Are Library and Information Science Educators Teaching Accessibility? Content Analysis of Syllabi

Kevin J. Mallary[a], Rea N. Simons[a], Clayton A. Copeland[b], Jackie Nikiema[a], and Evan J. Dorman[a]

[a]Old Dominion University, USA

[b]University of South Carolina, USA

kmallary@odu.edu, rsimons@odu.edu, copelan2@email.sc.edu, jniki001@odu.edu, edorm001@odu.edu

ABSTRACT

Library and information science (LIS) graduates are expected to serve patrons from diverse backgrounds, including disabled patrons. While serving patrons with disabilities is a core value of librarianship, graduates often feel unprepared to serve disabled patrons, suggesting that programs inadequately train students to design accessible services. This study's authors analyzed hundreds of course descriptions and 73 syllabi from 20 North American LIS programs to determine how often accessibility and disability topics are covered and how educators teach accessibility. Findings indicate that accessibility and disability topics are mostly covered in electives, meaning students may never develop accessibility competencies during their programs. Additionally, a lack of disability-focused assessments may create the impression that serving disabled patrons is less important to LIS than addressing the needs of other underserved communities. Recommendations for educators include creating or revising learning objectives and assessments to prioritize accessibility education and support disabled patrons.

ALISE RESEARCH TAXONOMY TOPICS

Information services; Curriculum; Pedagogy; Social Justice; Library technology systems.

AUTHOR KEYWORDS

Accessibility; Disability; Diversity, Equity, and Inclusion.

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INTRODUCTION AND BACKGROUND

Diversity, equity, inclusion, and accessibility are essential values of social justice that have shaped library and information science (LIS) professions (American Library Association, 2019). Because library patrons have increasingly diversified in terms of their cultures, ethnic and racial backgrounds, gender identities, and abilities, LIS professionals must practice social justice values to effectively serve their communities (Association for Library and Information Science Education, 2022). Gaps remain, however, between the values information professionals should enact and the availability of LIS curricula teaching social justice competencies (Ren et al., 2022).

Content analyses of LIS curricula have periodically evaluated how programs teach social justice values (Alajmi & Alshammari, 2020). These holistic analyses have typically focused more broadly on diversity and serving diverse populations and less on serving disabled patrons. Recent analyses have found improvement in certain areas, with other areas lagging, particularly in core LIS courses (Ren et al., 2022). After analyzing 84 syllabi from 19 programs accredited by the American Library Association (ALA), Alajmi and Alshammari (2020) reported that multiculturalism (e.g., culture, ethnicity, and race) and gender-specific topics are still underrepresented in foundational and required courses. Hence, students who desire to learn how to serve diverse populations must complete electives within and outside their programs (Ren et al., 2022).

While accessibility is a crucial social justice principle for LIS graduates to learn (American Library Association, 2019), students looking to find content on accessibility and disability in LIS courses face even greater difficulties. Recent curricular analyses indicate that only nine courses covered disability (Alajmi & Alshammari, 2020), and eleven addressed accessibility or ability (Ren et al., 2022). Furthermore, Maestro et al. (2018) reviewed hundreds of courses from 15 international LIS programs, finding less than a handful of required diversity-related courses. These accessibility-focused analyses often code for topics within a course without examining the specific details of how disability and accessibility may be covered.

Although courses covering accessibility are limited, students develop essential competencies in those courses, such as understanding disabled patrons' accessibility needs and designing user-friendly information services (Dow & Bushman, 2020; Gibson et al., 2021; Potnis & Mallary, 2021). However, practicing librarians feel largely unprepared to design accessible services (Pionke, 2021), suggesting that accessibility is insufficiently covered in LIS curricula and leaves students unable to serve disabled patrons.

To address these gaps, we analyzed syllabi from 20 North American programs with the following research questions:

- *RQ1: How frequently are accessibility and disability topics covered in LIS syllabi?*
- *RQ2: According to LIS syllabi, how is accessibility taught (e.g., modules and units, materials, and assessments)?*

This paper presents details of our content analysis, followed by a discussion of findings and implications for practice.

METHOD

To investigate the teaching of accessibility in LIS education, we conducted a content analysis of syllabi from programs belonging to the Association for Library and Information Science Education (ALISE), ALA, Association for Information Science and Technology (ASIS&T), and iSchools Consortium. We first created a spreadsheet listing all ALISE, ALA, ASIS&T, and iSchools institutions. After randomly selecting 20 North American programs from the list, we accessed each program's website and graduate and undergraduate catalogs from Fall 2020 through Fall 2022. Next, we reviewed every course's title and description to determine if a course might address accessibility or disability. We compared each course's title and description with an inventory of relevant terms and topics (Table 1) drawn from our familiarity with LIS curricula and research (Alajmi & Alshammari, 2020; Guedes & Landoni, 2020; Jia et al., 2021; Mulliken, 2016; Ren et al., 2022; Shinohara et al., 2018).

Table 1

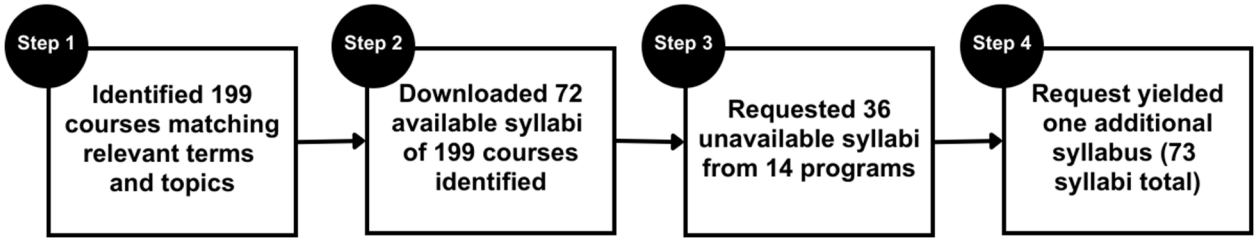
Relevant Terms and Topics

Course Type	Relevant Terms or Topics
Foundations or Introductory	● Foundations of LIS ● Introduction to LIS ● Survey of LIS
Information Technology	● Artificial intelligence ● Database design ● Digital libraries ● Information Architecture ● Web design or development
User-Centered Design	● Human-centered computing ● Human-computer interaction ● Universal Access or Universal Design ● Usability or user-experience ● User services
Diversity, Equity, Inclusion, and Social Justice	● Information ethics or policy ● Information justice ● Social informatics
Cultural Competence	● Culturally relevant librarianship ● Cultural responsiveness ● Serving diverse populations
Accessibility or Disability	● Accessibility ● Adaptive or assistive technologies ● People with disabilities

Of the hundreds of courses reviewed, 199 included relevant terms or topics. For each of these 199 courses, we tried accessing the syllabus using the program's website or an institutional repository and collected 72 publicly available syllabi (36.2%). From our review of course descriptions, 36 of the 126 unavailable syllabi (representing 14 programs) likely included accessibility language (28.6%). After requesting the 36 unavailable syllabi from the programs' directors, we received one syllabus from a program director, bringing the total number of collected syllabi to 73. Figure 1 depicts our syllabi collection process. The number of programs and syllabi we analyzed in our study mirrors previous research on social justice topics in LIS curricula (Alajmi & Alshammari, 2020; Maestro et al., 2018; Ren et al., 2022).

Figure 1

Syllabi Collection Process



Data Analysis

To begin analyzing the 73 syllabi, we reviewed select syllabi together and developed a deductive coding scheme. We agreed to use the following accessibility- or disability-specific keywords when coding the syllabi:

- Accessibility
- Disability (or ability)
- Universal access, Universal Design, or user-centered design
- Usability

Using those keywords, we identified elements of a syllabus to be coded:

- Course title
- Course description
- Course objectives
- Modules and units
- Materials (e.g., lectures and readings)
- Assessments (e.g., assignments and examinations)

We achieved above 85% simple agreement among coders with the coding scheme. Additionally, we used the programs' websites and syllabi to determine if a course was foundational, required, or elective.

FINDINGS

Of the 73 syllabi analyzed, 37 (50.7%) include accessibility and disability language. To ensure we did not miss potentially relevant syllabi, we erred on the side of caution by collecting marginally related syllabi.

Frequency of Accessibility and Disability Coverage

To answer *RQ1*, we began by comparing the number of syllabi matching the accessibility keywords with the total number of collected syllabi. Table 2 lists frequencies of matching syllabi for the course types (foundations, required [core], and electives). Elective courses were the most well-represented (53.8% matching the criteria), followed by required courses (46.2% matching) and foundational courses (37.5% matching).

Table 2

Frequencies of Matching Syllabi by Course Type

Course Type	Relevant	Collected	Percent (%)
Foundations	3	8	37.5
Required (Core)	6	13	46.2
Electives	28	52	53.8
Overall	**37**	**73**	**50.7**

For each of the 37 matching syllabi, we used the codebook to analyze the course's title, description, and objectives. Doing so allowed us to calculate the distribution of accessibility keywords across the syllabi (Table 3). There were 42 instances of matching keywords across the 37 syllabi. Altogether, accessibility, universal access, Universal Design, user-centered design, and usability were predominantly used (92.9%). Disability or ability keywords, however, were explicitly mentioned in only two courses' descriptions and one course's objective (7.1%).

Table 3

Frequencies of Accessibility Keywords in Course Titles, Descriptions, and Objectives

Keywords	CT	CD	CO	Instances	Percent (%)
Accessibility	0	5	11	16	38.1
Disability or Ability	0	2	1	3	7.1
Universal Access, Universal Design, or User-Centered Design	2	4	10	16	38.1
Usability	1	1	5	7	16.7
Total	**3**	**12**	**27**	**42**	**100.0**

Course Elements Key:
CT: Course Title; CD: Course Description; CO: Course Objectives

Table 4 showcases course titles, descriptions, and objectives.

Table 4

Examples of Course Titles, Descriptions, and Objectives

Course Elements	Examples from Syllabi
Course Title	● *LS 507: User-Centered Information Services* ● *LS 581: Universal Design for Information Technologies* ● *LIS 5275: Usability Analysis*
Course Description	● *INLS 777: Perspective, Information, Technology, and People*: We will discuss information behaviors, user experience, and user-centered design. ● *INFO 6850: Museums and Community*: Collaboration with local communities and an active commitment to equity, diversity, inclusion, accessibility, and decolonization are necessary to ensure that museums are inclusive spaces that reflect the needs and identities of the communities they serve. ● *LS 621: Intercultural Perspectives in Youth Literature*: For a child to be successful in the world, she/he must learn how to make connections with others in society who may differ in ethnicity, nationality, religious preference, immigration status, ability, gender, social class, sexual orientation, native tongue, education level, etc.
Course Objectives	● *LS 581: Universal Design for Information Technologies*: (1) Identify four types of physical ability challenges; (2) Define concepts and classifications of ICT accessibility for persons with physical access challenges; (3) Understand concepts and theories related to ICT use posed by aging and disability. ● *MGMT 4620: Web Design and Architecture*: Understand the issues related to the design of digital text, focusing on user experience, user-centered design, and accessibility. ● *LI 833: Resources and Services for Diverse Populations*: Plan the design, provision, and evaluation of services, which will help reduce or eliminate barriers to information-seeking, access, and use for people from diverse and underserved populations.

Methods for Teaching Accessibility

This findings section addresses *RQ2*. For each of the 37 matching syllabi, we used the codebook to analyze the course's modules and units, materials (e.g., lectures and readings), and assessments (e.g., assignments and examinations). There were 38 matching keywords across the 37 syllabi (Table 5). Disability or ability terminology was mentioned in one module or unit, three materials, and one assessment (13.2%).

Table 5

Frequencies of Accessibility Keywords in Modules and Units, Materials, and Assessments

Keywords	MU	M	A	Instances	Percent (%)
Accessibility	7	4	0	11	28.9
Disability or Ability	1	3	1	5	13.2
Universal Access, Universal Design, or User-Centered Design	5	5	0	10	26.3
Usability	3	6	3	12	31.6
Total	**16**	**18**	**4**	**38**	**100.0**

Course Elements Key:
MU: Modules and Units; M: Materials (e.g., lectures and readings); A: Assessments (e.g., assignments and examinations)

When teaching accessibility, LIS educators dedicate materials (47.4%), and modules and units (42.1%), to relevant topics. Materials include books, scholarly articles on user experience design, and modules and units about technological affordances (Table 6). However, only one in ten assessments explicitly require students to demonstrate accessibility competencies.

Table 6

Examples of Modules and Units, Materials, and Assessments

Course Elements	Examples from Syllabi
Modules and Units	● *LS 567: Digital Reference*: Public Libraries; Accessibility; Patrons in Crisis ● *INFO 5530: Information Sources, Services, and Retrieval*: Commitment to equity, diversity, inclusion, accessibility, and decolonization; User-centered design ● *LIS 5255: Information, Technology, and Older Adults*: Technology affordances and disabilities
Materials	● *INLS 718: User Interface Design*: Krug, S. (2014). *Don't make me think, revisited: A common sense approach to Web usability*. Indianapolis: New Riders. ● *INFO 6450: Services and Resources for Children*: Kaeding, J., Velasquez, D., & Price, D. (2017). Public libraries and access for children with disabilities and their families: A proposed inclusive library model. *Journal of the Australian Library and Information Association, 66*(2), 96–115. ● *INFO 6850: Museums and Community*: Ware, S., Zankowicz, K., & Sims, S. (2022). The call for disability justice in museum education: Re-framing accessibility as anti-ableism. *Journal of Museum Education, 47*(2), 130–137.
Assessments	● *LS 500: Information Science and Technology*: Comparative Usability Study ● *INLS 690: Information Services in a Diverse Society*: In this paper, please answer this question: What are your experiences with the topics covered in this course? Think about (1) your history with issues related to race, ethnicity, socioeconomic class, language, religion, sexual orientation, gender identification, and/or ability or disability in your past; and (2) how these experiences impact the current journey you are on. ● *INFO 321: Human-Centered Design Process & Methods*: Usability Study; Final Prototype

DISCUSSION

Overall, our findings echo previous studies indicating that social justice content is underrepresented within LIS curricula (Poole, 2021), is primarily relegated to elective courses (Ren et al., 2022), and rarely includes accessibility or disability (Alajmi & Alshammari, 2020). However, these findings provide some of the first details of how and where accessibility and disability content is taught in LIS curricula.

Frequency of Accessibility and Disability Coverage

Accessibility and disability terms in courses' descriptions and objectives were more present in electives (53.8%) than in required (46.2%) or foundations (37.5%) courses. This reality suggests that the teaching of accessibility is optional, rather than supporting the ALA's (2019) assertion that it is an essential value LIS students must learn. Depending on students' chosen electives, learners may never develop accessibility and disability competencies.

Methods for Teaching Accessibility

Only four assessments addressing accessibility and usability were identified in the analyzed syllabi. Courses lacked disability-related assessments, even though the associated learning objectives featured accessibility keywords. Inadequate assessments can limit instructors' abilities to evaluate whether course objectives are being met (Eberly Center, 2023).

Informing Practice

Our findings can assist LIS programs in making curricula more accessibility-focused, especially foundational and required courses. Teaching LIS students to serve disabled patrons can be achieved by programs developing new learning objectives or revising existing ones. Since educators generally teach accessibility if addressing the needs of disabled people is a curricular requirement (Guedes & Landoni, 2020; Shinohara et al., 2018), making this an explicit part of course descriptions and objectives should encourage greater coverage regardless of the specific instructor. Programs may even consider developing standalone courses in accessibility and disability (Ren et al., 2022), such as courses in accessibility and user-centered design that train students to design inclusive platforms for disabled users (Brinkley, 2020).

Educators teaching foundational and required courses should also consider creating accessibility-focused assessments or revising existing assessments. Service-learning projects, for example, encourage students to partner with disabled people in their communities to elicit their accessibility needs (Brinkley, 2020; Horton et al., 2021; Putnam et al., 2016). By collaborating with disabled patrons, LIS students can understand the lived experiences of those patrons and, consequently, co-create accessible library and information spaces (Copeland, 2019a, 2019b; Copeland et al., 2020; Copeland & Mallary, 2021; Mallary & Copeland, 2020; Thompson & Copeland, 2021).

While analyzing syllabi does not fully capture the extent to which educators include accessibility- and disability-related content in LIS curricula, our findings nevertheless capture

what students might experience when researching and selecting courses. Accordingly, LIS educators should make existing accessibility and disability content more evident within courses' descriptions and syllabi. Moreover, syllabi should be more readily available so students can make informed course selections.

CONCLUSION

By analyzing available syllabi from 20 North American LIS programs, this study began uncovering accessibility challenges and opportunities within LIS curricula. Educators must better prepare graduates to serve disabled patrons by emphasizing accessibility, user-centered design, and usability within foundational and required courses. Students may never develop crucial knowledge and skills depending on their chosen electives. Moreover, a lack of disability-focused assessments potentially creates an impression that serving disabled patrons is less important to LIS than addressing the needs of other underserved populations. Future research should include data from additional North American and international programs, including surveys and interviews with educators and students. Ensuring that information professionals master accessibility competencies is necessary for the field to further its social justice progress.

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