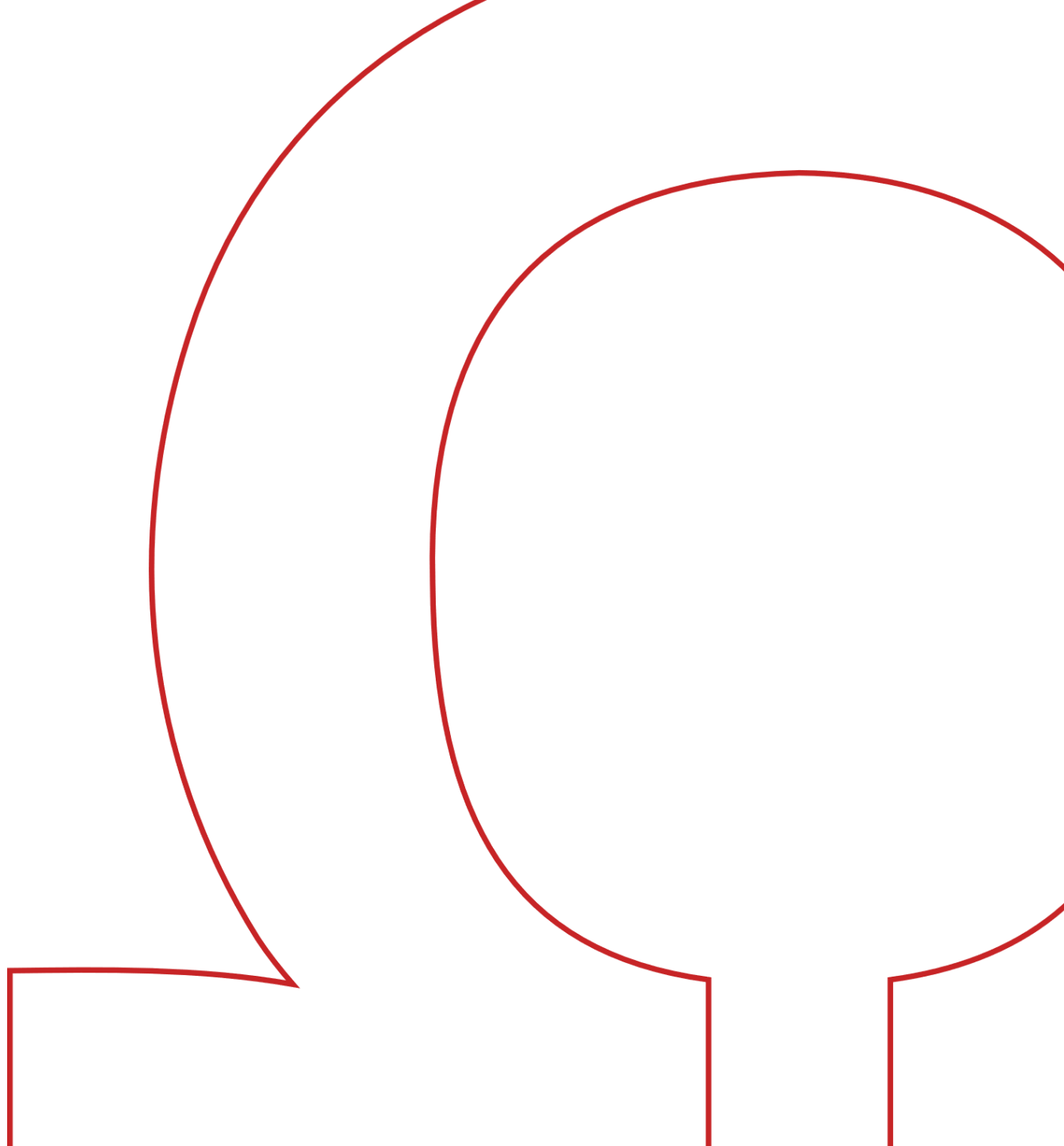


Literatur- recherche mit KI



Gliederung

1

Was ist Künstliche Intelligenz?

2

Funktionsweise

3

KI-Systeme

4

Fazit

Was ist Künstliche Intelligenz?



Bildquelle: <https://www.bing.com/images/create>

Was ist Künstliche Intelligenz?

Das Bestreben, u.a. menschliches Denken, Lernen, Handeln und die Entscheidungsfähigkeit technisch nachzubilden.

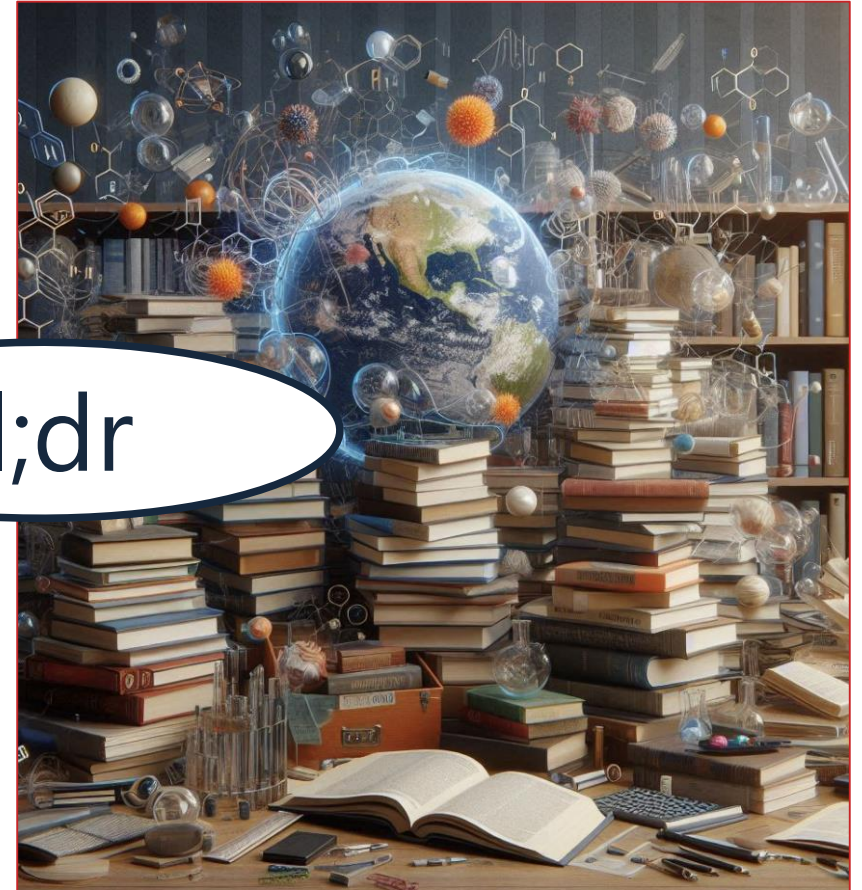
- Intelligenz als schwer definierbarer Begriff
- Unterschiedliche Definitionen mit langer historischer Entwicklung
- „Lernende“ Systeme mit Anwendungen in Medizin, Bilderkennung u.v.m.
- Fehlendes Bewusstsein und Empathie

Warum Künstliche Intelligenz?

- 2,4 Millionen wissenschaftliche Publikationen in 2017
- Erhöhung um 3,99 % im Vergleich zu 2007 weltweit

tl;dr

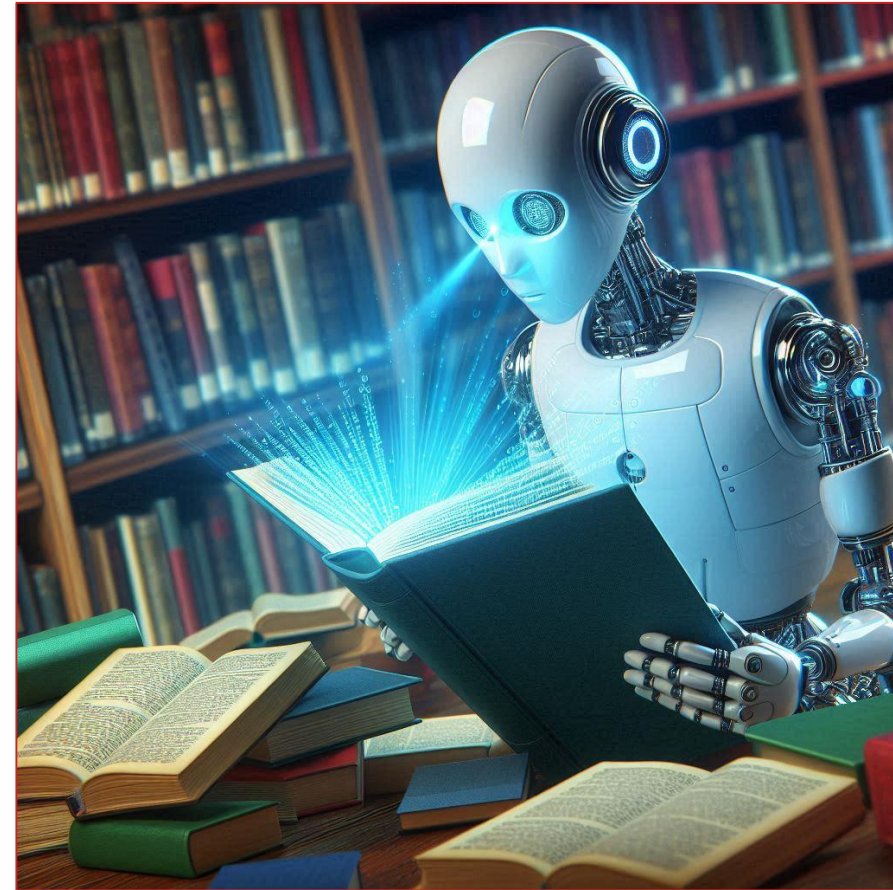
¯_ (ツ) _/



Bildquelle: <https://www.bing.com/images/create>

Was kann Künstliche Intelligenz?

- Literaturrecherche
- Zusammenfassungen
- Trends und Lücken
- Personalisierte Empfehlungen
- Qualitätsprüfung
- Plagiate erkennen
- Übersetzungen



Bildquelle: <https://www.bing.com/images/create>

Vor- und Nachteile

- ✓ Automatisierung
- ✓ Effizienz
- Textanalyse
- Zusammenfassungen
- ✓ Personalisierung

- Qualität
 - Fehlendes Kontextverständnis
- Bias
- Verfügbarkeit (Datenbasis) !!

Funktionsweise



Bildquelle: <https://www.bing.com/images/create>

Was ist Literaturrecherche mit KI?

- Einsatz automatisierter Algorithmen und maschinellen Lernens
- Finden *relevanter* wissenschaftlicher Literatur
- Identifizieren von Artikeln etc. anhand von mehr als „nur“ Schlagworten

Wie funktioniert es?

- Verwendung von Techniken wie Natural Language Processing (NLP)
 - Struktur und Bedeutung von Text erfassen
- Text-Analyse und Filtern relevanter Informationen
- Durchsuchen großer Datenmengen

KI-Systeme



Bildquelle: <https://www.bing.com/images/create>

ChatGPT

DIE KI?

- Findet nicht zwingend reale, wissenschaftlichen Quellen (Version, Addon, ...)
- Generierung von Text
- Suche nach Schlagworten und Vorschläge für die Recherche
- Fachliche Kontrolle notwendig!

Semantic Scholar

- Allen Institute of AI
- 58 Mitarbeitende
- Ziel: Literatur und Lesende zusammenbringen
- Veröffentlicht November 2015
- Kostenfrei

Semantic Scholar

- Erfassen der „Essenz“ eines Artikels
- Semantische Analyse von Text
- Knappe Zusammenfassung (Mobile Endgeräte)
- Maschinelles Sehen für Abbildungen und Tabellen

<https://www.semanticscholar.org/>



SEMANTIC SCHOLAR

A free, AI-powered research tool for scientific literature

Search 218.405.375 papers from all fields of science

Search 🔍

Try: [Elizabeth Loftus](#) • [Continental Drift](#) • [Socialism](#)



About 4,330 results for ""dog breed""

Fields of Study

Date Range

Has PDF

Author

Journals & Conferences

Sort by Relevance



Associations Between Dog Breed and Clinical Features of Mammary Epithelial Neoplasia in Bitches: an Epidemiological Study of Submissions to a Single Diagnostic Pathology Centre Between 2008–2021

G. Edmunds S. Beck +4 authors M. Smalley Medicine, Biology ·

[Journal of mammary gland biology and neoplasia](#) · 24 March 2023

TLDR The hypothesis that age, neuter status and intrinsic biological and genetic factors all combine to influence the biological heterogeneity of canine mammary neoplasia is supported.[Expand](#)

6 PDF Springer Save Cite

Hybrid Deep Learning Algorithms for Dog Breed Identification—A Comparative Analysis

B. Valarmathi N. Gupta G. Prakash R. H. Reddy S. Saravanan P. Shanmugasundaram

Computer Science · [IEEE Access](#) · 2023

TLDR This paper compares the proposed algorithms with existing ones like ResNet101, ResNet50, InceptionResNetV2, and InceptionV3 on the Stanford Dogs Standard Datasets with a transfer learning algorithm with data augmentation to increase their accuracy.[Expand](#)

3 PDF IEEE Save Cite

IMPLEMENTATION OF PRE-TRAINED DEEP LEARNING MODEL FOR DOG BREED CLASSIFICATION

DipeshG.Kamdar Computer Science · 19 April 2021

TLDR Standard Stanford **dog breed** dataset is used to train and test various pre-trained deep learning models and the effort is made to fine-tune pre-train network and compare the result.[Expand](#)

3 Publisher Save Cite

The genetic consequences of dog breed formation—Accumulation of deleterious genetic variation and fixation of mutations associated with myxomatous mitral valve disease in cavalier King Charles...

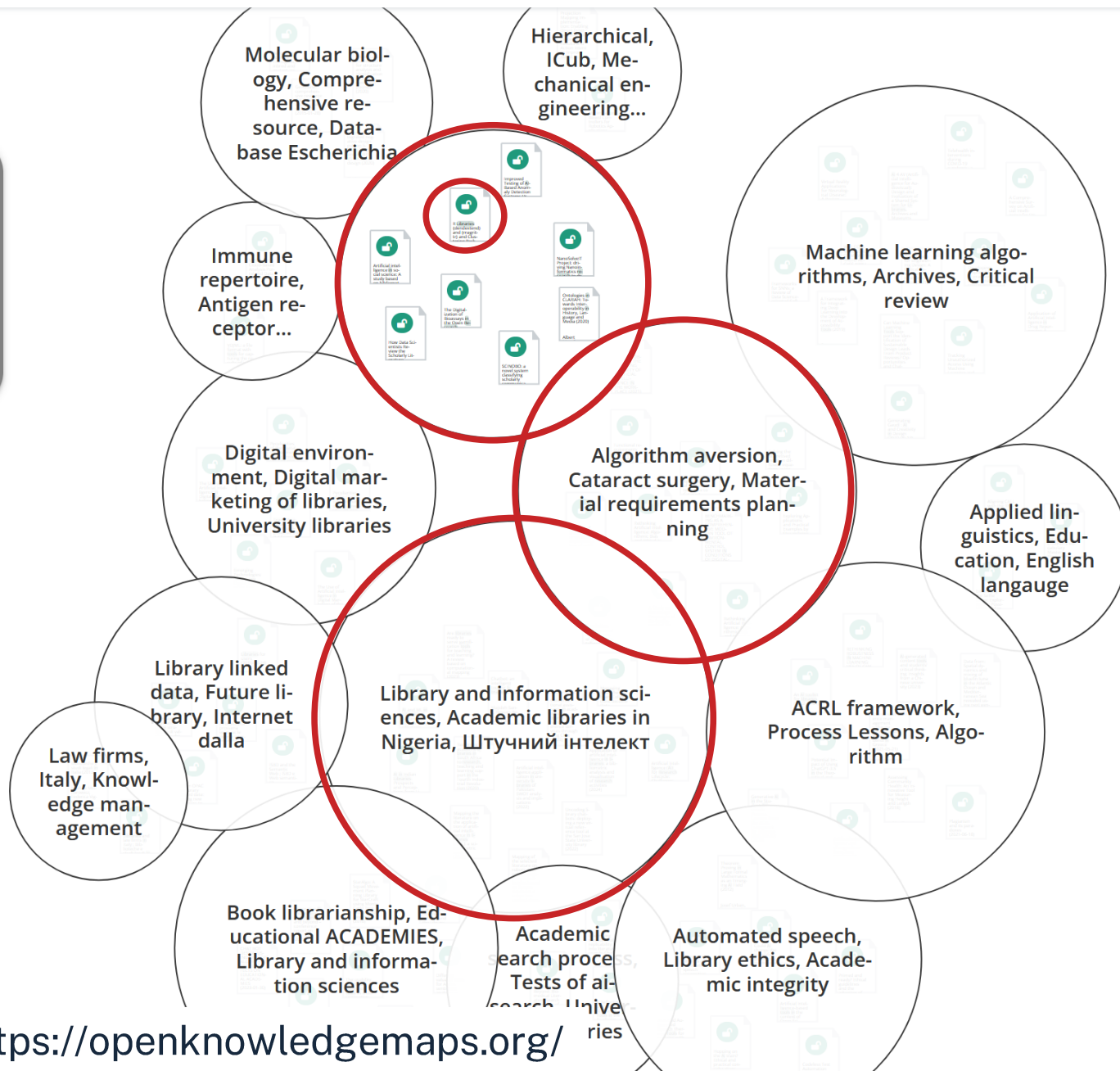
Erik Axelsson I. Ljungvall +21 authors K. Lindblad-Toh Biology · [PLoS Genetics](#) · 1 September 2021

Open Knowledge Maps

- Gründer: Peter Kraker
- Vier Mitarbeiter und Freiwillige weltweit
- Ziel: Revolutionieren des Auffindens von Wissen
- 2015 gegründet
- Non-profit Organisation
- Kostenfrei

Open Knowledge Maps

- Suche per Schlüsselwort
- Grafische Anzeige der Ergebnisse: Knowledge Map
- Relevanteste Quellen in Untergruppen sortiert
- Analyse der Metadaten zur Auffindung
- Markiert Open Access



open access

journal/newspaper article

AI and ML in Libraries: A Systematic Review of Applications and Solutions (2023)

Dr. Manohar Ramulu Kondagurle

[doi]: <https://dx.doi.org/10.5281/zenodo.10559104>

Abstract: The present research paper entitled "Artificial Intelligence (AI) and Machine Learning (ML) in Libraries: A Systematic Review of Applications and Solutions" provides an extensive image of the present landscape of artificial intelligence (AI) and machine learn...

PDF

Cite as

Export

Area: Library and information sciences, Academic libraries in Nigeria, Штучний інтелект

open access

journal/newspaper article

Reflections on tests of AI-search tools in the academic search process (2023-10-10)

Lorna Wildgaard, Anne Vils, Solveig Sandal Johnsen

Liber Quarterly: The Journal of the Association for European Research Libraries 33(1) 1-34

[link]: <https://zenodo.org/record/8424835>

Academic search literacy and artificial intelligence (AI) search are a strategic focus of future researcher support strategies at the Royal Library and affiliated university libraries in Denmark. The ambition is to integrate AI search tools in teaching and services that sup...

PDF

Cite as

Export

Area: Academic search process, Tests of ai-search, University libraries

open access

journal/newspaper article

AI in Indian Libraries: Prospects and Perceptions from Library Professionals (2024)

A. Subaveeranandivan, Alfian Akbar Gozali

Consensus

- Gründer: Christian Salem und Eric Olson
- Acht Teammitglieder und fünf Berater
- Ziel: Literaturrecherche mithilfe von KI einfacher und eleganter für jeden zu gestalten
- Veröffentlicht September 2022
- Investoren: u.a. Allen Institute of AI und Semantic Scholar
- Kostenlos mit zahlungspflichtiger Option

Consensus

- Forschungsfragen stellen
- Zusammenfassung (Top 10 Paper)
- Übersicht mit „Ja“-, „Möglich“-oder „Nein“-Antworten
- Sucht Paper mit Zitationen, welche die Frage beantworten
- Bewertet die Qualität der Funde
- Mehr Möglichkeiten bei bezahlter Alternative

🔗 Synthesize 🤖 Copilot

☰ Filter

🔖 Save search

🔗

📤 Share

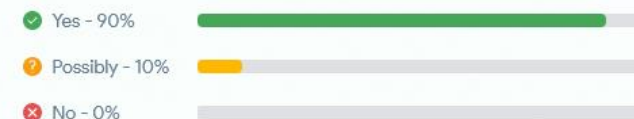
Summary beta

10 papers analyzed

These studies suggest AI helps with literature research by expediting the review process, analyzing key concepts, facilitating article identification, supporting information retrieval, and streamlining content organization.

Consensus Meter beta

10 papers analyzed



🤖 Copilot beta

10 papers analyzed

Introduction

Artificial Intelligence (AI) is increasingly being integrated into various research processes, including literature reviews. This integration aims to enhance efficiency, accuracy, and comprehensiveness in handling the vast and growing volumes of academic literature. The following synthesis explores how AI aids in literature research, drawing insights from multiple studies.

Key Insights

- **Efficiency and Speed in Literature Reviews:**
 - AI can expedite individual steps of the literature review process, making it faster and more efficient 1 4 9.
 - Generative AI tools can significantly accelerate systematic literature reviews by facilitating the identification and classification of relevant articles 4 9.
- **Enhanced Information Retrieval and Organization:**
 - AI tools support information retrieval, literature review, drafting, idea development, and bibliographic organization, improving overall work efficiency 5 10.
 - AI enhances the collection of scientific literature by providing reliable and precise results through deep learning techniques and semantic search queries 8 10.
- **Improved Accuracy and Objectivity:**

📄 Artificial intelligence and the conduct of literature reviews

• Yes 1

AI can expedite individual steps of the literature review process, and a comprehensive research agenda for AI-based literature reviews is proposed.

Journal of Information Technology | Gerit Wagner et al. | 42 citations | 2021

📄 Literature Review

⌵ ✨ Study Snapshot

🔖 Save | 📄 Cite | ➦ Share

📄 Viewpoint: AI as Author - Bridging the Gap Between Machine Learning and Literary Theory

• Unknown 2

Literary expertise can improve the quality of AI writing by enhancing algorithm design and understanding how AI learns and generates.

J. Artif. Intell. Res. | Imke van Heerden et al. | 8 citations | 2021

⌵ ✨ Study Snapshot

🔖 Save | 📄 Cite | ➦ Share

📄 Artificial intelligence in marketing: Topic modeling, scientometric analysis, and research agenda

• Yes 3

AI helps with literature research by analyzing key concepts, keyword co-occurrences, authorship networks, top research themes, and the evolution of the research field over time.

Journal of Business Research | M. Mustak et al. | 140 citations | 2020

📄 Literature Review

🔥 Highly Cited

Citations

References

📄 Enhancing knowledge discovery from unstructured data using a deep learning approach to support subsurface modeling predictions

The STA image embedding tool accurately extracts and labels images from unstructured data sources like publications, maps, and presentations with 90-95% accuracy, supporting subsurface modeling predictions.

Frontiers in Big Data | Brendan Hoover et al. | 0 citations | 2023

⌵ ✦ Study Snapshot

🔖 Save | 🔗 Cite | ➦ Share

📄 Trustworthiness of Systematic Review Automation - An interview at Coventry University

This study explores the trustworthiness of systematic review automation through semi-structured interviews with regular systematic reviewers, aiming to improve adoption and trust in these tools.

X. Jiang et al. | 1 citations | 2023

⌵ ✦ Study Snapshot

🔖 Save | 🔗 Cite | ➦ Share

📄 Student Ratings: Skin in the Game and the Three-Body Problem

68% of students in a university survey rated instruction the same across all 9 Likert scale items, questioning the validity of their engagement with the process.

Education Sciences | C. Dziuban et al. | 0 citations | 2023

⌵ ✦ Study Snapshot

🔖 Save | 🔗 Cite | ➦ Share

← Does AI help with literature research?"

💡 **Answer:** AI can expedite individual steps of the literature review process, and a comprehensive research agenda for AI-based literature reviews is proposed.



Artificial intelligence and the conduct of literature reviews

👤 Gerit Wagner, R. Lukyanenko, G. Paré

📅 8. Okt. 2021

🔖 Save | 📄 Cite | 📤 Share

Citations

1 Influential Citations ⓘ 42 Citations

Quality indicators

📄 Literature Review

💡 Study Snapshot

👤 Population

📄 Sample size

📄 Methods

📄 Outcomes

🔄 Generate Snapshot

Journal Journal of Information Technology

SJR Quartile - Q1 🟢🟢🟢🟢

📄 Full text | 📖 Semantic Scholar | 📄 PDF

💡 **Key Takeaway:** AI can accelerate literature reviews in information systems research and related social science disciplines, but a comprehensive research agenda is needed to shape its future.



Abstract

Artificial intelligence (AI) is beginning to transform traditional research practices in many areas. In this context, literature reviews stand out because they operate on large and rapidly growing volumes of documents, that is, partially structured (meta)data, and pervade almost every type of paper published in information systems research or related social science disciplines. To familiarize researchers with some of the recent trends in this area, we outline how AI can expedite individual steps of the literature review process. Considering that the use of AI in this context is in an early stage of development, we propose a comprehensive research agenda for AI-based literature reviews (AILRs) in our field. With this agenda, we would like to encourage design science research and a broader constructive discourse on shaping the future of AILRs in research.

SciSpace

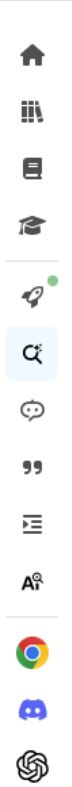
- Gründer: Saikiran Chandha und Sahnu Kumar
- Etwa 50 Mitarbeitende
- Ziel: Beschleunigung der wissenschaftlicher Entdeckung und des Lernens
- Gegründet 2015
- 2022 von Typeset zu SciSpace geändert
- Kostenfrei mit zahlungspflichtiger Option

SciSpace

- Forschungsfragen oder Stichwörter als Eingabe
- Zusammenfassung der gefundenen Paper
- Liste der Paper mit verschiedenen Analyse-Spalten
- Verschiedene Filter (Relevanz, Zitation, Alphabetisch...)
- Eigene Bibliothek
- Notebook
- Paraphrasing Tool: Text verbessern(?) lassen

SciSpace

- Pdfs hochladen und erklären lassen, Fragen stellen bzw. bearbeiten
- Copilot: Chat-Option mit Erklärungen/Zusammenfassungen für einzelne Textpassagen oder ähnliche Texte
- KI Detektor
- Zitationsgenerator
- KI-generierte Video-Abstracts für eigene Veröffentlichungen
- Verbindung zu ChatGPT, Chrome und Discord



Insight from top 5 papers ▾

 English (en) ▾

Save



AI plays a significant role in aiding literature research by automating tasks that are time-consuming and error-prone for humans. It can help in searching, analyzing, and synthesizing vast amounts of scientific literature efficiently. Various AI tools like ChatGPT, RapidMiner, Copilot, and Iris.ai offer capabilities such as data analysis, literature review facilitation, and manuscript drafting assistance, benefiting researchers, including non-native English speakers ^[1] ^[2] ^[3]. However, the use of AI in literature research also presents challenges, such as potential biases, errors, and the risk of overlooking critical nuances inherent in the research ^[4]. To leverage the advantages of AI while mitigating its drawbacks, researchers must engage critically with AI-generated content, cross-verify data, and ensure ethical use of AI tools in the research process ^[5].

Related Questions: [How does AI enhance literary analysis in research?](#) ▾

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+ TL;DR

+ Conclusions

+ Summarized Abstract

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+ Methods Used

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ADDED IN TABLE

✓ Insights

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Overview PDF **References (13)** Related Papers (5) Trending Questions (2)

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He et al.: Applications of cutting-edge artificial

or

Methods used

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Fazit



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Tipps und Tricks

- Auswahl des Tools ausgehend von Projekt und Forschungsfrage
 - Boolesche Operatoren und Filter
 - Verwendung von mehreren KI-Tools
 - Datenbasis (oft „nur“ Open Access Werke)
 - Sprache
- Immer kontrollieren und eigene Recherche nicht vergessen!

Vielen Dank für die Aufmerksamkeit!

Noch Fragen?



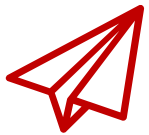
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