DRAFT - March 5, 2025

AI Competencies for Academic Library Workers

Forward

In July 2024, the ACRL AI Competencies for Library Workers Task Force was created to develop comprehensive AI competencies for library workers that align with the evolving needs of academic libraries in the context of AI integration. The members of the task force are Emily L. Rimland, Brian A. Quinn, Dr. Michael J. Paulus Jr., Sue Parks, Dr. Leo S. Lo (ACRL board liaison), Beth A. LaPensee, LeRoy LaFleur, Dr. Olga Koz, Dr. Priya Kizhakkethil, Keven Jeffery (co-chair), Nicole Hennig, Brooke Gross, David Free (ACRL staff liaison), Jason Coleman (co-chair), and Dr. Frances M. Alvarado-Albertorio.

This document is a first draft. It was created in collaboration with William Schaeffer from the ACRL Standards Committee. Please share your anonymous feedback by completing our four-question survey by March 26, 2025. We will then make revisions based on that feedback and post a revised version with another request for comments.

Introduction

Artificial intelligence, “any technology/machine that can perform complex tasks that are typically associated with human intelligence”[1], is rapidly changing higher education by transforming research methods, pedagogical practice, data analysis, information production, and information consumption. It is embedded in various technologies across education, information gathering, and data analysis, enabling personalized learning, efficient information retrieval, and deeper insights from complex datasets. To help current and future generations adapt to these changes, higher education institutions are revising curricula, training faculty and staff, and developing new systems and processes that take advantage of AI’s many affordances. If academic libraries are to remain relevant to the communities they serve, their employees must become AI literate; they need to “be able to understand, use, and think critically about AI technologies and their impact on society, ethics, and everyday life.”[2]

Intended Purpose

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This document expands on Lo's (2025) broad definition of AI literacy, tailoring it into a comprehensive, library-specific set of competencies applicable to all academic library employees. To ensure long-term relevance, the competencies do not reference specific products, models, or job functions. Instead, they serve as a guiding framework for developing training programs and as a foundation for library communities to create their own AI competency documents.

Structure of the Document

This document contains two sections: dispositions (tendencies to act or think in a particular way) and competencies (skills, knowledge, behaviors, and abilities). Dispositions are presented as a single list. Competencies are organized into four categories: Knowledge & Understanding; Analysis & Evaluation; Use & Application; and Ethical Considerations. These parallel the categories Davy Tsz Kit Ng and colleagues identified in their content analysis of 18 articles about AI Literacy.[3] Each category contains three to eight broad competencies, each followed by a short paragraph description and a list of several narrower competencies. This structure was inspired by that developed by Sandy Hervieux and Amanda Wheatley to present AI literacy frames.[4]

Relationship to Other Documents

In developing these competencies, the committee recognized significant parallels between responsible AI use and the principles of critical information literacy, as outlined in documents like the *ACRL Framework for Information Literacy for Higher Education.*[5] The ability to understand how knowledge is produced, valued, and ethically applied is just as essential when using AI tools in both personal and professional contexts. AI-generated content presents the same challenges—bias, inaccuracies, and legal and socioeconomic implications—that have long required critical evaluation, reinforcing librarians' role in advocating for informed and ethical information practices.

Dispositions

The *ACRL Framework for Information Literacy for Higher Education* has many dispositions that can be applied to library workers developing artificial intelligence competencies. The dispositions below highlight the importance of curiosity, adaptability, and a willingness to

experiment with AI tools. Critical evaluation fosters healthy skepticism and ongoing assessment of AI-generated outputs, benefits, and challenges. Ethical awareness and privacy considerations require an understanding of AI's inherent biases and potential risks. Adaptability is essential, encouraging flexibility in response to evolving technologies. Finally, staying informed ensures that library professionals remain aware of AI developments from vendors, understand AI tools' functionality and applications, and uphold the critical role of human oversight.

Academic library workers who are developing AI competencies exhibit the following dispositions:

- Approach AI with curiosity and a willingness to explore the technology.
- Value learning from both successes and failures when using AI.
- Assess information about AI critically with an awareness of their own biases.
- Seek multiple perspectives when evaluating AI for any use.
- Maintain an open mind when encountering varied and sometimes conflicting perspectives about AI.
- Strive to base judgments about AI on facts and direct experiences.
- Recognize that learning about AI involves entering an ongoing scholarly conversation, not a finished one.
- Are open to the potential of responsible human-AI collaboration to unlock a future of greater equity and inclusion.
- Seek uses of AI that center and enhance human agency rather than displace and inhibit it.
- Pursue continuous professional reflection and growth, especially concerning ethical and environmental responsibilities.

Competencies

Knowledge & Understanding

Broad Competencies
1. Develop a basic understanding of the underlying technologies associated with AI.
2. Stay current with AI applications by following reliable sources from a diverse range of experts.

3. Critically evaluate sources of information about AI for accuracy and bias.
4. Understand AI-related policies and regulations relevant to your locality.

Analysis & Evaluation

Broad Competencies
1. Explain how AI can impact librarianship, academia, teaching, learning, and research.
2. Evaluate AI tools in the context of specific library tasks and services.
3. Evaluate benefits and risks in the development or deployment of AI.

Use & Application

Broad Competencies
1. Use AI to facilitate communication and collaboration in the workplace.
2. Integrate AI into job-related tasks to gain efficiencies and improve quality.
3. Formulate language for optimal AI output.
4. Explore the capabilities of AI for innovation.
5. Select AI tools that are designed for accessibility, inclusivity, and usability.

Ethical Considerations

Broad Competencies	
1.	Facilitate and advocate for more equitable access to AI technologies and AI literacy.
2.	Promote fairness in the use of data and design of AI systems.
3.	Protect individual autonomy and privacy rights, cultural diversity, and intellectual property rights.

4.	Ensure appropriate accountability for the design and use of AI systems, including transparency, explainability, accuracy, and reliability.
5.	Consider the broader impacts of AI on communities, workers, and the environment.

1. Knowledge & Understanding

These competencies provide a foundation for developing a basic understanding of artificial intelligence technologies, staying informed about their developments, and identifying credible information. This understanding lays the groundwork for other AI competencies related to evaluating AI tools and understanding their benefits and risks.

1.1 Develop a basic understanding of the underlying technologies.

Narrow competencies:

- Understand and define some basic terminology related to AI, such as machine learning, multimodal models, prompting, and semantic search.
- Understand that generative AI models consist of probabilistic math as opposed to databases that store words and images.
- Understand that AI has evolved significantly since the term was first defined in the 1950s and is now embedded in many of the technologies we use daily.
- Know that generative AI generates new content, while discriminative AI classifies or sorts, and predictive AI makes predictions based on patterns in data.
- Know that in addition to text, it is also possible to generate other types of content, including images, video, music, speech, and computer code.
- Be familiar with the names of significant generative AI models and the types of output they can produce.
- Understand that tools that claim to detect AI-generated writing are not 100% accurate and easily circumvented.

1.2 Stay current with AI applications by following reliable sources from a diverse range of experts.

Narrow competencies:

- Periodically, select and read, watch, or listen to diverse sources from newsletters, blogs, social media, video channels, podcasts, webinars, and conference recordings.
- Follow sources from different types of libraries, from other disciplines and countries around the world, not just your own. Consider educators, technologists, business analysts, non-profit groups, ethicists, archivists, and librarians.
- Stay current with new developments by attending webinars, conferences, and other training.

1.3 Critically evaluate sources of information about AI for accuracy and bias.

Narrow competencies:

- Be aware that news about AI can include both positive and negative hype.
- Be aware that experts disagree on many AI-related topics.
- Apply tools and evaluation frameworks to analyze sources, claims, arguments, and language in sources of information about AI.

1.4 Understand AI-related policies and regulations relevant to your locality.

Narrow competencies:

- Be familiar with the AI policies and regulations specific to your institution, state, region, and country.
- Understand how policies and regulations, such as HIPAA and FERPA, impact AI usage in your role.
- Stay current with developments related to fair use and copyright of generative AI outputs and generative AI training.

2. Analysis & Evaluation

These competencies position library workers to evaluate and analyze artificial intelligence tools effectively, bridging the gap between understanding AI and implementing or creating new AI

tools. Library workers need to be well-versed in general AI tools to categorize and critically assess their application in various aspects of their work, including services, collection management, and administrative tasks. This involves integrating AI tools to enhance student learning, improve resource access, and refine discovery methodologies. Additionally, librarians must evaluate AI tools' reliability, risks, and effectiveness while being mindful to prevent misuse and misapplication.

2.1 Explain how AI can impact academia, teaching, learning, and research.

Narrow competencies:

- Classify AI tools into broader categories that are relevant to higher education.
- Describe how AI can be applied to library processes and services.
- Explain to colleagues and the general public how AI can be applied to your job.
- Evaluate which tools would be appropriate for specific use cases related to your job.

2.2 Evaluate AI tools in the context of specific library tasks and services.

Narrow competencies:

- Identify the pros and cons of using specific AI tools for use cases related to your job.
- Identify features, functions, and capabilities of AI tools necessary for library services connected to your job.

2.3 Evaluate benefits and risks in the development or deployment of AI.

Narrow competencies:

- Explain the benefits and risks of using AI for knowledge-related tasks.
- Discuss how to judge whether the quality of an AI tool's output is sufficient given the risks or funding involved in using it.
- Evaluate risks associated with using AI in teaching and research.
- Evaluate the risks of using AI for students' learning and cognitive development.
- Understand that algorithms have biases that may obfuscate critical information and perspectives.

- Evaluate AI tools based on data quality, including diverse training sources, the relevance of the training set to the intended use, and the ethicality of practices used to attribute information

3. Use & Application

These competencies enable individuals to effectively leverage artificial intelligence tools to enhance collaboration, streamline daily work routines, and foster innovation. By understanding how AI can improve communication and automate tasks, individuals can integrate these tools into their workflows to boost productivity. Additionally, context-aware and iterative prompting techniques tailored to the task can lead to effective outputs. Prioritizing usability and accessibility when choosing which tools to recommend or provide to library workers enables everyone to benefit from AI.

3.1 Use AI to facilitate communication and collaboration in the workplace.

Narrow competencies:

- Describe how AI tools can be used to improve collaboration.
- Identify AI applications for automating tasks and supporting team coordination.
- Select and apply AI tools to streamline communication and information sharing.

3.2 Integrate AI into job-related tasks to gain efficiencies and improve quality.

Narrow competencies:

- Identify which work tasks and processes AI can improve.
- Identify specific AI tools that can expedite work processes.
- Apply AI-enhanced workflows to drive progress toward your library's mission.

3.3 Formulate language for optimal AI output.

Narrow competencies:

- Understand how the way prompts are written and structured impacts AI outputs.
- Use techniques for crafting clear and effective prompts for various tasks.
- Refine and adapt prompts to improve AI performance and accuracy.

3.4 Explore the capabilities of AI for innovation.

Narrow competencies:

- Describe how the creative potential of AI can be used to foster workplace innovation.
- Experiment with a variety of AI tools and evaluate how they can be creatively applied to work tasks and workflows.
- Apply AI to imaginatively approach work problems and generate novel solutions.

3.5 Select AI tools that are designed for accessibility and usability.

Narrow competencies:

- Understand key accessibility principles and how they apply to AI design and deployment.
- Identify ways AI can be used to reduce barriers and improve usability for diverse user groups.
- Utilize AI tools and solutions that prioritize inclusivity and user-friendly experiences.

4. Ethical Considerations

As artificial intelligence continues to transform the practice of librarianship, library workers must be aware of the broad range of ethical issues connected with the exploration, evaluation, selection, use, and creation of AI tools. These issues include data sources and use, the designs of algorithms and models, and societal and environmental impacts. The ethical considerations below are aligned with ALA's Core Values.[6]

4.1 Facilitate and advocate for more equitable access to AI technologies and AI literacy.

Narrow competencies:

- Identify barriers to access, such as costs of premium services, restrictions in licensing agreements, and centralized control of AI technologies and infrastructure.
- Understand how open-source AI models can align with library values by promoting transparency, community-driven innovation, and broad access to technology.

4.2 Promote fairness in the use of data and design of AI systems.

Narrow competencies:

- Understand that data on which AI systems are trained may not be sufficiently representative, relevant, or accurate and can automate and perpetuate biases and/or misunderstanding.
- Understand that biases can influence the design and fine-tuning of systems, as well as their outcomes.

4.3 Protect individual autonomy and privacy rights, cultural diversity, and intellectual property rights.

Narrow competencies:

- Understand the importance of protecting individual privacy rights when using AI systems, including protecting personally identifiable information and other information provided when interacting with AI systems.
- Be aware of the legal complexities and ambiguities surrounding intellectual and cultural property rights when using AI systems.

4.4 Ensure appropriate accountability for the design and use of AI systems, including transparency, explainability, accuracy, and reliability.

Narrow competencies:

- Understand the different responsibilities of creators and users of AI systems, including

the need for appropriate transparency about data selection and systems design, explainable outputs, and disclosures about systems used.
- Be aware of the need for accurate and reliable AI outputs that enhance our information environment.

4.5 Consider the broader impacts of AI on communities, workers, and the environment.

Narrow competencies:

- Be aware of the unseen labor in developing and supporting AI systems.
- Understand how the development and use of AI systems are impacting the environment.
- Describe the risks and opportunities AI provides for individual learning and development.
- Understand how employers' adoption of AI is changing the job market.

References

[1] Notre Dame Learning. *AI overview and definitions*. (n.d.). https://learning.nd.edu/resource-library/ai-overview-and-definitions/
[2] Lo, L. S. (2025). *AI literacy: A guide for academic libraries.* https://digitalrepository.unm.edu/ulls_fsp/210
[3] Hervieux, S., & Wheatley, A. (2024). *Building an AI literacy framework: Perspectives from instruction librarians and current information literacy tools* [White Paper]. Choice. https://www.choice360.org/research/white-paper-building-an-ai-literacy-framework-perspectives-from-instruction-librarians-and-current-information-literacy-tools/
[4] Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education: Artificial Intelligence*, *2*, 100041.
[5] Association of College and Research Libraries. (2016). *Framework for information literacy for higher education*. American Library Association. https://www.ala.org/acrl/standards/ilframework
[6] American Library Association. (2024). *Core values of librarianship.* https://www.ala.org/advocacy/advocacy/intfreedom/corevalues