AI literacy and the future of Records Management and Archives

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AI LITERACY for Records Management & Archives

It's not just about teaching users how to use technology. It's about designing user-centric technologies that encourage learning, understanding, and interaction (HCI) with AI.

Computers can learn from data, computers perceive the world using sensors, agents maintain models of the world and use them for reasoning. Making agents interact with humans is a substantial challenge for AI developers. AI applications can impact society in both positive and negative ways.

Five Big Ideas

Competences, impacts and engagement for AI solutions

How to develop an AI literacy in the context of records management and archives?

Methodology:
- Literature review
- Documentary research
- Survey application (InterPARES AI Network)
- Content analysis

Mistaken understandings and problems about AI

Cooperation with transversal researches and working groups

InterPARES Trust AI
AI literacy, Records Management and Archives

Literature review
Documentary research
Survey
Content analysis
Word cloud – InterPARES TrustAI Projects
Imitate human intelligence in machines

Learn → Reason → Perceive

SCI-FI MISCONCEPTIONS

REAL APPLICATIONS

IBM Watson
Cross Competences

Literacies
- Organization
- Retrieval
- Access
- Mediation

Artificial Intelligence
- Data / Big Data
- Machine / Deep learning
- Natural language Process
- Computational View
- Cognitive Computing
- Neural Network

RM & Archives

Cross Competences
- Digital
- Scientific
- Data
- Archival
AI competencies according
Long, Magerko (2020)

- Competency 1 - Recognizing AI
- Competency 2 - Understanding Intelligence
- Competency 3 - Interdisciplinarity
- Competency 4 - General vs. Narrow

- Competency 5 - AI’s Strengths & Weaknesses
- Competency 6 - Imagine Future

- Competency 7 - Representations
- Competency 8 - Decision-Making

- Competency 9 - ML Steps
- Competency 10 - Human Role in AI
- Competency 11 - Data Literacy
- Competency 12 - Learning from Data
- Competency 13 - Critically Interpreting Data

- Competency 14 - Action & Reaction (Robotics)
- Competency 15 – Sensors (Robotics)

- Competency 16 - Ethics

AI competencies according
Ng, Leung, Chu & Qiao (2021)

<table>
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<tr>
<th>AI literacy</th>
<th>Definitions</th>
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<tr>
<td>Know &amp; understand AI</td>
<td>Know the basic functions of AI and how to use AI applications in everyday life ethically.</td>
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<tr>
<td>Apply AI</td>
<td>Applying AI knowledge, concepts and applications in different scenarios.</td>
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<td>Evaluate &amp; create AI</td>
<td>Higher-order thinking skills (e.g., evaluate, appraise, predict, design) with AI applications.</td>
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<tr>
<td>AI ethics</td>
<td>Human-centered considerations (e.g., Fairness, Accountability, Transparency, Ethics)</td>
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Popularization of AI
What is InterPARES Trust AI?

InterPARES Trust is a research project that focuses on developing strategies and methods for preserving digital records over time. AI, or Artificial Intelligence, is an important aspect of this project, as it is used to help manage and analyze digital records in order to ensure their authenticity, reliability, and accessibility over time.

InterPARES Trust AI refers to the specific use of AI technologies, such as machine learning and natural language processing, in the context of the InterPARES Trust project. These technologies are used to help manage and analyze digital records, with the goal of ensuring that they remain trustworthy and usable over time, even as technology and formats change. By leveraging AI, InterPARES Trust is working to develop new approaches to digital preservation that can keep pace with the rapidly changing technological landscape.
**Writing up**
- Improve writing quality
- Reformat citations and references
- Translate writing

**Research design**
- Generate ideas for research questions or projects
- Suggest data sources

**Data analysis**
- Code data
- Suggest themes or topics for analysis

**Data collection**
- Search archives and datasets
- Translate sources into other languages

Image created by UNESCO IESALC

**AI & SCIENTIFIC LITERACY**
limitations

Understand that the knowledge being produced about AI will quickly become obsolete and needs to be constantly updated, for example, in the case of a plagiarism detector or AI text detector (such as GPT Zero), or prompt assistant (such as writeGPT).

UNESCO, 2023
Some considerations

Public understanding of AI technologies and how to define AI literacy is under-explored.

The most frequent topics: education, ethics, competences, teaching, algorithms, bias.

The importance to approach the Data Lifecycle: Acquisition, Cleansing, Modeling, Implementation, Optimization, Analysis, Visualization, Evaluation, Sharing, Erasing, Archiving (Grillenberger, Romeike, 2017)

Overlap of some competencies in the selected literacies (Artificial Intelligence literacy, Archival literacy, Digital literacy, Scientific literacy, data literacy). This, in fact, is something that we highlight: the approximation of these competencies, and how they can complement each other.

Understand that it is not necessary to be an expert in all this areas, however the level of literacy must be sufficient to collaborate with interdisciplinary projects.
Dissemination

- Artificial Intelligence Literacy In The Context of Archives and Records Management, ICA Conference, Rome, Italy, 2022

- Ciência da informação e inteligência artificial: Um caminho para arquivos e bibliotecas inteligentes - International Society of Knowledge Organization - ISKO Conference, Lisbon, 2022

- Literacia em Inteligência Artificial e Arquivologia - VII Reunião Brasileira de Ensino e Pesquisa em Arquivologia - Rio de Janeiro, Brazil, 2022

- AI literacy for access and archives preservation - Seminar “Artificial Intelligence and Archives”. The Municipal Archive of Girona, 2023

- Inteligencia artificial nos arquivos: o projeto InterPARES Trust AI, International Archives Week, Public Archive of the State of São Paulo, Brazil, 2023

More: https://interparestrustai.org/
Thank you!

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