International Federation of Library Associations and Institutions (IFLA). Artificial Intelligence Special Interest Group (AI SIG)

Resources to Get Up to Speed on Artificial Intelligence

Selected by the [IFLA Artificial Intelligence Special Interest Group](#)

Artificial intelligence is said to be having a dramatic, even transformative effect on many aspects of society. It will affect libraries in multiple ways, through its use in library services but also through changing the search landscape, and so information literacy. In December 2023 the IFLA AI SIG selected 23 resources to help any information professional get up to speed on this complex topic. We have made a couple of small updates to this to reflect developments, setting aside generative AI which is covered by our second guide.

1. Starting Point: What is Artificial Intelligence?

1. Elements of AI. 2023. "A Free Online Course Explaining the Basics of AI Technologies." https://www.elementsofai.com/.
    It is translated into several European languages. There is also an Ethics of AI course created by the University of Helsinki: https://ethics-of-ai.mooc.fi/.

2. DeepLearning.AI. n.d. "AI for Everyone: Course." https://www.deeplearning.ai/courses/ai-for-everyone/.
    Includes learning materials that can be reused.

3. FUN France Université Numérique. 2023. "ChatGPT et IA : mode d'emploi pour managers et RH." MOOC. L'intelligence artificielle pour tous! https://www.fun-mooc.fr/fr/cours/lintelligence-artificielle-pour-tous/.
    A French language MOOC from FUN: France Université Numérique.

2. Applying Artificial Intelligence to Library Work

2.1. General

4. CILIP. 2023. "Research Report: The Impact of AI, Machine Learning, Automation and Robotics on the Information Professions: A Report for CILIP." https://cdn.ymaws.com/www.cilip.org.uk/resource/resmgr/cilip/research/tech_review/cilip_%e2%80%93_ai_report_-_final_lo.pdf. *A review of the potential impact of AI on the information profession.*

5. Upshall, Michael. 2022. "An AI toolkit for libraries." *Insights: The UKSG Journal* 35: 18. https://doi.org/10.1629/uksg.592.
    An overview of AI illustrated with examples of AI applications and a toolkit for evaluating AI tools.

2.2. Machine Learning and Library Collections

6. Cordell, Ryan C. 2020. *Machine Learning + Libraries: A Report on the State of the Field.* Washington, DC: LC Labs, Library of Congress. https://labs.loc.gov/static/labs/work/reports/Cordell-LOC-ML-report.pdf.
    An authoritative analysis of the issues around the application of machine learning to knowledge discovery in libraries.

7. Europeana Pro. 2023. "AI in Relation to Glams." Task Force December 1, 2019 to August 31, 2021. https://pro.europeana.eu/project/ai-in-relation-to-glams.
    The Task Force investigated the role and impact of artificial intelligence in the digital cultural heritage domain, especially with regards to collections analysis and improvement and issued interim and final reports in 2023.

8. AI4LAM: Artificial Intelligence for Libraries, Archives and Museums. n.d. https://sites.google.com/view/ai4lam.
    AI4LAM is an international, participatory community focused on advancing the use of artificial intelligence in, for and by libraries, archives and museums.

9. Padilla, Thomas, Hannah Scates Kettler, Stewart Varner, and Yasmeen Shorish. 2023. *Vancouver Statement on Collections as Data.* Zenodo. https://doi.org/10.5281/zenodo.8341519.
    A collective statement of principles to govern how to share collections as data.

10. Lee, Benjamin Charles Germain. 2023. "The 'Collections as ML Data' Checklist for Machine Learning and Cultural Heritage." *Journal of the Association for Information Science and Technology*. Early view. First published May 2, 2023. https://doi.org/10.1002/asi.24765.
    Develops a checklist for the whole cycle of using machine learning with heritage material.

2.3. Chatbots

11. San Jose State University. Dr Martin Luther King Jr. Library. 2023. "What are Chatbots?" Last updated October 11, 2023. https://libguides.sjsu.edu/library-chatbot.
    A library guide providing an explanation of what a chatbot is, how it can be developed for a library setting and with a link to a local example.

12. Ehrenpreis, Michelle, and Jennifer DeLooper. 2022. "Implementing a Chatbot on a Library Website." *Journal of Web Librarianship* 16, no. 2: 120–142. https://doi.org/10.1080/19322909.2022.2060893. Available at https://academic works.cuny.edu/cgi/viewcontent.cgi?article=1400&context=le_pubs.
    A *case study of developing a library chatbot.*

2.4. Living Systematic Reviews

13. Cochrane Community. 2024. "Living Systematic Reviews." https://community.cochrane.org/review-development/resources/living-systematic-reviews.
    AI tools can assist in updating systematic reviews as new evidence becomes available: this could be referred to as a living systematic review.

3. Hands on with the Technologies

14. JISC. n.d. "The Home of AI Demos: A Collection of AI Demos to Discover and Explore." https://exploreai.jisc.ac.uk/.
    A website containing demos of different types of AI. Playing around with these tools gives you a good sense of the kind of thing that might be possible.

15. The Carpentries. n.d. https://carpentries.org/.
    AI is premised on data. Data Carpentries teaches foundational coding and data science skills to researchers worldwide. They have an incubator and lab and there are some machine learning introductions for GLAM under development. https://carpentries.org/community-lessons/. *An introductory course for GLAM is being piloted* https://carpentries-incubator.github.io/machine-learning-librarians-archivists/aio/index.html.

4. Artificial Intelligence and Data Literacy Training

16. Ridley, Michael, and Danica Pawlick-Potts. 2021. "Algorithmic Literacy and the Role for Libraries." *Information Technology and Libraries* 40, no. 2. https://doi.org/10.6017/ital.v40i2.12963.
    Explains two ways that libraries can contribute to understanding of AI: through including it in IL training and through helping to produce explainable AI.

5. Responsible Artificial Intelligence and its Ethics

17. International Federation of Library Associations and Institutions (IFLA). 2020. "IFLA Statement on Libraries and Artificial Intelligence." https://www.ifla.org/wp-content/uploads/2019/05/assets/faife/ifla_statement_on_libraries_and_artificial_intelligence.pdf.

18. Padilla, Thomas. 2019. Responsible Operations: Data Science, Machine Learning, and AI in Libraries Dublin, OH: OCLC Research. https://doi.org/10.25333/xk7z-9g97.
    An influential report on how to do AI responsibly.

19. Data Ethics. 2020. "Practical Data Ethics." https://ethics.fast.ai/.
    An online course explaining data ethics.

6. Strategic Context

20. Collett, Clementine, Gina Neff, and Livia Gouvea Gomes. 2022. *The Effects of AI on the Working Lives of Women.*" Paris: UNESCO, OECD and IDB. https://unesdoc.unesco.org/ark:/48223/pf0000380861.
    An important report pointing out ways to influence the inclusivity of developments around AI.

21. OECD AI. Policy Observatory. 2024. "Policies, Data and Analysis for Trustworthy Articial Intelligence." https://oecd.ai/en/.
    Listing of international policies on AI. Available in multiple languages.

22. World Economic Forum. n.d. "Artificial Intelligence." Curation: Desautels Faculty of Management, McGill University. https://intelligence.weforum.org/topics/a1Gb0000000pTDREA2.
    The World Economic Forum provides updates on many topics and also lists places to monitor for global news and analysis across the AI and robotics domain through its Agenda Articles on Emerging Technologies https://www.weforum.org/agenda/emerging-technologies-03402c4cf4/.

23. Stanford University. Human Centred Artificial Intelligence. 2022. "Artificial Intelligence Index Report 2022." Directors: Jack Clark and Ray Perrault. https://aiindex.stanford.edu/wp-content/uploads/2022/03/2022-AI-Index-Report_Master.pdf.
    Fifth in series of annual reports on global AI developments.

This list is based on the list available on the IFLA SIG website, Version 2 December 17, 2023. AI4LAM maintains a curated "Awesome List" of resources, projects and tools in the libraries, archives and museums space.

For updates and to share your AI related news join the mailing list https://mail.iflalists.org/wws/info/ai-sig.