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Who do we need to invite to the parlor? Curriculum deliberations and assessment approaches in conversation with course readings

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Abstract

Introduction. This research examines major themes in an MLIS curriculum through an analysis of program course readings in response to the 2023 revision of the ALA Core Competencies.

Method. Course readings were gathered for all courses in an MLIS curriculum. 3,406 readings were collected, including webpages, journal articles, conference papers, book chapters, and books.

Analysis. The visualisation of the bibliographic network was created using titles, keywords, and abstracts of the readings. Textual analysis of the full text of the course readings was conducted utilising topic modelling analysis. Quantifiable bibliographic information was analysed using basic descriptive statistics.

Results. Both bibliographic and topic model analyses indicated various nuanced DEI-related themes were present throughout the course readings, including topics related to race, gender, power, privacy, ethics, and legal considerations. Additionally, the analysis indicated strong breadth and depth within the curriculum.

Conclusion. Topic modelling and visualisation of assigned course readings render the LIS ‘parlor’ as a network of conversations that we can utilise to assess and guide the curriculum in evolving and aligning with professional competencies.

Introduction

Curriculum assessment is critical to the evolution of any discipline. How best to assess curriculum is not as clear. Disciplinary competencies, faculty expertise, ongoing research, and external pressures like workforce development and career readiness initiatives are influences that come to bear on its evolution or stasis. Additionally, the professional competencies that guide our programs are themselves an ongoing dialogue, continually evolving with social and technological shifts. Questions arise around how often curriculum should be assessed and revised. What aspect of the curriculum is most important to assess: assignments, lecturers, course readings, learning objectives, degree program goals, or student feedback? How do we determine when depth or breadth is needed given a particular area of the curriculum? How do we best assess and update the values that underpin the curriculum? We found ourselves confronted with these issues when the professional organisation, the American Library Association (ALA), that accredits our degree program, updated the core competencies for library professionals, which served as a catalyst for our study.

Prior to the 2023 change to the ALA core competencies that included new competencies related to social justice and sustainability, we had not directly assessed our curriculum related to diversity, equity, and inclusion (DEI), concepts critical to both. To align the Master of Library and Information Science (MLIS) curriculum at Indiana University Indianapolis to the 2023 ALA core competency related to social justice, we added a program learning goal specifically focused on social justice and DEI. Faculty mapped this new goal to new and existing assignments that assess student learning in this area, providing some general data related to students' achievement. However, we found this mapping did not help us understand how adequately the curriculum addresses the breadth and depth of DEI-related topics, just that it did and whether students demonstrated mastery of the competency.

Dissatisfied, we analysed all the course syllabi. We found the review of syllabi lacked the level of granularity to reveal how DEI issues are addressed in the curriculum. The syllabi varied greatly in terms of the subject matter covered. Syllabi content was inconsistent, and some course descriptions were out of date. For these reasons, we decided to examine the readings that comprised the entire curriculum to understand the major themes and connectors in our curriculum, as well as an understanding of the kinds of DEI topics included within the course readings. Rather than conducting a compliance analysis of the ALA Core Competencies or a DEI audit, this research focused on what the collective body of readings revealed about the curriculum.

In analysing course readings, we found ourselves exploring the MLIS curriculum as an ongoing scholarly conversation rather than a static list of topics, assignments, readings, etc. Burke's parlor metaphor reminds us that we all '*arrive late*' to a discussion already in progress (Fister, 2011). The selected readings represent the ongoing disciplinary dialogue we invite students into. Course readings are the knowledge base of the curriculum that conveys reality and builds community. Given recent shifts in professional competencies, and increased attention to social justice and sustainability, we needed to listen systematically to the curriculum for ongoing conversations and silences. By analysing the corpus of course readings, we are '*listening*' to our curriculum's parlor to better understand internal connections, orientations, and opportunities for future growth.

Literature review

In library and information science (LIS), assessment has employed a variety of methods to determine which concepts and whose knowledge the curriculum advances. Accreditation cycles, program learning outcomes, and course-level documentation provide us with necessary accountability scaffolds, yet they can overlook the intellectual substance of what students encounter. The literature suggests that moving closer to the level of assigned readings and

visualising patterns across courses can answer questions that higher-level assessments cannot, while simultaneously situating curriculum within a profession's ongoing dialogue.

The limitations of higher-level assessment are well-documented. In 2006, Applegate found that ALA self-studies for accreditation review had historically relied on indirect measures, such as student, alums, employer, and exit surveys, while direct evidence, including portfolios, capstones, or evaluated artifacts, appeared far less frequently. That imbalance made it challenging to document the connection between learning and specific professional standards. Whereas, in professional practicum settings, assessment instruments often weighted work habits and generic professionalism over discipline-specific competencies, while using terminology that is undefined or inconsistently applied (Brannon, 2014). Even strong syllabus studies, which are functional for revealing intentions and assignments, stop short of exposing the intellectual voices that students encounter. For example, Dubicki (2019) mapped 180 syllabi to the ACRL's Information Literacy Framework and found high expectations for research, with comparatively few explicit library touchpoints. The analysis illuminated where information literacy was taught, but not whose work shaped it. The cumulative effect is a familiar paradox: abundant evidence of process and structure, thinner evidence of the ideas, authors, and communities that give the curriculum meaning.

Turning to readings begins to resolve that paradox. Bibliographic and topic-model analyses of syllabi in digital preservation, for instance, have surfaced the field's evolving emphases and the venues that function as conversational hubs. Murillo and Yoon (2021) demonstrated how clusters migrate over time, from records and repositories toward data curation and big data, with notable gaps in ethics and governance. These signals would be invisible in analyses of learning outcomes and syllabi. When we '*listen*' to a corpus of assigned readings in this way, we are not merely quantifying citations; we are drawing boundaries around the conceptual parlor where students arrive '*late*,' to the disciplinary conversation, to borrow Burke's metaphor (Fister, 2011), noticing who is already speaking, who is conspicuously absent, and how subject matter connects across courses and the curriculum.

The LIS literature on DEI and the curriculum highlights why this shift is significant now. Multiple studies concur that DEI content is unevenly represented across MLIS curricula. Studies have found that DEI courses are often elective rather than required, and are inconsistently offered (Ren, Alemanne, & Colson, 2022; Dill, Grote, & Hardin, 2023). Poole, Agosto, Greenberg, Lin, and Yan's (2021) synthesis of DEI curricular assessments spanning five decades revealed an enduring contestation around defining DEI and numerous one-off approaches to teaching and learning DEI. As a result, they recommend a multi-level integration encompassing required courses, electives, practica, co-curricular activities, and community engagement to address this professional competency. Practitioner studies are equally clear that graduates often feel underprepared for the most challenging aspects of the work, including book challenges and advocacy, accessibility (DEIA), LGBTQIA+ services, hiring and supervision, and addressing internal bias (Burress, Li, & Hebert, 2024). They also conclude that embedding DEI across the curriculum, not siloing it, is the most credible remedy. If we stay at the level of course descriptions, mission statements, syllabi, or even student learning outcome maps, we can attest to the presence of DEI subject matter in the curriculum. However, we cannot attest to the breadth and depth of DEI conversations. Reading-level analysis tagging illuminates topics across communities and value frames.

The parlor metaphor helps organise these findings. An effective curriculum draws students repeatedly into the profession's conversations from multiple perspectives with ongoing dialog. Subject specific courses offer explicit entry points (ethics, access and service, advocacy/outreach). Others contain latent '*diversity levers*,' especially in technically coded spaces such as information organisation and IT, where discussions of classification bias, universal design, and digital inclusion can shift from the margins to the centre (Kumasi & Manlove, 2015). Syllabus-level audits remind us that even when DEI appears, it can be tokenised into a single '*diversity week*,' or its presence can

vary by section and instructor (Cooke & Jacobs, 2018). Reading-level maps enable us to see how voices and topics travel across the parlor: where clusters bridge courses, where the oft-cited author anchors multiple experiences, and where entire communities are peripheral or absent. In that sense, a curriculum without reading-level visibility is a parlor with the lights dimmed; you can hear talk, perhaps even a lone sage on the stage, limiting speech and legitimising certain arguments.

The literature argues for triangulation in our analyses of curricula. Accreditation artifacts and student learning outcome maps provide scope and accountability; syllabi and course descriptions provide placement and intent; reading-level bibliometrics provide intellectual content; direct artifacts (portfolios, capstones, client deliverables) provide embodied experience; practitioner interviews/surveys provide external validity. Kim's (2015) competency-based design for digital curation demonstrates how portfolios can be structured to evidence knowledge, skills, and abilities across a sequence. Mandel (2017) illustrates how research-through-practice assignments make methods, ethics, and uncertainty visible to students and assessable to faculty. The path forward, then, is not a single 'better' measure; it is a stack of measures that each see different things, with reading-level analysis occupying the layer that most directly captures the profession's discourse, its recorded and dynamic relational knowledges.

Visualisation is where that layer becomes actionable. Network and landscape views: topic clusters, co-authorship or co-citation hubs, venue concentrations, and concept flows over time render the structure of the parlor visible at a glance. In digital preservation syllabi, such maps have already revealed both the gravitational centers of a field and its neglected regions (Murillo & Yoon, 2021). In a DEI audit of readings, the same techniques would reveal the distribution of communities and frameworks across required and elective spaces, the degree to which voices from marginalised communities function as bridges rather than occasional examples, and whether sustainability and social justice are braided through or remain parallel tracks after ALA-2023. These visuals do the work that tables alone cannot: they show who is in the room, where the room is crowded, and where there is a door that nobody uses.

Higher-level assessments will continue to excel in areas such as scope, structure, and accountability, but they will not reveal which voices shape our graduates' practice and continued dialogue with the professions core questions across space and time. A triangulated design that stacks reading-level maps with syllabus audits, direct artifacts, and practitioner perspectives will. It will also let us answer the questions that motivated this review of the curriculum: what reading-level analysis captures that other assessments do not (the who and how of knowledge), how the parlor metaphor clarifies cross-course connections (and silences), what the methods we use afford and constrain (and what counts as evidence of 'what is taught'), and what a visual landscape shows that lists cannot (clusters, bridges, and gaps across time). That is the level at which we can document not just compliance with new competencies, but participation in the ongoing dialogue that defines the field.

This research addresses the following research questions:

- What does a bibliographic analysis of course readings capture that other higher-level assessments do not?
- How does the parlor metaphor (entering the dialogue of the profession) help us understand the cross-course connections in the curriculum?
- What does a visual landscape and soundscape of course readings tell us that a list of readings cannot?

Research methods

The study's research procedures consisted of the following steps:

- Collecting all MLIS course readings
- Importing course readings metadata into Zotero
- Exporting Zotero collection to create .ris and .csv files for analysis in VOSviewer
- Conducting a visualisation analysis of the titles, abstracts, and keywords using VOSviewer
- Conducting topic modelling analysis of the full text using Python and LDAvis

Additionally, basic descriptive statistics of quantifiable bibliographic items (i.e., publication, year, publication type, etc.) of the readings were conducted using Microsoft Excel.

Data collection and cleaning

All required course readings for the MLIS Program at Indiana University Indianapolis were collected over a period of 2 years, starting in March 2023. A total of 3,406 readings were collected, including webpages, journal articles, conference papers, book chapters, and books.

The readings were imported into Zotero, and the metadata was cleaned and updated to ensure accuracy. Any missing abstracts and keywords were identified and added using Scopus, Web of Science, or the journal website. For readings that did not have an abstract, the first paragraph of the reading was used. For 15 readings, the first paragraph was not an accurate indicator of the content; therefore, a 2-3 sentence summary of the readings was written with the assistance of generative AI.

Once all metadata, abstracts, and keywords were updated in Zotero, the data was exported using Zotero export to create a .ris and .csv file for analysis. The final collection includes 3,406 course readings. Additionally, full-text PDFs for all readings were collected and added to the Zotero library.

Data analysis

Two methods were used to analyse the readings. First, the bibliometric data was analysed using VOSviewer (Centre for Science and Technology Studies, Leiden University, The Netherlands, 2018). Second, we employed a workflow for analysing a corpus of PDFs through topic modelling using a combination of python-poppler, LDAvis, and Mallet (Shaw, 2023). We chose these analytic techniques because both have been extensively utilised to understand themes in large corpora of text and curriculum (i.e., Natale et al., 2012; Timakum et al., 2018; Ozyurt et al., 2024). Additionally, these techniques provide outputs, including temporal analysis, most relevant terms, and term distributions. Furthermore, these two analysis methods complement each other to provide a more complete understanding of the course readings.

Visual analysis of bibliographic data

As it is challenging to determine themes from large corpora of textual data, visual analysis using VOSviewer was employed to analyse the titles, keywords, and abstracts from the readings. Bibliometric data contains a vast amount of information. VOSviewer was created to construct and visualise bibliometric networks (Centre for Science and Technology Studies, Leiden University, The Netherlands, 2018). Additionally, VOSviewer allows these visualisations to be examined by the publication year, providing further insight into the readings. In these visualisations, key terms, frequency, relationships, and association strength are denoted. These visualisations enable the identification of dominant thematic clusters and emergent themes within the readings.

Topic modelling of course readings

Topic modelling has '*proven useful for analysing and summarising large-scale textual data*' (Song & Ding, 2014). Specifically, Latent Dirichlet Allocation (LDA), which is a '*generative probabilistic model for collections of discrete data such as text corpora*' (Blei et al., 2003), can be used to create topics to explore themes within texts. For this research, a topic model workflow for PDF libraries available through GitHub was utilised (Shaw, 2023). LDAvis was employed to explore the distribution of topics. Key components of the topic model output included: 1) an inter-topic distance map that

PHP, RDA, and web archive, and the oldest terms include appraisal, archives, and electronic record. The newest terms in the purple cluster (children and literacy) include caregiver, makerspace, and kid, and the oldest terms include age, life, and young adult. Lastly, the newest terms in the red cluster (library services and users) include COVID, pandemic, and data management, and the oldest terms include information policy, library science, and philosophy.

When examining individual terms related to DEI, the analysis indicates a connection to all major clusters. For example, the terms society, culture, and diversity are strongly connected to all clusters, as shown in Figure 3. These connections indicate that DEI themes are pervasive throughout all primary clusters in the course readings.

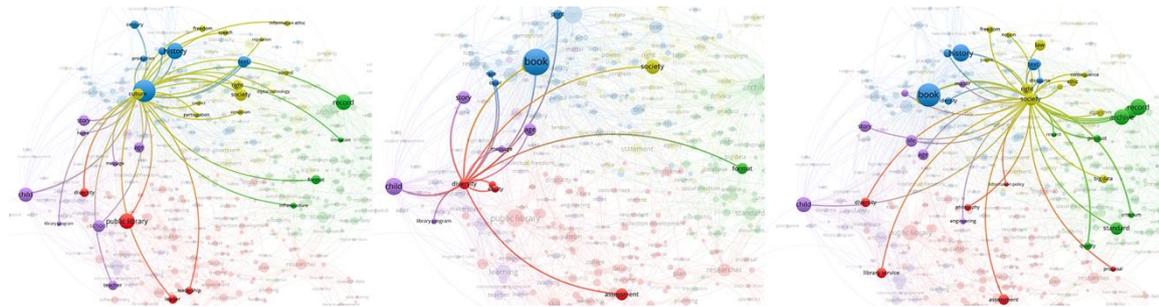


Figure 3. Culture, diversity, and society connected clusters.

Unsurprisingly, there is also a change in the focus of DEI-related topics over time. As shown in Figure 4, when considering readings related to disabilities, there seems to be a shift from focusing on children, adults, and library services to accessibility and health. Additionally, when considering diversity, recent topics have shifted to focus on colour, equity, and race. Youth, children, and adults show a similar trend, focusing on the books in the earlier readings and, in the later readings, shifting to focus on equity and engagement.

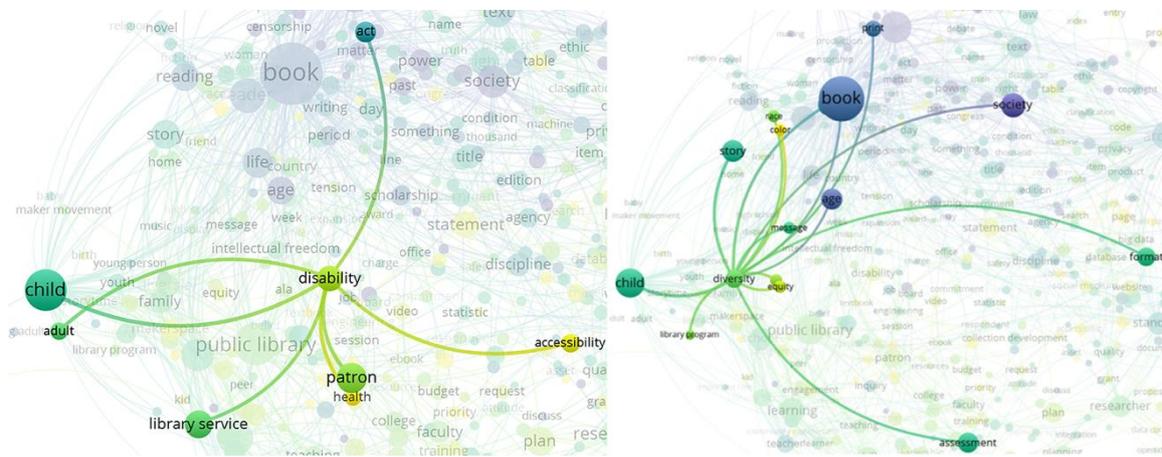


Figure 4. Change over time in readings related to disability and diversity.

Topic model analysis

Along with the visual analysis, topic modelling of the full text was conducted. This analysis provided further insight into the major themes in the readings. A total of 50 topics were generated, each representing a distinct but interrelated theme (See Figure 5).

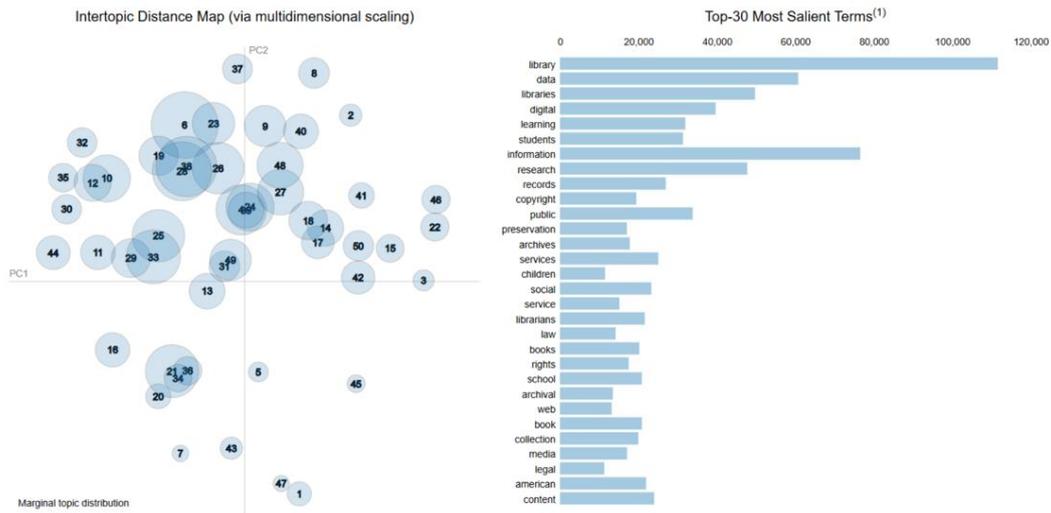


Figure 5. Inter-topic distance map.

The 50 topics focus on various aspects of LIS, including academic and public libraries, archives and records management, legal, policy, and ethics, classification, description, and metadata, data preservation and curation. Additionally, topics focus on various literacy topics, including information literacy, learning sciences, makerspaces, and youth literacy. Several topics focus on various types of books and publishing, including youth literature, international books, historical books, printed books, and scholarly publishing. Other topics focus on technical skills, including web development, database design, and data and algorithms.

DEI-related themes

As described below, several topics focus on DEI-related considerations. These topics illustrate the diversity of DEI-related considerations that students encounter through the readings in the MLIS curriculum.

For example, Topic 44 focuses on race and gender and includes terms such as ‘racial identity,’ ‘racism,’ ‘women,’ and ‘gender.’ These terms indicate a thematic focus on racial diversity and women. This topic also includes terms such as ‘community’ and ‘history,’ indicating an additional focus on community and racial history.

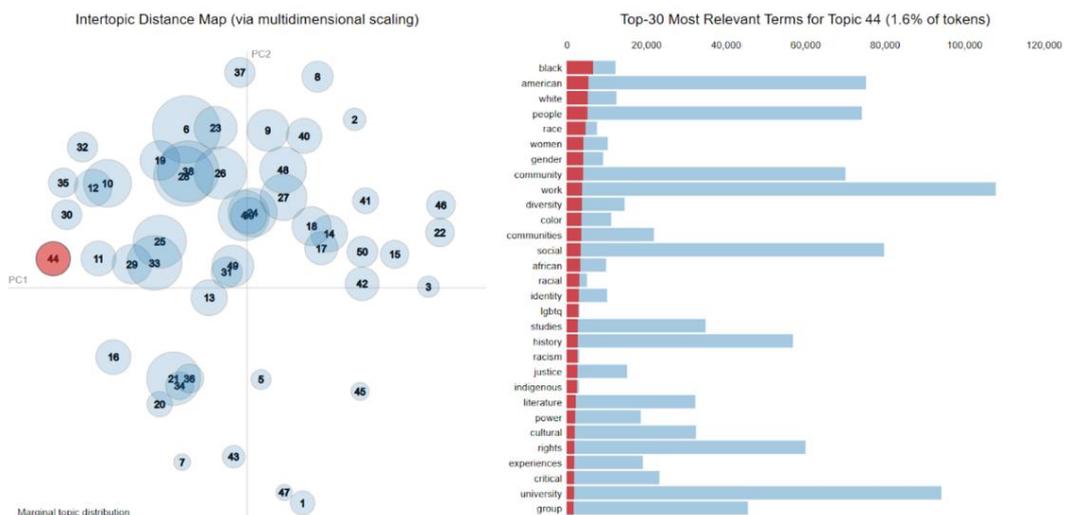


Figure 6. Topic 44.

Topic 28 focuses on culture and power, and includes terms such as ‘society,’ ‘justice,’ ‘critical,’ and ‘power.’ These terms indicate a focus on societal power dynamics and how social justice emphasises a fair and equitable society.

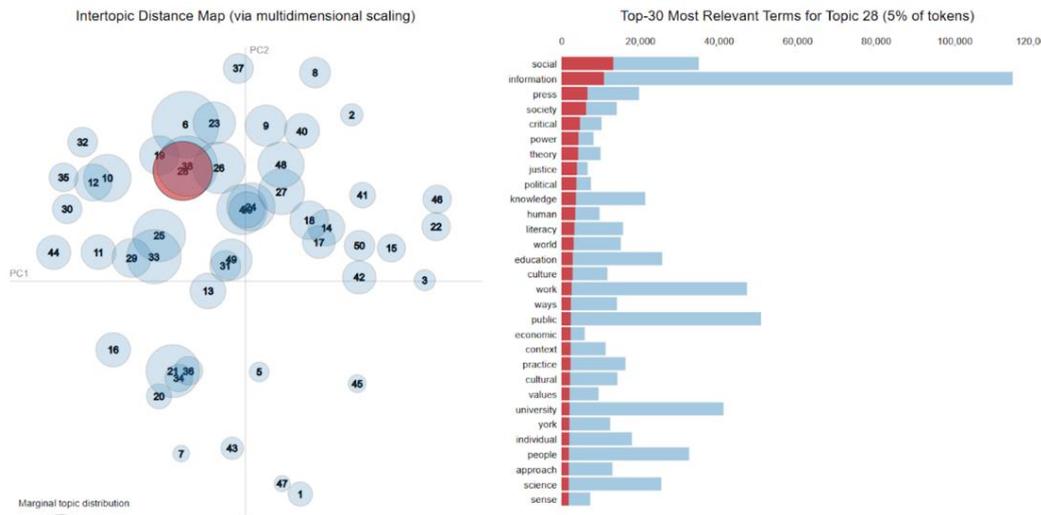


Figure 7. Topic 28.

Interestingly, Topic 28 overlaps with Topics 38, which focuses on community work and project support, Topic 26, which focuses on research methodology, and Topic 19, which focuses on leadership, indicating the connection between these themes throughout the curriculum.

Topic 30 focuses on culturally responsive teaching, including terms such as ‘students,’ ‘diversity,’ ‘ethnic groups,’ and ‘teaching.’ This topic emphasises the importance of incorporating various pedagogical and instructional practices that are inclusive and equitable for all students.

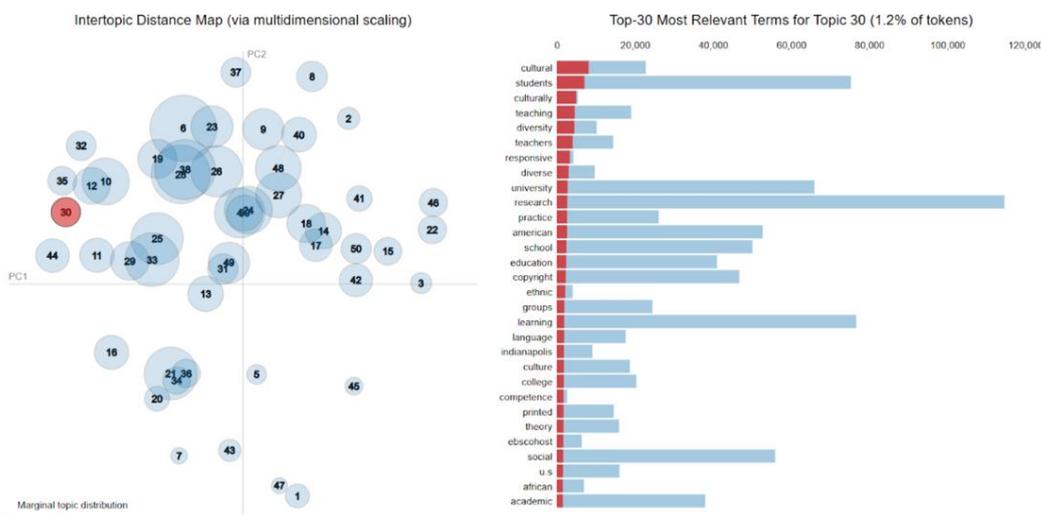


Figure 8. Topic 30.

Reinforcing the themes of Topic 30 are Topics 10, 12, and 35, which are all near Topic 30. Topic 10 focuses on student information literacy, Topic 12 focuses on learning sciences, and Topic 35 focuses on children and family literacy and reading. Again, indicating the emphasis on various aspects of literacy.

Topic 41 focuses on accessibility, including terms such as *'design,' 'accessibility,'* and *'users.'* These terms indicate a thematic focus on ensuring accessible design for users. Additionally, terms such as *'signage,' 'visuals,' 'space,'* and *'technology'* within this topic demonstrate that this focus is on both physical and digital accessibility.

Additionally, several topics focus on legal, privacy, and ethics. Topic 8 specifically focuses on legal considerations and includes terms such as *'law,' 'legal code,'* and *'court,'* indicating the importance of legal considerations in LIS. Topic 9 focuses on various aspects of privacy and includes terms such as *'information privacy,' 'freedom,'* and *'intellectual ethics,'* indicating the LIS focus on ensuring intellectual freedom and privacy.

Several topics focus on books from a non-US perspective. For example, Topic 20 focuses on African, French, and Indian books, as well as trade and translation. Additionally, Topic 34 focuses on Chinese books and texts, including ancient works and Chinese imperial periods, as well as early Roman works. Additionally, Topics 20 and 34 overlap with Topic 21, which focuses on book history and publishing, and Topic 36, which focuses on early printing and printed books.

Additionally, several topics focus on library programming related to students, youth, teens, and adults. Topic 24 focuses on academic libraries and students, while Topic 29 focuses on public libraries and youth and teen programming, as well as community and local needs. Topic 33 also focuses on public libraries and community resources. Each of these topics overlaps with the others; additionally, Topic 29 overlaps with Topic 11, which focuses on community health. Topic 11 is centered on public health and social support systems, and includes terms such as *'health,' 'education,' 'youth,'* and *'veterans.'*

Additional salient themes and interrelated topics

When considering the most salient topics, there are clearly major themes within the course readings. For example, Topic 4, one of the most salient topics, focuses on records and archives, and includes terms such as *archivists, appraisal, records, and collection.* A related and strongly salient topic is Topic 39, which focuses on data curation and data management, and includes terms such as *'data curation,' 'management,' 'sharing,'* and *'research.'* Furthermore, Topic 24 bridges data curation and archives, and focuses on digital preservation, including terms such as *'preserve,' 'storage,'* and *'repository.'*

Another highly salient topic is Topic 33, which focuses on public libraries and includes terms such as *'public,' 'services,' 'patrons,'* and *'state support.'* This topic overlaps with another highly salient topic, Topic 25, which focuses on academic libraries and includes terms such as *'academic,' 'students,' 'university,' 'research,'* and *'faculty.'* Interconnected with both topics 33 and 25 is Topic 29, which focuses on library programming, and includes terms such as *'programs,' 'services,' 'local,' 'teens,'* and *'adults.'*

Additionally, Topics 28 and 38 are also highly salient and overlapping. As discussed previously, Topic 28 focuses on social justice, and Topic 38 focuses on community work. These topics include terms such as *'society,' 'power,' 'justice,'* and *'community.'*

Lastly, another group of salient interconnected topics is 17, 18, 14, and 27. These interconnected topics have strongly connected themes related to description, metadata, file formats, and technological systems (Topics 17, 18, 14, 27, respectively). They include terms such as *'format,' 'access,' 'information resource,' 'bibliographic entity,' 'MARC,'* and *'XML.'*

Table 1 summarises the connection between the bibliographic visual analysis and the topic model analysis, demonstrating how both the cluster analysis and topic model analysis found similar themes within the course readings.

Cluster Theme	Cluster Color	Top Terms	Connected Topic
Books and Publications	Blue	Books; history; reader; text; readings; print; title; publication; century; edition	Topics 20, 21, 34, 36
Social and Cultural	Yellow	Society; culture; right; law; statement; privacy; power; day; ethics; freedom	Topics 8, 9, 28
Records and Archives	Green	Record; archives; standard; archivist; format; metadata; element; set; preservation; description	Topics 4, 24
Children and Literacy	Purple	Child; learning; school; story; life; age; teacher; family; engagement; educator	Topics 10, 12, 30, 35
Library Services and Users	Red	Public library; researcher; skill; library service; assessment; discipline; instruction; patron; school librarian; diversity	Topics 29, 33

Table 1. Cluster and topic model analysis thematic connections.

Continued analysis of the topic modelling data is being conducted, including continued analysis of each of the 50 topics, additional analysis of topics related to DEI, and additional analysis of term frequencies across topics, as well as further analysis of how the cluster analysis and topic model analysis reinforce the findings of the major themes within the course readings. Further analysis is underway to determine program alignment. In general, the findings indicate a strong alignment with the eight specialisations within the MLIS program.

Discussion

Curriculum attempts to understand the relationships between knowledge, reality, and practice and should tie together knowledge and build community. Developing and accessing curriculum is an exploration of what and why particular subject matter should be taught in consideration of the purpose and goals of the curriculum. Thus, curriculum deliberations and inquiries move from a high-level view to specific subject areas (Null, 2017). ALA's 2023 new core competency set in motion curricular questions about how, if at all, our curriculum aligns with new professional standards. Curriculum questions and deliberations, such as these, require not only subject matter expertise but also an understanding of the theories, values, and purpose of disciplinary practice within the broader social, cultural, and technological milieu. The parlor analogy helped frame the curriculum deliberations and inquiries inspired by the new ALA 2023 core competency, moving toward a continuous, multi-level curriculum assessment practice inclusive of bibliometrics, including reading level analysis and visualisations. The curriculum assessment methods presented here are in line with the literature, suggesting triangulation and a stack of measures that illuminate different aspects. Reading level analysis and visualisations illuminate the ongoing dialogue and a continually evolving curriculum in relation to social, cultural, and technological shifts, as well as updates to professional standards. Three areas were central to the research questions - course readings, visualisations, and the parlor analogy. The subsequent sections will address our research questions: What does a bibliographic analysis of course readings capture that other high-level assessments do not? What does a visual landscape and soundscape of course readings tell us that a list of readings cannot? How does the parlor metaphor help us understand the cross-course connections in the curriculum?

Course readings

Adding a bibliographic analysis of course readings to a curriculum assessment provides a level of fidelity that other approaches alone lack. Analysis of course readings has helped us to hear and observe how important concepts and values are addressed in courses and across time. The depth and breadth of the curriculum become visible as readings and representative topics change with course offerings. When considering the initial impetus for our curriculum inquiries and deliberations, DEI analysis revealed that themes are pervasive throughout all thematic clusters. Analysis also traces shifts in the focus of DEI-related topics over time. For example, a shift from

focusing on children, adults, and library services to accessibility and health, and a shift in subjects related to programming and services that focused on books (literature) in the earlier readings, to a focus on equity and engagement in later readings. As courses are taught and readings are updated, new themes and topics are introduced. Analysis of course readings capture the dynamic and relational knowledge throughout the curriculum, providing insights that other high-level assessments do not.

Central to the approach is the use of visualisations and ongoing curricular deliberations, analogous to Burke's parlor. The analysis and approach have not yet fully unlocked the potential for modelling the depth of the curriculum. The initial insights discussed here are informative. However, there are many inquiries we can pose to the collection of curated course readings. Different analyses and questions will reveal different aspects, creating additional visualisations that can guide deliberations and decision-making.

The MLIS program passes on the values and norms of the discipline to students. The curriculum aims to teach them what it means to be a librarian, archivist, and information professional. The knowledge we impart through the curriculum enhances the development of skills in collecting, organising, retrieving, and disseminating information. Rarely is there a deep examination of the ongoing dialogue represented by the course readings as part of the curriculum, including its assumptions, values, and practices (Bates, 1999). Course reading analysis, visualisation methods, inquiry, and ongoing dialogue make visible the unseen structures that shape reality and the imagination that constitute futures.

Visualisation and topic model analysis

Visualisations illuminate hidden elements within professional discourse, which is crucial for understanding shifts and silences, as well as generating actionable steps. Course lists and descriptions, specialisations, program goals, and syllabi structure the MLIS program, providing a disciplinary overview and pathways through the curriculum. But they lack depth and meaning. Visualisations generated from course readings analysis graphically depict themes and concepts, providing a deeper understanding of the connections and relationships between subject matter content and course offerings. This layer of analysis provides a deeper understanding of specialisations and program goals. Clusters reveal not only what is being covered, but temporal shifts in professional discourse.

The five color-coded clusters show the distribution of the major themes: Books and Publications (blue), Social and Cultural (yellow), Records and Archives (green), Children and Literacy (purple), and Library Services and Users (red). Yellow appears most widely distributed across the curriculum, indicating attention to social and cultural issues, also capturing many DEI-related themes. Clusters represented by blue, red, and purple signal a strong emphasis on librarianship within the curriculum. Red and Purple point to a practice-oriented focus, with comparatively less attention to social (yellow) and technical (green) issues affecting public and academic libraries, local communities, literacy, and learning. Green highlights the integration of technology, representing an examination of how knowledge systems, information, and data shape human flourishing and sustainability in accordance with the values of justice, equity, inclusion, and intellectual freedom. The dense green clustering suggests an opportunity to better integrate topics across the curriculum. New inquiries emerge. How do these topics relate to social, health, and environmental challenges across divergent cultural contexts? Topic analysis provides another visual technique.

Topic analysis reveals the breadth and depth of themes within and across courses. Analysis uncovers a substantial breadth related to the new 2023 ALA core competency. It also reveals a shift in core LIS topic areas. Topic 28 addresses culture and power, highlighting societal dynamics. It overlaps with Topics 38 (Community Work and Project Support), 26 (Research Methodology), and

19 (Leadership). This constellation reflects the values of justice and equity embedded in knowledge systems and structures. When read in conjunction with the strategic direction of the MLIS program, clustering around Topics 28 and 24 suggests an emphasis on community-engaged research and scholarship. This is enlightening, given the decisions made regarding new courses and degree offerings.

Analysis and visualisations both reveal outcomes and inform actions. For example, planning the integration of topics represented in the green and yellow clusters. Visually, this would result in distribution across red and purple clusters. Curricular deliberations would determine how. Perhaps adding a specialisation, new course(s), or readings across courses that address complex social, technical, and cultural challenges as related to literacy, library services and programs, LIS core values and ethics, information systems and communication technologies (ICTs), as well as issues affecting local communities. A multi-layered approach to curriculum assessment, inclusive of course readings and visualisations, becomes a tool for deliberation and decision-making.

Conclusion

Burke's parlor metaphor casts students as entering the LIS conversation midstream. It is an apt metaphor for a deliberative approach to curriculum assessment that involves reading and listening across multiple inputs. Assigned readings are the written record of the LIS discourse and form the core of the curriculum, extending across courses. Readings shape student-instructor dialogue, subject matter content, outcomes, activities, and assessments, which make up the curriculum. Instruction prepares students to participate meaningfully in the ongoing conversation and construction of new knowledge. Topic models and visual clusters reveal cross-course connections and trace shifts in discourse, reflecting the field's response to societal issues.

Curriculum assessment should be an ongoing, deliberative process that encompasses multiple approaches. Reading level bibliometrics provide depth and breadth to curriculum analysis. Combined with visualisations and other high-level assessments, a deeper understanding of the curriculum will lead to new inquiries and better decisions. By making the invisible LIS knowledge visible, we are better positioned to create a reflective, justice-oriented, and technologically integrative program.

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References

- Applegate, R. (2006). Student learning outcomes assessment and LIS program presentations. *Journal of Education for Library and Information Science*, 47(4), 324–336.
- Bates, M. J. (1999). The invisible substrate of information science. *Journal of the American Society for Information Science*, 50(12), 1043–1050.
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of Machine Learning Research*, 3(4–5), 993–1022. <https://doi.org/10.1162/jmlr.2003.3.4-5.993>
- Brannon, S. (2014). Assessment in fieldwork courses: What are we rating? *Journal of Education for Library and Information Science*, 55(4), 274–296.
- Burress, R., Li, X., & Hebert, H. S. (2024). Addressing diversity, equity, and inclusion in library and information science curriculum: Looking back and to the future. *Journal of Librarianship and Information Science*. <https://doi.org/10.1177/096100062412794>
- Centre for Science and Technology Studies, Leiden University, The Netherlands. (2018). VOSviewer - Visualising scientific landscapes. <http://www.vosviewer.com/>
- Cooke, N. A., & Jacobs, J. A. (2018). Diversity and cultural competence in the LIS classroom: A curriculum audit. *Urban Library Journal*, 24(1).
- Dill, E., Grote, L., & Hardin, J. (2023). Preparing for a more equitable future: An examination of EDI-focused courses in LIS curricula. *ACRL 2023 Proceedings*, 243–250.
- Dubicki, E. (2019). Mapping curriculum learning outcomes to the ACRL Framework: A syllabus study. *The Journal of Academic Librarianship*, 45(4), 288–298. <https://doi.org/10.1016/j.acalib.2019.04.003>
- Fister, B. (2011, November 10). Burke's parlor tricks: Introducing research as conversation. *Inside Higher Ed*. <https://www.insidehighered.com/blogs/library-babel-fish/burkes-parlor-tricks-introducing-research-conversation>
- Kim, J. (2015). Competency-based curriculum for digital curation. *Journal of Education for Library and Information Science*, 56(4), 283–297. <https://doi.org/10.3138/jelis.56.4.283>
- Kumasi, K. D., & Manlove, N. L. (2015). Finding 'diversity levers' in the core LIS curriculum. *Library Trends*, 64(2), 415–443.
- Mandel, L. H. (2017). Experiencing research firsthand: The 'unClassroom'. *Journal of Education for Library and Information Science*, 58(4), 187–201. <https://doi.org/10.3138/jelis.58.4.187>
- Null, J. W. (2017). *Curriculum: From theory to practice*. Rowman & Littlefield.
- Yoon, A., Murillo, A. P., & Anders McNally, P. (2021). Digital preservation in LIS education: A content analysis of course syllabi. *Journal of Education for Library and Information Science*, 62(1), 61–86. <https://doi.org/10.3138/jelis.62.1-2018-0053>

- Natale, F., Fiore, G. & Hofherr, J. (2012) Mapping the research on aquaculture. A bibliometric analysis of aquaculture literature. *Scientometrics*. 90, 983–999. <https://doi.org/10.1007/s11192-011-0562-z>
- Ozyurt, O., Kabakus, A.K. and Ayaz, A. (2024) 'Exploring scholarly journal content: Topic modeling analysis using LDA algorithm,' in *Text Mining in Educational Research*. Singapore: Springer Nature Singapore, pp. 71–95.
- Poole, A. H., Agosto, D., Greenberg, J., Lin, X., & Yan, E. (2021). Where Do We Stand? DEI & Social Justice in North American LIS Education. *Journal of Education for Library and Information Science*, 62(3), 258–286. <https://doi.org/10.3138/jelis.2020-0018>
- Ren, X., Alemanne, N. D., & Colson, L. M. (2022). How MLIS programs prepare students to serve diverse populations. *Journal of Education for Library and Information Science*, 63(3), 302–318.
- Shaw, R. (2023). Topics: Workflow for topic modeling a personal library of PDFs. <https://github.com/rybesh/topics>
- Song, M., & Ding, Y. (2014). Topic modeling: Measuring scholarly impact using a topical lens. In Y. Ding, R. Rousseau, & D. Wolfram (Eds.), *Measuring scholarly impact* (pp. 235–257). Cham Heidelberg New York Dordrecht London: Springer International Publishing. https://doi.org/10.1007/978-3-319-10377-8_11
- Timakum, T., Kim, G., & Song, M. (2018). A data-driven analysis of the knowledge structure of library science with full-text journal articles. *Journal of Librarianship and Information Science*, 52(3): 345–365. <https://doi.org/10.1177/0961000618793977>

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