



ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ
UNIVERSITY OF CRETE

The need for AI literacy for Humanists and Social Scientists

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New roles for humanists and social scientists

What AI has to offer to SSH 1/3

AI as a means for rethinking society, education, research and culture

New theories: AI challenges traditional categories—e.g., what counts as “intelligence,” “creativity,” or “agency” (Floridi, L., Chiriatti, 2020).

Hybrid knowledge: AI introduces and encourages the integration of computational and interpretive methods, creating hybrid forms of knowledge especially visible in the digital humanities (Dobson, 2019).

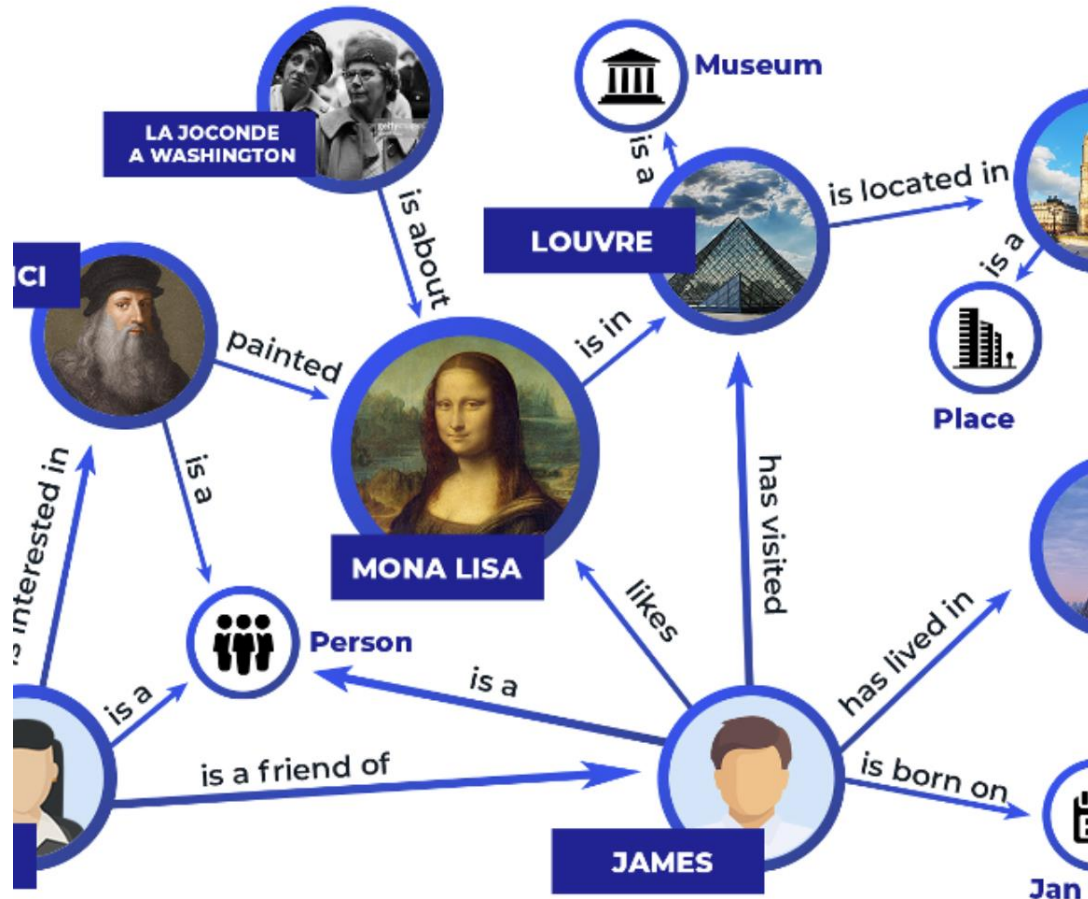
What AI has to offer to HSS 2/3

New research methods:

A) Text mining & pattern detection: Large-scale analysis of historical texts, news, or social media posts reveals hidden narratives, sentiments, and structures.



What AI has to offer to HSS 2/3



- B) Ontologies in HSS:**
 Dynamic knowledge graphs connecting e.g. historical actors, concepts, places, and events. These allow researchers to visualize and analyze complex relationships and evolving networks over time (Hyvönen, 2012).

What AI has to offer to research on SSH 2/3

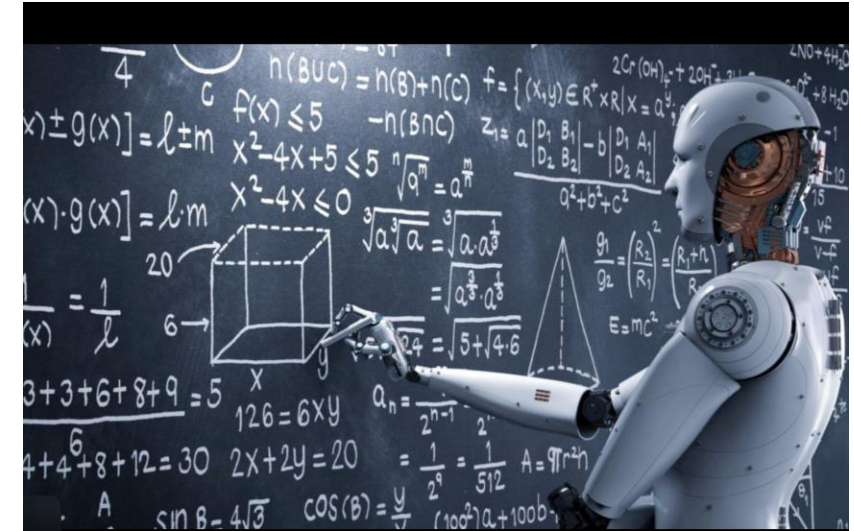


C) Multimodal research:
Analyzing images, video, and sound with AI opens up new forms of cultural analysis (e.g. Windhager, et al. 2019).

What AI has to offer to HSS 3/3

New educational methods:

AI is transforming not only **what** we teach, but **how** we teach.



For humanists and social scientists, this opens up **new pedagogical possibilities** that are interactive, and interdisciplinary.

Personalised learning path, experiential learning, AI-assisted writing and argumentation, cross-disciplinary teaching and learning etc. (Holmes, Bialik & Fadel, 2019).

New pedagogical possibilities



Personalized Learning Paths



Experiential and Simulation-Based Learning



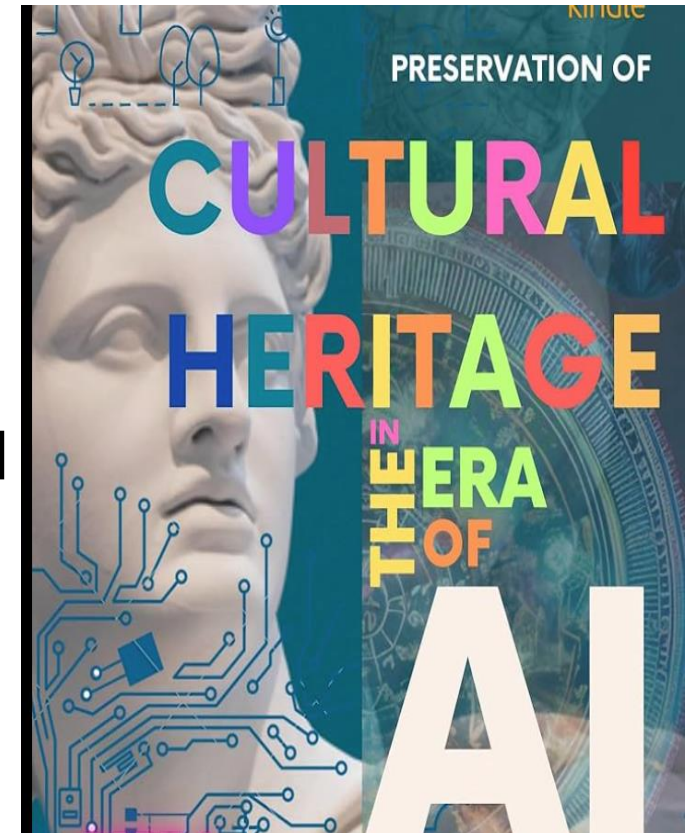
AI-Assisted Writing and Argumentation



Cross-Disciplinary Teaching and Learning

Why AI literacy matters for SSH?

- The HS scientists need to explain how AI is already affecting social life (e.g., recommendation algorithms, surveillance, automation, predictions, etc.).
- Without AI literacy, we all risk becoming passive consumers rather than critical analysts of AI technologies.
- AI creates new research perspectives in SSH and can better promote cultural heritage.



What does AI literacy mean for SSH?

- **A new interdisciplinary field**
- **AI and HSS** as a two-way relationship: HSS can inform AI design, and AI can extend HSS research capacities.
- **Balance** between knowledge of HSS, critical and ethical framing, and technical skills.



Balance between:

Introduction of key concepts (e.g., algorithms, machine learning, training data, data sets, bias, explainability).

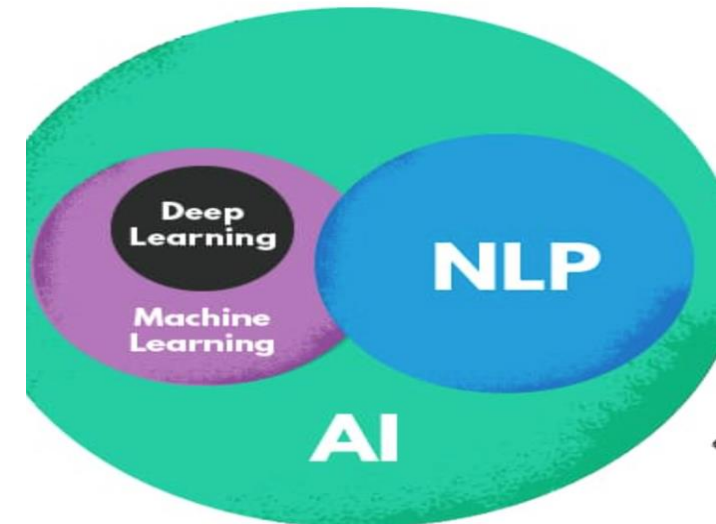
Development of critical skills: Reading AI systems critically (e.g., questioning model outputs, identifying potential bias).

Societal framing: Placing AI in social, historical, and political contexts.

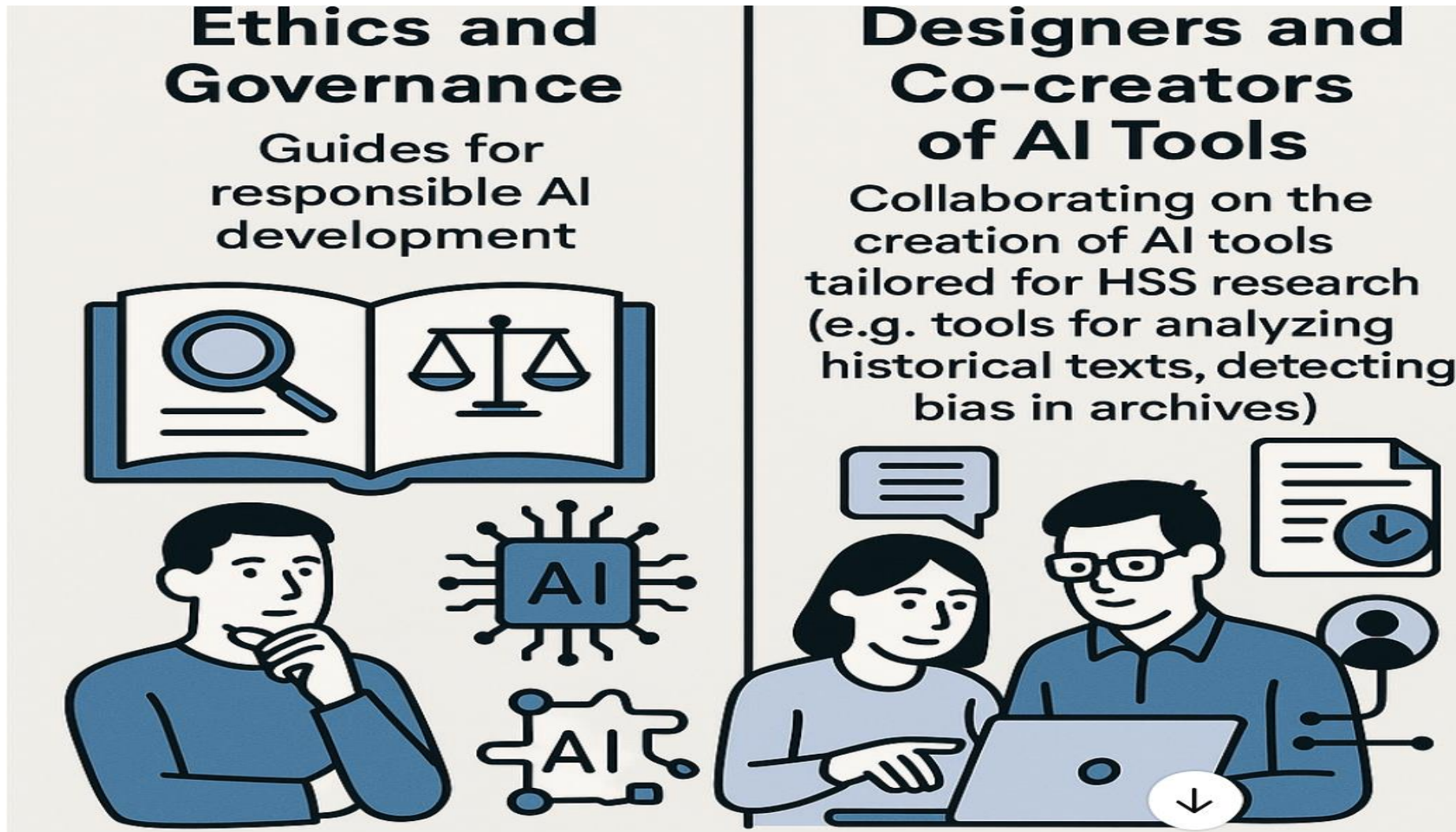
Acquisition of basic technical skills: e.g., understanding how datasets are formed, labeled (annotated), and structured. Reading basic model architectures (e.g., decision trees, neural networks at a conceptual level). Using specific AI tools.

Some examples

- **AI in archives or museums:** How HSS fields are using or could use AI responsibly.
- **AI in education:** How AI could be used in educational environments ethically.
- **Large Language Models (LLMs):** how they can be used in HSS research and education.
- **Natural Language Processing:** applications in translations, in the analysis of big text corpora.



New roles for humanists and social scientists



New roles (continued)

Interpreters of Big Data

Using qualitative insight to make sense of—large-scale data—from historical archives to social media patterns



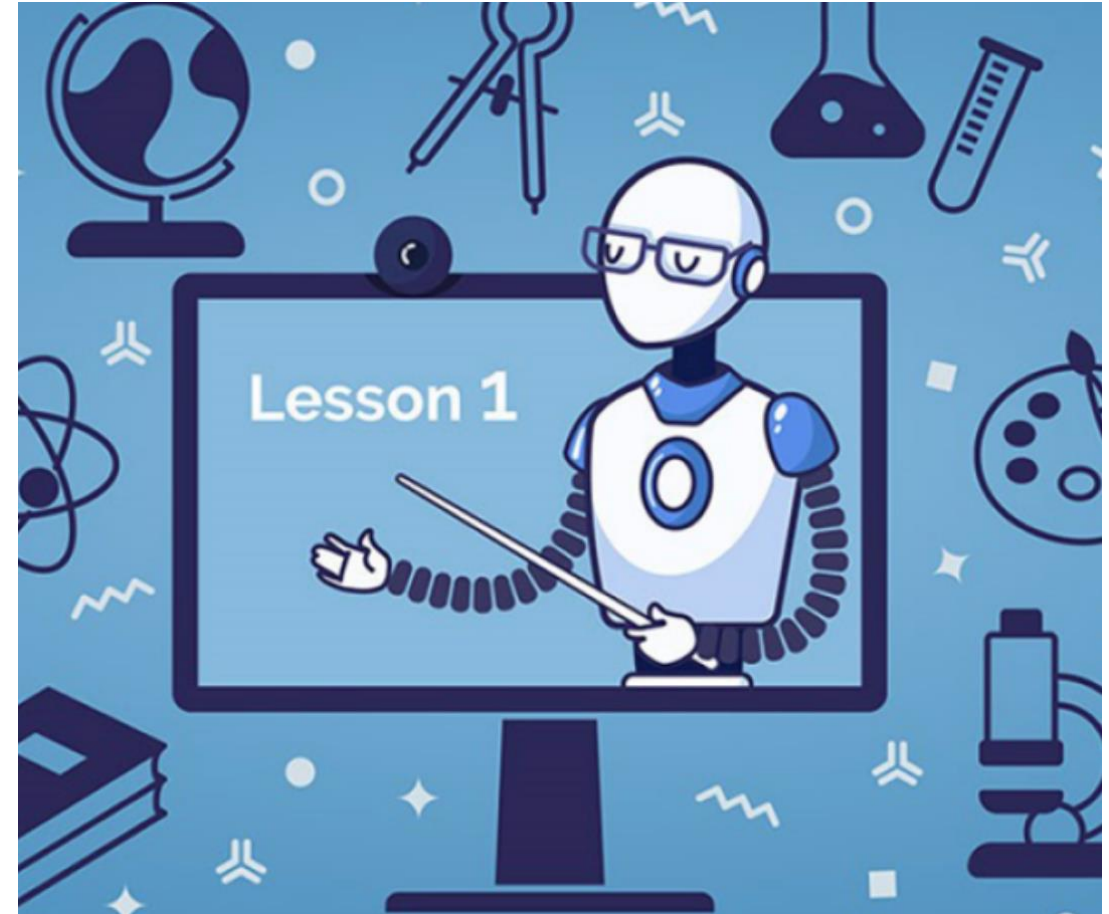
Translators and Mediators

Bridging gaps between technical developers and affected communities



New roles (continued)

- **Educators:** Teaching critical AI literacy to students and broader publics. How to question, contextualize, and ethically engage with AI systems. Integrating AI literacy into HSS curricula.



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