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A Descriptive Analysis of AI Guides in Academic Libraries

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Abstract

The purpose of this work is to do an exploratory descriptive analysis of topics included in Artificial Intelligence (AI) electronic library guides of academic libraries. AI library guides from members of the Association of Research Libraries (ARL) are chosen for selection. Of the 48 libraries randomly selected, 25 have AI guides. Data collected was subject to a content analysis process which included the use of terms co-occurrence using the VOSviewer software. The results show three clusters of terms, which are complemented with the discussion of materials found in the guides.

Introduction

Artificial Intelligence is a topic of significant attention in higher education. A tremendous amount of information in different formats has been disseminated recently. Cox (2023) discussed the potential impact of AI in library work with emphasis on the conceptual analysis to adopting AI for knowledge discovery. Fernandez (2023) discussed some of the impact AI can have in academic libraries. According to the author some can be positive and usable, some negative, as well as biases and limitations. The article by Houston & Corrado (2023) focuses on ChatGPT; they discussed its popularity among AI bot users, the need for librarians to build a better understanding of it, and the potential impact on services such as reference and library instruction.

The purpose of this paper is to analyze the major topics included in a selected number of AI online guides from the ARL members. It is expected that the results will help provide an understanding of issues related to the application of AI in the academic setting. Following is a brief presentation of some of the basic concepts used in this study: Content analysis, electronic library guides, and the Association of Research Libraries (ARL).

Content analysis

Content analysis is a technique extensively used in Library and Information Science (LIS), "it is indeed a well-accepted technique for the analysis of library web sites, library operations, library collections, for the evaluation of journals, and for many other uses" (Osorio, 2014). The work of White & Marsh (2006) presents a comprehensive summary of the use of content analysis in LIS research and states that it is a "flexible research method that can be applied to many problems in information studies, either as a method by itself or in conjunction with other methods." More specifically, Lee, et al. (2021) conducted a content analysis of systematic review library guides; it is a good a example of recent content analysis research based on the information presented in the guides.

Electronic library guides

As stated by Hennesy & Adams (2021), academic libraries have a long-recognized record of providing information in the form of subject directories, bibliographies, and pathfinders. These documents were later converted to online formats such as HTML pages. With the introduction of Springshare's LibGuides in 2007, the use of this platform has significantly increased the creation of subject guides, although some academic libraries still design their own web-based electronic guides.

ARL Libraries

The Association of Research Libraries (ARL, 2023) (https://www.arl.org/) was originally created in 1932 and formally (legally) established in 1961 in the District of Columbia. Currently it has 126 members from the United Staes and Canada; according to its Mission Statement, one of the purposes of ARL is: "… to develop the next generation of leaders and enable strategic cooperation among partner institutions to benefit scholarship and society." ARL members are usually doctoral granting institutions with strong academic and research programs. Therefore, exploring the online library guides of ARL members can provide a meaningful insight into the use of AI in academic libraries. As leading research academic libraries, a study from a sample of their AI guides will provide meaningful understanding of current issues pertaining to AI in academic libraries.

Methodology

The ARL Libraries membership is 126, six of them are not academic libraries. Forty percent (48) of the 120 academic libraries were randomly selected. To identify AI guides, these 48 libraries were searched for in Google; for example, the Google search of "Syracuse University Libraries AI guide" produced: Syracuse University Libraries. ChatGPT. Resource guide to the AI software ChatGPT. https://researchguides.library.syr.edu/chatgpt. This guide was examined, the main tabs were collected, and each element of a main tag (secondary tabs) was read.

Of those 48 initially randomly chosen, 25 (21%) academic libraries containing 26 online guides were finally selected for this project. The University of Arizona Libraries has two AI guides, one for the faculty and one for students.

Library guides use main tabs to organize the information presented. The terms used in main tabs are meaningful terms describing the content included. In this study we have used main tabs as keywords. To capture the main topics included in each guide, an inventory of all major headings (tabs) on the main page and their dropdown headings was performed.

We used the APA style to write the bibliographic information of each guide. To this bibliographic information, the inventory of headings (tabs) collected for the page was added as a description of the guide, and was given the title of "abstract." The basic bibliographic information and the added description became the data collected for the content analysis.

Further, to find the co-occurrence clusters of keywords from AI guides in academic libraries, data collected was presented to the analytical software VOSviewer (van Eck, & Waltman, 2010). VOSviewer has "text mining functionality that can be used to construct and visualize co-occurrence networks of important terms extracted from a body of scientific literature." (VOSviewer, 2023). The initial bibliographic data was converted to a format accepted by VOSviewer (a csv file); for this analysis the options used were: counting method, co-occurrence, and index keywords. The data was collected during the first two weeks of October 2023.

Data collection

Table 1 lists in alphabetical order the selected guides by the name of the university. Personal authorship is included when it is available.

Naumann, Mary Ann. **Arizona State University** Library. Generative Artificial Intelligence (AI). https://libguides.asu.edu/c.php?g=1311696&p=9743203

Brown University Library. Generative Artificial Intelligence. https://libguides.brown.edu/c.php?g=1338928&p=9868252

Wheatley, Amanda. **McGill** Library. Artificial Intelligence. https://libraryguides.mcgill.ca/ai/chatgpt

Zhu, Xinyi. **New York University** Libraries. Machines and Society. https://guides.nyu.edu/data/ai-citations

Michelle Guittar, and Moss, Jeannette. **Northwestern University** Libraries. Using AI Tools in Your Research. https://libguides.northwestern.edu/ai-tools-research

Wetzel, Denise. **Pennsylvania State University**. University Libraries. Large Language Models: ChatGPT and Beyond - Library Guides. https://guides.libraries.psu.edu/c.php?g=1338692&p=9866327

Syracuse University Libraries. ChatGPT. Resource guide to the AI software ChatGPT. https://researchguides.library.syr.edu/chatgpt

Xiao, Daniel. **Texas A&M University** Libraries. AI-Based Literature Review Tools. https://tamu.libguides.com/c.php?g=1289555

University at Albany, SUNY, University Libraries. AI at UAlbany: What do Librarians Need to Know? https://libguides.library.albany.edu/AI4Libs

Estrada, Natalia and Needrith, Christina. **University at Buffalo, SUNY**, Libraries. Artificial Intelligence. https://research.lib.buffalo.edu/artificial-intelligence

The **University of Arizona** - University Libraries. AI Literacy in the Age of ChatGPT. https://libguides.library.arizona.edu/ai-literacy-instructors

The **University of Arizona** - University Libraries. Student Guide to ChatGPT. https://libguides.library.arizona.edu/students-chatgpt

The University of British Columbia Library. Generative AI and ChatGPT. https://guides.library.ubc.ca/GenAI/resources

Chian, Bronte. **University of Calgary Library**. Artificial Intelligence. https://libguides.ucalgary.ca/artificialintelligence

Brasseur, Michelle. **University of California LA Library.** Artificial Intelligence (AI) Tools and Academic Use. https://guides.library.ucla.edu/AITools

University of California San Diego Library. Generative Artificial Intelligence: Contacts. https://ucsd.libguides.com/c.php?g=1322935&p=9734354

Gilbert, Stacy. **University of Colorado Boulder** University Libraries. Resources for Using AI or ChatGPT for Student Research. https://libguides.colorado.edu/ai_student_research

University of Illinois at Urbana-Champaign Library. Artificial Intelligence. https://guides.library.illinois.edu/artificialintelligence

University of Manitoba Libraries. Generative Artificial Intelligence and Library Instruction: Home https://libguides.lib.umanitoba.ca/ai_infolit_roundtable

Oehrli, Angela. **University of Michigan Library.** Research Guides. Introduction to Academic Integrity. https://guides.lib.umich.edu/c.php?g=1039501&p=9763907

University of Minnesota Libraries. ChatGPT and other AI tools. https://libguides.umn.edu/chatgpt

University of Missouri - St Louis – Library. Digital Literacy: Artificial Intelligence and ChatGPT. https://libguides.umsl.edu/ai

University of Virginia Library. Generative AI at UVA. https://guides.lib.virginia.edu/genai

University of Washington Health Science Library. Artificial Intelligence. Guide to Artificial Intelligence (AI) in health sciences research. https://guides.lib.uw.edu/hsl/ai

Weaver, Kari D. and Muñoz Gómez, Antonio. **University of Waterloo Library.** ChatGPT and Generative Artificial Intelligence (AI): Introduction.
https://subjectguides.uwaterloo.ca/chatgpt_generative_ai
Wayne State University Library System. ChatGPT and Other AI Tools: A Guide for Faculty.
https://guides.lib.wayne.edu/ChatGPT

Table 1. Selected guides from ARL Libraries

Results

Design of pages

Although the purpose of this work is not analyzing the aesthetic design of these electronic guides, it was found that most pages have a two-column design, with a narrow-left column containing the main tabs. The main tabs usually have dropdown menus and the content of each item of the menu is displayed in the larger right main column. There was one case having a secondary dropdown menu providing further subdivisions of the secondary menu.

Main Tabs

Table 2 shows the list of selected ARL libraries with the title of the corresponding electronic guide. The second column shows the main tabs for each guide. In summary: 25 libraries, 26 AI guides, 159 main tabs, and 6.11 main tabs per guide.

Library LibGuides	Main Tabs
Arizona State University Library. Generative Artificial Intelligence (AI).	1. Home. 2. Citing Generative AI Models. 3. Permanent Links to Generative AI Results. 4. Generative AI in the Research Process.
Brown University Library. Generative Artificial Intelligence.	1. Welcome. About This Guide. 2. A Very Brief Introduction to Generative AI. 3. Information Discovery with AI. 4. Copyright and Scholarly Communication.
McGill Library. Artificial Intelligence.	1. Home. 2. Finding Resources. Sofia Discovery tool – Search McGill Resources. 3. ChatGPT. 4. AI Literacy.
New York University Libraries Research Guides Library. Machines and Society Citing ChatGPT and Generative A.I. Tools.	1. Home. 2. Large Language Models. 3. ChatGPT for Research and Creative Use. 4. Emerging A.I. Tools for Teaching and Learning. Introduction. 5. Generative A.I. and Society. 6. Computational Social Research. Introduction.
Northwestern University Libraries. Using AI Tools in Your Research.	1. About ChatGPT & Generative AI LLMs. 2. Academic Integrity & AI. Citing ChatGPT. 3. Machine Learning for Research. 4. Add'tl Reading for Librarians & Faculty. 5. Generative AI and NU Teaching and Learning.
Pennsylvania State University. Large Language Models: ChatGPT and Beyond.	1. Large Language Model Find out more about s (LLMS). 2. Citing LLMs. 3. Resources for Instructors.
Syracuse University Libraries. ChatGPT. Resource guide to the AI software ChatGPT.	1. Home. 2. Defining ChatGPT. 3. Teaching Methods and Class Integration. 4. Alternative Assessment Models. OpenAI. 5. Detecting AI Generated Text. 6. Alternatives AI to ChatGPT. 7. News, Blogs and Podcasts. News Feed. 8. Events and Presentations at SU.

Texas A&M University Libraries. AI-Based Literature Review Tools.	1. Home. 2. How to Craft Prompts. 3. ChatGPT and Higher Education. 4. Cite ChatGPT in APA / MLA or Other Styles. 5. AI and Plagiarism. 6. Library Guides on AI and ChatGPT. 7. Plugins/Extensions for AI-powered Searches and Applications.
University at Albany, SUNY, University Libraries. AI at UAlbany: What do Librarians Need to Know?	1. Home. 2. AI for Instruction. 3. AI Databases & Research Support. 4. Further Reading. 5. Presentation Slides and Video.
University at Buffalo, SUNY, Libraries. Artificial Intelligence.	1. Home. 2. Ethics in AI. 3. Books. 4. Organizations. 5. More Resources. 6. Glossary. 7. AI Timeline.
The **University of Arizona** - University Libraries. AI Literacy in the Age of ChatGPT.	1. Guide for instructors. What is AI literacy? 2. ChatGPT and pedagogy. 3. Classroom policies. 4. Helping students care about being transparent. 5. Fact-checking is always needed. 6. Effective use of ChatGPT & other LLMs. 7. Beyond ChatGPT. 8. Multimedia generative AI. 9. Copyright issues. 10. How UA libraries can help. 11. Workshops and training. 12. Additional readings.
The **University of Arizona** - University Libraries. Student Guide to ChatGPT.	1. Using ChatGPT effectively. Different courses will have different policies. 2. Fact checking is always needed. 3. Is using ChatGPT considered cheating? 4. Citing generative AI. 5. Beyond ChatGPT. 6. Multimedia generative AI. 7. Guide for UA Instructors.
The University of British Columbia Library. Generative AI and ChatGPT.	1. Home. Overview. 2. How to Cite. 3. Instructional Support. 4. Using AI in Library Research and Learning. 5. Social Criticisms. 6. Other Resources.
University of Calgary Library. Artificial Intelligence.	1. Home. 2. AI Literacy. 3. For Instructors. 4. For Students. 5. Chat GPT. 6. AI Art Tools. 7. Research: Books & Databases. 8. Fine Tuning Prompts for AI Tools. Prompts in AI. 9. Citing AI Tools. 10. Contact us.
University of California LA Library. Artificial Intelligence (AI) Tools and Academic Use.	1. Introduction to AI Tools. 2. Intellectual Property, Copyright, and Plagiarism. 3. How to Use AI Tools Effectively and Ethically.
University of California San Diego Library. Generative Artificial Intelligence: Contacts.	1. What is Generative Artificial Intelligence? 2. Challenges and Possibilities of Generative AI. 3. AI and Academic Integrity. 4. Using Generative AI Tools. 5. How to Cite AI. 6. Additional Resources. 7. Contacts.
University of Colorado Boulder Library. Resources for Using AI or ChatGPT for Student Research.	1. Resources for Using AI or ChatGPT for Student Research: Resources. 2. Library Resources for Supporting Your Research.
University of Illinois at Urbana-Champaign Library. Artificial Intelligence.	1. Get Started. 2. Background Information. 3. Books. Library Catalogs. 4. Articles. 5. Statistics. 6. Websites. 7. Related Topics. 8. Contact Us.
University of Manitoba Libraries. Generative Artificial Intelligence and Library Instruction: Home	1. Home. 2. Assessment. 3. Ethics/Copyright. 4. Instruction. 5. Tools. 6. Roundtable 2023 Resources.
University of Michigan Library. Introduction to Academic Integrity.	1. Getting Started. 2. In the Classroom. 3. Online Learning. 4. Plagiarism. 5. Copyright. 6. International Students. 7. Citations. 8. Learn More About Academic Integrity.

	9. ChatGPT.
University of Minnesota Libraries. ChatGPT and other AI tools.	1. Home. 2. Citing ChatGPT and other LLMs. 3. Using ChatGPT in your coursework. 4. Resources for faculty and instructors on ChatGPT.
University of Missouri - St Louis – Library. Digital Literacy: Artificial Intelligence and ChatGPT.	1. What is AI? 2. ChatGPT and the Research Process: An Annotated Conversation. 3. What is GPT-3? When can I use it? 4. Guide Acknowledgements. 5. Robot Test.
University of Virginia Library. Generative AI at UVA.	1. Home. 2. What is Generative AI? 3. Cautions and Considerations. 4. Copyright and Intellectual Property. 5. Publishing with AI. 6. Citations. 7. Images and Media. 8. Bibliography.
University of Washington Health Science Library. Artificial Intelligence. Guide to Artificial Intelligence (AI) in health sciences research.	1. What is AI? 2. Uses & Limitations of LLMs. 3. Bias in AI and LLMs. 4. Cost of AI and LLMs. 5. Classroom Use of AI and LLMs. 6. Citing AI and LLMs. 7. Learning Forums & Resources. 8. Helpful Resources. 9. References.
University of Waterloo Library. ChatGPT and Generative Artificial Intelligence (AI): Introduction.	1. Introduction. 2. Why is citation important? 3. AI-generated content and citation. 4. Finding information with ChatGPT – Considerations. 5. Generative AI Resource List.
Wayne State University Library System. ChatGPT and Other AI Tools: A Guide for Faculty.	1. What is ChatGPT. What is Chat GPT? 2. Readings, Podcasts, and Other Information about ChatGPT and AI. 3. Using ChatGPT and AI in Teaching. 4. AI Generated Content and Copyright. 5. ChatGPT and AI Assistive Apps. 6. Events (Webinars, Workshops, +).

Table 2. AI guides of ARL libraries selected and main tabs.

VOSviewer results

Data collected from the guides was processed in VOSviewer to identify significant topics, Figure 1 shows three clusters: cluster one centered around the tab Home, cluster two centered around Copyright, and cluster three centered around ChatGPT.

Through the process of the co-occurrence of keywords, VOSviewer in Table 3 shows the components of each cluster.

Cluster one (10 items)	Cluster two (7 items)	Cluster three (5 items)
AI literacy Articles Books Contact us Home Introduction Podcasts Tools Websites What is ChatGPT	Beyond ChatGPT ChatGPT Citing Generative AI Large Language Models (LLMs) Multimedia Generative AI Scite.AI What is Academic integrity	Citations Copyright Further reading Large Language Models (LLMs) What is AI

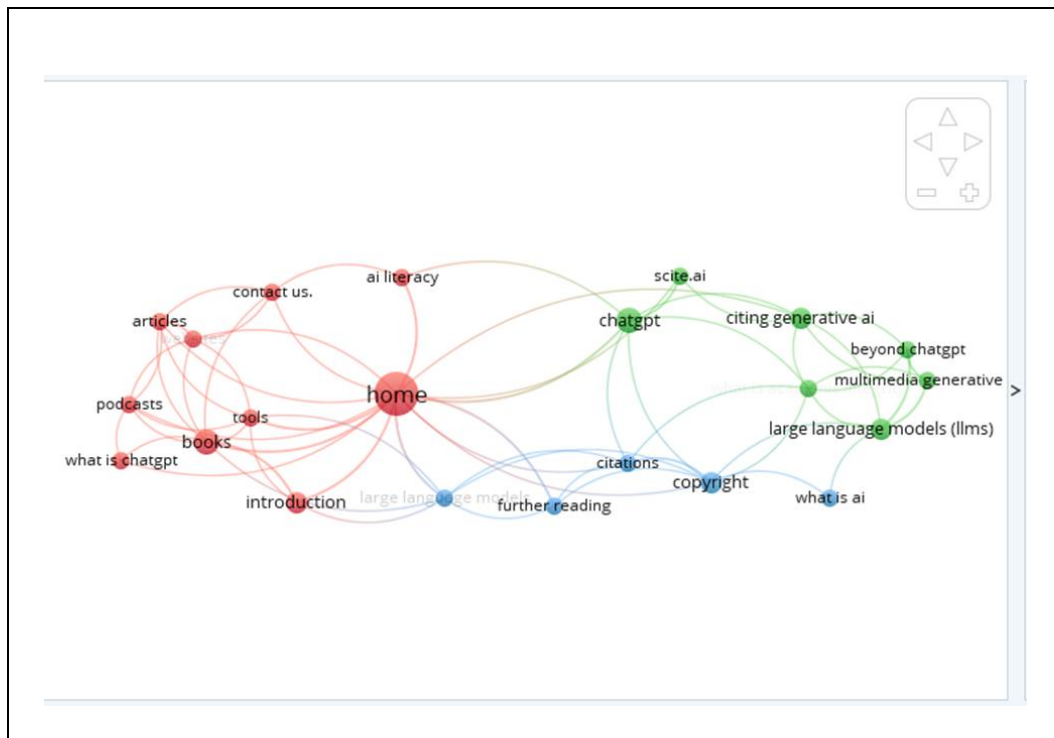Table 3. Components of VOSviewer clusters

Figure 1. Visualization of clusters

Cluster one includes several general tabs such as home, books, articles, tools, and podcasts. It is an indication of the intentional purpose of covering general different topics of importance to students in the new and growing field of AI.

Cluster two concentrates on ChatGPT, one of the most known AI bots; it also includes connections of ChatGPT to LLMs, the proper usage of AI, and multimedia applications.

Cluster three has some emphasis on issues related to citing AI tools, copyright compliance, and according to Figure 1, its connection with academic integrity.

Looking deeper into the 159 main tabs of the 26 guides, these are some of the significant highlights found:

The NYU AI guide includes in each topical section a good number of articles. Northwestern's guide under the *Machine learning tools for finding research* tab there is information about Consensus, Elicit, and Research Rabbit. The Penn State guide has a tab on *Generative AI & LLMs models*. It includes ChatGPT, Google Bard, Perplexity.ai, Elicit, Scite.ai, Research Rabbit, and Poe. The Texas A&M guide, under *Plagiarism checkers for AI-Generated content*, gives a list of this type of application: GPTRadar, Originally.AI, GPTZero, AI Detector Pro, GPTKit, Turnitin, CopyLeaks, ZeroGPT, Winston AI, SciSpace, and Academic AI Detector.

The University at Albany, SUNY's guide, in the section *AI Databases & Research Support* has a good number of interesting applications. For *Chat-based Search and Generative AI*: Bard, Bing Chat, ChatGPT, and Neeva. For *Browsers*: Brave Browser, and You.com. For *Research-Focused Search Engines*: Keenious, Perplexity.ai, and Zeta Alpha. For *Bibliometrics and Altmetrics*: Dimensions, Scite,

and Semantic Scholar. *For Research Support*: DataSeer, Elicit, Iris.ai, Laser.ai, Prophy, Scholarcy, and Pubtrawlr.

In the University of Calgary guide, under the section *Prompts in AI. Tasks performed by LLMs* for example, the following tasks are included: text generation, image generation, questions & answer, problem solving, writing code, data analyzation, text summarization & synthesizing, writing posts, essays and articles, and language translation.

Finally, the University of Virginia's guide has a section about *Publisher Statements on AI*. Here, statements from the following publishers are included: AIP Publishing, American Chemical Society (ACS), Associated Press, Cambridge University Press, Committee on Publication Ethics (COPE), Emerald, International Committee of Medical Journal Editors (ICMJE), Journal of the American Medical Association Network Editorial (JAMA), Sage, Science, Springer Nature, Taylor & Francis, Wiley, and World Association of Medical Editors (WAME).

It is also important to notice that the most-mentioned styles for citing AI generated documents are APA, MLA, Chicago Style, and IEEE. Although the lack of standards guidelines is recognized.

Discussion

Library online guides provide quality overviews of a topic, specially organized for students and other users, and they have summarized lists of information and resources. This study, by using recognized content analysis techniques, has identified some of the major topics included in academic libraries' AI guides.

The study uses a limited number of ARL libraries' AI guides, nevertheless the study produced three clusters, which includes well-recognized topics in the application of AI in higher education. The author recognized the existence of some excellent AI guides from other institutions; therefore, it is recommended to perform a most comprehensive survey. This study focused mainly on the analysis of first level tabs; an analysis of secondary and tertiary tabs (sections of each primary tab) will produce a deeper understanding of the coverage of these AI guides and is currently in progress.

References

Cox, A. (2023). How artificial intelligence might change academic library work: Applying the competencies literature and the theory of the professions. *Journal of the Association for Information Science & Technology*, *74*(3), 367–380. https://doi.org/10.1002/asi.24635

Fernandez, P. (2023). Some observations on generative text artificial intelligence's impact on libraries Part 1. *Library Hi Tech News*, 40(4), 1-5. doi:10.1108/LHTN-05-2023-0076

Houston, A. B., & Corrado, E. M. (2023). Embracing ChatGPT: Implications of Emergent Language Models for Academia and Libraries. *Technical Services Quarterly*, 40(2), 76-91. doi:10.1080/07317131.2023.2187110

Osorio, N. L. (2014). Content Analysis of Engineering LibGuides. *Proceedings of 2014 American Society for Engineering Education Annual Conference*. Engineering Libraries Division, Session M535: 22 p. Washington DC: ASEE.

White, M. D., & Marsh, E. E. (2006). Content Analysis: A Flexible Methodology. *Library Trends*, *55*(1), 22–45. https://doi-org.auth.lib.niu.edu/10.1353/lib.2006.0053

Lee, J., Hayden, K. A., Ganshorn, H., & Pethrick, H. (2021). A Content Analysis of Systematic Review Online Library Guides. *Evidence Based Library & Information Practice*, 16(1), 60–77. https://doi-org.auth.lib.niu.edu/10.18438/eblip29819

Hennesy, C., & Adams, A. L. (2021). Measuring Actual Practices: A Computational Analysis of LibGuides in Academic Libraries. *Journal of Web Librarianship*, *15*(4), 219–242. https://doi.org/10.1080/19322909.2021.1964014.

Association of Research Libraries (ARL), (2023, September 30). Who we are. https://www.arl.org/

van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. Scientometrics, 84(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3.

VOSviewer. 2023. *Welcome to VOSviewer*. https://www.vosviewer.com/ (October 12, 2023)

Appendix

Recent selected readings

Generative Intelligence

Liu, A. C., Law, O. M. K., & Law, I. (2022). *Understanding Artificial Intelligence: Fundamentals and Applications*. NJ, Wiley-IEEE Press.

van der Zant, T., Kouw, M. & Schomaker, L. (2013). Generative artificial intelligence. In V. C. Müller (Ed.), *Philosophy and Theory of Artificial Intelligence* (107-120). Springer-Verlag. https://doi.org/10.1007/978-3-642-31674-6_8

García-Peñalvo, F., & Vázquez-Ingelmo, A. (2023). What Do We Mean by GenAI? A Systematic Mapping of The Evolution, Trends, and Techniques Involved in Generative AI. *International Journal of Interactive Multimedia and Artificial Intelligence*. In Press, pp. 1-10. https://doi.org/10.9781/ijimai.2023.07.006

Generative Artificial Intelligence and Academic Integrity

Chan, C. K. Y., & Hu, W. (2023) Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(43). https://doi.org/10.1186/s41239-023-00411-8

Tindle, R., Pozzebon, K., Willis, R., & Moustafa, A. A. (2023) Academic misconduct and generative Artificial Intelligence: University Students; intentions, usage, and perceptions. *PsyArXiv Preprints,* 13, September 2023. Cornell University. https://doi.org/110.31234/osf.io/hwkgu

Yeo, M. A. (2023). Academic Integrity in the Age of Artificial Intelligence (AI) Authoring Apps. *TESOL Journal*, 14(3). https://doi-org.auth.lib.niu.edu/10.1002/tesj.716

AI and academic libraries

Cox, A. (2023). How artificial intelligence might change academic library work: Applying the competencies literature and the theory of the professions. *Journal of the Association for Information Science & Technology*, *74*(3), 367–380. https://doi.org/10.1002/asi.24635.

Fernandez, P. (2023). Some observations on generative text artificial intelligence's impact on libraries Part 1. *Library Hi Tech News*, 40(4), 1-5. doi:10.1108/LHTN-05-2023-0076

Houston, A. B., & Corrado, E. M. (2023). Embracing ChatGPT: Implications of Emergent Language Models for Academia and Libraries. *Technical Services Quarterly*, 40(2), 76-91. doi:10.1080/07317131.2023.2187110

Rigby, M. (2023). Artificial imaginings: ChatGPT envisions its future in academic libraries. *College & Research Libraries News*, 84(7), 258-259. doi:10.5860/crln.84.7.258

AI and Ethics

Illia, L., Colleoni, E., & Zyglidopoulos, S. (2023). Ethical implications of text generation in the age of artificial intelligence. *Business Ethics, the Environment & Responsibility*, 32(1), 201–210. https://doi-org.auth.lib.niu.edu/10.1111/beer.12479

Malik, A.R., et al. 2003. Exploring Artificial Intelligence in Academic Essay: Higher Education Student's Perspective. *International Journal of Educational Research,* 5, 100296.

Foltynek, T., et al. (2023). ENAI Recommendations on the ethical use of Artificial Intelligence in Education. *International Journal for Educational Integri*ty, 19(1), 12. https://doi.org/10.1007/s40979-023-00133-4