campus compliant with legal mandates as well as the new Washington State Policy #188 on IT accessibility.

Our Disability Resources for Students office and Disability Services Office have made significant efforts in providing accommodations to specific students, faculty, and staff with disabilities who encounter IT accessibility barriers, but more efforts are needed to make the IT we develop, procure, and use at the UW accessible so that these accommodations are not required (e.g., caption videos and use accessible PDFs so that remediation does not need to be made for individuals who need access). However, at the UW we do not have the high level of funding and institutional buy-in that becomes available once a formal complaint is made. There is a shortage of central funding for adequate staffing levels and related costs to support a rigorous initiative to bring our campuses to a place where units consider accessibility as a regular part of their work flow to ensure the procurement, development, and use of accessible IT. Task force efforts this year in response to Policy #188 have generated a great deal of interest in complying with the Policy, which has revealed a significant lack of expertise to do so campus-wide and a huge need for more staff to provide support and training.

EXPLORATION OF POLICIES/PROCESSES

- **State Policy #188.** State Policy #188 on IT Accessibility (ocio.wa.gov/policy/accessibility) was adopted August 11, 2016, to establish “the expectation for state agencies that people with disabilities have access to and use of information and data and be provided access to the same services and content that is available to persons without disabilities unless providing direct access is not possible due to technical or legal limitations.” It included two deadlines with specific requirements, Dec. 31, 2016, and March 31, 2017 (extended to June 30). One requirement was to establish a Policy #188 coordinator for the University; Sheryl Burgstahler was assigned this position by Kelli Trosvig, then Vice President and CIO of UW-IT; Sheryl Burgstahler was assigned this position by Kelli Trosvig, then Vice President and CIO of UW-IT; Sheryl leads the effort along with the Accessible Technology Services (ATS) IT Accessibility Team. Meeting the requirements of Policy #188 dominates the work of ATS and the task force as reported in this document.

- **State Policy #188 Plan.** An ATS internal document was created and continues to be updated to track progress in meeting the requirements of Policy #188. The current table of contents reports the status in each area of work:
1. Establish approach to this task [done]
2. Prioritize work to meet two Policy #188 deadlines [done]
3. Post annual reports of the IT Accessibility Task Force [done]
4. Develop policy [done] and processes [some progress made, more to be developed]
5. Update and post University of Washington IT Accessibility Guidelines [done]
6. Edit UW Administrative Policy Statement 2.3 [done, input given]
7. Develop accessibility plan/procedures for UW by June 30 [Progress and Plan web page developed; updates ongoing]
8. Create list of prioritized non-accessible covered technology, alternative for access, and actions being taken [progress being made with nearly 200 in database; need more staff to continue to develop and update and to work to remediate identified inaccessible IT, including work with departments and vendors; ATS is engaging IT Accessibility Liaisons to add “all” software used at UW.]
9. Continue UW Capacity Building Institutes (2/year) [done]
10. Recruit and engage with IT Accessibility Liaisons and conduct 3 meetings/year [done, ongoing recruitment]
11. Increase training opportunities [increased efforts to speak to stakeholder groups, but need more staff to make a dent]
12. Offer limited-time funds for a “free” service to promote accessible IT and seek permanent funding [free video captioning and PDF remediation pilots underway, permanent funding has not yet been secured]
13. Engage with leaders across the State [ongoing through online discussions]
14. Develop and implement a major promotional campaign and support effort [need more staff to make a dent]

- **UW’s IT Accessibility Policy.** An aspirational policy for the UW was drafted by ATS, edited by the task force, approved by Aaron Powell, and posted on the Accessible Technology website.

  The University of Washington (UW) strives to ensure that people with disabilities have access to the same services and content that are available to people without disabilities, including services and content made available through the use of information technology (IT). IT procured, developed, maintained, and used by the UW should provide substantially similar functionality, experience, and information access to individuals with disabilities as it provides to others. Examples of IT covered by this policy include websites, software, electronic documents, videos, and electronic equipment such as information kiosks, telephones, and digital signs.

- **UW’s IT Accessibility Guidelines and Checklist.** The IT Accessibility Guidelines document (uw.edu/accessibility/guidelines/), developed by ATS with input from the task force and subsequently approved and signed by Kelli Trosvig on May 1, 2015, was updated by ATS, reviewed by the task force, approved by Aaron Powell March 31, 2017, and posted on the website. The corresponding detailed instructions within the IT Accessibility Checklist were updated and are being used by other postsecondary campuses as well.

- **Procurement Guidelines.** The recommended procurement steps, developed, and posted last year on the UW’s Accessible Technology website, are being revised through a collaboration between Procurement, ATS, and the task force. Procurement Services has also, in collaboration with ATS, completed a final draft of its own Policies and Procedures on the acquisition and assessment of accessible technology. It is expected that
both the revised Procurement Guide and the Procurement IT Accessibility Policy and Procures will be published by July 31.

• **Annual IT Accessibility Report.** The January–December 2016 ATS report is attached as an Appendix to this report. It shares ATS services with respect to accessible IT as well as data about the state of accessibility at the UW. The data suggests that much more work needs to be done to promote accessible IT on the three UW campuses.

• **DRS and ATS Processes.** The collaboration between Disability Resources for Students (DRS) and ATS continues to increase and has become a model for other campuses. Key to this success is regular collaboration, an understanding of respective roles — e.g., with respect to IT, DRS provides accommodations to students registered in their office, such as captioning videos and making documents accessible; ATS works on similar issues but proactively — e.g., encouraging faculty and staff to caption videos and use accessible documents and setting up training and processes so that they can do so). The two units delivered a presentation about their collaboration at the annual California State University, Northridge (CSUN) conference on technology and people with disabilities and plan to co-present at the Accessing Higher Ground conference this fall.

• **ADA Compliance.** Salome Heyward, a civil rights attorney with over 30 years of experience in the field of disability discrimination law and disability management, was hired by Compliance Services to, among other things, lead an effort to evaluate the University’s risk level in its efforts toward more accessible IT. The task force has requested and is hoping to receive a copy of her recommendations.

• **Future Plans.** The task force will continue exploring ways to, on all three campuses:
  o Promote implementation of the IT accessibility policy and guidelines.
  o Further address IT accessibility in procurement workflows.
  o Ensure that complaint-reporting processes are effective for identifying high-risk IT accessibility problems.
  o Develop efficient central processes for identifying inaccessible PDFs, converting them to another more accessible format and/or remediating them, and training staff responsible for posting PDFs.
  o Look at channels through which to connect with department coordinators and/or department instructional designers to better understand how/when/why faculty choose or create content and promote accessibility as part of their work flow.
  o Use Salome Heyward’s report to improve/expand IT accessibility mandates, services, processes and collaborations and further align with legal mandates [The task force has requested a copy but it has not yet been received].

**Enhancement and Promotion of Online Resources**

• **Website Improvements.** Task force members and their associates continued to improve the UW’s Accessible Technology website (uw.edu/accessibility), especially in areas that help staff and faculty implement the UW accessibility guidelines.

• **SensusAccess.** ATS and DRS continue to co-fund a license for this web-based product that converts a document from an inaccessible format (e.g., a scanned PDF image) to a more accessible one and are promoting its use by students with disabilities through DRS and ATS. This service does not satisfy all accessibility needs (for example, it doesn't add tagged structure to PDFs, which is necessary for effective use by screen reader users). However, SensusAccess does generate a readable document that is accessible for students with dyslexia and other learning disabilities who read with support from screen readers.
This provides a quick, do-it-yourself solution for students who need to access inaccessible documents when the DRS office is closed. The UW Document Conversion Service is located at tinyurl.com/uw-doc-convert and is linked from the DRS, Accessible Technology at the UW, ATC, and other UW websites.

- **Ally.** ATS and DRS explored Ally as a possible module for campus-wide data collection and accessibility promotion for online instruction using Canvas.

- **SiteImprove.** SiteImprove is an online service that crawls websites looking for broken links, misspellings, and accessibility issues. Efforts have commenced to expand the reach and effectiveness of SiteImprove by (1) providing individual outreach and support to SiteImprove users, (2) provide training opportunities to ensure more consistent use of the tool, and (3) shrinking the crawls of inactive sites in favor of crawling new sites whose owners would like to participate. The latter step is necessary due to the limited number of pages allowed by our current license. A sub group of the task force has been exploring whether it would be feasible to expand our SiteImprove subscription to an enterprise level or possibly partnering with other educational institutions in the state for an even more enterprise-level subscription, similar to the model for 3Play Media. Preliminary discussions have begun with our SiteImprove representatives and the sub group’s exploration will include whether other services have emerged in recent years that could meet our needs.

- **Future Plans.** The task force will continue to work on the following:
  - Enhance the Accessible Technology site to make content more complete, to make it easier for users to find information they are looking for, to create and post more “how to” pages and videos, and to ensure that content is relevant to all three campuses.
  - Explore Ally for campus-wide data collection and accessibility promotion for online instruction.
  - Promote the use of SiteImprove, SensusAccess, and Able Player.
  - Develop an "Accessibility Approved" library of plugins, modules, and widgets for use on WordPress, Drupal, and standalone websites.
  - Develop and promote the use of accessible UW branded templates for documents, events, and presentations.

**Promotion of Accessible IT**

- **Inaccessible PDFs.** The task force continues to identify the proliferation of inaccessible PDF files to be a high-level concern on campus. To explore and develop workflows, ATS is undertaking two pilot projects with UW Tacoma and UW Bothell. In both cases a consulting company has been identified; ATS is working with the campuses to identify PDFs that should be changed to a more accessible (e.g., HTML) format and those that should be remediated into an accessible PDF, as well as line up trainings for campus faculty and staff so that future documents will be in an accessible format. Meanwhile, a portion of their existing inaccessible PDFs will be remediated by the consulting companies.

- **Captioning.** The task force continues to identify the proliferation of uncaptioned videos to be a high-level concern on campus. Members supported the solicitation process that led to 3Play Media winning the contract as the captioning vendor for Washington postsecondary schools. Refining practices that ensure prompt, accurate, and efficient
procurement of captions at the UW is ongoing. ATS continues to promote captioning in Panopto video capture processes and to locate uncaptioned videos on high-level, high-traffic websites and, when identified, work with the host to include captions. ATS secured temporary funds from UW-IT and developed a process to fund the captioning of high-impact, high-use videos. More than 90 videos totaling more than 250 hours reaching more than 100,000 viewers have been captioned since September 2016.

- **Campus Web Accessibility Support.** ATS staff provides individualized and group support to web designers and developers both on request and through targeted outreach. Four ATS staff members (three who are only part-time) meet regularly with UW web designers and developers to review their sites, test with a variety of devices and settings (including assistive technologies), and offer feedback that includes code-level solutions. Individuals who receive these services over time tend to develop a high level of accessibility expertise and are empowered and encouraged to support others through various community meetups, on the Accessibleweb mailman list, and by delivering training or becoming an official IT Accessibility Liaison (see related section below). Results from ongoing web accessibility reviews are presented in the annual IT accessibility report included as an Appendix to this report.

- **Campus Presentations and Events.** Task force members identified key organizations, delivered presentations and conducted meetings—e.g., the Accessible Web user group, the Center for Teaching and Learning, the Web Council, UW Bothell, UW Tacoma, the Front End Technology community of practice, WordPress and Drupal user groups, Procurement Services, Embedded Architects, and UW College of Engineering Administrators. ATS hosted activities for Global Accessibility Awareness Day (GAAD) in May that included an Access Technology Center open house and seven presentations. ATS staff members continue to support a promotional website (nomouse.org) and a #nomouse campaign to increase awareness about the importance of ensuring that websites can be operated with the keyboard alone. The UW Bothell Universal Design for Active Learning (UDAL) Core Team presented on Panopto captioning and Canvas course accessible design during GAAD week to faculty and staff, on Policy #188 and universal design to the Student Affairs division, and participated in new Student Affairs student employee training on June 26-28 on the topics of web and document accessibility. UW Bothell also has been integrating universal design practices in faculty support consultations, Quality Matters reviews, and student ePortfolio support documentation.

- **UW-IT Training.** ATS continues to work to ensure that accessibility is being included as a topic in all of UW-IT’s Learning Technologies courses.

- **Capacity Building Institutes (CBIs).** With input from the task force, ATS has sponsored two CBIs related to accessible IT. The fall quarter 2016 event lasted one and one-half days and was for designated Policy #188 coordinators of postsecondary campuses statewide. Ongoing communication takes place online within the Accessible IT Community of Practice to further discuss how we can increase the accessibility of IT on all campuses in Washington State and, more specifically, address Policy #188 requirements. A similar one-day event in spring 2017 focused specifically on the UW. Both events increased the knowledge of participants and their ability to promote accessible IT. The event was well received by participants, and we documented outcomes (e.g., increasing numbers of task forces and other efforts to promote accessible IT; UW’s IT Accessibility Liaisons recruited).

- **IT Accessibility Liaisons.** The task force and ATS worked together to increase the
number of UW staff volunteering as IT Accessibility Liaisons to 90. Each Liaison formally agrees to communicate online, meet about three times per year, and promote accessible IT in their units. Two half-day meetings of IT Accessibility Liaisons were held in winter and spring quarters, 2017; the featured topic for the first one was Policy #188 and for the second one was document accessibility.

- **Future Plans.** Along with ongoing activities, future work includes these tasks:
  - Document and share efficient workflows and costs for using a consulting company in reducing the use of PDFs and in remediating of PDFs.
  - Deliver more presentations on universal design and learning technologies.
  - Seek permanent funding to caption high-impact, high-use videos and remediate PDF files.
  - Recruit and support more IT Accessibility Liaisons and conduct at least 3 meetings per year. The Bothell and Tacoma campuses have agreed to be the featured speakers at the fall IT Accessibility Liaisons meeting.
  - Continue to offer capacity building institutes for the UW and for Washington State postsecondary institutions.
  - Detail the formal plan for training various stakeholder groups.
  - Increase efforts to address issues related to e-learning and support faculty, including incorporating more accessibility content into courses, learning communities and online resources supported by the Center for Teaching and Learning. Consider offering a Canvas course on accessible online learning and campus-wide and statewide events focused specifically on accessible online learning.
  - Consider offering a Professional Organizational Development (POD) course on accessible IT.
  - Create new Learning Technology workshops devoted to accessible documents and web design/development.
  - Present an *Accessible IT Capacity Building Award* for promoting the accessible design of IT and universal design of instruction both on-site and online. Recipients of these awards are groups of people at the UW who, together, have promoted the procurement, development, deployment, and use of IT that is accessible to faculty, staff, students, and visitors with disabilities. Consider presenting *Accessible IT Trailblazer Awards* to individuals for their exemplary efforts.
APPENDIX

UW IT ACCESSIBILITY 1/1/2016 – 12/31/2016

The annual report of the overall accessibility of websites, software applications, and other IT-related resources on the University of Washington (UW) Seattle campus in Washington State is created by Accessible Technology Services (ATS) of UW Information Technology (UW-IT).

ATS is composed of two Centers: the Access Technology Center (ATC), which serves the UW, and the DO-IT (Disabilities, Opportunities, Internetworking and Technology) Center, which hosts national and international outreach programs funded with external funds primarily from the National Science Foundation, the U.S. Department of Education, and the state of Washington. Following is the 2016 report regarding the accessibility of IT campus-wide as well as ATS efforts and outcomes with respect to the accessibility of IT at the UW.

SUMMARY
The UW has had a presence in the web accessibility community for many years. Staff from UW-IT’s ATS continue to provide a leadership role in accessibility efforts on campus and nationwide through professional organizations and outreach to other campuses. ATS staff members continue to participate in educational efforts, standards development, and awareness efforts locally, statewide, nationally, and internationally. Much of this work is funded by DO-IT’s many grant sources that have totaled more than $50 million over the past 25 years. ATS has received many awards and other national and international recognition in part because of DO-IT, which has created publications, videos, and web resources and hosted events and online communities that are relevant to UW accessible IT efforts yet supported with external funds—mainly from the National Science Foundation, U.S. Department of Education, and corporations.

ATS staff consulted with numerous UW academic departments and administrative units throughout 2016 by hosting informational sessions, events, and presentations and providing one-on-one demonstrations and detailed evaluations of websites and applications. ATS staff also participated in numerous conferences and off-campus venues to help others learn and implement accessibility in their online efforts. Most notably, ATS hosted a one and one-half day capacity building institute (CBI) to help all postsecondary campuses in the state of Washington learn how to utilize Washington State Policy #188 and procure, develop, deploy, and use IT that is accessible to faculty, staff, students, and visitors with disabilities. Over 40 IT Accessibility coordinators from Washington postsecondary institutions attended the CBI. A combination of presentations, panels, small group discussions, and exercises led to plans for these schools to improve accessibility of IT on their campuses and meet the requirements of Policy #188, which came into effect in August of 2016. A similar campus-wide one-day CBI on accessible IT was held in the spring of 2016 for over 40 campus IT staff, administrators, and faculty.
SERVICES
Requests for assistance with IT accessibility are received primarily via email, as well as occasionally through the campus IT help system, UW Connect. Typically, ATS staff are located through word of mouth, the Access Technology Center, or the UW’s Accessible Technology website at www.uw.edu/accessibility/. Contacts with staff are usually in the form of a request for a brief review of an entire website, template, or application. ATS staff also takes on accessibility-related roles in larger campus IT projects such as the pilot of an email marketing system (Marketo) and an in-class response system. Continuing work from prior years includes that related to our primary Learning Management System (LMS) Canvas, Panopto, and human resources payroll software (Workday) preparation for deployment. Continuing efforts also include working with the teams developing the main UW website and IT Connect pages, academic departments, Disability Resources for Students, and other campus units.

ATS provides braille embossing services for the campus and creates tactile graphics for academic course content. Braille is often created for individual students in courses, although most students prefer well-structured electronic files that can be read using a refreshable braille display or screen reader. Graphical information must be created by hand and embossed on a special device designed to produce a combination of graphics and braille text. Most text content is edited by staff from the Disability Resources for Students office and sent to ATS to be translated to braille and embossed. Typical turnaround time for braille requests is two business days and frequently braille jobs are completed the same day they are received. This level of responsiveness is typically not possible when using a third party braille vendor.

The Access Technology Center (ATC) provides a showroom of assistive hardware and software, adjustable furniture, and accessible science equipment. Students, faculty, and staff within the entire UW system can visit the ATC to receive personalized consulting regarding accessible IT. The ATC partners with Environmental Health and Safety (EH&S) to display furniture in the ATC, and EH&S staff regularly use the showroom for demonstration and evaluation purposes. EH&S manages all relationships with office furniture vendors. This cross-campus collaboration allows individuals to try different seating, keyboard, and software options to improve their work efficiency while managing acute or chronic injuries or disabilities. Similarly, ATS partners with the DO-IT Center by displaying DO-IT’s collection of accessible science lab equipment, each item accompanied by an instruction card.

ATS staff members provide consulting and training on assistive technology products such as screen readers, screen magnification, text-to-speech, and speech-to-text solutions. These offerings provide access to computers for students, faculty, and staff with a wide variety of disabilities. A large number of assistive technologies, both hardware and software, are available for testing in the Access Technology Center (ATC) operated by ATS. Many of the software-based products are available on computers within some of the major computing facilities on campus, including Odegaard Undergraduate Library and Suzzallo Library.
ATS staff approach accessibility evaluations from a functional perspective, focusing on key tasks that a user wishes to perform and information he/she needs to access within a website or application. A number of operating systems, browsers, and plugins are combined with assistive technology such as a screen reader, magnifier, text-to-speech system, standard keyboard, and speech-to-text tool. We also consider the variety of mobile platforms in current use. Although we can share overall legal requirements for accessibility relevant to the UW and refer individuals to experts in this area, the ATC approach is to promote accessibility and usability features that benefit everyone.

WEBSITES
Informational websites are an important resource for everyone within and outside the UW community. To ensure the best functional accessibility, webmasters should adhere to guidelines provided by the World Wide Web Consortium (W3C). The Web Content Accessibility Guidelines (WCAG) version 2.0 level AA is the Washington State and UW standard for building web pages that are accessible. These guidelines tell how to reach checkpoints to ensure that websites are perceivable, operable, understandable, and robust. The Accessible Rich Internet Applications (ARIA) standards are increasingly referenced as well. ARIA provides a framework to make newer web-based applications more usable by assistive technology.

The very large number of websites (over 4 million pages as indexed on the washington.edu domain) managed by hundreds of units suggests it unreasonable that a single unit would have sole responsibility to address accessibility. Add well over 50,000 PDF files, and 6500 videos on 57 different YouTube channels, and it's clear that there is a need for institution-wide awareness and unit responsibility in order to ensure the accessibility of the UW’s online resources.

SiteImprove—a web crawler that checks for broken links, misspellings, and basic accessibility errors—is site licensed for campus use by UW Marketing & Communications and ATS, with contributions from campus units who use it. In 2016, 50 UW sites comprising over 15,000 pages were crawled with this tool. In terms of accessibility, no sites had a perfect score. As compared to the three levels of WCAG 2.0, there were many accessibility problems found:

- 1261 level A (basic) issues
- 126 AA issues; and
- 363 AAA issues

The large number of basic accessibility problems found by this tool indicates clearly that efforts need to increase to correct this problem at the University of Washington. At the time of this report, task force members are investigating the possibility of a statewide license for SiteImprove in order to allow more campus units as well as other postsecondary institutions low-cost access to this useful tool.

ATS consulting staff members often hold in-person meetings with web design/development staff to demonstrate accessibility issues and testing methods with the requesting department's specific
web pages or applications. This approach gives unit staff a direct view of problem areas and is a powerful mechanism to demonstrate the need for accessible design and best practices that avoid creating barriers to website users.

In-depth reviews of campus units were conducted and long-term relationships continue to be established by ATS consultants. These typically involve regular meetings as sites are revised or re-designed. Contacts made or continued in 2016 include staff from the offices listed below.

- Office of Minority Affairs & Diversity
- Recreational Sports Program (IMA)
- UW Medicine, Division of Anesthesiology & Pain Medicine
- University of Washington Web Communications & Marketing
- Office of the CISO
- Procurement
- Office of University Registrar
- The Center for Innovative Research in Cyberlearning
- UW DUB (Design, Use, Build)
- Libraries

To improve the accessibility of UW websites proactively, ATS employs one web outreach staff person to make unsolicited contacts with webmasters of websites for which she identifies accessibility problems and providing assistance and training in making these sites more accessible. Three hundred and ninety-seven (397) proactive unsolicited contacts were made by this employee in 2016; they involved 25 different departments and administrative units. Some of these contacts were an extension of conversations begun the prior year and others were initiated in 2016. Feedback for website accessibility is usually provided via email.

These evaluations revealed issues such as lack of structural information in the form of headings and ARIA landmarks as well as missing alternate text for images. While some of the numbers in the following table are small, one item such as lack of keyboard accessibility can be a major barrier to many users who cannot use a mouse due to a physical limitation or visual impairment. Pages examined to track these issues include some of the most-visited web pages at the University of Washington and include academic, athletic, and administrative units.

<table>
<thead>
<tr>
<th>New proactive website evaluations in 2016</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td># of Issues</td>
</tr>
<tr>
<td>Alt text</td>
<td>28</td>
</tr>
<tr>
<td>Color</td>
<td>15</td>
</tr>
<tr>
<td>Font Size</td>
<td>1</td>
</tr>
<tr>
<td>Forms</td>
<td>8</td>
</tr>
<tr>
<td>Category</td>
<td># of Issues</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Alt text</td>
<td>12</td>
</tr>
<tr>
<td>Color</td>
<td>4</td>
</tr>
<tr>
<td>Font Size</td>
<td>0</td>
</tr>
<tr>
<td>Forms</td>
<td>2</td>
</tr>
<tr>
<td>Keyboard</td>
<td>6</td>
</tr>
<tr>
<td>Link Text</td>
<td>4</td>
</tr>
<tr>
<td>Media</td>
<td>4</td>
</tr>
<tr>
<td>Menus</td>
<td>8</td>
</tr>
<tr>
<td>PDF</td>
<td>4</td>
</tr>
<tr>
<td>Structure</td>
<td>13</td>
</tr>
<tr>
<td>Tables</td>
<td>3</td>
</tr>
<tr>
<td>Validation</td>
<td>1</td>
</tr>
<tr>
<td>Widgets</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>77</strong></td>
</tr>
</tbody>
</table>
APPLICATIONS
Web-based applications are increasingly used on the UW campus. These online programs operate within standard web browsers and are used for crucial tasks such as time recording, purchasing products, travel reimbursements, and student course planning. If these applications are not designed with accessibility standards in mind, there can be significant negative impact on students, faculty, or staff who need to use them. A time reporting system that lacks keyboard operability, or a learning management system with poor visual design can prevent a user from completing a critical task. Purchasing and deploying applications that lack accessibility puts the University at risk from legal action by Office of Civil Rights or Department of Justice if there are complaints from students or staff. It is also contrary to State Policy #188.

ATS staff members work with vendors of these applications purchased for use on campus to remediate accessibility problems. They ensure that the service owners/managers from the respective UW departments that manage and deploy the application are engaged too. This typically means setting up a recurring meeting, either in-person or remotely, where specific issues can be observed, discussed, and means of repairing can be described. We ask that the departmental representative for a specific application is involved in this process. This approach helps us ensure that we address functional tasks that are typically involved with using the application.

In order to help prevent purchasing products that are flawed with respect to accessibility, ATS staff members encourage campus units and UW Purchasing to consider accessibility in procurement decisions. When it is not possible to find a solution that is acceptable, we recommend that contracts be crafted so that they include the importance of accessibility, and establish a timeline for having the vendor address accessibility shortcomings in future releases of its products.

Some of the applications on which ATS staff worked to make more accessible in 2016 are listed below.

- Panopto (lecture capture)
- Canvas (learning management)
- Bridge (learning management)
- Microsoft Office
- Zoom (web conferencing)
- Ex Libris (Libraries)
- iBESTT (mobile app)
- Innotas (project planning)
- Sencha
- ServiceNow/UW Connect (help/service request requests & tracking)
- SpaceScout mobile (UW-sourced study room locator tool)
- Workday (HR Payroll tool deploying 2017)
IT ACCESSIBILITY POLICIES
In August of 2016, the Washington State Office of the Chief Information Officer created a new state IT accessibility policy. Policy #188 is based on WCAG 2.0 AA standards and requires state units to identify a coordinator for IT accessibility, develop a policy and plan, maintain a list of all IT with accessibility problems, and create plans to address accessibility shortcomings. While a daunting task for an organization as large as the University of Washington, significant progress has been accomplished, including recruiting a group of IT Accessibility Liaisons from a variety of campus units to help spread news about the policy, improve accessibility within their units, and assist with information gathering for an IT inventory.

Additionally, an IT accessibility policy for UW-IT was drafted that underlines existing requirements for accessibility based on Policy #188 as well as existing federal laws such as the Americans with Disabilities Act along with its 2008 Amendments and the Rehabilitation Act of 1973. Guidelines and checklists to support these policies continued to be created and updated throughout 2016 and can be found at the primary landing site for Accessible Technology at http://www.uw.edu/accessibility.

The campus and state policies with accompanying guidelines can also be used to direct purchasing decisions about hardware as well. The campus guidelines are based on WCAG and were signed by the Chief Information Officer in April 2015. A number of detailed resources have been added to the pages surrounding the Guidelines in order to support and advice those seeking assistance in creating accessible academic materials, develop and design accessible websites, and locate sample language for building accessibility into the purchase process.

OUTREACH
ATS staff members are regularly asked to present and demonstrate on the topic of accessibility in a wide variety of venues. Topics addressed include web and application accessibility, document design and conversion, video captioning, and workplace and learning accommodations.

Many ATS presentations were delivered on campus, at local higher education institutions, and at both statewide and national conferences (costs for most of which are funded through DO-IT external sources). ATS staff work with campus IT trainers to help them promote accessible practices within their learning materials for faculty and teaching assistants (TAs) who are creating content for their courses.

Campus and other organizations for whom ATS provided training, consulting, and demonstrations in 2016 include those listed below:

- UW Bothell
- Learning Technologies instructors
- Office of the Ombud
- UW Tacoma
- Capacity Building Institutes (CBI) for Policy #188 campus coordinators
- Technology Expo on campus
• Conferences (many covered with DO-IT grant funds): Washington Association on Postsecondary Education and Disability (WAPED), Accessing Higher Ground (AHG), International Technology and Persons with Disabilities (CSUN) Conference, EDUCAUSE, Association of Higher Education and Disability (AHEAD), and Northwest Council for Computer Education (NCCE)

• Guest lectures in iSchool and Occupational Therapy courses

Besides sharing technical expertise, some of these trainings explained Policy #188 and the associated responsibilities of campus individuals and units.

Global Accessibility Awareness Day (GAAD) is a community-driven event to increase the visibility of accessibility efforts and help designers, developers, and end users learn more about improving accessibility. It is held yearly in late May. In 2016, ATS staff hosted a number of activities on this day, including a presentation to the campus Web Council; sessions on ARIA, top tips, and captioning; and an open house at the ATC. UW Bothell outdid the Seattle campus by hosting an entire week of similar events in recognition of GAAD.

DOCUMENTS

One new full time staff position was created in 2016 to, with assistance from students and staff, proactively remediate web-delivered documents in PDF and trains campus staff on how to create accessible PDFs and convert inaccessible PDFs to accessible formats. This staff member joins the team that proactively reaches out to webmasters to help them make their websites accessible to visitors with disabilities.

Hundreds of campus staff hours are used to convert materials provided in many different academic courses to a format that is accessible to students with disabilities. Primarily these are PDF documents that have been scanned. These are essentially image files (pictures of text) that cannot be read with screen reading applications or text-to-speech tools, which are often used by people with learning disabilities and those who are blind. The Disability Resources for Students (DRS) office reports that hundreds of these files must be converted each academic term. In the last 8 academic quarters, approximately 35 files per course were converted by the DRS office. This is approximately 600 pages per course, and 7.8 million total pages. Students with disabilities often have to wait for days before this content can be made accessible to them, an outcome that is not equitable. Recent legal decisions at other higher education institutions convey the urgency of providing these materials in a timely and effective fashion.

In 2016, ATS staff collected the URLs and metadata for over 38,000 public-facing PDFs via the Google Search API, and performed a simple accessibility evaluation on each of these files to determine whether it was a "tagged" PDF (a basic requirement for the PDF to be accessible). Of the PDFs collected, 9,538 (24.9%) are tagged. The vast majority of tagged PDFs were created using Microsoft Office (7,972 or 83.6%) which saves to tagged PDF by default. ATS intends to perform more detailed evaluations of these PDFs in 2017, which will reveal whether the tagged PDFs are actually accessible (e.g., with good heading structure and alternate text on images).
Of the top 100 UW subdomains where PDFs were found (ranked in descending order by number of PDFs), 21 subdomains have tagged 50% or more of their PDFs. Six of these subdomains have tagged over 70%. They are:

1. www.tacoma (76.5%)
2. healthonline (79.0%)
3. dental (75.2%)
4. www.ehs (75.0%)
5. nursing (71.6%)
6. www.hfs (73.3%)

These isolated positive examples are promising. However, one should interpret them with caution, since a tagged PDF is not necessarily an accessible PDF, and since Google likely does not index scanned image PDFs, which are a significant problem as described at the top of this section.

Outreach efforts by ATS staff to faculty and departments to help address this problem by proactively creating and using accessible documents are ongoing. Instructors often are unaware of the need for accessible content and do not realize that accessibility can be improved by performing optical character recognition (OCR) on these files. ATS staff work with campus teaching and learning technology instructors to highlight the importance of accessible documents; however, only a small number of faculty and TAs are reached every year. Clearly, more work needs be done to ensure that materials using in courses are accessible to all students. Significant changes would require more staff support to undertake focused efforts to help all academic departments improve knowledge and processes regarding accessible design through training and consultation.

Accessibility of many electronic documents used for coursework is a problem for students who need access to the text. In late 2014, ATC partnered with Disability Resources for Students to provide a self-service document conversion utility that provides students a rapid turnaround for basic text access for some inaccessible PDF and PowerPoint files. This automated service, SensusAccess, can convert files to a number of desired formats, although it does not provide corrected or proofread content. This is considered a stopgap measure for students working late in the evening or other times when they cannot get access to on-campus service through DRS or ATS. This service has been used by dozens of students since it began. In 2016, over 500 documents were submitted for conversion; an overwhelming majority of the file formats were PDFs to be converted to accessible version or another format such as MS Word.

VIDEOS
Over 55 campus units publish content via YouTube. As of April 2016, there are approximately 7000 videos on YouTube from different UW units. Over 87% of these videos do not include captions or rely on the automated captions constructed within the service. This is an improvement from 90% in 2015. Of all the UW YouTube channels, 8 have captioned some of
their content and 28 have captioned none. Automated captions are notoriously inaccurate and unreliable, and often video creators do not know how to edit them.

Video content used for instruction in a University course must be captioned if a student in the course needs captions as an accommodation; DRS handles captioning when this is the case. ATS encourages faculty to caption videos used for more than one term as part of the regular creation and upload process. Waiting until a student requests captions results in delayed delivery of accessible materials for students and has been the subject of investigations from the Department of Justice and Office of Civil Rights. ATS also encourages the captioning of videos on public-facing campus websites. In 2016 the ATS funded one staff member for about one day per week to focus on promoting the captioning of videos campus-wide.

In 2016, a statewide contract for captioning by a third-party vendor was completed, and ATS staff were a key part of this important project. The campus lecture capture application (Panopto) currently provides a feature to have captions included by a third party service at an additional cost; however, instructors rarely choose this feature. In 2016, resources were made available to provide free captioning to highly visible videos or those that would be re-used multiple times. Nearly 40 hours of content in 90 videos were captioned by a third party captioning service in 2016. More resources are available for 2017. More staff and financial resources need to be made available if significant progress is to be made.

SUMMARY AND FUTURE PLANS

Over 100 unique campus contacts were made in ATS’s accessibility efforts in 2016. This includes questions answered via email, by telephone, and in person. In addition, ATS leaders have made hundreds of additional contacts in educational settings such as guest lectures and other presentations on campus and conference presentations at regional and national levels.

ATS continues to refine its record-keeping system to make it more suitable for recording efforts from multiple staff members and developing annual reports. Current work is to refine existing products to work within a system that is relatively easy to use as well as accessible to all. Each year this report will share data on the accessibility of the top-tier websites on the UW campus in such a way that we can measure our movement toward a more accessible web environment at the UW. ATS staff also continue to work on record keeping specifically relevant to Policy #188’s requirement to maintain and inventory of IT used on campus that includes accessibility issues and remediation plans for each.

Improving accessibility is a moving target. Advances in web browsers, operating systems, and web programming platforms combine to demand constant updating of knowledge, awareness, and skills on the part of developers and ATS staff. Every year there are changes in important academic- and job-related content and tools. Considering these factors as well as our increasing workload in response to Policy #188 and the high profile civil rights complaints and resolutions decisions affecting other campuses in the United States, additional staff is needed, ideally to assist with video captioning efforts, to assist faculty in the accessibility of their courses, to
provide campus-wide training, and to maintain the campus-wide inventory as directed in Policy #188. Another desirable addition would be permanent central funding for captioning high-impact videos and remediating PDFs.