

Accessibility in Libraries

A LANDSCAPE REVIEW



Acknowledgements

This report was authored by Melina Sherman, Researcher at Knology, a social science think tank, in collaboration with the American Library Association (ALA) Public Programs Office and Office for Diversity, Literacy, and Outreach Services. Knology and ALA would like to acknowledge the input of colleagues who helped shape this review and thank them for their ideas and expertise, particularly Audrey Barbakoff, Rebecca Joy Norlander, Joanna Laursen Brucker, Bennett Attaway, Jena Barchas-Lichtenstein, Hannah Arata, Kaileen McGourty, Samantha Oakley, and Kevin Strowder.

Preface

This literature review was developed as part of the Libraries Transforming Communities (LTC): Accessible Small and Rural Communities project. A project of the American Library Association (ALA), supported by a private funder, and offered in partnership with the Association for Rural & Small Libraries (ARSL) and the National Coalition for Dialogue & Deliberation (NCDD), LTC: Accessible Small and Rural Communities is the newest phase of Libraries Transforming Communities, ALA's longstanding community engagement initiative. This report was created by Knology which is a collective of scientists, writers, and educators dedicated to studying complex social issues and ALA's research and evaluation partner for the LTC initiative.

Since 2014, LTC has re-imagined the role libraries play in supporting communities. Libraries of all types have utilized free dialogue and deliberation training and resources to lead community and campus forums; take part in anti-violence activities; provide space for residents to come together and discuss challenging topics; and have productive conversations with civic leaders, library trustees, and staff to create change.

From 2023 through 2025, LTC: Accessible Small and Rural Communities will offer more than \$7 million in grants to small and rural libraries to increase the accessibility of their facilities, services, and programs to better serve people with disabilities. As part of this work, participating libraries will first conduct community input-gathering sessions to assure their work aligns with local needs. Libraries will be required to identify the primary audience they are hoping to reach (e.g. seniors with limited mobility, children with

autism, Deaf community members) and facilitate a community conversation with the impacted populations in order to guide improvement of the libraries services. Grantees will then use grant funds to create services or improve their facilities based on the needs identified by their audience.

This literature review was created to provide project staff and advisors with a high-level overview of the landscape of scholarship on accessibility in libraries to inform initial development of the initiative. As such, this is a sketch of the current landscape based on common literature and should not be considered a comprehensive report of the accessibility scholarship or work being performed in the library field.

Written by Knology—a collective of scientists, writers, and educators dedicated to studying and untangling complex social issues. Equity, transparency, and deliberation are the foundation of our work process, which is geared toward the building of inclusive, informed, and cooperative societies. As an organization dedicated to equity, inclusion, and social change, Knology values the diverse perspectives of its team members, whose lived experiences of disability informed the writing of this article.

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Introduction

Since libraries are essential points of connection for communities around the country, it is important to consider how disability and accessibility factor into library settings—whether in library programming, services, or the physical aspects of library buildings themselves. This report, put together by Knology, presents a review of some of the literature and best practices around libraries and accessibility. In particular, it attends to the different ways in which disability has been and continues to be understood, the ways in which the term has evolved, and what this has meant for libraries attempting to become some of the most inclusive and accessible institutions in society. In the pages that follow, this report lays out an explanation of the different ways disability has been understood and defined over time, the history of accessibility in libraries, the landscape of accessibility and its different applications in library settings in the 21st Century, and the resources that are available and most commonly used to include people with different kinds of disabilities into library programs and services.¹

Libraries have long worked on diversity, equity, and inclusion (DEI) initiatives more generally, which often include disability. In fact, a DEI clause was recently added to the American Library Association's (ALA's) Code of Ethics, which incorporates DEI as an ALA strategic direction. DEI is also a core value of the International Federation of Library Associations and Institutions (IFLA). In short, while it is beyond the scope of this report to dive deeply into the details of libraries' DEI efforts, it is important to recognize that disability and accessibility are positioned within the broader scope of the inclusivity efforts of libraries and library associations across the country.

1 The literature review in this article is not all inclusive, but provides a sketch of the landscape of scholarship on accessibility in libraries.

Defining Disability

Medical vs. Social Models

While there are many definitions and models to define disability, to date, there are two models that have become the dominant understandings of the concept. These include the medical model and the social model. It is worth taking a moment to define these terms and to examine what kinds of effects they have on people with disabilities.

First, the medical model defines disability as an individual and measurable phenomenon. Importantly, disability in this model is also seen as something that needs to be either managed or repaired (Brown & Sheidlower, 2020). Oliver and Barnes (2012) label this approach to disability as the “personal theory.” Although the medical model has dominated the history of disability in the Western world, and although it continues to prevail in Western institutions and law, many people with disabilities find this model offensive, namely because it is focused on “individual loss or inability contributing to a dependency model of disability” (Barton, 1996). Moreover, understanding disability as an individual problem can cause both individuals with and without disabilities to experience them as a kind of moral failing or weakness (Berg, 1999).

In response to the problems that accompany the medical model of disability, the social approach displaces the onus of responsibility from the individual with a disability onto the society in which that person lives. In doing so, it also questions what is taken for granted as “normal” or “abnormal,” and, by extension, what needs to be fixed or not. The social approach views disability not as an abnormality or a problem but rather as something that is constantly imposed

by society. In this way, it repositions disability away from the moral domain and recasts it as something that is not about individual weakness, but instead about the limits of a society that fails to adequately consider and accommodate people with disabilities. As an example of a social approach to disability, Oliver's (1983) understanding holds that "disabilities are imposed upon impairments" (p. 47). That is, individuals may have some impairment, but they do not become disabled until they meet a social context that is constructed for and by those without any impairments. Similarly, Abberly (1987) has proposed a theory of disability as oppression that emphasizes its social origins.

Much of the effort toward defining and understanding disability in recent history, and in libraries, has been stuck in what Finkelstein (1980) referred to as a treatment phase in which "the characteristic attitude [is] to view disabled people as suffering personal tragedies, being unable to care for themselves and consequently in need of care and protection" (p. 10). This rehabilitation model of disability is closely related to the medical model. The social approach takes a different direction, asserting instead that disabilities are social constructs that oppress people for being different. In line with this understanding, the social approach is also often accompanied by calls for social change. Most commonly, these calls

For the purposes of this report, accessibility refers to the design of products, devices, services, vehicles, or environments so as to be usable by people with disabilities. Accessibility can also be viewed as the "ability to access" and benefit from some system or entity. This report acknowledges the Americans with Disabilities Act (ADA) definition of accessibility as well, which focuses on enabling access for people with disabilities, or enabling access through the use of assistive technology. However, it should also be noted that research and development in accessibility brings benefits to everyone (Blackwell, 2017).

include demands for accommodation, on the one hand, and universal access, on the other. Demands for accommodation are bolstered by the recognition of social structures that have disabling effects on people, and have led to accommodation becoming a dominant framework within disability studies. This framework requires that social structures, rather than individual people, be held accountable and retrofitted for use by people with disabilities. Alterations to social structures to enable accommodation may include curb cuts, elevators, or texts that are converted for screen reader use, among other things. Additionally, recognition of disability as a social structure has led to accommodation being built into structural design from the point of inception or the beginning of the design process.

Thinking about libraries provides an example of what a medical versus a social approach to disability might look like, along with its effects. Specifically, in a medical approach to disability, the focus would be on the disabled person attempting to rehabilitate themselves, and the result would be exclusion from the library's services. In the social model, however, disability is not understood as a problem to be fixed, but rather as something to be accommodated. This understanding leads to accommodation—the retrofitting of the library's physical structures and offerings—and the inclusion of patrons with disabilities into the library's offerings and activities.

Much of the terminology around disability is evolving and the terms that are accepted by one group of disabled persons may not be acceptable to another. For example, some individuals with disabilities may prefer disability-first language as opposed to person-first language. In this case, it would be preferable to refer to an individual with autism spectrum disorder as an autistic individual or disabled individual. It is also important to maintain awareness about ongoing changes to terminology and to the preferences disabled persons have with regard to their identity and the naming of their disability.

The History of Accessibility in Libraries

Libraries have a long history of working toward creating accessible spaces and materials for their disabled and neurodivergent patrons (American Library Association, n.d.; Epp, 2006; Russell & Huang, 2009). This was true even in the 19th and early 20th centuries, a time when many US cities had so-called “ugly laws” that excluded people with disabilities from entering community spaces, such as sidewalks, parks, and public buildings (Burgdorf & Burgdorf, 1976; Siebers, 2003). Libraries, however, actively pushed back against these laws by incorporating into their services accessible resources and tools specifically geared toward people with disabilities. As early as the mid-1800s, libraries in the United States were producing print materials for the blind (Wentz et al., 2015). At this time, many of the services that libraries offered were tailored toward individuals with vision impairments, reflecting a view of libraries solely as collections of books rather than as places to access information more broadly. Some early examples of services that libraries offered for the blind include lending services, which, by 1835, were available for blind patrons throughout all of New England (Charleson, 2000). In 1868, libraries began formalizing the development of collections in braille (Charleson, 2000). Then, in 1897, the Library of Congress opened a reading room for the blind (Library of Congress, 1898).

Already by the early 1900s, it was standard in many libraries to include collections of materials in alternative formats (Brown, 1971). Reflecting this new accessibility

standard, ALA founded the Committee for Library Work with the Blind in 1906 (Lovejoy, 1983). In the 1920s and 1930s, when eugenics laws in many states were promoting the mass sterilization of people with disabilities, libraries were formalizing and expanding their service to disabled patrons. For example, in the 1920s, talking machines and talking books became available to library patrons. These new technologies eventually evolved into records, then tapes, then disks, and are now available as digital files. In 1961, ALA also developed the first standards for ensuring equal access to patrons with disabilities. Over the next 20 years, libraries across the country followed ALA's lead and created their own sets of standards (Wentz et al., 2015). Then, nearly 30 years later, the Americans with Disabilities Act (ADA) was signed into law by former President George H. W. Bush in 1990. The Act provided an important foundation for writing into law specific rights and protections for people with disabilities. Following the development of the ADA, the Library Services for People with Disabilities Policy was created in 2001. The policy's definition of disability is likewise drawn from the ADA, in which disability is defined as any person who has a physical or mental impairment that substantially limits one or more major life activity. This includes people who have a record of such an impairment, even if they do not currently have a disability.

“Most libraries have long been committed to new assistive technologies, and they have incorporated them as best they can once they become available for use.”

Most libraries have long been committed to new assistive technologies, and they have incorporated them as best they can once they become available for use. For example, by 2000, many libraries had already set up tools, services, and resources online for people with disabilities (Bell & Peters, 2005). Soon, accessibility became part of the standard discourse for libraries setting up digital platforms and online resources (Ballas, 2005). In 2013, the Marrakesh Treaty set an

international standard for sharing materials for blind and print disabled patrons by providing for the exchange of accessible-format books across international borders by organizations that serve people who are visually impaired or blind.

Today, libraries still stand among the most accessible institutions in society, especially when it comes to accessibility on the web (Jaeger & Bertot, 2015). A meta-analysis of all studies of web accessibility showed that the highest average levels of web accessibility were found on library websites (Jaeger 2012). In fact, the web presences of primary and secondary schools, colleges and universities, government agencies, nonprofits, and corporations were all significantly less accessible on average than those of libraries. The majority of public, academic, and school library mission statements articulate a commitment to equal access and services for all patrons, explicitly including people with disabilities (Jaeger, 2018). Most of these libraries have long been committed to the acquisition of new assistive technologies, including braille materials, large print materials, talking books, reading machines, video enlargement, screen readers, e-books, and screen magnifiers. Among the ALA's accredited master's programs awarding Master of Library Science or Master of Library and Information Science (MLIS) degrees, classes that teach about the legal rights of and the issues of service to patrons with disabilities are required to be available as part of the MLIS curriculum (Walling, 2004).

Moreover, there is a growing number of resources available that develop ideas, strategies, and best practices for libraries that are attempting to improve accessibility to people with disabilities. These include published books of essays and academic journal articles on disability in libraries and the broader contexts of social justice (e.g., Copeland, 2011; Epstein et al., 2019; Gorham et al., 2016; Wentz et al., 2015).

The Landscape of Accessibility in Libraries

Web Content

In 1996, several members of the World Wide Web Consortium (W3C) turned their attention towards web accessibility, ultimately founding the Web Accessibility Initiative (WAI) (Dardailler, 2009). Three years later, the first set of web content accessibility guidelines was released as WCAG 1.0 (Chisholm, Vanderheiden, & Jacobs, 1999). In 1998, the Rehabilitation Act was amended by Congress to include Sect. 508, which required federal agencies to make electronic and information services accessible to people with disabilities (GSA, 2018). Today, library websites serve as a critical point of access to library information and services for disabled and neurodivergent individuals and communities.

WCAG 2.0 was released on December 11, 2008. These updated guidelines were designed to “make content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and



combinations of these" (Caldwell et al., 2008). The WCAG 2.0 effort included a large-scale reimagining of the former 1.0 guidelines, including the addition of "success criteria," which were added to simplify the testing process. The release of WCAG 2.0 also saw the introduction of three conformance levels—A, AA, AAA—where Level A represents "the minimum level of conformance" and Level AAA represents conformance with all success criteria (W3C, 2016).

Furthermore, WCAG provides four principles for web accessibility. The first principle, perceivability, means that the content and interface of a website must be perceivable by all users. The second principle, operability, means that the elements of the user interface must be easily operable by all users. The third principle, understandability, means that the content and controls of the website must be easily understood by all users. The final principle is that of robustness: content must be technically robust such that it can be perceived by, operated on, and understood by users with current and future technologies, including assistive technologies. Currently, in the United States, laws requiring web accessibility in a growing number of public accommodations, institutions, and agencies (such as public libraries, colleges, and universities) are harmonized with WCAG 2.0 conformance Level AA (Kuykendall, 2017).

Most of the research on library accessibility is focused on accessible web content, particularly on academic library sites. Some research, such as that elaborated in Comeaux and Schmetzke (2013), shows that even while libraries intend to make their web content accessible to patrons with disabilities, many still struggle to reach WCAG guidelines. Comeaux and Schmetzke evaluated 56 academic library websites for two years in North America and found around 60% of the libraries' web pages complied with WCAG 1.0 guidelines. Similarly, Khawaja (2022) recently evaluated the accessibility of a total of 120 public library website URLs in the United States using an evaluation tool for testing WCAG 2.1 compliance. Their

results showed that public library websites overwhelmingly failed to meet the accessibility standards required by law in Sect. 508 of the Rehabilitation Act.

Mulliken (2019) interviewed blind academic library users to understand the barriers they experienced when accessing academic library websites using screen readers. They found that although participants found the library website materials accessible, they could not easily navigate the web pages due to a steep learning curve, which prevented them from being able to successfully use the website. A study by Liu, Bielefeld, and McKay (2017) evaluated urban public library website homepages and uncovered a variety of issues across 219 library websites. The most common errors were websites missing alternative text and form labels. In another study, Graves and German (2018) found that few accessible pages provided instructions for accessing library programs and services for those with accommodation needs. Likewise, Vaughan and Warlick (2020) examined a sample of websites from 40 four-year academic institutions and evaluated them based on the presence of 12 types of content, which included things like an accessibility statement, accessibility information, and disability services. They found that fewer than half of the web pages included seven of these 12 content types, and that the majority of the academic library web pages did not contain a single accessible web page at all. Clearly then, despite the array of research published on library web accessibility, accessibility issues continue to be commonly found on library web pages (Brunskill, et al., 2021; Yang et al., 2020).

PDFs

Several scholars in the library studies field have written about accessibility issues for PDFs. For example, Çakir (2016) and Hewson & Tonkin (2011) wrote about general issues with the accessibility of PDFs, while Uebelbacher et al. (2014) wrote about the creation of the PDF Accessibility Checker 2.0 to help validate

accessibility. Browder (2018) looked at workflows for making scanned documents accessible; they found that scanning to PDF satisfies goals for the preservation and dissemination of visually accessible materials. Considering document content, Nganji (2015) did a survey of 200 journals to find out how accessible their journal articles were. Although they did find that all articles were readable in Adobe with the right accessibility settings, nearly all the journals failed to provide alternative text for images and failed to tag properly. Moreover, 13.5% of the 200 journals the authors analyzed had titles that were not displayed when the document was opened. Two-thirds of the journals lacked a defined document language, and half lacked bookmarks, which help in navigation.



Universal Design

Universal Design (UD) is a set of principles for the design of products and physical environments that meet the needs of all people (Myhill et al., 2008). For the purposes of this report, UD will be discussed in relation to libraries' use of technology.

UD's principles ensure equitable use, perceptible information, a tolerance for error, a low level of physical effort, and appropriate size and space for approach and use (The Center for Universal Design, 1997). Dolmage (2017) argues that universal design is essential for accessibility, namely because retrofits are often temporary. That said, "a more sophisticated form of negotiation in order to retrofit structures and practices in the best possible way" is also needed (p. 84). Furthermore, Dolmage encourages treating the design element of UD as an ongoing activity, never completely finished, yet always necessary.

Indeed, the social model of disability demands that UD be an ongoing practice because, as social constructs, new disabilities can arise from new social conditions. For example, consider the impact that the COVID-19 pandemic, and the lack of adherence to masking and social distancing guidelines, have had on individuals with compromised immune systems. Implementing UD without seeing it as an ongoing process ignores the implications of the social model of disability and the reality that new disabilities are constantly emerging in light of changing social conditions.

In attempting to implement UD standards in their services, libraries may wish to follow Burgstahler's (2018) checklist for UD, whose purpose is to make libraries and their services and resources "welcoming, accessible, and usable" to all patrons. Additionally, the Accessibility and Universal Design SPEC Kit 358 (Spina & Cohen, 2018) provides information about wider library efforts to provide services to users with disabilities. The kit is primarily focused on assistive technologies and services, but may be useful for libraries who wish to consider the ways in which their assistive technology offerings may be used by a wide range of patrons with or without disabilities. Finally, the journal *Disability Studies Quarterly* offers a useful guide on "places to start" for institutions that wish to implement UD principles. (It can be accessed at dsq-sds.org/article/view/4632/3946.)

Assistive Technologies

Assistive technology (AT), as defined by the Individuals with Disabilities Education Act, includes "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a person with a disability." (IDEA, 2004). The term "assistive technology" is sometimes used synonymously with "adaptive technology." Both terms include things like adjustable workstations,

alternative keyboards and mice, CCTV magnifiers, reachers/grabbers, text-to-speech programs, walkers, wheelchairs, other technologies to help navigate a library building, wearable technology, and so on. However, while assistive technologies is a broad category that includes things that are not made specifically for people with disabilities (for example, silverware or a can opener), adaptive technology refers specifically to items that are designed and/or adapted for persons with disabilities (Mittler, 2007). Therefore, we should think of adaptive technology as a subset of AT, which helps individuals with disabilities move, communicate, and control their surrounding environment. Adaptive technologies include speech-generating devices, power wheelchairs, and environmental control systems like canes and lever knobs. Libraries must not only provide assistive and adaptive services to patrons, but also advertise that such tools are available for use.

There are several benefits of AT use in libraries. Among these is the enhancement of information accessibility for library patrons. There is also a wealth of educational resources online that can assist library staff in understanding how to use and implement AT in their institutions. Moreover, AT doesn't necessarily have to be expensive; much of the AT that makes websites more accessible and accommodating is available for free online.

Even while some librarians may not feel completely comfortable navigating AT, it is also the case that library media specialists and other library educators have a large collection of Internet resources on AT and accessibility available at their fingertips. Some helpful sites include the following:

- ABLEDATA
- assistivetech.net
- ATSTAR
- TechDis Technology Database
- ATA Assistive Technology Hub

Library Collections, Programs, & Buildings

Library buildings provide a number of challenges to accessibility. These include making accessible the various parts of the physical library, including books stacks, desk and computer work areas, classrooms, study rooms, bathrooms, lounges, cafes, and makerspaces. There are also accessibility issues concerning the library's collection, services, and programs, as Bostick and Petrie (2009) have written. These include making accessible the collection itself—the books, maps, electronic media, and documents that constitute it. The services offered

by libraries must also be accessible, such as library online catalogs, and in some cases, card catalogs for older materials. Then there are information databases, forms of technical assistance, reference services, desk services, and so on. Library programs must also be accessible, which include things like incorporating accessibility information into event publicity, adding captions to virtual events hosted on Zoom or other platforms, and adapting in-person activities to meet participants' accessibility needs by using accessible materials such as larger craft supplies and adapted writing instruments.

In 2005, the International Foundation of Library Associations (IFLA) developed the “Access to Libraries for Persons with Disabilities Checklist” in an attempt to list some of the key issues that libraries face in making their physical spaces accessible, and what libraries can do to resolve



them. Libraries may not only be inaccessible for patrons, but also for library workers with disabilities. Among the many problem areas listed in the checklist are: toilets, which need to include at least one toilet for patrons with disabilities; navigation, such as signage that might be unclear or inaccessible to a person with a disability; accessibility of furniture, which should include reachable shelves and reading and computer tables of varying heights; and issues that might come up in an emergency, such as the need for a fire alarm that is both visible and audible, and staff trained to assist people with disabilities in case of an emergency. The checklist also includes accessibility issues outside the library, like disabled parking spaces, ramps or elevators, and ensuring that there is enough room in front of the library's entrance for a wheelchair user to turn around.

A complete view of the IFLA checklist can be accessed at archive.ifla.org/VII/s9/nd1/iflapr-89e.pdf.

Barriers to Accessibility

Libraries face a number of challenges when it comes to incorporating accessibility into their services and spaces.² The first and arguably most salient barrier libraries face is attitudinal. That is, widespread stigma and negative attitudes toward people with disabilities present significant challenges for institutions attempting to institute accessibility resources and services in their offerings. Negative attitudes toward people with disabilities can result in discriminatory practices and contribute to invisibility, exclusion, neglect, and mistreatment. Because attitudinal barriers to accessibility are both widespread and lead to extremely negative social effects, achieving accessibility through adherence to industry or legal standards alone is insufficient. Instead, libraries and other institutions attempting to enhance their accessibility must work to confront stigma and negative attitudes. One key step libraries can take to do this is engaging patrons with disabilities in the design and development of their programs and services.

The second barrier to accessibility in libraries relates to resources. Not all libraries have sufficient time, nor sufficient funds, to spend on AT and training sessions that are key to transforming libraries into spaces that are accessible to all patrons. Library budgets are often quite small and may lack room for spending on accessibility evaluation tools, which can be expensive. A lack of time may also

2 It should be noted that the barriers listed in this section are not exhaustive, but are instead representative of those that were most frequently discussed in the scholarly literature on accessibility in libraries at the time of this writing. At this intersection, the literature is primarily focused on identifying and distinguishing barriers that are physical in nature from those that are digital. However, the authors recognize that this distinction does not cover all the barriers that libraries face in making their spaces, programs, and services more accessible for persons with disabilities.

hinder librarians' attempts to become trained in and comfortable with the use of accessibility tools, as Vandembark (2010) has written. Moreover, the modifications required for library buildings to become accessible may be both time-consuming and cost-prohibitive, requiring a large investment.

Third, it is essential to recognize that attitudinal constraints and resource-related constraints are not mutually exclusive. On the contrary, even library budgets are moral documents that reflect the knowledge, attitudes, and access to financial resources within an institution. That is, when it comes to budgeting for accessibility, inadequate resources may be allocated to patrons with disabilities due not only to stigma and prejudice, but also to a widespread lack of knowledge and understanding about the investments required to make library services and spaces accessible for everyone. A key step toward remedying the lack of investment in accessibility is to generate awareness about the value of such investments as well as the far-reaching impact they are capable of having in patrons' lives.

Next, while many libraries may wish to incorporate accessibility into their services, not all librarians and library staff have control over the decisions to make their spaces and offerings more accessible. This is especially true for academic libraries, where universities or district administrators (rather than library staff) control building updates.

Another barrier to accessibility is a widespread lack of awareness on the part of library staff and administrators about the specific needs and interests of patrons with disabilities. In a recent study, Oud (2019) found that the librarians they surveyed reported a lack of awareness about disability issues among their colleagues and patrons. Similarly, Pionke (2020) noted that many library workers respond to accessibility questions with "frustration and fear," emotions that stem from being unaware and having a lack of knowledge and experience in meeting

the needs of patrons with disabilities. Pionke also noted that librarians do not always know about the kinds of resources that exist for people with disabilities, a finding that stresses the importance and necessity of accessibility training for library staff. This is especially true considering that individuals with disabilities are underrepresented in the library profession (Oud, 2019).

A lack of training is another challenge that libraries face when attempting to make their offerings accessible to patrons with disabilities. Not all library staff are trained in the use of AT, nor in accessible resources and other content that may help people with disabilities navigate their spaces and websites. Happily, there are a wide variety of free resources online that library staff can use to familiarize themselves with accessibility requirements and resources. One example of a free online training in accessibility is available at Project ENABLE, which provides librarians with a range of resources and knowledge that can help them make their libraries more accessible and inclusive environments. Librarians can visit projectenable.syr.edu to take advantage of Project ENABLE's free-of-charge accessibility resources and training programs.

Finally, most research on library accessibility does not consult directly with disabled and/or neurodivergent people who use library services (Pionke, 2017; Shea & Derry, 2019). This limits the kind of knowledge that library staff can attain about how to best serve patrons with disabilities. One study that consulted directly with disabled people found that issues and priorities include inaccessibility of facilities within libraries and technology issues (Copeland, 2011). Other studies found that empowerment, communication, signage, privacy, marketing, and inclusivity increased the patrons' options and available choices for navigating library services (Pionke, 2017; Beyene, 2018). Pionke (2017) offers a critique of library accessibility research that has looked only to librarians for assessing the state of their services. Yet, although there is a lack of accessibility research that directly consults people with disabilities, students with visual

impairments have been surveyed and interviewed in regard to their experiences with AT (Mulliken, 2017), full-text access of books & articles (Mulliken & Falloon, 2019), help-seeking during interactions with digital library interfaces (Xie et al., 2017), and their perceptions of librarian friendliness (Bodaghi et al., 2017). Similarly, students with autism spectrum disorders (ASD) have been looked to for their experience with library spaces and interactions with librarians (Pionke, 2017; Pionke et al., 2019), wayfinding (Everhart & Escobar, 2018), and self-advocacy (Pionke, 2017). These studies show that researchers are beginning to look more to the people with disabilities themselves, rather than those working at institutions that serve them, for insight into issues of accessibility. It is only by centering their voices that people with disabilities can become, as Dolmage (2017) puts it, the “agents of negotiation” for their own accommodations.

Some Accessibility Needs and Associated Library Resources

This section contains a compilation of best practices based on what libraries around the country are doing to make their spaces and materials accessible.

Deaf or hard-of-hearing

- live captioning
- transcription services
- American Sign Language interpretation

Blind or low-vision

- braille
- high-contrast text
- audio reading
- magnifying devices
- visual or audio description/narration
- large monitors
- screen reading tools
- speech output systems
- alternative text
- accessible text request services

Mobility

- wheelchairs
- walkers
- ramps
- elevators
- adaptive technology for computers
- high-contrast and large print directional signs
- book delivery services
- wheelchair accessible restrooms
- circulating mobility aids (e.g., crutches, wheelchairs, etc.)

Intellectual disabilities

- non-verbal communication tools
- talking books
- books with images
- information in an easy-to-read format
- information on audio/video tape, CD/DVD, or in DAISY format
- private study rooms
- accessible books
- clear and recognizable shelf signs
- spell checker/dictionary
- reading pens
- magnifying rulers and special glasses
- dyslexia software and fonts

Sensory sensitivity

- For hypersensitivity: Calming materials, calming location, dim lights, quiet spaces/private study rooms, sensory-friendly programs (where lights are kept dimmer, sound is limited, etc.)
- For hyposensitivity: Sensory zoning (delineating spaces to be either high-stimulus or low-stimulus), sensory integration toys (e.g., fidget toys) and other tactile materials, bright colors, movement breaks during programming

Accessibility Tools for Libraries

Academic Library Building Design: Resources for Planning: Accessibility/Universal Design

acrl.libguides.com/c.php?g=459032&p=7152730

"A basic framework for architects, planners, and librarians embarking on the planning and design of libraries for higher education."

Project ENABLE

projectenable.syr.edu/AboutUs

A free professional development program for librarians to "build capacity for providing equitable access and services to students with disabilities."

Libraries and Autism

librariesandautism.org/index.htm

Libraries and Autism offers "on-site, in-depth training workshops" and web resources and a "customer service training video and website primarily for library staff to help them serve individuals with Autism Spectrum Disorder and their families more effectively."

Project PALS

projectpals.com

Online professional development for librarians in the Panhandle region of Florida.

Design for Accessibility: A Cultural Administrators Handbook

arts.gov/sites/default/files/Design-for-Accessibility.pdf

A PDF guidebook for cultural administrators on increasing accessibility and inclusion in cultural programs and service organizations.

Disability Access Symbols

graphicartistsguild.org/downloadable-disability-access-symbols

A downloadable set of graphic symbols (from the National Endowment for the Arts and the Graphic Artists Guild Foundation) designed to promote and publicize accessibility for individuals with disabilities.

National Endowment for the Arts' accessibility publications, checklists, and resources

arts.gov/impact/accessibility/publications-checklists-and-resources

For those seeking to meet accessibility guidelines.

Web content accessibility checkers

w3.org/WAI/ER/tools/?q=wcag-21-w3c-web-content-accessibility-guidelines-21

Web content accessibility checkers can also be found online at websites like the World Wide Web Consortium (W3).

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