

# Special Needs:

## Envisioning a Spectrum of Library Services

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### The Imperative

Many individuals with disabilities frequent our libraries. The degree to which we are familiar with their presence varies greatly from one institution to another based on the volume of activity and whether the disability is visible or not. Regardless of the frequency of our interaction with these individuals, all of us have been educated by the legal framework that has been established for access to services. As the American Library Association has pointed out, “Libraries play a catalytic role in the lives of people with disabilities by facilitating their full participation in society.”<sup>1</sup>

Title II of the Americans with Disabilities Act of 1990 (ADA)<sup>2</sup> and its predecessor, the Rehabilitation Act of 1973, <sup>3</sup> with amendments in 1986 and 1998, require institutions to meet minimum requirements for accessibility whether or not they receive federal funds, without regard to the size or capabilities of the institution. All new and renovated buildings must meet architectural requirements for accessibility. All programming must be made available as well. In addition, educational opportunities and

information resources must be accessible. A key concept in this context is "reasonable accommodation." Libraries and other public services cannot be required to provide accommodations that would place an undue financial strain on the institution, but the burden is on the institution to justify any failure to provide requested services. In addition, no library wants to be perceived as unwilling to do whatever is necessary to serve all of its patrons.

## **Defining Disabilities**

ADA defines a disability as "a physical or mental impairment that substantially limits one or more of the major life activities of an individual." Physiological conditions may include such things as mobility impairments, visual impairments, hearing impairments, speech impairments, and seizure disorders. Such impairments affect the individual's ability to access keyboards, view information, distinguish color, hear audio output, or participate in electronic conversation such as in an audioconference. Mental disorders can include mental retardation, organic brain syndrome (e.g., degenerative diseases), emotional or mental illness, impairments resulting from brain trauma, and specific learning disabilities.

**Assistive Technology:** technology designed to be utilized in an assistive technology device or assistive technology service.

Assistive technology device: any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities

**Assistive Technology Service:** any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device.

**Universal Design:** designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly usable (without requiring assistive technologies) and products and services that are made usable with assistive technologies.

## **Accessible Buildings**

The ADA requires that both architectural barriers in existing facilities and communication barriers that are structural in nature be removed as long as such removal is “readily achievable” (i.e., easily accomplished and able to be carried out without much difficulty or expense). The regulations that guide us in many of the choices for our libraries are the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).<sup>44</sup> Section 8 of ADAAG deals specifically with libraries but is linked to the general building guidelines in Section 4. Any library that has built a new building or undergone renovation has become intimately familiar with the regulations. Many administrators of older buildings that are not required to come into full compliance have done what they could as funding allowed. But doing the big project and getting all the specifications right is not enough. Library administrators and staff responsible for building operations need to internalize the core values of accessibility so they will be alert to incremental changes within the building that may move it backward from accessibility. For example, something as mundane as replacing trash cans could create a problem if the design and placement is not done with an eye to accessibility. Relocating furniture or equipment may inadvertently restrict accessibility if guidelines aren’t considered. If public address systems are added or replaced they need to be compatible with special receivers and hearing aids used by patrons with hearing impairments and emergency systems should give visual clues as well as sounding an alarm.

Reasonable structural modifications are important to full access and often include ensuring accessible parking, providing unencumbered access to and through the building, accessible furniture and public desks, and usable restrooms, drinking fountains, and other internal facilities. Other reasonable modifications may include visible alarms in rest rooms and general usage areas and signs that have Braille and easily visible character size, font, contrast and finish.

Unfortunately, the most likely way to discover that you have overlooked accessibility is to be reminded by one of your patrons.

## **Accessible Technology**

Well-planned technological solutions and access points, based on the concepts of universal design, are essential for effective use of information and other library services by all people. Libraries should work with people with disabilities, agencies, organizations and vendors to integrate assistive

technology into their facilities and services to meet the needs of people with a broad range of disabilities, including learning, mobility, sensory and developmental disabilities. Library staff should be aware of how available technologies address disabilities and know how to assist all users with library technology.

Section 508 of the Rehabilitation Act of 1973 was added to the act in 1986 and then amended in 1998 as the nature of our new wired world became increasingly clear. It requires that all public entities that receive federal funds (as most libraries do) make information technologies available to people with disabilities unless they can demonstrate an undue burden in doing so.

The advent of online information resources and public computers in libraries clearly raised the bar for libraries. Technology is never static and every library administrator knows of the relentless demand for new or upgraded equipment and software. Assistive technology is no exception. To assure equal access to information and guarantee non-discrimination in providing technology and services, libraries must keep up with innovations and new opportunities. Computer workstations must be equipped with software and assistive devices that will enable patrons with disabilities to perform the same tasks and access the same resources as the general population. Library websites, databases and electronic resources must meet mandated accessibility guidelines for the visually impaired. As multimedia applications become common, devices to aid patrons with hearing impairments must be added.

The goal of equalizing access to the opportunities presented by 21st century technologies is an integral component of the wider goal of equalizing the opportunities for all people through the pursuit of “universal usability.” One concise statement of this tenet comes from the ethics code of the Association for Computing Machinery (ACM).

In a fair society, all individuals would have equal opportunity to participate in, or benefit from, the use of computer resources regardless of race, sex, religion, age, disability, national origin or other such similar factors.<sup>5</sup>

In this context, people with disabilities benefit from the idea that “a rising tide lifts all boats.” The concept of universal usability (also referred to as universal access) in libraries comprises much more than overcoming

physical limitations to the use of computers and online resources. Libraries and the governments that support them strive to equalize urban and rural, wealthy and poor, native and immigrant by providing Internet access, information resources and the computers needed to access them.

Universal Access/Design should be the goal for any project because it focuses on trying to reach and accommodate as many people as possible, i.e. to be inclusive. Simply put, it is the golden rule. Treat each patron with the respect and consideration that you would wish for yourself in the same situation. Be fair.

One of the most important outcomes of this approach is that it has moved the technology community as a whole to take an integrated approach to making computers, websites and online resources accessible. In fact, a small industry has grown up around the need to test usability of software and websites. One excellent site for exploring the issue of website accessibility is the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3).[6](#)

Another important outcome stemming from the impetus of federal regulations has been a quickened pace for the development and dissemination of assistive technologies. According to a new report by the National Center for Technology Innovation (NCTI), the assistive technology field is at a tipping point. The report, which documents the proceedings of a series of discussion forums at the Nov. 2005 NCTI conference, identifies a convergence of three factors that are driving developments in assistive technologies: the mainstreaming of students who need special education services, reporting mandates of No Child Left Behind and the Individuals with Disabilities Education Improvement Act (IDEA), and finally, “stunning innovation of technology.”[7](#) Researchers and manufacturers are creating new applications and enhancing known applications at a pace that challenges the educational community to keep up. The report acknowledges this gap between innovation and implementation as institutions strive to afford and manage new technologies. While the limitations placed by budgets are obvious, of equal concern is a perception that vendors of new technology are introducing levels of complexity and often unneeded bells and whistles that place the innovations beyond the reach of institutions that are not able to afford highly skilled adaptive technology (AT) staff. Responders at the NCTI forums cited “overly complex products as limiting the adoption of and competence with technology integration among practitioners.”[8](#)

While the NCTI report deals primarily with the introduction of AT to schools, it is highly relevant for librarians and AT staff. The report warns that we will continue to be placed in the position of balancing what can be developed in the technical arena with what is possible in the broader world. In terms of planning for service, the best approach is to have a process for identifying and reviewing new developments coupled with a process for assessing needs of specific patrons and balancing both factors with the constraints of budget and staff time.

### **Accessible Collections**

Libraries must not discriminate against individuals with disabilities and shall ensure that they have equal access to library resources.

Library materials must be accessible to all patrons including people with disabilities. Materials must be available to individuals with disabilities in a variety of formats and with accommodations, as long as the modified formats and accommodations are “reasonable,” do not “fundamentally alter” the library’s services, and do not place an “undue burden” on the library.

To ensure such access, libraries may provide individuals with disabilities with services such as extended loan periods, waived late fines, extended reserve periods, library cards for proxies, books by mail, reference services by fax or email, home delivery service, remote access to the OPAC, remote electronic access to library resources, volunteer readers in the library, volunteer technology assistants in the library, American Sign Language (ASL) interpreter or realtime captioning at library programs, and radio reading services.

Within the framework of the institutional mission, libraries should include materials with accurate and up-to-date information on the spectrum of disabilities, disability issues, and services for people with disabilities.

### **Planning to Serve**

Every library should have a plan for providing services to patrons with disabilities and a process for ongoing evaluation to respond to new opportunities, embrace effective technologies, and recognize needs of a changing patron population. Through dynamic planning and by nurturing a service ethic, each library can create a welcoming and accommodating

environment that does more than just meet the minimum legal standards. In general terms, each library plan should address the following five areas and strive to provide the best accommodations possible within the budgetary limits of the institution.

## **Staff Training**

Before the first dollar is spent on improving a facility or purchasing furniture and technology, the staff of the library should receive thorough training on how to work with all patrons, including those with disabilities. This may include the following:

- **Who is disabled?** Staff should understand the range of possible disabilities that may encounter, some of which may have already been identified among library patrons. However, do not assume that patrons with disabilities are always identifiable, that they will necessarily self-identify, or that you are meeting all existing needs simply because no patron has asked for other services or accommodations.
- **Disability etiquette.** How should staff interact with people who are blind, deaf, in a wheel chair or otherwise disabled? What is acceptable behavior? When do you offer help and when do you step back? Many people in public service positions need help to get over the sense of otherness that prevents them from connecting and becoming comfortable with patrons with disabilities.
- **Disability awareness.** Train your staff to look at your facility from the viewpoint of your patrons with disabilities. Public service staff, custodians and others who are regularly in public spaces are uniquely able to assess your facility to spot problems that can develop even when the building design is ADA-compliant. Are aisles and walkways cluttered? Are furniture, kick stools, wastebaskets, etc. out of place? Have signs been posted where people with low vision can't read them? Are chairs too heavy for a person in a wheelchair to move aside to pull up to a table?
- **Basic procedures.** Who responds when someone needs help retrieving a book from the shelves? Who should be called when a patron requests special assistance? Are there safety issues, such as extra care needed to be sure the building is cleared if an alarm sounds?

- **Legal short course.** Staff should understand the basic provisions of the underlying laws that require libraries to make their facilities and services accessible.

## **Building and Facilities**

- Was the building designed to ADA guidelines? If not, have you made all reasonable modifications to provide access and accommodation?
- Can patrons with disabilities get into your building? Is there a designated place for them to park?
- Do they have access to all public areas? If not, are there procedures in place to compensate, such as sending staff to retrieve books or moving story hours or other activities when requested?
- Are there tables or other workspaces that are suitable?
- Do restrooms meet guidelines?

## **Computers and Technology**

- Do patrons with disabilities have reasonable access to the same kinds of technology and information resources that are available to the general population?
- If your library has public computers, are some of them equipped with special hardware or software features needed by the patrons who are visually impaired, hearing impaired, or limited in mobility?
- Are there any additional assistive devices that would be beneficial for disabilities that have been identified among your patrons?
- Does your library website meet federal guidelines for accessibility to visually impaired patrons who use screen-reading software? If not, who will do the work necessary to create accessible pages?
- When purchasing electronic resources do you review the specifications to determine that the text will be accessible?

## **Services**

Does your library offer any special services for patrons with disabilities?

Such services include:

- **Patron assistants:** volunteers or staff who may read to visually impaired patrons or help those with restricted mobility while they are in the library.

- **Cut and scan services:** some institutions (primarily universities) offer to cut apart and digitize personal books so that they can be read by screen-reading or text-to-speech software. This is especially valuable for students who will otherwise be delayed in reading required texts because of the lack of an accessible format.
- **Home delivery of books:** a service for paging books and delivering them to the home or office of a patron who is not able to come in to the library.

## Responsibilities

Lead staff in each institution are ultimately responsible for meeting legal requirements. Beyond simple compliance, libraries must be aware of new developments and opportunities.

- Who will make sure that the library's accessibility plan is followed, and that it is regularly reexamined?
- Who will oversee staff training?
- Who fixes physical problems that are identified?
- Who is monitoring the website?
- Is there a plan and funding for ongoing training?

## Finding Your Accessibility Quotient

When deciding what services and technology can be realistically provided, each library must assess both its own financial and physical capabilities and the needs of its specific population. The table in *Figure A* groups libraries into three categories according to their fiscal capacity to meet special requirements for patrons.

1. **High capacity:** Well funded, with support for assistive technology and services from grants or, in academic libraries, from dedicated fees. Generally serve a large population.
2. **Medium capacity:** Some funds allocated for assistive technology; a process is in place to respond when needs are identified.
3. **Limited capacity.** Little or no dedicated funding for assistive technology and services. Challenged to respond to basic requests for accommodations.

*Figure A:*

AQ	Staffing	Hardware	Software	Services	Profile
<b>High</b>	<ul style="list-style-type: none"> <li>• At least one dedicated, trained staff member.</li> <li>• Someone with specialized training available at all hours.</li> <li>• Basic procedures , etiquette and awareness training library-wide.</li> <li>• May have volunteers.</li> </ul>	<ul style="list-style-type: none"> <li>• Large screen monitors.</li> <li>• Specialized scanners.</li> <li>• Track ball mouse and other alternative input devices.</li> <li>• Other assistive devices as needed.</li> <li>• May have a designated AT lab as well as computers throughout building.</li> <li>• Headphones.</li> </ul>	<ul style="list-style-type: none"> <li>• Magnification (e.g., Zoomtext, Magic).</li> <li>• Screen reading (Jaws, Window Eyes).</li> <li>• Scan/read software (Kurzweill, ReadPlease 2003, Texthelp).</li> <li>• Closed Circuit TV.</li> <li>• Website Fully Accessible.</li> <li>• Databases screened for accessibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Assistance with retrieving books and other materials.</li> <li>• May have staff or volunteer readers.</li> <li>• Cut and scan for personal books.</li> <li>• May have Braille embosser.</li> <li>• May offer home delivery.</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipate needs.</li> <li>• Act without threat of lawsuit.</li> <li>• "Do the right thing."</li> <li>• Aware of and striving for innovations in AT.</li> </ul>
<b>Medium</b>	<ul style="list-style-type: none"> <li>• Access to AT specialist.</li> <li>• Designated staff person for AT.</li> <li>• Basic procedures , etiquette and awareness training library-</li> </ul>	<ul style="list-style-type: none"> <li>• Trackball mouse.</li> <li>• Headphones.</li> <li>• Handheld magnifiers.</li> <li>• Some budget for special requests.</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize free applications within Windows</li> <li>• May use freeware.</li> <li>• Limited purchases of software as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Assistance retrieving books.</li> <li>• May have volunteer readers or personal attendants</li> <li>• Some staff availability</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipate minimal level of service and offer more on demand.</li> </ul>

	<ul style="list-style-type: none"> <li>wide.</li> <li>• May have volunteers.</li> </ul>				
<b>Low</b>	<ul style="list-style-type: none"> <li>• Basic procedures , etiquette and awareness training to lead staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Headphones.</li> <li>• Handheld magnifiers.</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize free applications in Windows.</li> <li>• May use freeware.</li> </ul>	<ul style="list-style-type: none"> <li>• May have volunteer readers or personal assistants.</li> </ul>	<ul style="list-style-type: none"> <li>• Reactive to demands of specific patrons.</li> </ul>

### **The MTSU Experience**

Middle Tennessee State University (MTSU) has become the institution of choice for many Tennesseans with disabilities. This can be attributed to a proactive Disabled Student Services (DSS) program, a commitment by the University administration to accessibility campus-wide, and effective outreach. Each campus program is reviewed to ensure that it is readily accessible to qualified persons with disabilities. Through DSS, the university offers a wide variety of services to students including access to the latest in adaptive computer technologies and liaison service to University departments.

The Walker Library at MTSU is focused on full and free access to information resources. The 250,000 square foot building, which opened in 1999, was designed not just to meet federal requirements, but also to maximize convenience for students and other patrons with disabilities. The library has been fortunate to have an effective working relationship with the campus DSS that includes an Adaptive Technology Center (ATC) located on the first floor of the library. Staff in the ATC work for DSS but are integrated into the library operations. This facility provides access to adaptive/assistive technology that maintains or improves the functional capabilities of students with disabilities. The ATC helps students remove obstacles, achieve academic success, interact with their surroundings and lead a more independent life. It is through DSS's ATC that many auxiliary aids and services are provided campus-wide.

Services offered by the Adaptive Technology Center include:

- **Technical Support Program:** offers students with disabilities and the faculty/staff working with DSS students assistance in the use of adaptive/assistive technology;
- **Alternative Data Program:** assists students with disabilities and the faculty/staff working with DSS students in the sending/retrieval of educational information and documents in alternative formats;
- **In-service/Outreach Program:** provides one-on-one and small group orientation to adaptive/assistive technologies;
- **ATC Loan Program:** provides short-term adaptive/assistive technology loans to students on a daily, weekly or semester basis;
- **ATC Student Assistants Program:** allows DSS students the opportunity to come to the ATC during posted semester hours and receive assistance with adaptive/assistive technology or ask general questions;
- **DSS Student Awareness Program:** keeps DSS students informed of changes, campus activities, and opportunities through the DSS listserv. DSS students are added to the listserv upon registration with DSS unless the student requests otherwise.

Equipment and software programs utilized by the Adaptive Technology Center include the following:

Kurzweil 1000 (scan and read software/hardware application for the blind)  
 Kurzweil 3000 (scan and read software/hardware application for those with learning disabilities)

JAWS (screen reading software application for the blind)

ZoomText (screen magnifying software to help those with low vision)

TextHelp (multifunctional application for a range of disabilities)

Dragon Naturally Speaking (voice recognition software/hardware application)

Duxbury (Software to translate print to braille. Works with an embosser.)

GOODFEEL (Software to translate printed music scores into braille through an embosser)

Thomas Embosser for Braille

Tiger Embosser for Braille

Perkins Braillers (Equipment for manually producing braille documents)

Tactile Image Enhancer (Converts scans of printed images into embossed copies)

Jordies (vision enhancement device for the low-vision)

Braille Lite Millenniums (portable, electronic notetaker for the blind)

Laptop computers  
Madanta Tracker 2000 (laser mouse for limited mobility)  
Williams FM Hearing Systems (assistive hearing device)  
Braille Displays (Equipment that adapts computer keyboards to display braille)  
Touch Turners (automated page turner)  
Victor Readers (audio book playback system)  
Two and Four Track Tape Recorders  
Closed Circuit Televisions  
High Speed Scanners  
Flat Bed Scanners  
Duplex Scanner  
Spine cutter for books  
Talking Scientific Calculators  
Assortment of input and output devices  
Access to an alternative book collection

The installation of adaptive/assistive technology on other floors of the Walker Library allows students the freedom to work in the computer workstation areas of the library as well as in the ATC.

Other services provided by MTSU include fundamental assessment for students, faculty and staff needs and systems analysis of program accessibility to help identify effective AT strategies and devices, or support previous AT prescriptions, for use in the MTSU educational environment.

While individuals with disabilities still face access challenges, the rapid development of assistive technology has made it possible for individuals with a wide range of disabilities to use computers, networking and telecommunications technologies and multi-media products that broaden access to information.

## **Conclusion**

From the smallest community outpost to the most extensive academic institution, libraries strive to view each patron as an individual and provide services that accommodate individual needs. This approach is particularly important for persons with disabilities. As the American Library Association statement on accessibility states, "One of the core purposes of libraries is to provide access to information to patrons, including patrons with

disabilities.”<sup>9</sup> We must seek to provide the specialized services required to ensure that all of our patrons have the access they need. While some measures are costly, many are not. A number of libraries have employed proactive approaches to improving service which are to be commended, especially since they have occurred in a climate of increasing demand and tighter budgets. Continuing improvements can be achieved through assessing our environments, educating and training our staffs, and creating effective policies. By working to create a supportive environment, providing the tools that patrons require, and offering needed services and referral channels to meet their needs, we can ensure full access to all our patrons.

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### Footnotes

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