Syllabus

By the National Center for Data Services and Regional Medical Libraries 3 & 5

# About the Short Course

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| Facilitated By | Email | Location |
| **Peace Ossom (course contact)**  Katie Pierce-Farrier  Fred LaPolla  Justin de la Cruz  Carolann Curry  Genevieve Milliken | [**peace.ossom@nyulangone.org**](mailto:peace.ossom@nyulangone.org)  [katie.pierce-farrier@unthsc.edu](mailto:katie.pierce-farrier@unthsc.edu)  [fred.lapolla@nyulangone.org](mailto:fred.lapolla@nyulangone.org)  [justin.delacruz@nyulangone.org](mailto:justin.delacruz@nyulangone.org)  [clcurry@uw.edu](mailto:clcurry@uw.edu)  [genevieve.milliken@nyulangone.org](mailto:genevieve.milliken@nyulangone.org) | NNLM NCDS  NNLM Region 3 Medical Library  NNLM NCDS/NYU HS Library  NNLM NCDS  NNLM Region 5 Medical Library NNLM NCDS/ NYU HS Library |

# General Information

## Description

In a rapidly evolving technological landscape, libraries are leveraging generative artificial intelligence to enhance their services and adapt to changing user behaviors and needs.  "Navigating New Norms: Harnessing Generative AI for Library Services and Solutions" is a short course designed to equip librarians with the knowledge and skills needed to automate efforts in advancing analytics, creating content, and answering library users' questions. Register to embark on a journey exploring the nuts and bolts of generative AI, from its foundational concepts to practical applications in library settings.

Led by a team of esteemed experts, this course will cover the following: First, Neelam Koshiya, Principal Solutions Architect at Amazon Web Services (AWS),  will teach the historical context and development of generative AI, its intended purpose, and potential implications along with real-world examples. Second, Dr. Kellie Owens will share her expertise in data ethics and lead discussions on ethical concerns surrounding generative AI, data privacy, ownership, and security. The last two sessions move beyond theoretical understanding, offering hands-on experiences during practical sessions, providing participants with firsthand experience in utilizing common generative AI tools and learning about how to implement the use of these systems for library work on the front and back end. From cataloging to chatbots, participants will discover how AI is revolutionizing library services while learning about resources for continued learning and professional growth. Join us where innovation meets ethical responsibility on this transformative journey into the world of generative AI.

*This presentation meets the NLM/NIH strategic plan goals of (a) accelerating discovery & advancing health by providing the tools for data driven research and (b) building a workforce for data-driven research and health. The presentation addresses health information resources and data and increasing health information access and use by including information about ethics and best practices for use of generative AI in libraries.*

**Short Course Webpage:** <https://www.nnlm.gov/training/class/navigating-new-norms-harnessing-generative-ai-library-services-and-solutions>

**When participating, you must abide by the NNLM Code of Conduct:** <https://www.nnlm.gov/about/code-of-conduct>**. To report issues, please email** [**peace.ossom@nyulangone.org**](mailto:peace.ossom@nyulangone.org)**.**

## Expectations and Goals

Attendees must participate in all four live sessions to complete the short course. Those who complete will be eligible to receive 6 hours of MLA continuing education credit in MEDLIB-ED.

# Course Materials

## Required Materials and Access

Sign up for the following services in preparation for the short course.

* The [Riseup Pad](https://pad.riseup.net/p/Generative_AI_Course) will be used as a form of communication during the discussions.
* [ChatGPT](https://chat.openai.com/)
* [NotebookLM](https://notebooklm.google) – To sign up, create a **new, separate** Google account before the session. Do not use a current Google account.
* [Gemini and Gemini extensions](https://gemini.google.com/extensions) - Use the same Google account you just created to sign in with NotebookLM. (If you’re already logged in, you’ll automatically authenticate to Gemini and Gemini extensions.)

## Pre-Readings

### Session **1**

Fischer (2023). Generative AI considered harmful. *CUI’23 Proceedings of the 5th International Conference on Conversational User Interfaces, 7*, 1-5. https://doi.org/10.1145/3571884.3603756

Dunn, A. G., Shih, I., Ayre, J., & Spallek, H. (2023). What generative AI means for trust in health communications. *Journal of Communication in Healthcare, 16*(4). https://doi.org/10.1080/17538068.2023.2277489

Sætra, H. S. (2023). Generative AI: Here to stay, but for good? *Technology in Society, 75*, 102372. https://doi.org/10.1016/j.techsoc.2023.102372

### Session 2

White House Office of Science and Technology Policy (2022) Blueprint for an AI Bill of Rights. https://www.whitehouse.gov/ostp/ai-bill-of-rights/

Bender, E. M., Gebru, T., McMillan-Major, A., Mitchell, M (2021). On the dangers of stochastic parrots: Can language models be too big? *FAccT '21: Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610-623. https://doi.org/10.1145/3442188.3445922

### Session 3

Sondos, M. B., Myrzakhan, A., & Shen, Z. (2024). Principled Instructions Are All You Need for Questioning LLaMA-1/2, GPT-3.5/4. https://doi.org/10.48550/arXiv.2312.16171

Anthropic. (n.d.). Prompt Engineering. https://docs.anthropic.com/en/docs/prompt-engineering

Mollick, E., & Mollick, L. (2023). Assigning AI: Seven approaches for students, with prompts. https://doi.org/10.48550/arXiv.2306.10052

### Session 4

Lund, B. D., Khan, D., Yuvaraj, M. (2024). ChatGPT in medical libraries, possibilities and future directions: An integrative review. *Health Information & Libraries Journal, 41*(1), i-iv, 1-113. https://doi.org/10.1111/hir.12518

# Course Schedule

All sessions are at 2 PM ET. See it in your time zone: <https://everytimezone.com/s/29685b74>

| Week | Topic | Speaker |
| --- | --- | --- |
| 1: April 1 | **Navigating A New Horizon:  An Introduction to Generative AI and Its Transformative Potential**  The session provides an overview, historical context, and development of generative AI. Key concepts will be defined, and, in this session, learners will become familiar with what generative AI is made to do and what it was not exactly created for.  Upon completion, attendees will be able to   * summarize AI and its subsets, distinguishing generative AI. * describe the historical context and major milestones toward the development of large language models and generative AI. * define key concepts: Large Language Models, Natural Language Processing, Deep Learning (Transformers), taxonomies and ontologies, structured knowledge, transformers * demonstrate familiarity with real-world examples of generative AI applications. | **Trevor Watkins** |
| 2: April 8 | **Ethical Considerations for Generative AI Now and In the Future**  This session provides an overview of ethical concerns around generative AI, including data privacy and security. Specific things to keep in mind and potential processes for libraries will be shared.  Upon completion, attendees will be able to   * engage with ethical considerations for AI in general. * describe data privacy and security concerns around generative AI. * develop guidelines around the ethical use of generative AI for your library. | **Dr. Kellie Owens** |
| 3: April 15 | **Hands-On Experiences and Applications**  In this session, participants will get practical experience with common Generative AI tools and engage in exercises practicing ways of making use of these tools, preventing and avoiding common pitfalls, and implementing out-of-the-box solutions.  Upon completion, attendees will be able to   * distinguish between common dual-use foundational models  (e.g., GPT-4,Claude, Gemini, & Mixtral). * recognize different prompt engineering techniques. * brainstorm and/or outline AI-assisted library services. | **Michael Flierl** |
| 4: April 22 | **Employing Generative AI in Libraries**  This session will focus on the applicability of generative AI in libraries, including providing use cases and success stories. Participants will learn about leveraging AI in library programming, chatbots and virtual assistants in libraries, and future trends. The speaker will also share resources for continued learning and professional development.  Upon completion, attendees will be able to   * describe how generative AI can be incorporated into and enhance library services. * explore how services can use generative AI such as for text generation, chat, and recommendation/ranking systems. * identify the benefits and challenges of implementing generative AI in libraries. | **Fred LaPolla** |

# Additional Information and Resources

The April 8th session recording will be sent to registrants as some may be unable to attend due to the total solar eclipse at some locations.

All slides will be provided to attendees.