

# Accessibility Initiatives for Technical Services

## Adding Braille Textbooks in an Academic Library

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*With an ongoing focus on accessibility and usability, many academic libraries have developed new ways to improve services for students with disabilities. Library technical services departments contribute to the accessibility of library resources through materials selection, cataloging, and the acquisition of assistive technologies. Library partnerships with an institution's office of disability services have also proven particularly effective and can help libraries to better identify potential barriers to accessibility and find workable solutions. For students with visual impairments, screen readers, magnifiers, voice recognition software, and braille texts are some of the methods that libraries can use to improve accessibility. This paper offers a case study of the collaboration between the Office of Disability Resources for Students and the University Libraries at the University of Memphis to make a discrete collection of braille textbooks more widely available to students, including the collection management considerations, system configurations, and cataloging procedures that went into the process. This case study provides a simple and cost-efficient example of how libraries can improve services for users with visual impairments that readers will find easy to implement in their own libraries.*

### Introduction: Accessibility in Technical Services

Libraries in the United States that receive public funds have been legally obligated to provide equitable access to their materials and services since the passage of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990; however, “U.S. library organizations emphasized the importance of accessibility long before there were legal requirements to do so.”<sup>1</sup> In fact, libraries have “a deep history of inclusion” and were one of the first government institutions to provide services for those with disabilities.<sup>2</sup>

Over the last several decades, the number of students with disabilities<sup>3</sup> pursuing higher education has steadily increased. Sanchez-Rodriguez and LoGiudice wrote in 2018 that the number of students disclosing a disability at the City College of New York “more than doubled” in a three-year period.<sup>4</sup> And in 2019–2020, the National Center for Education Statistics reported that 21 percent of undergraduates and 11 percent of postbaccalaureate students reported having a disability,<sup>5</sup> however they also found that only about a third of students with disabilities informed their college about their disability, limiting their access to support services.<sup>6</sup>

As colleges and universities work to attract more diverse student populations, there is an increasing need for diverse student support, including support for students with disabilities. While academic

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libraries have historically “demonstrated a professional willingness to be of assistance in all aspects of academic research, thereby ensuring that patrons with disabilities obtain the materials or information they need,” in recent years—with and because of greater awareness and internal partnerships—these institutions have made more proactive efforts to guarantee users with disabilities have increased access not only to resources but also to library spaces and services.<sup>7</sup> These efforts have led to improved accessibility in services and resources, including for library websites, universal design, accessible PDFs, and assistive technologies, as well as more accessible material formats, such as e-books, audio books, braille books, tactile graphics, and large print books.

Despite these efforts, it can still be difficult for students with disabilities to find accessible materials, particularly for students with visual impairments. Most university libraries do not have books available in braille or large print,<sup>8</sup> and in fact, it is more common in some developing countries to find materials converted to braille than in the US.<sup>9</sup> Azizah and Rahmi reported that “most students with disabilities were dissatisfied with the library services they received because of problems, such as the inability to access certain information that was not available in an appropriate format.”<sup>10</sup> And Sanchez-Rodriguez and LoGiudice wrote that “libraries remain largely inaccessible to people with various disabilities.”<sup>11</sup> In Tennessee, students theoretically have access to the state’s Library for the Blind Catalog (<https://sos.tn.gov/tsla/lbph>); however, at the time of this writing the catalog’s link was non-functional, leaving students with the need to rely on their university libraries for access to materials.

One of the most beneficial things a library can do to improve accessibility for their patrons is to partner with other departments or communities, in particular the institution’s office of student disability services.<sup>12</sup> In fact, Marrall calls a partnership with an institution’s disability services offices “one of the most important relationships a library can build” and adds that this partnership can result in the “development of best practices for referrals or media alteration and can cut down on confusion and ambiguity for library personnel.”<sup>13</sup> Marrall also suggests that these partnerships can help libraries better identify barriers for users with disabilities and find meaningful solutions for them.<sup>14</sup> Some of the partnerships they recommend for academic libraries include the disability services office, the students with disabilities associations, the university’s facilities department, the information technology department, and various community organizations.<sup>15</sup>

Library technical services workers can improve accessibility for users in a number of ways. Hodges writes, “technical services staff can create fresh and inclusive pathways for existing collections and bring more intentionality to how collections are built, and discovery happens moving forward.”<sup>16</sup> Some of the ways that technical services staff are poised to make libraries more accessible include selecting materials with accessible versions, subject matter neutrality, collecting materials on nontraditional subjects and underrepresented groups, ethical cataloging, e-resource testing, and requiring vendors to provide VPATs (Voluntary Product Accessibility Templates).<sup>17</sup>

The technologies available in libraries can help make materials more accessible, including “textbooks on tape, written materials in Braille, and a screen reader program to navigate the computer and/or mobile screens” for users with visual impairments.<sup>18</sup> Libraries have long been providing services for

those with visual impairments, predating the use of modern technology, by providing CD-ROMs that could be read on microcomputers, television devices to enlarge text size, large-type typewriters, cassette machines with compressed speech capabilities, and sound-proof booths for readers to read text aloud.<sup>19</sup> In the modern academic library, Babalola and Yacob recommend that users with visual impairments have access to talking books, talking newspapers, large-print materials, screen magnifiers, screen readers, voice recognition software, and braille books.<sup>20</sup> Libraries can increase accessibility for their users through a variety of methods, and, the acquisition of books with adaptive features, such as braille textbooks, is one such option.

Although there are many opportunities for libraries to improve the accessibility of their resources, in reality not all libraries have managed to put each of these methods into practice. For example, “when asked whether their institution had a policy or guideline document for purchasing accessible materials; 80% of respondents indicated they did not.”<sup>21</sup> Peacock and Vecchione’s study found that one reason for this was the high cost of making collections accessible. With library budgets continually shrinking, “library workers have prioritized services for the blind, such as braille services” as one of the more attainable goals for accessible collections.<sup>22</sup> Additionally, when it comes to handling these materials, there is still “a lack of detailed rules for alternative format materials,” a problem that has led to some libraries altering the rules “to satisfy their own purpose or for their convenience in describing those materials,” resulting in “inconsistent, isolated, and noninteroperable records.”<sup>23</sup> In general, there is a distinct lack of information in the professional literature about how these types of materials are cataloged, circulated, and handled in academic libraries.

In the sections below, the authors describe how the University of Memphis’ University Libraries added a collection of braille textbooks to McWherter Library, the main campus library, including interdepartmental collaboration, collection management considerations, system configurations, and cataloging practices, as an example for other institutions that are interested in adding braille resources to their own collections.

## Background

In early 2023, the University of Memphis’ University Libraries, in collaboration with the university’s Office of Disability Resources for Students (DRS), added a collection of braille textbooks to the McWherter Library’s Permanent Reserves collection, specifically for use by students with visual impairments. DRS serves more than 1,000 students every academic year with disabilities ranging from mobility, visual, and auditory issues to chronic health and psychiatric disorders, learning disabilities, attention-deficit/hyperactivity disorders, seizure disorders, traumatic brain injuries, and substance abuse.<sup>24</sup> The braille textbook collection for students with visual impairments came to the University Libraries thanks to efforts at establishing connections with this critical student service office. The following sections outline how the University Libraries’ Information Access Services Department, which includes acquisitions, collection development, electronic resources, cataloging, systems, and interlibrary loan, worked together to acquire, catalog, and configure system needs to make this collection available.

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## Collection Management

Prior to the collaboration with University Libraries, the braille textbooks purchased by DRS were stored in the DRS office. In 2022, a DRS staff member reached out to inquire if the Libraries would be willing to house this collection to make it more widely available. The Libraries has a recent history of creating unique collections: two examples are a textbook collection for military-affiliated students<sup>25</sup> and a civil rights collection from the Benjamin L. Hooks Institute for Social Change. However, this braille textbook collection would be the first added to the Libraries and many librarians would have a hand in adding, storing, and circulating it—so before accepting, approval was sought from multiple Libraries departments.

The Libraries' circulation department was consulted regarding storage and circulation of the collection. The braille collection contained eight braille textbooks; each textbook consisted of multiple volumes for a total of 114 volumes, requiring approximately eighteen feet of shelf space. Each of the volumes was spiral bound and printed on thick braille-embossed pages, with front and back covers made only of thin, flexible plastic. Due to their fragile nature and to the fact that the distinct subject matter of the titles meant they would have been shelved in various sections of the library if kept in the stacks, storing them together in a special location was considered optimal. The acquisitions and collection development librarian, reserves room librarian, and head of circulation determined the Libraries' permanent reserves room contained enough space to adequately house the collection in a way that was both protected and discoverable.

Braille textbooks are expensive, often priced between \$500 and \$15,000.<sup>26</sup> According to DRS, each of the donated braille textbooks cost around \$10,000. Although it is unlikely the Libraries will purchase additional braille books due to the cost, the DRS office may purchase braille textbooks in the future if needed, and if so, the textbooks would then be donated to the library. The permanent reserves room is large enough to grow the collection if necessary.

Librarians from multiple departments were also consulted regarding possible restrictions on circulation. Options such as restricting access to only students with a certain medical identifier in their Banner profile or with affiliation with the DRS office were discussed. Ultimately, due to privacy concerns and a desire to loan the textbooks via interlibrary loan if requested, all parties decided restrictions were unnecessary. Lastly, because this collection required specialized cataloging and systems changes, ensuring the support of the cataloging and systems librarians was especially valuable.

## Integrated Library Systems

To make the newly acquired braille textbooks available for use, the University Libraries needed to make some custom configuration changes in its integrated library system, Sierra. While there were not any other collections at McWherter Library with the exact parameters of the new braille collection, the collection was somewhat similar to another that had been added to the library a few years before—the

Textbooks for Tiger Veterans collection. That collection had been given a distinct location code to differentiate it from other collections and locations and was put on reserve behind the circulation desk.

Only a subset of library patrons—those with a military affiliation—were authorized to check out the Textbooks for Tiger Veterans. Unlike that collection, the braille textbooks were intended to be available to anyone at the university, knowing that only those with a need for braille would be likely to seek out these textbooks and would most likely be specifically referred to the library by the DRS office. This also circumvented the need for students' disability information or accommodations to be included in their library account profile, as military affiliation had been added to library profiles from Banner to accommodate patron restrictions for the Textbooks for Tiger Veterans collection. Despite these differences, the Textbooks for Tiger Veterans collection remained a good model for setting up the new braille collection in the library's catalog, along with items that were available for semester-long checkout, such as laptops. The braille collection would be a circulating collection held on reserve at the circulation desk, with a checkout period of one semester and the ability to renew the checkout. Anyone with a University of Memphis patron type would be able to check out the items from the collection.

The University Libraries wanted the items in the braille collection to be shelved together and to be differentiated in Sierra from other reserve items and collections. To achieve this, a new location code was created to designate the braille collection—*mcrb*, the *mc* indicating the collection belonged to McWherter Library, the *r* indicating a reserve collection, and the *b* designating braille. All braille textbooks cataloged and added to the database were given this location code.

A new loan rule was also created in Sierra for this specific collection. The loan rule designated a loan period of one semester with the ability to renew. In Sierra's loan rule determiner table, mapping loan rules to item locations, the *mcrb* location code was mapped to the new loan rule and applied to all patron types at the University Libraries. Since the collection would consist only of textbooks, the loan rule determiner table also designated the item type as a general circulating book.

The new location code also needed to be added to the McWherter Library scope in Sierra's backend so that the items would be discoverable when searching McWherter Library specifically (the library's catalog is shared with four branch locations as well as two partner libraries), and so that the location would display in the online catalog. The catalog location data was linked to a map of the McWherter Library's first floor featuring the circulation desk, in accordance with other collections held on reserve at circulation. With these system configurations in place, the textbooks were ready to be added to Sierra and made available to any students who needed them.

## Cataloging

Each of the textbooks received were transcriptions of existing print editions, and none had records for the braille editions in OCLC's WorldCat. To create full records for these resources that incorporate the core elements required for records cataloged according to RDA (Resource Description and Access) and that follow guidelines outlined in OCLC's Bibliographic Formats and Standards, particular MARC21

fields and content for items in braille code are needed to accurately represent the presence of this adaptive feature. Although this article will not detail each of them, they include the following:

- Assigning code “f” in the fixed field “form,” for the form of the material being described in the record, specifies that the resource is in braille code.
- In field 007, which houses data about the physical characteristics of a resource, assigning code “f” in subfield “a” (\$a) for “tactile material” and code “b” in \$b for “braille” indicates that the resource in hand is to be read by touch. In additional subfields available for the 007 field, one can specify the class of braille writing, the level of contraction, the braille music format, and/or other special characteristics, as known and if applicable.
- For the physical description field, 300, including the number of volumes of braille in \$a and the resource’s dimensions in \$c (ex.: 300 \_\_ \$a 12 volumes of braille ; \$c 28 x 31 cm) is the standard way to represent the physical description of braille resources.
- In the content type field, 336, using “tactile text” in \$a and “tct” in \$b will accurately reflect the form of communication through which the braille resource is expressed. The 337 and 338 fields, for media type and carrier type, respectively, will be the same as for a printed monograph: 337 \_\_ \$a unmediated \$b n \$2 rdamedia and 338 \_\_ \$a volume \$b nc \$2 rdacarrier.
- Because braille code is an accessibility feature, it is important to include a 341 field to capture information on the resource’s accessibility content. In the case of these textbooks, each record contains a 341 field with “Textual” in \$a, to denote assistive features that enable content access through touch, and “braille” in \$e, which specifies braille code as the adaptive feature. The inclusion of general notes (via 500 fields) is helpful for capturing a variety of additional characteristics: from the fact that they may be spiral bound or on braille-embossed pages to the transcriber’s notes for each text.
- Many braille records include a 534 field to note the original version of the resource from which the braille resource was transcribed. It is common for the field contents to begin with \$p “Original version” or “Reproduced from” followed by \$a main entry of the original, \$t title, and \$c the publication information of the original. Additional information can be captured in other subfields, such as \$b edition statement, \$e the original’s physical description, \$f series statement of the original, if applicable, and \$z the original’s ISBN.
- Because these textbooks were transcriptions of print editions, as stated above, the records also included both a source of description note (588 field), indicating that the print edition was used for the braille transcription, and an additional physical form entry statement (776 field), which captured more specific information about the print versions used for the transcriptions—including ISBN and OCN numbers—to link the records and establish a bibliographic connection between the editions.
- Finally, the genre/form term (655 field), “Braille Textbooks from DRS,” was added to each record, along with \$2 local, to indicate that this term was locally assigned. This allows the entire braille textbook collection to be collocated through a subject search in the University Libraries’ online catalog, making it more easily findable and accessible to users, and enables the Office of Disability Resources for Students to link to this specific collection from their site or to share it directly with students they serve.

## Impact

The braille collection has been available for check out from the University Libraries since January 2024. The primary channel of promotion has been DRS, since they work most closely with the students seeking out these resources and can now refer students directly to the library. The Libraries will be promoting the collection through their social media channels, monthly newsletter, and on their accessibility page, which is currently under development. The Community Relations Coordinator is seeking other campus-wide methods to distribute this information.

The assessment plan for this collection includes tracking use, both local check outs and ILL, as well as querying DRS as to changes in the needs of students with visual impairments. Since the braille collection is currently composed of textbooks, we anticipate a time when those editions are out of date and no longer assigned. At that point, the collection will be weeded in alignment with the current assessment and weeding schedule. However, due to the expensive and unique nature of braille books, they will be returned to the donor, DRS, instead of processed in the same manner as other withdrawn items. At the time of this writing, insufficient time has passed to gather metrics for assessing whether the project was successful in helping students with braille needs; nonetheless, the authors consider it a success for the University of Memphis' University Libraries. This project created an opportunity for many employees of the Libraries to collaborate and gain an understanding of the needs of users with visual impairments. It also strengthened the Libraries' working relationship with DRS. Since this project was initiated, multiple librarians have presented with members of DRS, and the Libraries and DRS have collaborated on creating more accessible job descriptions. The project also led to the creation of new workflows regarding donations, unique collections, and cataloging.

## Conclusion

To increase accessibility for students with disabilities within the academic library, partnering with the university's disability services office is critical and helps foster an open exchange of expertise, informed labor use, and goodwill.<sup>27</sup> The University of Memphis' University Libraries, in consultation with the Office of Disability Resources for Students, has been working on improving accessibility to its buildings, instructional services, interlibrary loan services, and resources. The addition of the braille textbook collection is one such collaborative effort, and the University Libraries is honored to have worked with DRS on this initiative to help meet the needs and support the educational success of students with visual impairments. Furthermore, the case study above provides a step-by-step example that other institutions can follow or adapt for their use. The authors hope that this braille textbook collection proves beneficial and that other institutions find this case study useful for adding braille resources to their own collections.

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## Notes

1. Brian Wentz, Ursula Gorman, and Paul T. Jaeger, "Academic Libraries and Their Legal Obligation for Content Accessibility," *First Monday* 28, no. 1–2 (2023): 2, <https://doi.org/10.5210/fm.v28i1.12892>.
2. Wentz, Gorman, and Jaeger, "Academic Libraries and Their Legal Obligation for Content Accessibility," 2; Paul T. Jaeger and John Carlo Bertot, "The ADA and Inclusion in Libraries," *American Libraries Magazine Blog* (2015), <https://americanlibrariesmagazine.org/blogs/the-scoop/ada-inclusion-in-libraries/>.
3. Following the ADA National Network's recommendation, the authors are using person-first language throughout the article (<https://adata.org/factsheet/ADANN-writing>).
4. Nilda Alexandra Sanchez-Rodriguez and Joseph LoGiudice, "Building Bridges: Fostering Dynamic Partnerships Between the Library Department and Office of Student Disability Services in Higher Education," *Journal of Access Services* 15, no. 4 (2018): 143–44, <https://doi.org/10.1080/15367967.2018.1520640>.
5. "Students with Disabilities," National Center for Education Statistics, accessed January 22, 2024, <https://nces.ed.gov/fastfacts/display.asp?id=60>.
6. "A Majority of College Students with Disabilities Do Not Inform School, New NCES Data Show," National Center for Education Statistics, April 26, 2022, [https://nces.ed.gov/whatsnew/press\\_releases/4\\_26\\_2022.asp](https://nces.ed.gov/whatsnew/press_releases/4_26_2022.asp).
7. David W. Wilhelmus, "Perspectives on the Americans with Disabilities Act: Accessibility of Academic Libraries to Visually Impaired Patrons," *The Journal of Academic Librarianship* 22, no. 5 (1996): 369, [https://doi.org/10.1016/S0099-1333\(96\)90086-5](https://doi.org/10.1016/S0099-1333(96)90086-5).
8. Syahrani Nur Azizah and Rahmi, "Academic Librarian Perceptions of Facilities and Services for Persons with Visual Impairments," *The Journal of Academic Librarianship* 49, no. 6 (2023): 1–16, <https://doi.org/10.1016/j.acalib.2023.102791>.
9. Adina Mulliken and Kerry Falloon, "Blind Academic Library Users' Experiences with Obtaining Full Text and Accessible Full Text of Books and Articles in the USA: A Qualitative Study," *Library Hi Tech* 37, no. 3 (2019): 456–79, <https://doi.org/10.1108/LHT-08-2017-0177>.
10. Azizah and Rahmi, "Academic Librarian Perceptions," 2.
11. Sanchez-Rodriguez and LoGiudice, "Building Bridges," 144.
12. Wilhelmus, "Perspectives on the Americans with Disabilities Act," 370; Rebeca Peacock and Amy Vecchione, "Accessibility Best Practices, Procedures, and Policies in Northwest United States Academic Libraries," *The Journal of Academic Librarianship* 46, no. 1 (2020): 102095, <https://doi.org/10.1016/j.acalib.2019.102095>; Rebecca Marrall, *Developing a Library Accessibility Plan: A Practical Guide for Librarians* (Lanham, MD: Rowman & Littlefield, 2020).
13. Marrall, *Developing a Library Accessibility Plan*, 98.
14. Marrall, 97–98.
15. Marrall, 98–101.
16. Dracine Hodges, "Pursuing Diversity and Inclusion in Technical Services," *Serials Review* 44, no. 3 (2018): 174, <https://doi.org/10.1080/00987913.2018.1549888>.



17. Hodges, "Pursuing Diversity and Inclusion in Technical Services," 174.
18. Noor Abutayeh and Berta García-Orosa, "Emerging Services for the Visually Impaired in Academic Libraries," *Library Philosophy and Practice* (2021): 8, <https://digitalcommons.unl.edu/libphilprac/6538/>.
19. Wilhelmus, "Perspectives on the Americans with Disabilities Act," 367.
20. Yemisi T. Babalola and Yacob Haliso, "Library and Information Services to the Visually Impaired—The Role of Academic Libraries," *Canadian Social Science* 7, no. 1 (2011): 143, <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=9e3d2e2f2da26f7bf88bf96120cbc28430b2cdb2>.
21. Peacock and Vecchione, "Accessibility Best Practices," 7.
22. Peacock and Vecchione, 3.
23. Seungmin Lee, Taewoo Nam, and Youngjoon Nam, "Revising Cataloging Rules and Standards to Meet the Needs of People with Disabilities," *Library Resources and Technical Services* 57, no. 1 (2012): 19, <https://www.journals.ala.org/index.php/lrts/article/viewFile/5217/6333>.
24. The University of Memphis, "Welcome to DRS!," Disability Resources for Students, accessed June 5, 2023, [www.memphis.edu/drs/](http://www.memphis.edu/drs/).
25. Rachel Scott, Sydnie Roberts, and Shelia Gaines, "Collaboration to Serve Military-Affiliated Students: A Textbooks Reserves Project at the University of Memphis," *College & Research Libraries News* 81, no. 7 (2020): 350, <https://doi.org/10.5860/crln.81.7.350>.
26. Kai Ryssdal, host, "Braille Versions of Textbooks Help Blind College Students Succeed," *Marketplace* (podcast), October 12, 2017, <https://www.marketplace.org/2017/10/12/braille-versions-textbooks-help-blind-college-students-succeed/>.
27. Marrall, *Developing a Library Accessibility Plan*, 97–98.