ASSISTIVE TECHNOLOGY INITIATIVE STRATEGIC PLAN:

A 2-Year Plan for Enhancing and Sustaining Access to Electronic and Information Technology

2016-2018

(Updated 1/10/2017)

EXECUTIVE SUMMARY

An effective and responsive university depends on student and citizen engagement as well as a diverse, well-prepared workforce; both of these require access to information and technology. The Assistive Technology Initiative (ATI) is committed to developing and guiding the university's technology accessibility plan; maintaining a diverse and inclusive academic community, where all students are afforded the opportunity for a transformational learning experience. This commitment must and does include individuals with disabilities.

An essential component of such access is ensuring that the electronic and information technology (EIT) developed, procured, maintained, or used within George Mason University is accessible to all University employees, students, and members of the public; ensuring conformance to the accessibility standards specified in Section 508 of the Rehabilitation Act of 1973 and WCAG, appropriately tailored to the specific circumstances of the University.

Recent litigation from the U.S. Department of Justice (DOJ), the U.S. Department of Education's Office of Civil Rights (OCR), and national advocacy organizations like the National Federation of the Blind (NFB) and the National Association for the Deaf (NAD) confirm that inconsistencies exist in how universities and colleges implement and manage EIT resources. To address these issues at Mason, the ATI has focused on strategically integrating with existing university programs/services and developing proactive strategies to address the EIT accessibility needs of the Mason community. Our success in this endeavor is evident in an updated EIT Accessibility Policy (University Policy 1308), the integration of accessibility language and procedures into the EIT purchasing and procurement process (University Policy 1307), the streamlining of our captioning and transcription process, and the successful integration of technology accessibility into key areas within the university community (e.g., University libraries, Disability Services, Distance Education, etc.). In concert with our strategic efforts, we also continue to improve and grow our direct services (i.e., AT assessments, accessible text) to better support students with disabilities. All of these accomplishments have brought on unexpected, but very positive, local, regional, and national exposure to our office.

In this report, we will address our office's next steps in continuing to ensure equivalent access to the university's EIT resources. The following will be addressed: (1) Strengthening our team of accessibility specialists; (2) Developing a comprehensive web accessibility strategy for the university; (3) Partnering with DE to expand our document accessibility strategy and improve the online course review process; (4) Identifying the gaps, as it relates to accessibility, in the EIT purchasing and procurement process; (5) Improving access to library programs and services for individuals with disabilities; and (6) Improving our office's marketing and communications strategy within the Mason community. Additionally, we have identified Success Indicators for our services and improved transparency with respect to the management of specific ATI projects and services.

It is our belief that the goals outlined in this report will greatly improve access to EIT resources for individuals with disabilities within the Mason community, as well as visitors.

STRATEGIC PLANNING REPORT

WHAT WE DO

The ATI ensures equivalent access to electronic materials, software, and IT resources for individuals in the Mason community through video captioning, alternative text, web accessibility, and assistive technology. We also support students, faculty, staff, and visitors with disabilities and different learning styles through the provision of assistive technology resources.

MISSION STATEMENT

The mission of the ATI is to help provide equivalent access to electronic and information technology resources for members of the Mason community, as well as visitors to Mason campuses. This is accomplished by working collaboratively with the ITU, academic and administrative departments/units, faculty, as well as library personnel to develop, coordinate, and implement a university-wide technology accessibility plan that ensures conformity with the technical standards outlined in WCAG 2.0 and Section 508 of the Rehabilitation Act. This includes training and technical assistance regarding the appropriate use of assistive technology, web compliance, document/media accessibility, procurement, and software applications testing. Additionally, we coordinate with the DS and the ADA Coordinator to address the technology accommodation needs of students, staff, and faculty with disabilities.

SWOT ANALYSIS

STRENGTHS

- EITA Policy & Procurement
- Nationally recognized for our work
- Ability to meet production deadlines (accessible text, accessible media)
- Flexible and responsive work environment
- Knowledgeable staff with diverse skillsets and backgrounds

WEAKNESSES

- Challenges with ASC process (i.e., timely follow ups on requests, when items are purchased, etc.)
- Clarification of job responsibilities
- Knowledge of STEM (Nemeth, Tactile Graphics, etc.) as it relates to accessible text conversion
- Staffing challenges

- Moving from project ideation to production

OPPORTUNITIES

- Requests for outside services
- Exploring 3D printing as a possible resource for students with visual impairments
- Explore avenues to grow direct services (i.e., partnerships with DS, leverage resources within CDE for greater access)

THREATS

- Remaining comfortable
- Ability to handle outside requests for services
- Integration with ASC forces us to have to wait on ASC to address certain gaps in process
- Increased workload as a result of greater awareness of our services (e.g., accessible text, accessible media) and integration with university services (e.g., ASC, DE)
- Staffing challenges (i.e., reliable student workers, accessible text production, determining correct needs)
- Limited presence in governance university's new web overhaul
- Lack of knowledge in critical areas about impact of inaccessible technology
- Managing non-ATI resources (i.e., websites)

SWOT SUMMARY

In recent years, the ATI has focused on strategically integrating with existing university programs/services and developing proactive strategies to address the electronic and information technology accessibility needs of the Mason community. Our success in this endeavor is evident in an updated EIT Accessibility Policy (University Policy 1308), the integration of accessibility language and procedures into the EIT purchasing and procurement process, the streamlining of our captioning and transcription process, and the successful integration of technology accessibility into key areas within the university community (e.g., University libraries, Disability Services, ASRB, DE, DS, etc.). In concert with our strategic efforts, we have also continued to improve and grow our direct services (i.e., AT assessments, accessible text) to better support students with disabilities. All of these accomplishments have brought on unexpected, but very positive, local, regional, and national exposure to our office.

Although the integration of accessibility into these crucial areas is the goal, it is not without its challenges. Transitioning from the previously autonomous nature of AT/IT service delivery (e.g., web accessibility, ASRB, AT Assessments, etc.) to a more integrated approach requires that in-house timelines and project scope be adjusted and scaled to realize the goals of all stakeholders, not just those involved with technology accessibility. This also requires a

significant amount of coordination and communication between all parties involved in the program.

An additional challenge is assessing whether or not integration with certain programs would be successful based upon current staffing levels. For example, document accessibility support (beyond training) is a critical area of need for instructional faculty who are supporting students with print disabilities and those developing online courses. Given the time required for ATI staff to review and remediate, if necessary, large numbers of electronic documents (i.e., Word, PDF, PPT), we would not be able to dedicate staff towards any large-scale, compliance-related initiative. We have only been able to offer this service to faculty members that have a totally blind student in their courses. This is the student population with the most critical need and is the most appropriate use of our resources in this area.

 We have achieved many successes in recent years, but there are still an equal number of opportunities for improvement going forward. We must make critical strides in addressing the challenges related to web and document accessibility compliance at the university. This is critical over the next 2 years as the university transitions to a new WCMS platform and the academic focus shifts to growing Mason's online educational offerings.

2-YEAR STRATEGIC FOCUS

Over the course of FY16 and FY17, the ATI will focus on the following areas:

- ATI Staffing
    - Strengthening our team of accessibility specialists;
- Marketing
    - Improving marketing and communications*
    - Update ATI's web-based resources (i.e., accessibility.gmu.edu, ati.gmu.edu);
- Web Accessibility
    - Developing a comprehensive web accessibility strategy for the university;
    - Update web accessibility testing guidelines;
- Document Accessibility
    - Partner with DE to expand document accessibility strategy and improve online course review process;
    - Seek funding to expand document accessibility support services for instructional faculty*;
- Purchasing and Procurement
    - Develop clear policy guidelines, as it relates to accessibility, in the EIT purchasing and procurement process (includes both ITS and library);
    - Identifying the gaps, as it relates to accessibility, in the EIT purchasing and procurement process;
- Library Accessibility
    - Improve access to library programs and services, and;
- Assistive Technology
    - Improve assistive technology offerings to support notetaking and organization.

STRENGTHEN OUR TEAM

The ATI is staffed with a diverse group of accessibility professionals with a broad range of experiences. Leveraging this expertise, our office has been able to address a number of technology-related accessibility challenges at the university; namely the provision of assistive technology, EITA policy and procurement, the provision of accessible media, and the provision of accessible text.

Future staffing considerations will address the following critical areas of need:

1. **Support with web and document accessibility.**

   We must focus intently on developing compliance-related initiatives to broadly address web and document accessibility practices at the university. These are areas where we lack a cohesive plan. Over the next 2 years, the university will both transition to a new WCMS platform and enter a partnership, which strengthens and diversifies Mason's online educational offerings. It is imperative to strategically position this office to be a part of this transition.

2. **Support with converting STEM content for blind students.**

   The provision of braille and tactile graphics for blind students enrolled in STEM (Science, Technology, Engineering, Math) programs is another area that must be addressed over the next year or so. The ATI does not have expertise in the conversion of STEM content into Nemeth Braille. We also lack experience with converting STEM content into MathML. In the past year, we have had two blind students enroll in STEM programs. This has resulted in the DS office dedicating a significant amount of their accommodation's budget (>$40k) to outsource the conversion of these materials (i.e., a couple of textbooks, as well as homework assignments, quizzes, exams, etc.) into Nemeth Braille. Given that these two students are only in the first year of their programs, it is likely that this is not a one-time occurrence. In concert with the DS Office, we must consider how we can reduce costs while delivering the same level of support and service to this population.

3. **Improved focus on marketing and communications.**

   Another glaring need for our office is an improved marketing and communications strategy. In this office, marketing and communications has, oftentimes, not been considered until the very last minute. This actually covers a number of areas. This includes not only marketing events that we are hosting, but also following up on the success or failure of those events. It involves surveying students, staff, and faculty at the end of each semester to identify gaps in our services, alerting students and staff to

new initiatives that we have implemented, identifying offices that we could develop stronger partnerships with, as well as staying abreast of new initiatives at the university that our office could play a strategic role in. To date, this responsibility has been loosely shared amongst all ATI staff members. Over the course of the next year, it is imperative that the ATI centralize this responsibility to one dedicated staff member.

DEVELOP A COMPREHENSIVE WEB COMPLIANCE STRATEGY

The transition to a new WCMS platform and an emphasis on potential partnerships with educational marketing companies to build Mason's online educational offerings signals the university's commitment toward developing an online brand. To date, the ATI Office has lacked a consistent strategy towards tackling the accessibility of websites and web-based resources here at the university. In recent years, many institutions (e.g., Louisiana Tech University, Florida State University, Penn State University, South Carolina Technical College System, University of Montana, UC-Boulder, Harvard/MIT) have faced litigation and/or programmatic reviews by the Department of Justice (DOJ) and/or the U.S. Department of Education's Office of Civil Rights (OCR) for failing to ensure equivalent access to websites, information technology, and other e-learning technologies for individuals with sensory impairments at higher education institutions. Websites and web-based resources have become the primary vehicle through which students learn about, access, and/or enroll in programs and services at the university. If Mason is to avoid similar challenges in the future, it is essential that we move quickly to develop a strategy that is both impactful and sustainable.

The following areas will be addressed:

1. **The ATI Office will update existing EITA web testing standards and guidelines.**

   As with the purchasing language, these resources will be hosted on the ATI's website and will offer guidance to web developers and content authors that wish to test their own websites and/or web-based resources. In addition to that, this language can be furnished to external vendors when weighing whether or not their products are in line with Mason's EITA web accessibility standards.

2. **The ATI Office will do more to reach out to students, staff, and faculty with disabilities.**

   We must engage with individuals with disabilities regarding their experiences navigating Mason websites and web-based resources. This would enable us to identify potential challenges for these populations. Furthermore, it would ensure that our Priority I and II resources are in line with the needs of the community that we primarily serve.

3. **The ATI Office will reach out to the Marketing and Communications Office to actively engage in the development and/or review of the new WCMS templates.**

The ATI Office has had a limited role in the review of the new WCMS templates developed by the Marketing and Communications Office and their partner, Digital Wave. While our input was included early in the process, it has not been consistently sought throughout the development lifecycle. This has resulted in the development of a new GMU home page that not only failed with respect to the inclusion of accessible design elements (i.e., color contrast, keyboard navigation, etc.); it was also not very user friendly. In the near future, we will work through the VP for Compliance, Diversity, and Ethics to improve dialogue and the process by which accessibility is integrated into the web development process.

4. **The ATI Office will actively engage in the development and/or review of current Mason websites.**

Given that the transition to the new WCMS is expected to take approximately 2-3 years, we must remain vigilant about addressing web accessibility-related challenges that exist right now. This is a perfect opportunity to begin educating these units on what must be done to ensure that their websites and web-based resources are accessible to individuals with disabilities. As units and offices are contacted about developing their new websites, these efforts will position our office to play a more active role in the web development process.

5. **The ATI Office will actively communicate with department chairs, managers, supervisors, web developers, and/or content authors at the university.**

The AMP (Accessibility Management Platform) software actively reviews Priority I and II websites, but that information has not been regularly shared with department chairs, managers, supervisors, web developers, and/or content authors. We must do a better job of reaching out to these individuals, sharing the findings, and communicating the need for accessible web design.

6. **The ATI Office will improve transparency with respect to reporting issues and accessible web design.**

Part of improving communications will involve improving the transparency of web accessibility practices at the university. This can be addressed through three key actions: (1) Providing individuals with a standard feedback mechanism/information statement on all Priority I and II websites for reporting technology access issues; (2) Developing a more robust remediation plan for addressing more critical web compliance issues; and (3) Listing baseline web accessibility standards and practices on our website, http://ati.gmu.edu/web-accessibility/.

PARTNER WITH OFFICE OF DISTANCE EDUCATION

The Disability Services (DS) office had approximately 1400 students register for services in FY15. A large percentage of those students have a documented print disability (i.e., blind, low vision, dyslexia, cognitive, etc.). Those students have enrolled in courses (i.e., online, hybrid, and face-to-face) across all of the colleges and schools here at the university. As more academic units offer online courses and/or move their educational resources online (i.e., face-to-face), students with disabilities, in particular those with print-related disabilities will enroll in these courses.

Over the last 4-5 years, the number of courses developed by the Office of Distance Education (DE) has grown by approximately 20% annually. It is now estimated that approximately 1 in 7 students at the university have enrolled in at least one online course. Add to that, approximately 1 in 34 have enrolled in fully online programs at the university.

The ATI has developed a strong partnership with the DE Office and the Instructional Design (ID) Team to incorporate accessibility into the online course development process. This has both raised awareness about the need for incorporating accessibility into the design of one's course and enabled our office to develop and refine strategies for improving faculty adoption of accessible design practices (e.g., captioning, document structure, alt text, etc.). However, while captioning has been successfully integrated into this process, document accessibility has not gained equal footing.

The following areas will be addressed:

1. **The ATI Office will develop a plan that improves the adoption of accessible document design by instructional faculty.**

   Document accessibility support (beyond the provision of training resources) is a critical area of need for instructional faculty (i.e., adjunct faculty) who are supporting students with print disabilities and those needing to develop compliant online courses. We purchased tools to aid in the production of accessible documents (i.e., CommonLook, ABBYY Recognition Server), but have not done enough to integrate these tools into workflows that are easily adoptable by instructional faculty. We must be creative in the months and years ahead about how to address these issues.

2. **The ATI Office will streamline accessibility reviews for online courses at the university.**

   In May 2015, the ATI Office was asked to pilot a new course portfolio review process whereby accessibility would be evaluated independent of the rest of the course. The goal was to leverage the expertise of ATI staff and improve what DE and instructional faculty had identified in previous course portfolio reviews as an area lacking clarity. As a part of the new review, we developed an accessibility checklist, a workflow for quickly reviewing online courses for accessibility, and a findings template that was then provided to the faculty member teaching the course. The pilot was very well received and the DE office requested that we build upon the pilot's success by reviewing their online courses for the 2015 summer and fall semesters. Concerns were raised, however, about scalability given the size of our office and how to best communicate findings to instructional faculty. The pilot involved only 6

courses. Between summer and fall, they are expecting upwards of 25 courses that would need to be reviewed. In the months ahead, we will focus on strategies for improving how we relay accessibility findings to faculty and for how to best handle a large number of reviews should they come.

IMPROVE THE EITA PROCUREMENT PROCESS

Accessibility reviews have been successfully integrated into the purchasing and procurement at the university. In the coming weeks, the Architecture Standards Review Board (ASRB) committee will be transitioning from the EPMO (SharePoint) system as their primary project management tool to using InfoPath. What is expected is that this will improve transparency within the purchasing and procurement lifecycle, enabling all parties (i.e., security, accessibility, application management, etc.) to identify and remediate backlogs, if necessary. This improvement will enable our office to identify not only when or if a particular technology solution is approved for purchase, but who is making the purchase and when it was purchased; nonetheless, as it relates to accessibility, there are still many areas left undetermined.

Going forward, the following areas will be addressed:

1. **The ATI Office will develop clear, transparent EITA purchasing and procurement guidelines.**

   These guidelines will be hosted on the ATI's website and will contain language that ITS and library staff can use when evaluating new EIT purchases.

2. **The ATI Office will identify critical areas within the purchasing and procurement lifecycle after the purchase has been approved.**

   These critical areas would enable our office to identify gaps, as it relates to accessibility, in the purchasing and procurement lifecycle. For example, once purchased, we still are unable to identify whether or not offices are removing contract language that includes accessibility, whether or not vendors are accepting timelines for including accessibility, whether or not new versions of technology solutions are being purchased and approved without going through the ASRB, etc. Until we have a more thorough understanding of the purchasing and procurement lifecycle process after approval is given, we cannot fully address EIT accessibility.

IMPROVE ACCESS TO LIBRARY PROGRAMS AND SERVICES

In recent years, the ATI Office has partnered with the library's Accessibility Coordinator to improve access to the library's programs and services. This has resulted in improved communications between the two offices, improved access to ATI labs, and more opportunities for training with library staff on EIT accessibility-related issues.

To continue building on this success, the following areas will be addressed:

1. **The ATI Office will work with the library on a purchasing and procurement lifecycle.**

   The library is currently not subject to the ASRB review process. As a result, no EIT purchases made by the library are reviewed for accessibility. Library resources play a critical role in the instructional process and it is essential that these resources be reviewed to ensure equivalent access for students, staff, and faculty with disabilities. To date, the library has agreed to work with us on the development of a review process, but there has been no movement in recent months on the development of any procedures to address this gap. They have requested that it not be as thorough as the process in place through the ASRB. We will work with library staff on some common goals that both units can agree to.

3. **The ATI Office will develop a database accessibility testing process.**

   Over the past two years, the library has shared the top 20 most used databases at the university. This information is invaluable as it allows the ATI to focus accessibility testing resources on those areas that are of critical need for students with print disabilities, particularly those with vision impairments. We will develop procedures for testing these databases and publish findings that will improve access to these resources for Mason students with visual impairments.

4. **The ATI Office will work with the library to offer an alternative citation management solution for blind students.**

   Zotero is the university's citation management solution. It is regularly used in classes and a large number of the research courses at the university will teach toward the use of that tool if they are highlighting a citation management solution. Zotero is not accessible to blind students. As a result, these students are at a significant disadvantage when it comes to the management and retrieval of research articles and resources. The ATI is partnering with the library on the provision of RefWorks as a citation management solution to support this population. The ATI has purchased the solution and the library will ensure that their staff is trained on how to use it. Furthermore, the library will host an ongoing workshop to train these students on a regular basis, if necessary.

IMPROVE/UPDATE EQUIPMENT INVENTORY

The ATI Office's equipment inventory is due for an overhaul/update. It has been approximately 4-5 years since a thorough review of our inventory has been completed. Additionally, many of the computer workstations currently in place are nearing the end of their lifecycle.

Going forward, the following areas will be addressed:

1. **ATI Staff will complete a thorough inventory of their existing hardware devices.**

   It has been approximately 4-5 years since many of the existing laptops and computer workstations have been refreshed. This has resulted in performance issues as newer and more resource-intensive assistive technology and accessibility applications place greater demands on our computer systems. In the coming months, the ATI Office will assess existing computer workstations and other hardware resources (i.e., scanners, printers, etc.) and make decisions on the appropriate resources to update.

2. **ATI Staff will complete a thorough inventory of their existing assistive technology and accessibility software applications.**

   While some of our assistive technology applications (e.g., JAWS, ZT) are continuously monitored, others are not. This has led to redundant purchases (i.e., Dragon) and confusion as it relates to who has what version of a specific software application and where these applications are installed (i.e., Acrobat). In the coming months, the ATI Office will move to standardize the assistive technology and accessibility applications installed on all workstations (e.g., Acrobat, MS Office, JAWS, ZT, Duxbury, etc.). These updates will ensure that ATI staff have access to the latest software applications. In addition to that, this streamlines budget expenditures by eliminating redundancy.

OPERATIONS PLANNING

- ATI Manager
  - Korey Singleton
- Coordinators
  - *Accessible Media*, Courtney Shewak
  - *IT Accessibility*, Kristine Neuber
- Specialists
  - *Accessible Media*, Nancy Borck
  - *Program Support*, Robert Starr
- Students
  - *ATI Office Assistant*, Chelsea Yanc
  - *ATI Office Assistant*, Scott Gardiner

ATI PROJECTS

Project Title	Description	Project Lead	Projected Timeline
AT Lab Image Updates (Libraries)	Work with ITS to update library AT Lab images.	Robert Starr	July 2017
Campus Mapping Plan	Investigate existing campus mapping solutions and develop plan for offering a more accessible solution to individuals in the Mason community	Korey Singleton	Sept. 2017
Coordinate conversion of textbooks and instructional resources to braille/tactile graphics	Coordinate quotes, conversion, and delivery/pick-up of braille/tactile graphics resources for blind students in STEM courses	Courtney Shewak	As needed
High speed scanning stations	Oversee maintenance of high speed scanning stations in ATI 235 and Gateway library AT Room	Robert Starr	As needed

Supplemental Application Reviews	Review and test 3rd-party applications for accessibility and usability (i.e., Mathematica, MyMathLab, etc.).	Kristine Neuber	As needed
Accessible/alternative texts and instructional materials (Accommodations)	Conversion of instructional materials (i.e., PPTs, PDFs, textbooks, exams, quizzes, etc.) into Braille, readable PDFs, Word, etc.	Courtney Shewak	As needed
ASRB Committee (Procurement)	Work with ITS to review new software and web application purchases for accessibility and conformance with Sect. 508 and WCAG.	Kristine Neuber	As needed
ATI Training	Coordinate, conduct, and schedule ongoing ATI trainings and training locations.	ATI Staff	As needed
ATI Website	Ongoing maintenance of Accessibility@Mason and ATI Websites	ATI Staff	As needed
Captioning and Transcription	Coordinate delivery/production of accessible media (i.e., captioning, audio description) to support individuals with disabilities in Mason community and ensure compliance with relevant disability laws.	Courtney Shewak	As needed
Distance Education	Coordinate integration of electronic and information technology accessibility planning with Mason Online.	Korey Singleton	As needed
IT Accessibility Working Group	Work with key stakeholders (i.e., ITS, Legal, CDE, DS, Library, etc.) on university's electronic and information technology accessibility plan.	Korey Singleton	As needed

Library Accessibility	Partner with Library's Accessibility Coordinator to develop strategic plan for library accessibility.	Korey Singleton	As needed
Mason LIFE	Conversion of instructional materials for students enrolled in Mason LIFE program.	Nancy Borck	As needed
Web Accessibility	Develop and maintain university guidelines for conformance of websites and web-based documents with Section 508 and WCAG 2.0.	Kristine Neuber	As needed
Document Accessibility (Compliance)	Develop strategic plan for ensuring accessibility of instructional resources (i.e., Word, PPT, PDF) used in Mason.	Korey Singleton	As needed