



AI Competencies for Academic Library Workers

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Foreword

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 were Emily L. Rimland, Brian A. Quinn, Dr. Michael J. Paulus Jr., Sue Parks, Dr. Leo S. Lo (ACRL board liaison), Beth A. LaPensee, Dr. 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.

Artificial Intelligence and Academia

Artificial intelligence, "any technology/machine that can perform complex tasks that are typically associated with human intelligence,"¹ is beginning to transform higher education by influencing research methods, pedagogical practices, data analyses, information production, and information consumption. AI is being integrated into various educational and research technologies, offering capabilities for personalized learning, efficient information processing and retrieval, and enhanced analysis of complex datasets. Recognizing AI's potential impact on workforce preparation, some institutions are embracing AI as part of their core mission. Examples include large university systems like the State University of New York (SUNY)² and the California State University (CSU),³ which together educate nearly one million students annually. Many higher education institutions are now exploring how to revise curricula to ensure that students learn to critically assess and engage appropriately with AI, provide AI literacy training to faculty and staff, and develop new systems and processes that leverage AI's capabilities in ways that minimize risks and potential harms.

The Role of Academic Libraries

While AI offers opportunities for innovation and efficiency, it also presents significant ethical, social, and environmental challenges that academic library workers must critically engage with. This engagement is becoming unavoidable: AI is being integrated into library software and discovery platforms, often without consultation with library staff. As a result, library workers are increasingly called upon to help students and communities learn to evaluate and appropriately use AI tools. Given these realities, academic library workers need to develop AI literacy, which is the ability to "understand, use, and think critically about AI technologies and their impact on society, ethics, and everyday life."⁴ However, AI literacy should not imply an obligation to indiscriminately adopt AI tools for all purposes. Academic library workers should retain the ability to critically assess and choose whether to adopt specific AI technologies based on ethical considerations, performance criteria, institutional context, and alignment with our profession's values. This balance between informed engagement and thoughtful selectivity will be essential for academic libraries to remain both relevant to their communities and true to their professional principles.

Intended Purpose

This document expands on Lo's (2025) broad definition of AI literacy,⁵ tailoring it into a comprehensive, library-specific set of competencies applicable to academic library workers. It is meant to serve as a guiding framework for the creation of training programs and as a foundation for communities of librarians to develop their own AI competency frameworks. Given the diversity of roles and job duties among academic library workers, it is not possible to create a set of competencies that apply uniformly to everyone. Therefore, individuals, institutions, and others who use this framework are encouraged to adapt it to specific job functions, responsibilities, or organizational contexts.

Furthermore, because AI technologies are developing rapidly and often in unanticipated ways, it is not possible to develop a comprehensive set of AI competencies that will remain relevant for decades, let alone a few years. Nonetheless, in the interest of extending the usefulness of this set of competencies as far as possible, it does not reference specific products, models, or job functions.

Structure of the Document

This document contains two sections: mindsets (guiding orientations or dispositions) and competencies (skills, knowledge, behaviors, and abilities). Mindsets are presented in a single list. Competencies are organized into four categories: Ethical Considerations; Knowledge & Understanding; Analysis & Evaluation; and Use & Application. These parallel the categories Davy Tsz Kit Ng and colleagues identified in their content analysis of 18 articles about AI literacy.⁶ Each category contains four or five broad competencies. Each broad competency has a brief description and a corresponding list of related abilities. This structure was inspired by the one Sandy Hervieux and Amanda Wheatley used to present AI literacy frames.⁷

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 ACRL's *Framework for Information Literacy for Higher Education*.⁸ The ability to understand how knowledge is produced, valued, and ethically applied is as essential when working with AI tools as it is when using tools based on other technologies. For example, AI-generated content presents many of the same challenges that information professionals have long addressed: bias, inaccuracies, and questions of authority and credibility. These parallels reinforce librarians' established role in advocating for informed and ethical information practices, now extended to include AI literacy in both personal and professional contexts.

Guiding Mindsets

This set of mindsets supports academic library workers in engaging with artificial intelligence (AI) through curiosity, openness, and critical inquiry. Inspired by ACRL's *Framework for Information Literacy for Higher Education*, these mindsets reflect key dispositions such as adaptability, ethical awareness, and critical evaluation. Just as the *Framework* encourages reflective engagement with information, these mindsets promote thoughtful exploration of AI tools and consideration of their broader impacts. These mindsets are not fixed traits. Rather, they are guiding orientations that help individuals navigate the evolving role of AI in higher education and librarianship.

- **Curiosity:** Remain open to exploring the potential and limits of AI tools.
- **Skepticism:** Approach AI critically, questioning results, and representations.
- **Judgment:** Balance evidence, institutional context, and community impact when making or advising on AI-related decisions.

- **Responsibility:** Recognize the importance of thoughtful evaluation and ethical consideration as acts of care and stewardship for your community.
- **Collaboration:** Seek diverse perspectives when assessing AI tools.

Readers are encouraged to reflect on and adapt these mindsets and use them as a foundation for responsible, human-centered engagement with AI technologies.

Competencies

1. 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 Values⁹ and are meant to provide a foundation for making ethical decisions connected with other competencies, as well as in specialized areas of librarianship and specific library contexts.

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

This includes the ability to:

- Identify and address 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.

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

This includes the ability to:

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

1.3 Protect individual autonomy and privacy rights, cultural diversity, and intellectual property rights when using AI systems.

This includes the ability to:

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

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

This includes the ability to:

- 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.
- Support the creation of more accurate and reliable AI outputs to enhance our information environment.

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

This includes the ability to:

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

2. Knowledge & Understanding

These competencies provide a foundation for developing a basic understanding of artificial intelligence technologies. Having this understanding will help library workers influence how AI is developed and implemented in academic libraries. It also lays the groundwork for other AI competencies in this document.

2.1 Develop a basic understanding of AI technologies.

This includes the ability to:

- Understand and define basic terminology related to AI, such as machine learning, multimodal models, prompting, and semantic search.
- Understand that generative AI models generate outputs based on patterns and probabilities rather than stored data.

- Understand that AI technologies have evolved significantly since the term was first defined in the 1950s and is now embedded in many technologies we use daily.
- Know that generative AI creates new content, while discriminative AI classifies data, and predictive AI makes predictions based on patterns in data.
- Know that AI systems can generate various types of content beyond text, including images, video, music, speech, and computer code.
- Understand that AI technologies are often combined with other tools (such as search engines or code interpreters) within single products.
- Understand that retrieval-augmented generation (RAG) enhances generative AI by drawing on external sources (e.g., databases, documents) at the time of response, allowing outputs to be more grounded and verifiable.
- Understand agentic AI (autonomous systems that set goals, plan tasks, and act with minimal guidance) and track how this autonomy could reshape library workflows.

2.2 Understand AI attribution and detection.

This includes the ability to:

- Stay current with recommendations for acknowledging AI use from citation manuals and publishers.
- Understand that tools claiming to detect AI-generated writing are not completely accurate and can be circumvented.

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

This includes the ability to:

- Select and follow reliable sources related to AI in knowledge work.
- Follow sources that discuss AI from a variety of perspectives, including those from different types of libraries and nonprofits, as well as from technologists, educators, business analysts, and ethicists outside the library field.
- Stay current with new developments in AI by attending webinars, conferences, and other professional development opportunities.

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

This includes the ability to:

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

- Understand that there is an ongoing societal debate regarding the benefits and risks of AI technologies.

2.5 Understand AI-related policies and regulations relevant to your context.

This includes the ability to:

- Understand the AI policies and regulations specific to your institution, state, region, and country.
- Understand how existing policies and regulations, such as HIPAA and FERPA, impact AI use in your professional role.
- Stay current with developments related to fair use and copyright regarding both generative AI outputs and training data.

3. 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 in order to categorize and critically assess their application in various aspects of their work, including but not limited to discovery and instruction services, collection management, and administrative tasks. This involves responsible integration of AI tools used to enhance student learning, improve resource access, and refine discovery methodologies. Additionally, librarians must evaluate AI tools' reliability, performance, and effectiveness while being mindful of ethical considerations to prevent misuse and misapplication.

3.1 Explain AI technologies and their impacts on library services and resources.

This includes the ability to:

- 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 technologies can be applied to your job.
- Evaluate which AI tools would be appropriate for specific use cases related to your job.

3.2 Evaluate benefits and risks in the deployment of AI technologies.

This includes the ability to:

- Explain the benefits and risks of using AI technologies for knowledge-related tasks.
- Discuss how to judge whether the quality of an AI tool's output and performance is sufficient given the risks or funding involved in using it for discovery.

- Evaluate benefits and risks associated with using AI technologies in teaching and research.
- Evaluate the benefits and risks of using AI for students' learning and cognitive development.
- Explain how biases inherent to algorithms influence what information is highlighted, hidden, or excluded.
- Evaluate AI tools based on data quality, including the diversity of their training sources, the relevance of the training set to the intended use, and the ethicality of practices used to attribute information.

3.3 Critically analyze AI technologies using a multifaceted approach.

This includes the ability to:

- Consider technical capabilities of AI technologies, including accuracy, relevance, and robustness of their performance.
- Consider ethical aspects of AI technologies, including transparency, explainability, biases and fairness.
- To see the implications that use of AI technologies has for learning, development of critical thinking, and research skills.

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

This includes the ability to:

- Identify the advantages and limitations of 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.

4. Use & Application

Use of AI should be critically evaluated based on context, appropriateness, and alignment with library values. Adoption of AI technologies is neither necessary nor beneficial in all cases. These competencies enable academic library workers to effectively leverage AI tools when appropriate 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, the ability to apply context-aware and iterative prompting techniques tailored to specific tasks can lead to more effective outputs. Prioritizing usability and accessibility when choosing which tools to use enables everyone to benefit from AI.

4.1 Apply AI for task efficiency and quality enhancement.

This includes the ability to:

- Analyze which work tasks and processes can be streamlined with AI.
- Identify specific AI tools that can expedite work processes.
- Implement AI-enhanced workflows to drive progress toward your library's mission.

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

This includes the ability to:

- Demonstrate how AI tools can be used to enhance collaboration.
- Apply AI tools to automate tasks and support team coordination.
- Select and apply AI tools to streamline communication and information sharing.

4.3 Develop effective prompting strategies for optimal AI output.

This includes the ability to:

- Understand how prompt structure and language affect AI outputs.
- Use techniques for crafting clear and effective prompts for different types of tasks.
- Refine and adapt prompts to improve AI performance and accuracy.

4.4 Explore the capabilities of AI for innovation.

This includes the ability to:

- Identify opportunities for AI to foster innovation in library services and operations.
- Experiment with a variety of AI tools and evaluate how to creatively apply them to work tasks and workflows.
- Apply AI to imaginatively approach work problems and generate novel solutions.

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

This includes the ability to:

- Understand key accessibility principles and how they apply to AI design and deployment.
- Identify how AI can reduce barriers and improve the usability of library systems for diverse groups.
- Use AI tools and solutions that prioritize inclusivity and user-friendly experiences.

Notes

¹ Notre Dame Learning. (n.d.). *AI overview and definitions*.
<https://learning.nd.edu/resource-library/ai-overview-and-definitions/>.

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- ³ California State University. (2025, February 4). *CSU announces landmark initiative to become nation's first and largest AI-empowered university system*. <https://www.calstate.edu/csu-system/news/Pages/CSU-AI-Powered-Initiative.aspx>.
- ⁴ Lo, L. S. (2025). *AI literacy: A guide for academic libraries*. https://digitalrepository.unm.edu/ulls_fsp/210.
- ⁵ Ibid.
- ⁶ 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.
- ⁷ 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/>.
- ⁸ Association of College and Research Libraries. (2016). *Framework for information literacy for higher education*. American Library Association. <https://www.ala.org/acrl/standards/ilframework>.
- ⁹ American Library Association. (2024). *Core values of librarianship*. <https://www.ala.org/advocacy/advocacy/intfreedom/corevalues>.