



Book Review

Review of *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries*

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ABSTRACT

Review of Hervieux, S. & Wheatley, A. (Eds.). (2022). *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries*. Chicago, IL: Association of College and Research Libraries.

KEYWORDS

academic libraries, artificial intelligence

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The use of artificial intelligence has been a topic of discussion in libraries for a number of years, but it is only recently that librarians have attempted to define exactly what purpose artificial intelligence (AI) serves in academic libraries. While there have been articles published on the subject in recent years, *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries*, edited by Sandy Hervieux and Amanda Wheatley, is the first to provide an overview of specific applications of AI in academic libraries.

The authors of the books' fourteen chapters are primarily librarians and academics who have worked extensively with AI at their own institutions. Throughout the book, they give their audience some insight into the ways in which AI in all its many forms can be defined, interpreted, and applied in the academic library environment. In the introduction, the editors, both librarians at McGill University, provide a "living definition" of artificial intelligence: "the development of machines to accomplish tasks and reproduce thought processes that are normally seen in humans; this simulation of intelligent behaviour is unique from other automation as it requires the computer to use human reasoning or thinking to perform tasks" (p. ix). Throughout the book's three sections, "User Services," "Collection Development," and "Toward Future Applications," each individual chapter covers an instance where AI was applied, or could be applied, at an academic library in North America. The editors acknowledge that artificial intelligence is a nebulous term with ever-changing definitions, but Hervieux and Wheatley did an excellent job of soliciting examples of AI applications that are relevant in today's academic library environment.

The Rise of AI is very clearly geared towards academic librarians who wish to apply AI in their own work, but it would be useful to anyone who is interested in the applications of AI in the library context. Machine learning is extensively covered. Two of the chapters in the "User Services" section discuss applications of machine learning at their respective institutions, providing readers with several perspectives on how the library implemented this type of AI programming at these institutions. Chapter 2, "URI Libraries' AI Lab – Evolving to Meet the Needs of Students and Research Communities", gives the reader an in-depth look at the "world's first library-based artificial intelligence (AI) lab" (p. 15). The authors provide a thorough overview of the history of the lab, including appendices with detailed descriptions of the various workshops offered. In Chapter 3, "Artificial Intelligence, Machine Translation, and Academic Libraries: Improving Machine Translation Literacy on Campus," the authors discuss a 2019 study completed at the University of Ottawa and Concordia University that collaboratively designed a workshop for international graduate students using machine learning translation tasks. While these two examples are just the tip of the iceberg in terms of applications for AI in library user services, they provide the reader with some starting points for utilizing AI in user-focused ways at their own institutions.

Multiple chapters in the "Collection Development" section focus on machine learning applications to improve or augment the cataloging process, making this part of the book

particularly useful for those involved in technical services. Several chapters focus on specific resource types that benefitted from AI applications in technical services. Chapter 8, “AI-Informed Approaches to Metadata Tagging for Improved Resource Discovery,” details a project undertaken at Case Western Reserve University to utilize unsupervised machine learning to tag electronic theses and dissertations in hopes of improving discovery. This process could then be applied to other types of gray literature to improve discovery and access of those materials, as well. This is one of many excellent examples of AI and machine learning projects that readers would find useful and potentially applicable to their own work.

The diversity of perspectives and AI-related activities covered means that readers can elect to engage with just the individual chapters that are applicable to their own work, or with the book as a whole. Readers who are interested in learning more about the concept of AI usage in libraries will probably find the most value in reading the entire book from start to finish, as the individual chapters do work in concert to provide an excellent overview of the many possible applications of AI across the academic library universe. On the other hand, librarians who are researching a specific application of AI could benefit from reading the individual chapters that are germane to their respective research interests. While the book is engaging overall and provides excellent summaries and analyses of the various AI projects, in some cases it may have been useful to have more of a discussion of the ways in which these projects - both user- and technical services-focused - could be applied at other institutions. Each chapter has detailed endnotes and bibliographies for additional reading on the subject. Some also contain appendices, as well.

Like many books that provide an overview of projects completed at specific libraries, *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries* is perhaps best suited for those who are interested in learning more about artificial intelligence with an eye towards applying it in their own academic library. However, the volume would also be a useful addition for anyone who is interested in learning more about the topic of artificial intelligence - especially machine learning - whether it is immediately applicable to their own work or not.