

Inteligência artificial, o que temos a ver com isso?

10 outubro 2024

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XXI Encontro Regional BAD Açores

“Valorizar o papel dos profissionais da informação:
passado, presente e futuro”

10-11 outubro 2024



associação portuguesa de
**bibliotecários, arquivistas,
profissionais da informação
e documentação**

Esta apresentação baseia-se:

- Na prospeção (questões críticas, literacia IA, tipologias de ferramentas) feita no [Grupo de Trabalho de Bibliotecas de Ensino Superior da BAD](#) – em especial na [Comunidade de Prática de Formadores em BES](#)
- Na exploração de boas práticas e estudo de IA generativa realizado na Biblioteca da Universidade de Aveiro, área de Recursos Digitais e Apoio ao Utilizador – equipa de formação de utilizadores
- Na minha atividade de formadora/oradora na BAD e em outras instituições
- Na consulta de podcasts, artigos de opinião, publicações em conversas sobre o tema

Inteligência Artificial (IA) Generativa

Questões críticas e éticas

Orientações e regulamentação para uma IA ética

Bibliotecas e IA Generativa

Literacia IA

Inteligência Artificial (IA) Generativa

Inteligência Artificial (IA) Generativa

Tecnologia que mimetiza a interação humana para executar tarefas que podem ser aprimoradas interactivamente com base na informação que recolhem

Cria conteúdos, como textos, imagens e sons, resposta a uma pergunta (*prompt*), mediante algoritmos de aprendizagem automática treinados em grandes quantidades de dados.

Estas ferramentas podem ainda fazer traduções, rever e sintetizar texto, entre outras tarefas.

Inteligência Artificial (IA) Generativa

Deep learning

Tipo de aprendizagem automática a partir de grandes volumes de dados usados para gerar resultados estatisticamente prováveis quando solicitado.

Através da extração, modelação e memorização intensivas de vastas reservas de dados da Internet, os geradores de texto sintetizam alguns parágrafos que se assemelham à escrita de autoria humana.

Natural language processing

Conjunto de algoritmos e técnicas que permitem a comunicação homem-máquina.

Defining Generative AI

To understand generative artificial intelligence (GenAI), we first need to understand how the technology builds from each of the AI subcategories listed below.

Expert System AI
Programmers teach AI exactly how to solve specific problems by providing precise instructions and steps.

Artificial Intelligence

The theory and methods to build machines that think and act like humans.

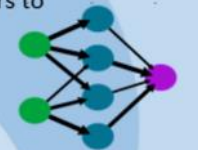


Machine Learning

The ability for computers to learn from experience or data without human programming.

Deep Learning

Mimics the human brain using artificial neural networks such as **transformers** to allow computers to perform complex tasks.



Generative AI

Generates new text, audio, images, video or code based on content it has been **pre-trained** on.



ChatGPT

Midjourney

Bard

for Education

for Education 2023

aiforeducation

Inteligência Artificial (IA) Generativa

An important part of the discussion about generative AI is what it is not.

*It lacks awareness and **cannot perceive or understand human thought or emotions.***

The operations are based purely on the data used to train the AI models.

7 Things You Should Know About Generative AI



7 Things You Should Know About Generative AI

Wednesday, December 6, 2023 Emerging Technologies and Trends

12 min read



The release of ChatGPT and similar AI tools that generate content including text, images, and audio has prompted both excitement and apprehension among leaders, faculty, students, and others in higher education.



SHARE



Inteligência Artificial (IA) Generativa

[A Generative AI Primer \(JISC\)](#)

[6 things to know about AI \(INFOGRAPHIC\)](#) News Literacy Project

[Artificial Intelligence: A KR21 Primer](#) - Knowledge Rights 21 - Arcadia Foundation, IFLA, LIBER and SPARC Europe

[A IA e Tu Podcast](#) – Expresso e Europod

6 things to know about AI

Artificial intelligence technology is not new, but dramatic advances in generative AI have captured the world's attention and are transforming the information landscape. **Here are six news literacy takeaways** and implications to keep in mind as this technology continues to evolve.

1 Generative AI tools are not objective ...

They are subject to the biases of the humans who make them – and integrate any biases baked into their training data. Data sets often include copyrighted, misleading and overtly biased material. These tools do not just learn human biases; they can also amplify, extend and entrench them.

4 AI chatbots are unprecedentedly misinformative ...

AI chatbots are unprecedentedly misinformative ...

5 Don't let AI ...

Don't let AI ...

[Advice and Guidance](#)

A Generative AI Primer

By [Michael Webb](#) | [14 August 2024](#) | [5 Comments](#)

Publishing an intro to generative AI is a challenge as things are moving so quickly. However, we think things have now settled down enough for us to bring together information in a single place, to create a short primer. This blog post will be updated as needed, and we have also produced a [version as a more formal report](#).

[Version 1.6](#) – 14th Aug 2024. First version published in April 2023.

INTRODUCTION

Question 03: Is generative AI the only type of AI?

Answer: No. Recently, the media and policy makers, under pressure from the entertainment industry, have mainly focussed on large language models (LLMs) and generative AI which can produce text, synthetic data, sound, images, etc. This is however just one corner of the AI economy. The reality is that the vast majority of AI is domain and task-specific. Developers define a particular problem that needs to be solved, source the relevant data for that problem and build a model appropriate for that task.

Question 04: What are the core technical components of AI?

Answer: AI requires a number of different components. In common with other software, it requires: software, hardware and programmers (often referred to as data scientists). What makes machine learning stand out is its heavy reliance on data.

Once the task for the AI model has been defined, data scientists will routinely spend a lot of their time looking for data. Once the data is collected, cleaned and transformed it is ready to be ingested into the model. This process is not only time consuming but will often require frequent revisiting of the data to improve, annotate, label (if using supervised or semi-supervised learning models), update, revise and supplement it. to ensure that

Knowledge Rights 21
© 2024 Arcadia Foundation, IFLA, LIBER & SPARC

Questões críticas e éticas no uso da IA Generativa

Viés e discriminação algorítmica

As ferramentas de IA generativa utilizam a probabilidade para prever palavras e frases combinadas para responder a uma pergunta. Podem gerar desinformação e dar respostas que incluem teorias da conspiração, pseudociência e conteúdos nocivos.



Foto de Towfigu barbhuiya na Unsplash

Viés e discriminação algorítmica

A comercialização das ferramentas de IA generativa pode levar a respostas com conteúdos enviesados

Dados de interesse académico estão protegidos por barreiras pagas

Importante

- Compreensão de como funcionam os sistemas da IA generativa
- Os algoritmos e os dados de treino ou bases de conhecimento das ferramentas de IA generativa devem ser conhecidos

Falta de transparência (opacidade)

Os utilizadores não fazem ideia das fontes que estão por detrás de uma resposta de uma ferramenta de IA generativa. Não existe responsabilização

Para a mesma questão, feita em momentos diferentes, a resposta é diferente – gera desinformação.



Foto de [Oscar Keys](#) na [Unsplash](#)

Falta de transparência (opacidade)

A **transparência** é crucial para desmistificar os processos da IA e para garantir que as suas decisões possam ser compreendidas e questionadas por quem utiliza.

Um sistema de IA pode estar integrado de forma quase invisível numa rede de sistemas - como pode um cidadão saber que uma decisão está a ser tomada com recurso à IA e que pode basear-se em dados enganadores ou inexatos?

[The Ethics of AI for Information Professionals: Eight Scenarios](#)

Falta de transparência (opacidade)

Workshop/Fórum de discussão AI and machine learning – maio 2024

OCLC Research Library Partnership (RLP)
and LIBER (Association of European Research
Libraries)

Fórum de discussão em que os participantes debateram a necessidade de práticas de IA responsáveis, nomeadamente a necessidade de a IA ser transparente, responsável e inclusiva.

How do you feel about the use of AI and machine learning in the library context?



Direitos de autor e responsabilização

As ferramentas de IA extraem linguagem preditiva de uma grande variedade de fontes (dados de treino) e podem plagiar conteúdos.

Quem é responsável pelo conteúdo gerado por sistemas de IA?

Não está 100% claro quando o conteúdo foi criado por máquina ou por humano.

IA generativa - utilização extensiva de material protegido por direitos de autor - processos judiciais



Foto de [J W](#) em [Unsplash](#)

Direitos de autor e responsabilização

[Generative AI, Copyrighted Works, and the Quest for Ethical Training Practices - Copyright Alliance \(EUA\)](#)

[Artificial intelligence and copyright: use of generative AI tools to develop new content \(European Union\)](#)

Generative AI, Copyrighted Works, and the Quest for Ethical Training Practices

by [Eileen Bramlet](#)



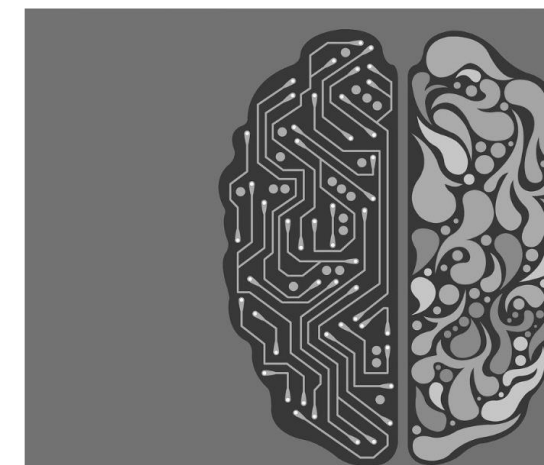
The legal and ethical concerns surrounding generative artificial intelligence (AI) systems being trained on copyrighted works are currently under scrutiny, with the U.S. Copyright Office conducting an [Artificial Intelligence Study](#) to address such practices. The study aims to provide insights that will assist the Copyright Office and other

NEWS BLOG | 16 July 2024 | European Innovation Council and SMEs Executive Agency | 10 min read

Artificial intelligence and copyright: use of generative AI tools to develop new content

adverse effects of AI on copy
holding hearings, forums, and

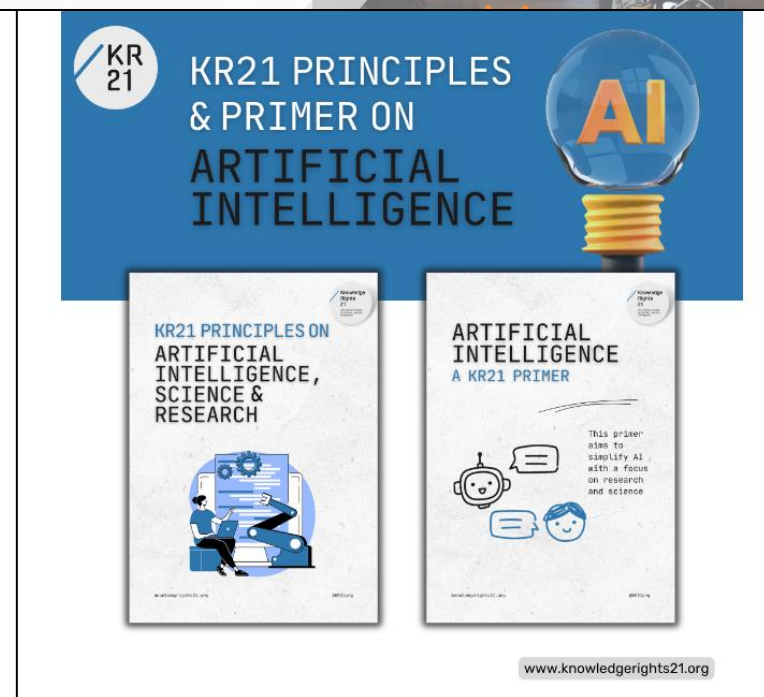
What do copyright



Direitos de autor e responsabilização

Principles on Artificial Intelligence, Science and Research Knowledge Rights 21 (KR21)

Arcadia Foundation, IFLA, LIBER, SPARC Europe



Getty Images sues AI art generator Stable Diffusion in the US for copyright infringement

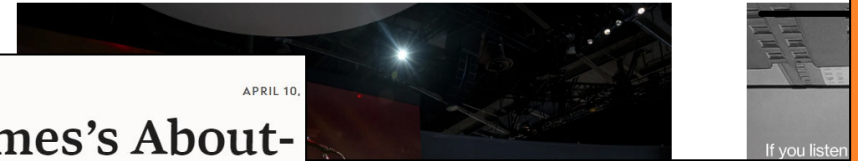


/ Getty Images has filed a lawsuit against Stability AI, alleging the company copied 12 million images to train its AI model.

Technology Screentime

Sony Music Warns Companies to Stop Training AI on Its Artists' Content

Unauthorized use deprives Sony Music and its artists of "control and compensation" of their content, according to the company.



Litigation | Intellectual Property | Litigation

AI voiceover company stole voices of actors, New York lawsuit claims

By Blake Brittain

May 16, 2024

Tech

OpenAI signs deal with Financial Times to use content to train AI models

Apr. 29, 2024 8:36 AM ET | Microsoft Corporation (MSFT) Stock | NWS, NYT, GCI...

By: Chris Ciaccia, SA News Editor | 3 Comments



NYT v. OpenAI: The Times's About-Face

AUDREY POPE HLR

THE NEW YORK TIMES HAS SUED OPENAI AND MICROSOFT FOR THE UNPERMITTED USE OF TIMES ARTICLES TO TRAIN GPT LARGE LANGUAGE MODELS. THE CASE COULD HAVE A SIGNIFICANT IMPACT ON THE RELATIONSHIP BETWEEN GENERATIVE AI AND COPYRIGHT LAW, PARTICULARLY WITH RESPECT TO FAIR USE, AND COULD ULTIMATELY DETERMINE WHETHER AND HOW AI MODELS CAN BE TRAINED ON PROTECTED CONTENT.

HOME > BUSINESS > BUSINESS NEWS

Scarlett Johansson's AI Legal Threat Sets Stage for Actors' Battle With Tech Giants

Voice actors are filing lawsuits while SAG-AFTRA is rallying lawmakers to bar AI companies from misappropriating members' likenesses.

BY WINSTON CHO | MAY 21, 2024 5:09PM



ADVERTISEMENT



Privacidade e proteção de dados

O armazenamento e a exploração dos dados pessoais dos utilizadores são comuns em ferramentas de IA

A utilização abusiva de dados pessoais e a sua utilização sem consentimento têm sido uma preocupação crescente

RGPD – os cidadãos da UE devem ser informados e convidados a afirmar positivamente o seu consentimento, e não apenas ter a possibilidade de optar por não ceder os seus dados

[GDPR checklist for data controllers](#)

Home > Next > Notícias Tecnologia

Autoridades neerlandesas multam a Clearview AI por base de dados de reconhecimento facial ilegal



MIT Technology Review
Publicado por TEC

Tópicos Podcasts Newsletters Revistas

INTELIGÊNCIA ARTIFICIAL

As portas estão se fechando para a Clearview AI

A controversa empresa de reconhecimento facial acabou de ser multada em US\$ 10 milhões por uso não autorizado de milhões de imagens pessoais. Este ainda não é o seu fim.

ChatGPT violated European Union privacy laws, Italy tells chatbot maker OpenAI

Economy Jan 30, 2024 2:32 PM EDT

LONDON (AP) — Italian regulators said they told OpenAI that its ChatGPT artificial intelligence chatbot has violated European Union's stringent data privacy rules.

NOTÍCIAS DESPORTO TELEVISÃO RÁDIO RTPPLAY ZIGZAG AR

A Sua Cara Pertence-nos

SOBRE O PROGRAMA



A Clearview AI está a redefinir a nossa privacidade. A empresa tecnológica sediada em Nova Iorque está a trabalhar para identificar e compilar os rostos de todos os seres humanos do planeta

A Clearview AI afirma que pretende recolher 100 biliões de imagens, ou seja, 14 para cada pessoa no planeta. A maioria dessas imagens é obtida através de plataformas como Instagram, Facebook ou LinkedIn sem o conhecimento ou consentimento do proprietário. Já é a segunda plataforma de reconhecimento facial mais precisa do mundo.

Já existem casos de identificação falsa, a sua tecnologia provou ser menos precisa quando se trata de identificar pessoas negras.

GÉNEROS DOCUMENTÁRIOS

INFORMAÇÃO ADICIONAL

Dutch privacy watchdog fines Clearview AI \$34 million for 'illegal' database of faces

The Netherlands' top privacy regulator announced Tuesday that it has fined the facial recognition technology company Clearview AI €30.5 million (\$34 million) for creating what it called an illegal database of facial images.

The Dutch Data Protection Authority (Dutch DPA) said it will also levy a fine of up to €5 million (\$5.5 million) if Clearview AI does not comply with the order.

The American facial recognition company has not fought the decision



Orientações e Regulamentação para uma IA ética

Um conceito emergente

Responsible AI

As pessoas estão cada vez mais conscientes dos perigos das “caixas negras” da IA

A adoção responsável da IA começa com uma compreensão profunda das suas **implicações éticas**.

Necessidade de a IA ser transparente, responsável e inclusiva

- transparência das fontes de dados das ferramentas
- legalidade dos dados que são usados para as bases de conhecimento (direitos de autor)
- Proteção dos princípios da privacidade ou da equidade

Orientações Regulamentação

OECD Policy AI Observatory

OECD AI Principles

orientam os actores da IA nos seus esforços para desenvolver uma IA fiável e fornecem aos decisores políticos recomendações para criação de políticas de IA.

OECD.AI Policy Observatory

Blog Live data Countries Priority issues Tools Resources About

Policies, data and analysis for trustworthy artificial intelligence

This website is currently being updated further to the announcement of an integrated partnership for the Global Partnership on AI (GPAI) with the OECD. Stay tuned for further updates! [See here for more information.](#)

Featured

- Event**
Attend the Digital Trust Convention
In the era of generative AI, how do we ensure trust.
- AI Principles**
Update to the OECD AI Principles
The OECD and partner countries updated the AI Principles to reflect the latest developments in AI.
- Definition**
What is an AI system?
What is AI? Can you make a clear distinction between AI and non-AI systems?

Principles for trustworthy AI

The OECD AI Principles were [initially adopted in 2019](#) and [updated in May 2024](#). Adherents updated them to consider new technological and policy developments, ensuring they remain robust and fit for purpose.

The Principles guide AI actors in their efforts to develop trustworthy AI and provide policymakers with recommendations for effective AI policies.

Countries use the OECD AI Principles and related tools to shape policies and create AI risk frameworks, building a foundation for global interoperability between jurisdictions. Today, the [European Union](#), the Council of Europe, and many other countries have adopted the Principles.

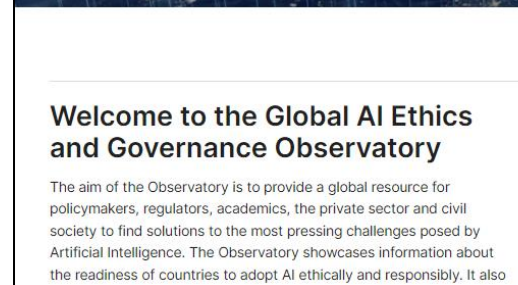
Values-based principles	Recommendations for policy makers
Inclusive growth, sustainable development and well-being	Investing in AI research and development
Human rights and democratic values, including fairness and privacy	Fostering an inclusive AI-enabling ecosystem
Transparency and explainability	Shaping an enabling interoperable governance and policy environment for AI
Robustness, security and safety	Building human capacity and preparing for labour market transition
Accountability	International co-operation for trustworthy AI

Orientações Regulamentação

UNESCO Global AI Ethics and Governance Observatory

fornecer um recurso para que os decisores políticos, os legisladores, os académicos, o sector privado e a sociedade civil encontrem soluções para os desafios colocados pela Inteligência Artificial

UNESCO - Recomendação sobre a Ética da Inteligência Artificial



Orientações Regulamentação

[Responsible Artificial Intelligence : ethics and regulation](#) (Conselho Europeu)



The screenshot shows the Eureka website interface. At the top, there is a dark blue header with the European Council logo and the text "European Council Council of the European Union". Below this, a search bar is visible with the text "Search on EUREKA the catalogue of the Council Libraries!". The main content area has a breadcrumb trail: "General Secretariat of the Council of the EU / LibGuides / Policy subjects / Responsible Artificial Intelligence : ethics and regulation / Home". The page title is "Responsible Artificial Intelligence : ethics and regulation: Home". A navigation menu includes "HOME", "BOOKS", "ARTICLES", "COUNCIL INFO AND EU PUBLICATIONS", "MEDIA", and "DISCOVER MORE". The "HOME" button is highlighted. Below the navigation, there are two columns. The left column has the heading "Eureka" and the text "EUREKA the online catalogue of the Council Libraries!". Below this is a small banner for Eureka with the text "Eureka Your online library catalogue and databases". The right column has the heading "Responsible Artificial Intelligence : ethics and regulation" and the text "Artificial intelligence can help improve lives, solve societal challenges, increase security health systems and help us fight the Covid-19 pandemic. At the same time, it can entail risks that need to be taken into consideration in the EU legislative process and policy making." Below this text, it says "This guide includes research publications on Artificial Intelligence and ethics."

Orientações Regulamentação

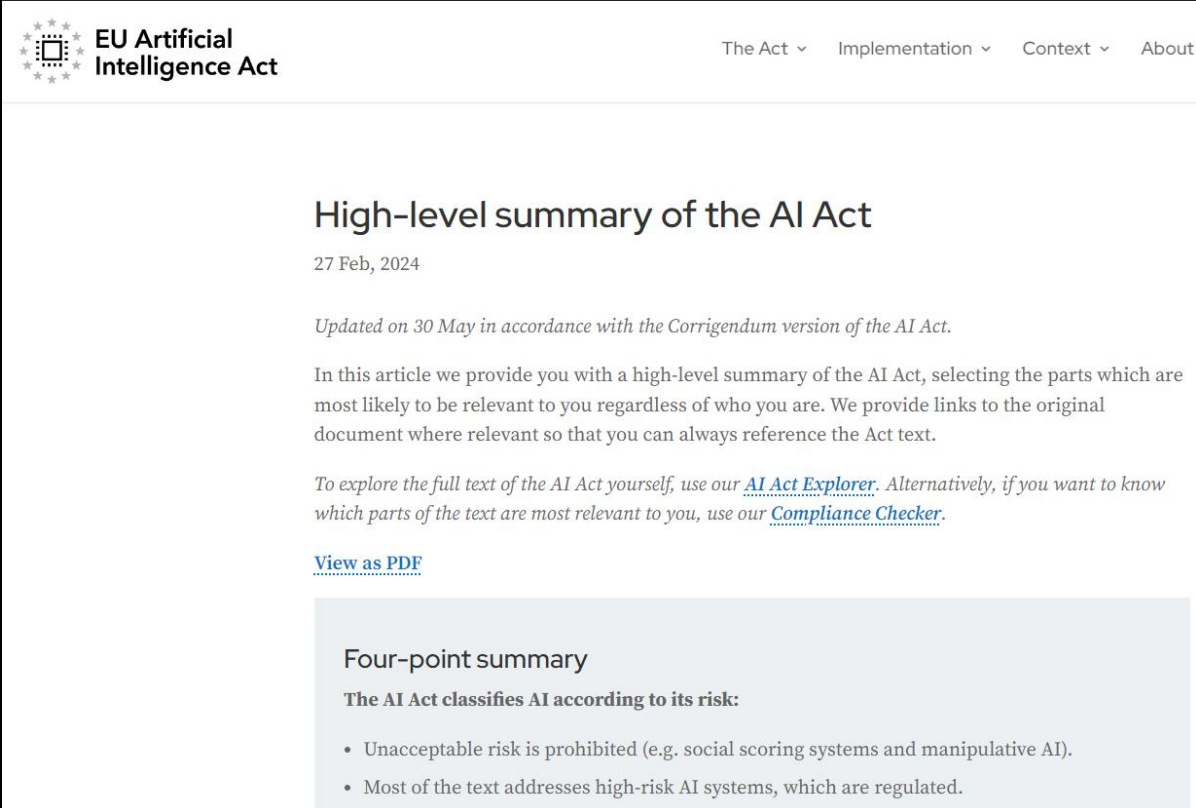
Lei da EU sobre IA – AI Act

Cria regras harmonizadas em matéria de inteligência artificial. Entrou em vigor em agosto de 2024

Destina-se a empresas de IA e organizações que usem aplicações de IA

2 anos para a implementação na EU

Mais informação



The screenshot shows the official website for the EU Artificial Intelligence Act. The page features a navigation menu with links for 'The Act', 'Implementation', 'Context', and 'About'. The main content area is titled 'High-level summary of the AI Act' and includes a date of '27 Feb, 2024'. A note indicates the summary was updated on 30 May in accordance with the Corrigendum version of the AI Act. The text explains that the article provides a high-level summary of the AI Act, selecting the most relevant parts, and provides links to the original document. It also mentions that users can explore the full text of the AI Act themselves using the 'AI Act Explorer' or use the 'Compliance Checker' to find the most relevant parts of the text. A 'View as PDF' link is provided. A shaded box contains a 'Four-point summary' stating that the AI Act classifies AI according to its risk, with two bullet points: 'Unacceptable risk is prohibited (e.g. social scoring systems and manipulative AI)' and 'Most of the text addresses high-risk AI systems, which are regulated.'

EU Artificial Intelligence Act

The Act ▾ Implementation ▾ Context ▾ About

High-level summary of the AI Act

27 Feb, 2024

Updated on 30 May in accordance with the Corrigendum version of the AI Act.

In this article we provide you with a high-level summary of the AI Act, selecting the parts which are most likely to be relevant to you regardless of who you are. We provide links to the original document where relevant so that you can always reference the Act text.

To explore the full text of the AI Act yourself, use our [AI Act Explorer](#). Alternatively, if you want to know which parts of the text are most relevant to you, use our [Compliance Checker](#).

[View as PDF](#)

Four-point summary

The AI Act classifies AI according to its risk:

- Unacceptable risk is prohibited (e.g. social scoring systems and manipulative AI).
- Most of the text addresses high-risk AI systems, which are regulated.

Orientações Regulamentação

Lei da UE sobre IA (União Europeia)

Proteger os direitos fundamentais, a democracia e a sustentabilidade ambiental da IA de alto risco.

Estabelece obrigações para a IA com base nos seus riscos potenciais e no seu nível de impacto

Proibidos todos os sistemas de IA considerados uma ameaça clara à segurança e aos direitos das pessoas.

Classifica os sistemas de IA em 3 níveis

São proibidos

- Categorização biométrica e recolha de imagens faciais da Internet para sistemas de reconhecimento facial.
- Sistemas de reconhecimento de emoções e a IA que manipula o comportamento humano ou explora as vulnerabilidades das pessoas.

Requisitos de transparência

- Os sistemas de IA devem cumprir requisitos de transparência - conformidade com a legislação da UE de direitos de autor e a publicação de informação sobre os dados de treino.

Orientações Regulamentação

[Living guidelines on the responsible use of generative AI in research](#) (Comissão Europeia)

A investigação é um dos sectores que poderá ser mais significativamente alterado pela IA generativa. A IA tem um grande potencial para acelerar a descoberta científica e melhorar a eficácia e o ritmo dos processos de investigação e verificação

Inclui recomendações para investigadores, instituições de investigação e instituições de financiamento da investigação



2.1. RECOMMENDATIONS FOR RESEARCHERS

For generative AI to be used in a responsible manner, researchers should:

1. Remain ultimately responsible for scientific output.

- Researchers are accountable for the integrity of the content¹³ generated by or with the support of AI tools.
- Researchers maintain a critical approach to using the output produced by generative AI and are aware of the tools' limitations, such as bias, hallucinations¹⁴ and inaccuracies.
- AI systems are neither authors nor co-authors. Authorship implies agency and responsibility, so it lies with human researchers.
- Researchers do not use fabricated material created by generative AI in the scientific process, for example falsifying, altering or manipulating original research data.

2. Use generative AI transparently.

- Researchers, to be transparent, detail which generative AI tools have been used substantially¹⁵ in their research processes. Reference to the tool could include the name, version, date, etc. and how it was used and affected the research process. If relevant, researchers make the input (prompts) and output available, in line with open science principles.
- Researchers take into account the stochastic (random) nature of generative AI tools, which is the tendency to produce different output from the same input. Researchers aim for reproducibility and robustness in their results and conclusions. They disclose or discuss the limitations of generative AI tools used, including possible biases in the generated content, as well as possible mitigation measures.

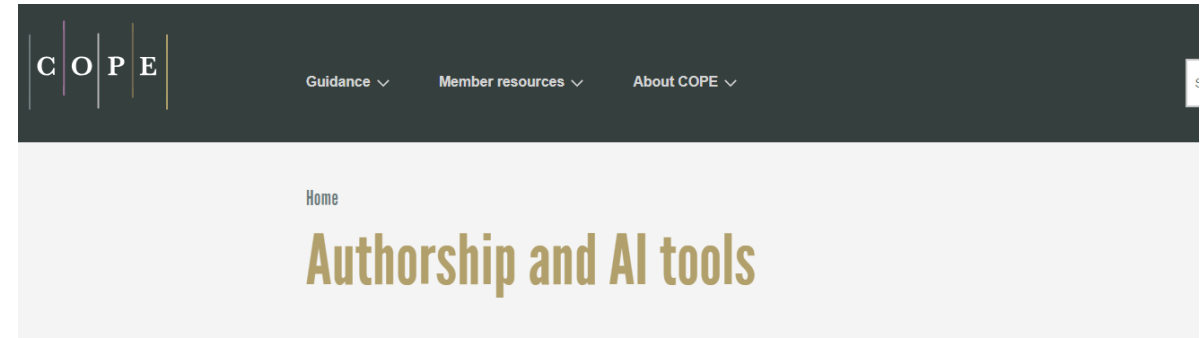
3. Pay particular attention to issues related to privacy, confidentiality and intellectual property rights when sharing sensitive or protected information with AI tools.

Orientações Regulamentação

[Authorship and AI tools COPE position statement](#) (Committee on Publication Ethics)

O uso de ferramentas de IA na elaboração de um artigo científico deve ser transparente, indicando as ferramentas usadas e para que fim

Os autores são totalmente responsáveis pelo conteúdo dos seus trabalhos, mesmo por partes produzidas por uma ferramenta de IA sendo, desse modo, responsáveis também por qualquer eventual quebra de ética no processo de publicação.



COPE position statement

The use of artificial intelligence (AI) tools such as ChatGPT or Large Language Models in research publications is expanding rapidly. COPE joins organisations, such as [WAME](#) and the [JAMA Network](#) among others, to state that AI tools cannot be listed as an author of a paper.

AI tools cannot meet the requirements for [authorship](#) as they cannot take responsibility for the submitted work. As non-legal entities, they cannot assert the presence or absence of conflicts of interest nor manage copyright and license agreements.

Authors who use AI tools in the writing of a manuscript, production of images or graphical elements of the paper, or in the collection and analysis of data, must be transparent in disclosing in the Materials and Methods (or similar section) of the paper how the AI tool was used and which tool was used. Authors are fully responsible for the content of their manuscript, even those parts produced by an AI tool, and are thus liable for any breach of

Bibliotecas e IA Generativa

Bibliotecas e IA Generativa

Uso generalizado de ferramentas de IA generativa

Oportunidades de inovação para as bibliotecas, arquivos e para os profissionais de informação

Como nos podemos adaptar?

Quais são os desafios?

Bibliotecas e IA Generativa

Estratégia

Definição de uma estratégia a longo prazo sobre que tipo de tecnologia integrar, que novos serviços e formas de trabalho serão criados ou atualizados

Ter em conta orientações/normas éticas para a utilização da IA nas bibliotecas e arquivos.

As bibliotecas podem influenciar a abordagem institucional em relação à IA com base nos princípios de transparência, privacidade e explicabilidade

Bibliotecas e IA Generativa

Estratégia

O que as bibliotecas podem fazer

- Defender políticas inclusivas, evitar preconceitos e discriminação
- Garantir que os dados sejam tratados de forma ética e em conformidade com as regulamentações de privacidade
- Participação em consultas públicas sobre políticas de IA
- Apresentação de documentos de posição

Bibliotecas e IA Generativa Estratégia

[IFLA Statement on Libraries and Artificial Intelligence \(2020\)](#)

Recomenda que as bibliotecas:

- Ajudem os utilizadores a desenvolver compreensão de como a IA e os algoritmos funcionam, e sobre as questões de privacidade e éticas
- Continuem a concentrar esforços na promoção da aprendizagem ao longo da vida
- Garantam que o uso de tecnologias de IA em bibliotecas esteja sujeito a padrões éticos claros
- Adquiram tecnologias que atendam aos requisitos legais e éticos de privacidade e acessibilidade



International Federation of
Library Associations and Institutions

IFLA Statement on Libraries and Artificial Intelligence

The adoption of Artificial Intelligence (hereafter “AI”) and machine learning in private and public spheres is rapidly growing. This policy statement aims to outline key considerations for the use of these technologies in the library sector and suggest the roles which libraries should strive to take on in a society with growing AI integration.

AI technologies can have deeply transformative capabilities, and their power can be put to the service of public welfare and innovation. With necessary preparations – and regard for ethical concerns and current limitations – libraries can responsibly use AI technologies to advance their social mission.

AI in the Library: integrating AI and machine learning technologies into everyday work.

As AI technology develops, several AI and machine learning (ML) applications may be able to introduce new services and functions to libraries. For example, AI and ML technologies could allow libraries to improve optical character recognition of texts, or make new uses of their machine-readable library collections (e.g. categorisation or discovery) – whether for libraries themselves, patrons, or researchers.

Similarly, AI and ML could have the potential to add new dimensions and approaches to knowledge management processes in libraries – particularly knowledge organisation, storage and integration. AI may be able to offer new dimensions to service provision when coupled with robotics. While there are cases where AI might be used to automate some of the existing library services (in such AI applications as chatbots or search and discovery tools), care should be taken to prevent negative impacts on quality of service

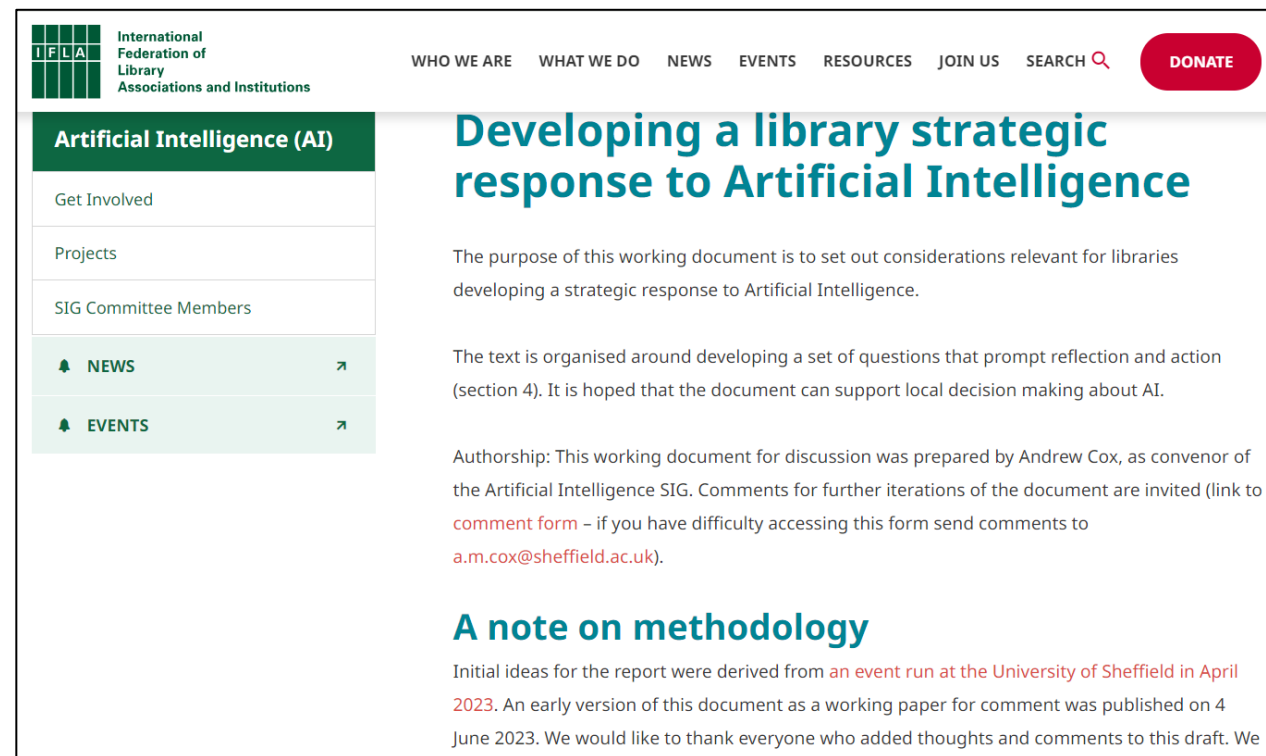
Bibliotecas e IA Generativa Estratégia

[Developing a library strategic response to Artificial Intelligence](#) IFLA (2023)

Estratégia 1: Utilizar as competências em IA das bibliotecas para modelar aplicações responsáveis e explicáveis da IA descritiva

Estratégia 2: Utilizar as competências dos bibliotecários em matéria de dados para reforçar a capacidade de IA organizacional

Estratégia 3: Promover a literacia em IA junto da comunidade



The screenshot shows the IFLA website with a navigation menu including 'WHO WE ARE', 'WHAT WE DO', 'NEWS', 'EVENTS', 'RESOURCES', 'JOIN US', 'SEARCH', and a 'DONATE' button. The main content area features a sidebar for 'Artificial Intelligence (AI)' with links to 'Get Involved', 'Projects', 'SIG Committee Members', 'NEWS', and 'EVENTS'. The main article is titled 'Developing a library strategic response to Artificial Intelligence' and includes the following text:

The purpose of this working document is to set out considerations relevant for libraries developing a strategic response to Artificial Intelligence.

The text is organised around developing a set of questions that prompt reflection and action (section 4). It is hoped that the document can support local decision making about AI.

Authorship: This working document for discussion was prepared by Andrew Cox, as convenor of the Artificial Intelligence SIG. Comments for further iterations of the document are invited (link to [comment form](#) – if you have difficulty accessing this form send comments to a.m.cox@sheffield.ac.uk).

A note on methodology

Initial ideas for the report were derived from [an event run at the University of Sheffield in April 2023](#). An early version of this document as a working paper for comment was published on 4 June 2023. We would like to thank everyone who added thoughts and comments to this draft. We

Bibliotecas e IA Generativa Estratégia

Research Libraries Guiding Principles for Artificial Intelligence – Association of Research Libraries (2024)

- Promover a literacia em IA: utilizadores e profissionais da biblioteca
- Sensibilizar para os eventuais vieses gerados pelas ferramentas de IA generativa
- Defender a abertura e a transparência
- Compreender que não há IA sem humanos
- Assegurar a privacidade
- Aplicação da lei dos direitos de autor

...



Research Libraries Guiding Principles for Artificial Intelligence

Background

Artificial intelligence (AI) technologies, and in particular, generative AI, have significant potential to improve access to information and advance openness in research outputs. AI also has the potential to disrupt information landscapes and the communities that research libraries support and serve. The increasing availability of AI models sparks many possibilities and raises several ethical, professional, and legal considerations.

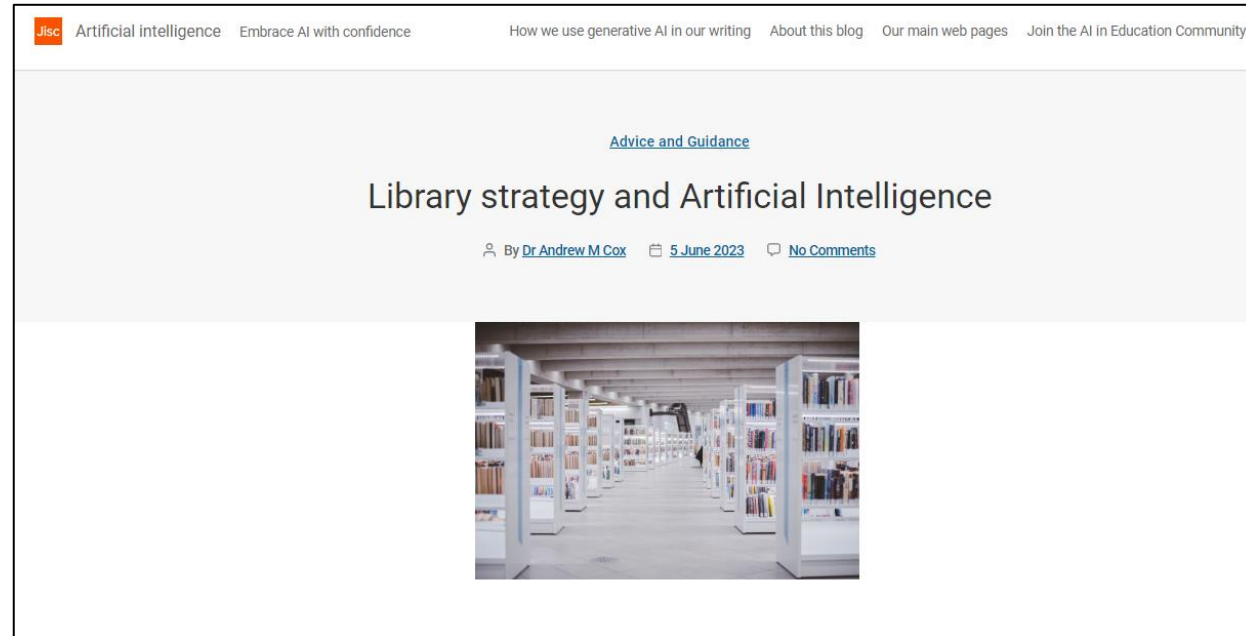
Articulating a set of research library guiding principles for AI is useful to influence policy and advocate for the responsible development and deployment of AI technologies, promote ethical and transparent practices, and build trust among stakeholders, within research libraries as well as across the research environment. These principles will serve as a foundational framework for the ethical and transparent use of AI and reflect the [values](#) we hold in research libraries. ARL will rely on these principles in our policy advocacy and engagement.

Principles

Bibliotecas e IA Generativa Estratégia

Library strategy and Artificial Intelligence – JISC (2023)

the most likely strategic responses were: to upskill existing staff, study sector best practice and collaborate with other libraries.



Bibliotecas e IA Generativa Estratégia

[Responsible AI in Libraries and Archives - Montana State University Library](#)

Responsible AI, ethical AI, trustworthy AI, and transparent AI are all important topics.

[Responsible AI special issue](#) - Journal of eScience Librarianship

Montana State University Library / Responsible AI

Responsible AI in Libraries and Archives

An IMLS-funded project aiming to support ethical decision-making for AI projects in libraries and archives.

Responsible AI in Libraries and Archives (2022-2025) produces tools and strategies that support responsible use of the field. AI projects in libraries and archives can support increased impact and new uses of resources, and Responsible AI provides new data, new resources, and new strategies that will prepare our profession for the methodical consideration of potential harms of AI projects. As we begin to ethically and responsibly operationalize AI in libraries and archives, we hope that libraries and archives can provide models that resonate beyond the profession, as the Library of Congress Director of Digital Strategy Kate Zwaard's idea that "through the slow and careful adoption the library can be a leader."

Updates

Project Overview

Research Outputs

Team

Sponsors

Volume 13 • Issue 1 • 2024 • Special Issue: Responsible AI in Libraries and Archives

Librarians and archivists are often early adopters and experimenters with new technologies. Our field is also interested in critically engaging with technology, and we are well-positioned to be leaders in the slow and careful consideration of new technologies. Therefore, as librarians and archivists begin using artificial intelligence (AI) to enhance library services, we also aim to interrogate the ethical issues that arise. The IMLS-funded Responsible AI in Libraries and Archives project aims to create resources that will help practitioners make ethical decisions when implementing AI in their work.

The case studies in this special issue are one such resource. The JeSLIB Editors thank the guest editors Sara Mannheimer, Doralyn Rossmann, Jason Clark, Yasmeen Shorish, Natalie Bond, Hannah Scates Kettler, Bonnie Sheehey, and Scott W. H. Young for their dedication and expertise in bringing together this special issue.

Editorial



Introduction to the Special Issue: Responsible AI in Libraries and Archives

Sara Mannheimer, Doralyn Rossmann, Jason Clark, Yasmeen Shorish, Natalie Bond, Hannah Scates Kettler, Bonnie Sheehey and Scott W. H. Young

📅 2024-03-06 📄 Volume 13 • Issue 1 • 2024 • Special Issue: Responsible AI in Libraries and Archives • e860

Full-Length Paper



The Implementation of Keenious at Carnegie Mellon University

Bibliotecas e IA Generativa Estratégia

While the library can play an important role within their community in promoting appropriate guidelines around AI use, there is also the broader context of library influence on public policy.

[Generative AI and libraries: seven contexts](#) (Lorcan Dempsey)

[Next Gen AI: Libraries Work with ChatGPT and Other Emerging AI Tools](#)

AI

Generative AI and libraries: seven contexts

Libraries are engaging with AI in their educational, service and policy work. This post discusses seven contexts in which that work is taking place.

Nov 12, 2023 / 30 min read



Grammarly ad

Next Gen AI: Libraries Work with ChatGPT and Other Emerging AI Tools

by Matt Enis
Jan 08, 2024 | Filed in [News](#)



2023 was a breakout year for generative artificial intelligence, and librarians are in a position to help patrons work with this technology.

2023 was a breakout year for generative artificial intelligence, and librarians are in a position to help patrons work with this technology

For years, people have relied on artificial intelligence (AI)-powered tools ranging from grammar checkers and Netflix recommendations to voice assistants and credit card fraud detection systems, but those seemed like old hat when ChatGPT burst onto the scene on November 30,

Formação e atualização

Agilidade dos profissionais de informação na aprendizagem sobre as ferramentas de IA generativa - participação em cursos, workshops, fóruns e comunidades de prática

Envolvimento crítico com ferramentas de IA generativas e foco na forma como estas se cruzam com a literacia da informação / Reflexão sobre implicações éticas

Dinamizar debates e estratégias colaborativas - projetos transversais, criação de orientações e diretrizes institucionais

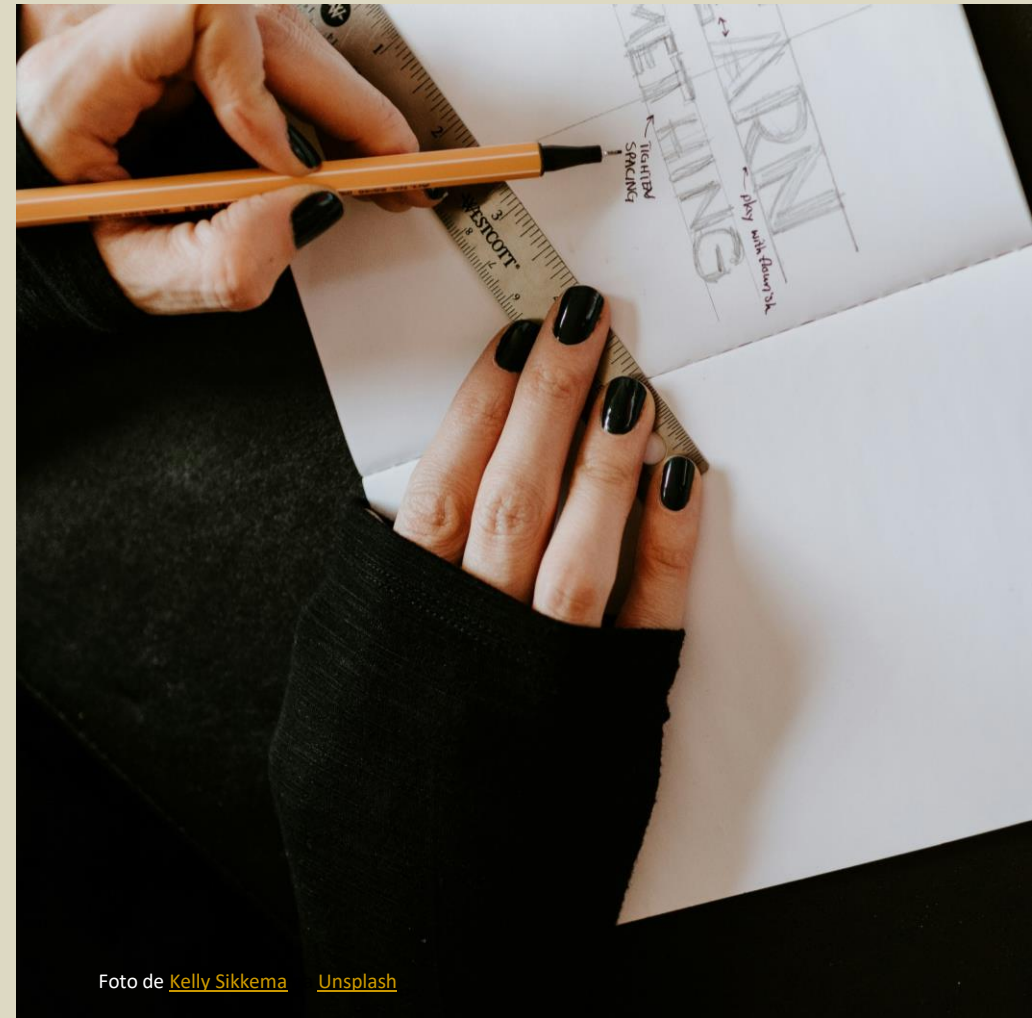


Foto de [Kelly Sikkema](#) [Unsplash](#)

Formação e atualização

At the most basic level, librarians need access to tools and the time to practice and experiment. Only through these preconditions will librarians gain the content mastery necessary to both serve as campus experts to users and to lead library-based efforts.

[Imagining library futures using AI and machine learning - Hanging Together OCLC](#)



The screenshot shows the top portion of a blog post on the 'Hanging Together' website. The header is purple with the title 'Hanging Together' and the subtitle 'the OCLC Research blog'. Below the header is a navigation bar with links for 'HOME', 'ABOUT', 'SUBSCRIBE TO HANGING TOGETHER', and 'COOKIES USED ON THE OCLC.ORG WEBSITE'. The main content area has a white background. The article title is 'Imagining library futures using AI and machine learning', dated 'May 23, 2024 - by Rebecca Bryant'. The text begins with 'The OCLC Research Library Partnership (RLP) and LIBER (Association of European Research Libraries) hosted a facilitated discussion on the topic of AI and machine learning on 17 April 2024. This event was a component of the ongoing Building for the future series exploring how libraries are working to provide state-of-the-art services, as described in LIBER's 2023-2027 strategy.' To the right of the text is a photograph of a person standing in a library aisle, looking at a large, glowing, spherical digital display that shows various data points and icons. The background of the photo shows bookshelves filled with books. On the right side of the page, there are sections for 'OCLC RESEARCH', 'STAY CONNECTED', and 'LINKS', each with a list of related links.

Hanging Together
the OCLC Research blog

HOME ABOUT SUBSCRIBE TO HANGING TOGETHER COOKIES USED ON THE OCLC.ORG WEBSITE

DATA SCIENCE / RESEARCH LIBRARY PARTNERSHIP

Imagining library futures using AI and machine learning

May 23, 2024 - by Rebecca Bryant

The following post is part of an ongoing [series](#) about the OCLC-LIBER "Building for the future" program. A Dutch version of this blog post [is also available](#).

The [OCLC Research Library Partnership](#) (RLP) and [LIBER](#) (Association of European Research Libraries) hosted a facilitated discussion on the topic of **AI and machine learning** on 17 April 2024. This event was a component of the ongoing [Building for the future](#) series exploring how libraries are working to provide state-of-the-art services, as described in [LIBER's 2023-2027 strategy](#).



As with the previous sessions in the

OCLC RESEARCH

Hanging Together is the blog of OCLC Research. Learn more about OCLC Research on our [website](#).

STAY CONNECTED

Sign up to have Hanging Together updates sent directly to your inbox and to keep up with the latest news about OCLC Research.

LINKS

- [Next - OCLC Blog](#)
- [OCLC Research](#)
- [OCLC Research Library Partnership](#)
- [WebJunction](#)

Formação e atualização

The AI hype challenge creates an opportunity for information professionals to play a role in developing public and organisational understanding of AI and data, to identify where the real benefits of AI lie.

The impact of AI, machine learning, automation and robotics on the information professions - CILIP



**The impact of AI, machine learning,
automation and robotics
on the information professions**

A report for CILIP

Formação e atualização

Cursos e conteúdos de apoio IA Generativa

[JISC A Generative AI Primer](#)

[Artificial Intelligence Literacy \(Newcastle University\)](#)

[Libguides Literacia IA](#)

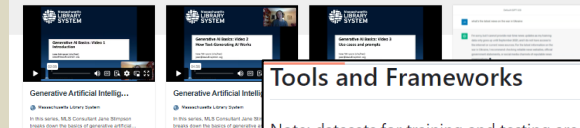
[Generative Artificial Intelligence \(AI\) and Libraries \(Massachusetts Library System\)](#)

[Introduction to AI for GLAM \(Library Carpentries\)](#)

[Awesome AI for LAM](#)

Generative Artificial Intelligence (AI) and Libraries

In this series, MLS Consultant Jane Simpson breaks down the basics of generative artificial intelligence tools like ChatGPT and Bard, including how they work, different uses and pro...



[Advice and Guidance](#)

A Generative AI Primer

By [Michael Webb](#) 4 March 2024 5 Comments

Publishing an intro to generative AI is a challenge as things are moving so quickly. However, we think things have now settled down enough for us to provide information in a single place, to create a short primer. This blog is updated as needed, and we have also produced a [version as a report](#).

4 March 2024. First version published in April 2023.

Tools and Frameworks

[Suggest an addition](#)

Note: datasets for training and testing are listed in a [separate section](#) of this document.

Document analysis, transcription, and labeling

- [Arindex](#) – open-source platform for managing & processing collections of digitized documents
- [Callico](#) – open-source web platform for document annotation
- [Coconut Libtool](#) – web-based textual analysis tool designed to assist social scientists, librarians, or anyone in data analysis
- [Distributed Annotation 'n' Enrichment \(DANE\)](#) – compute task assignment & file storage for automatic annotation of content ([CLARIAH](#), Norway)
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- [Surya](#) – multilingual document OCR toolkit with line-level text detection
- [Text models from the National Library of Sweden](#) – available on Hugging Face
- [Transkribus](#) – transcription, recognition, & searching of historical documents

Audio and video analysis, transcription, and labeling

- [Acoustic models from the National Library of Sweden](#) – available on Hugging Face

Formação e atualização

Grupos de trabalho | Redes

[AI in Libraries Network Group - Conference of European National Librarians – CENL](#)

[AI for Libraries, Archives, and Museums AI4LAM](#)

AI4LAM is an international, participatory community focused on advancing the use of artificial intelligence in, for and by libraries, archives and museums.

[AEOLIAN Network](#) - Artificial Intelligence for Cultural Organisations

[Europeana Task Force: AI in relation to GLAMs](#)

The collage features several key elements:

- Code Snippet:** A dark background with glowing green and yellow text showing JavaScript code: `(...))}var c=function(b,d){this.options=a.extend({,checkPosition,this)).on("click.bs.affix.data-ani",doffset=null this`
- CENL Network Group:** A logo for the CENL Network Group.
- AI in Libraries Network Group:** A logo for the AI in Libraries Network Group.
- About this group:** A heading for a group description.
- AI for Libraries, Archives, and Museums:** A profile for AI4LAM, described as an international, participatory community. It shows 152 followers, a website link (http://ai4lam.org), and a contact email (contact@ai4lam.org). It also lists popular repositories like 'awesome-ai4lam' and 'fastai4GLAMS'.
- AEOLIAN Network:** A screenshot of the AEOLIAN Network website, titled 'Artificial Intelligence for Cultural Organisations'. It features a navigation menu (Home, About, Blog, Outcomes, Events, Case Studies, Team, Join) and a main section for 'Outcomes' which lists six workshops, five case studies, and two journal special issues. A sidebar on the right lists 'Events' such as 'Online Workshop 6: New Horizons in AI and Machine Learning for Libraries and Archives' and 'Online Workshop 5: Making More Sense With Machines: AI/ML Methods For Interrogating and Understanding Our Textual Heritage in the Humanities, Natural Sciences, and Social Sciences'.

Aplicação da IA em processos e serviços de bibliotecas

Procedimentos técnicos automatizados

- Catalogação e classificação automatizada [Ver ex](#)
- Análise de dados para uma gestão inteligente de recursos (*Intelligent Resource Management*)
- Análise de coleções digitais
- Gestão automatizada de inventário

Curadoria de dados

Quanto mais conteúdos de qualidade de acesso livre pudermos fornecer à IA, mais conteúdos de qualidade os utilizadores poderão obter

Importante - Literacia de dados

Serviços ao utilizador

- Chatbots e Assistência Virtual
- Personalização e interatividade no serviço ao utilizador

Aplicação da IA em processos e serviços de bibliotecas

Visions of the future: four ways in which generative AI could be integrated into libraries
(Universidade Aberta da Catalunha)

Four potential uses of AI in libraries

Fast and efficient search engines with more accurate results, suggestions and intuitive searches

Improved user experience

Tailored recommendations based on the user's search history and preferences
Improved services

Use of chatbots and voice assistants

Improved services



Data analysis

Identification of user patterns and tastes

Support for decision-making

An opportunity to guide users in the ethical and critical use of AI tools and search engines

AI literacy

Training library professionals in **prompt engineering**

Competências

Literacia IA

O apoio no acesso e uso da informação e construção do conhecimento evoluiu para incluir ferramentas de IA generativa.

As bibliotecas devem focar-se no desenvolvimento de serviços, recursos educativos e módulos de formação para promover competências digitais, de pensamento crítico e o uso ético da informação junto da comunidade.



Gerado com IA - <https://copilot.microsoft.com/images>
6 de outubro de 2024 às 12:33 da tarde

Competências | Literacia IA

Promover competências digitais

Conhecer os vários tipos de ferramentas e a sua adequação a diferentes contextos de uso

Identificar os pontos fortes, os pontos fracos e as limitações da IA

Como usar as ferramentas de forma produtiva e eficaz

Boas práticas de apoio:

- Explicar o que são ferramentas de IA Generativa, como se utilizam, apontar forças e limitações
- Integridade académica e do comportamento ético
- Fazer recomendações sobre o uso no contexto dos trabalhos académicos e escolares: que abordagens são possíveis?

Boas práticas no apoio à investigação:

- Integrar as ferramentas IA generativa para resumir conteúdos, analisar dados, identificar padrões, rever artigos, ligar domínios de conhecimento, gerar hipóteses e acelerar a revisão da literatura

Competências | Literacia IA

Incentivar o pensamento crítico

As competências de pensamento crítico que os bibliotecários já transmitem (verificação da autenticidade das fontes, identificação de vieses e desinformação) tornam-se cruciais com a utilização alargada de ferramentas e tecnologias de IA.

Desafio - equilibrar a eficiência e as vantagens das ferramentas de IA generativa com a necessidade de pensamento crítico.

- A IA generativa pode criar e disseminar desinformação, *fake news*
- Os dados de treino podem ser insuficientes, obsoletos

Competências | Literacia IA

Incentivar o pensamento crítico

Importa

- Reconhecer quando a IA dá respostas enganadoras
 - Verificar a exatidão e a fiabilidade das informações fornecidas
 - Avaliar criticamente a informação e tomar decisões informadas - perceber as implicações do uso da IA
- Fornecer formação e apoio à comunidade sobre a utilização responsável de ferramentas de IA, incluindo a atribuição adequada e considerações éticas

Bibliotecas da Universidade de Aveiro

o que estamos a fazer

IA generativa - apoio ao utilizador - ano letivo de 2024-25

Reestruturação de sessões de formação para alunos em colaboração com docentes – inclusão de tópicos relacionados com a seleção e uso de ferramentas de IA Generativa para a descoberta de informação e questões críticas relacionadas.

- Pesquisa de informação científica
- O bom uso da informação: citar e referenciar

Ciclo de *Webinars* “A Inteligência Artificial (IA) Generativa no acesso e uso da informação académica e científica”

- Webinar 1 - IA Generativa: contexto e competências essenciais no ensino superior
- Webinar 2 - Ferramentas de IA Generativa para a descoberta de informação e revisão da literatura
- Webinar 3 - Ferramentas de IA para análise e síntese de texto, imagem ou áudio.

Elaboração de guia temático “A IA Generativa no acesso e uso da informação académica e científica”

[Farol – Guias temáticos das Bibliotecas da UA.](#)



Literacia IA

conceito multifacetado que envolve uma compreensão abrangente da IA, das suas aplicações na educação, das suas implicações éticas e da capacidade de participar num diálogo transparente e autêntico sobre a IA.

Esta literacia não só é crucial para proteger os professores e alunos dos potenciais perigos associados à IA, como também para ajudar os educadores a aproveitar os benefícios da IA e a aplicá-la de formas inovadoras. Para os bibliotecários, pode envolver a compreensão do modo como as ferramentas de IA funcionam, como podem ser utilizadas para melhorar os serviços da biblioteca e como navegar em potenciais questões éticas relacionadas com a IA.

U.S. Department of Education, Office of Educational Technology. (2023). Artificial Intelligence and the Future of Teaching and Learning: Insights and Recommendations. <https://www2.ed.gov/documents/ai-report/ai-report.pdf>

Literacia IA

Recomendação da UNESCO aos estados membros:

work with international organizations, educational institutions, and private and non-governmental entities to provide adequate AI literacy education to the public on all levels in all countries in order to empower people and reduce the digital divides and digital access inequalities resulting from the wide adoption of AI systems

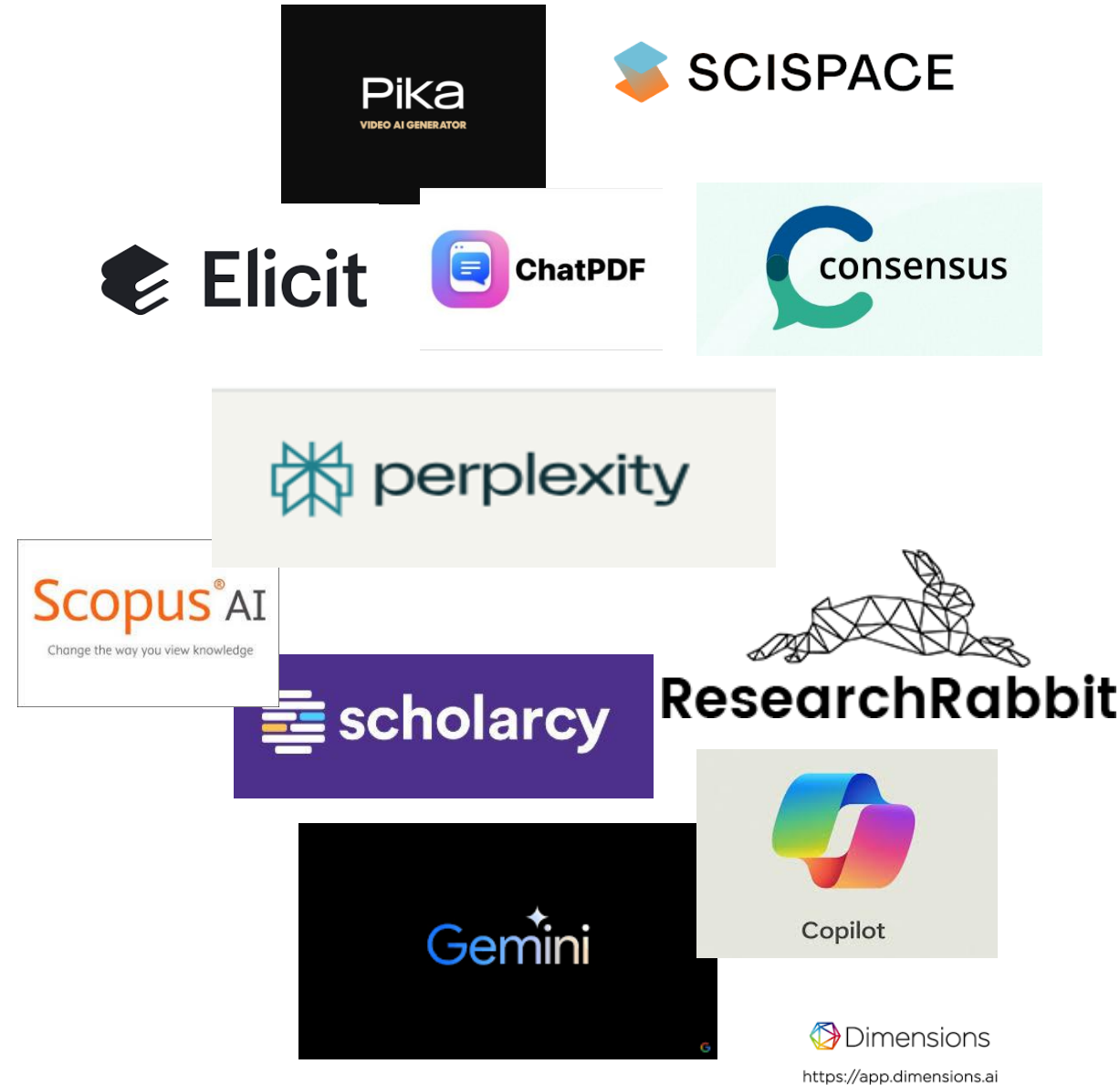
[Recomendação sobre a Ética da Inteligência Artificial \(UNESCO\)](#)

Ferramentas

Existem ferramentas IA generativa genéricas para texto, vídeo e áudio e ferramentas IA destinadas ao ensino superior e investigação, como assistentes IA para revisão da literatura, análise e síntese de conteúdo de artigos, mapeamento de literatura científica, entre muitas mais.

Podem ser de uso gratuito ou modelo *fremium* - versão gratuita e versão *premium*, com custos; muitas têm já a possibilidade de subscrição institucional.

Adequar as ferramentas ao propósito específico



Ferramentas

Existem ferramentas IA fundamentadas com uma fonte de factos (*grounded*) - como o [Perplexity](#) ou o [Copilot](#) - fornecem ligações para as fontes. Pesquisam na Web e resumem os resultados utilizando a tecnologia IA.

Existem outros modelos, como o [Elicit](#) ou o [Scispace](#) que são baseados em resultados de artigos científicos, tendo como base de conhecimento o Semantic Scholar ou OpenAlex.

Ferramentas

Descobrir ferramentas IA adequadas não é tarefa fácil...

[Generative AI Product Tracker \(Ithaka S+R\)](#)

[Generative AI in Higher Education: The Product Landscape \(Ithaka S+R\)](#)

[Awesome-generative-ai](#)

[Awesome AI for LAM](#)

[Best AI Education Tools \(Students & Teachers\) in 2024](#)

Tilburg University

Discovery Tools

Name	Purchasing Model	Description	Key Features	Pros	Limitations	Comments	Entry Last Updated
Consensus	Free, Premium (\$6.99 or \$9.99/month), Enterprise (custom). Students get 40% discount.	"AI-powered scientific search engine" to summarize areas of consensus in academic research. Step by step instructions on how Consensus works	Save searches and individual citations GPT-4-powered summaries Summarizes relevant findings when you search Provides list of specific citations used to generate summary Includes only peer-reviewed sources	Access to Semantic Scholar and SciScore datasets Integrates with reference managers (currently only Zotero) Prioritizes accuracy by using extractive rather than generative text	Searches scientific papers across a range of science disciplines listed here . Consensus "meter" not accurate—librarians have reported that if you shift query just a bit, meter can change more than seems reasonable.	Startup 2.0 version released Oct 2023 Consensus GPT available in OpenAI GPT store (use Consensus' search and database in ChatGPT's interface). Currently only available to ChatGPT Plus and Enterprise subscribers	May 14 2024
Semantic Scholar	Free	Free, AI-driven search and discovery tools, and open resources for the global research community.	Provides 1 sentence TLRD for journal articles Users can create unique libraries and receive AI informed recommendations and notifications of new papers	Access to 200 million academic papers in STM and HSS (though only 8 million available as full text) Semantic Reader tool	TLDR feature only available for computer science, biology, and medicine	Created by a Research & Development team within Allen Institute for AI, a non-profit research institute.	Mar 7 2024

Tools and Frameworks

[Suggest an addition](#)

Note: datasets for training and testing are listed in a [separate section](#) of this document.

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- [Text models from the National Library of Sweden](#) – available on Hugging Face
- [Transkribus](#) – transcription, recognition, & searching of historical documents

Audio and video analysis, transcription, and labeling

- [Acoustic models from the National Library of Sweden](#) – available on Hugging Face
- [Annotorious](#) – JavaScript image annotation library
- [Audiovisual Metadata Platform \(AMP\)](#) – generation of metadata for discovery & use of digital audio & video



Foto de [Sincerely Media](#) na [Unsplash](#)

Obrigada

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