



#### WELCOME!

- Welcome to this 90-minute interactive session!
- The Challenge: Keeping up with the latest developments in Gen AI tools, functionalities, and limitations.
- The Question: How can we best prepare our students to excel in their writing and research endeavors while fostering informed and ethical use of AI?
- The Solution: The answer lies in developing critical AI literacy.
- Today:
  - Reflect on how AI literacy is being integrated into our practices; explore a range of AI literacy frameworks and resources, spanning critical and foundational concepts; and engage in collaborative breakout activities designed to build a collective understanding of key elements in AI literacy frameworks while pinpointing common themes and gaps as they relate to writing courses and tutoring and to develop practical strategies and ideas for assignments, teaching approaches, and feedback informed by these frameworks.
  - Leave with actionable insights and shared resources you can apply in your own contexts.



### WELCOME!

- Outline session structure:
  - Chatterfall (10 mins): Share your initial understanding and thoughts individually
  - Discovery time (13 mins): Explore different AI literacy frameworks and resources
  - Frame it Together group activity (20 mins): Pinpoint common themes and gaps across frameworks to foster deeper understanding and connections that are relevant to writing courses and tutoring.
  - Discussion of Frame it Together (7 mins)
  - 1-3-All group activity (25 mins): Identify strategies, activities, or something from resources shared during the session that promotes Al literacy within the context of writing courses and/or tutoring.
  - Share key takeaways and leave with a useful resource (10 mins).

#### BEFORE WE BEGIN

- Please rename yourself with your full name and institution
- Please turn on your cameras to create a sense of a shared virtual space (throughout the session, or just during interactive portions, whichever you feel more comfortable with)
- Want to ask questions? Use Zoom's "raised hand" feature or type in the chat.
- If you need to leave, please do so before we jump into breakout groups to ensure that those who remain are ready to actively engage.



## QUESTION ONE

Please share your understanding of "Al literacy" and "critical Al literacy" in your own words



### QUESTION 2

Share your current practices or strategies for incorporating Al literacy into classes or tutoring.



- https://unesdoc.unesco.org/ark:/48223/pf0000391104
- Published in 2024 by UNESCO.
- Aligned with the Global Education 2030 Agenda and SDG Goal 4 (inclusive and equitable quality education and lifelong learning).
- Defines 15 competencies across five dimensions (Human-centred mindset, Ethics of AI, AI foundations and applications, AI pedagogy, and AI for professional learning) and three progression levels (Acquire, Deepen, and Create).
- Emphasizes a human-centered approach, human agency, ethical principles, and environmental sustainability.
- Advocates for the regulation and validation of AI tools in education to ensure trustworthiness and protect users.
- Highlights the importance of localized implementation strategies and continuous professional development for teachers.
- UNESCO views the AI CFT as a flexible guide ("master framework") rather than a rigid blueprint. It is intended to be an "overarching framing tool and open-ended roadmap" for policy-makers and training program developers to continuously adapt to technological advances and changing local needs.

- The Urgent Need for Al Competencies for Teachers: The rapid advancement of Al has fundamentally altered the teacher-student dynamic, introducing a "teacher-Al-student dynamic."
- Al's Distinctive Impact on Education and Teacher Agency:
  - Quote: "In its most basic form, what makes AI distinct from other forms of digital technologies is its capacity to mimic human behaviour. This unique feature challenges human agency."
  - Quote: "There is consequently a risk that over-reliance on AI could lead to the atrophy of teachers' essential competencies. This potential of AI to usurp the autonomous decision-making capacity of teachers necessitates a stronger emphasis on teacher agency and on a human-centred mindset..."

**Core Principles of the Al Competency Framework:** The framework is built upon several key principles to guide the ethical and responsible integration of Al in education:

- Ensuring Inclusive Digital Futures: Promoting equity, inclusion, and linguistic/cultural diversity in the use of Al.
- A Human-centred Approach to Al: Always prioritizing human rights, needs, and flourishing.
- Protecting Teachers' Rights and Iteratively (re)defining Teachers' Roles: Recognizing and safeguarding teachers' roles and agency in the Alera.
- **Promoting Trustworthy and Environmentally Sustainable AI for Education:** Emphasizing "ethics by design," the 'do no harm' principle (including environmental impact), and the validation of safe and reliable AI tools for education, especially for vulnerable learners.
- Ensuring Applicability for All Teachers and Reflecting Digital Evolution: Designing a framework that is adaptable to diverse contexts and accounts for the continuous evolution of Al.
- Lifelong Professional Learning for Teachers: Recognizing the need for continuous development of AI competencies.

**Structure of the Al Competency Framework:** The Al CFT is organized as a two-dimensional matrix with five interconnected aspects of competency across three progression levels, forming fifteen competency blocks.

- Five Aspects of Competency: These represent the essential knowledge, skills, values, and attitudes:
  - **Human-centred mindset:** Values and attitudes towards human-AI interactions, prioritizing human rights and evaluating benefits/risks.
  - Ethics of AI: Understanding and applying ethical principles, regulations, and practical rules.
  - Al foundations and applications: Conceptual knowledge and skills to understand, select, apply, and customize Al
    tools.
  - Al pedagogy: Leveraging Al tools to facilitate teaching, learning, and assessment while mitigating risks.
  - Al for professional development: Using AI to enhance personal and organizational learning.

**Three Progression Levels:** These represent increasing levels of mastery:

- Acquire: Rudimentary understanding and initial practical use, recognizing benefits and risks, understanding basic ethical principles, and applying basic tools.
- **Deepen:** Proficiently integrating AI, focusing on human accountability, safe and responsible use, applying tools to enhance practices, and using AI for professional development.
- **Create:** Critical understanding of social impact, contributing to policy and ethical standards, customizing/modifying AI tools, and innovatively using AI for educational transformation.

**Detailed Competency Specifications (Chapter 4):** This chapter provides specific curricular goals, learning objectives, and contextual activities for each of the fifteen competency blocks across the three progression levels. It offers concrete examples of what teachers at each level are expected to know and be able to do.

Suggested Implementation Strategies (Chapter 5): The document provides guidance for implementing the AI CFT, recognizing that defining competencies alone is insufficient. Key strategies include:

- Regulate Al and ensure trustworthy Al tools for education: Establishing national regulatory frameworks, robust data protection laws (like GDPR), and validation mechanisms for Al tools used in education, especially for younger children. This requires the involvement of multiple stakeholders.
- **Build enabling policies and conditions for the use of AI in education:** Creating conducive policy environments, addressing infrastructure needs, and facilitating access to affordable AI tools. The Republic of Korea's National Strategy for AI is provided as an example of strengthening teacher capabilities and securing school infrastructure.
- Formulate and adopt local AI competency frameworks for teachers: Adapting the global framework to local contexts based on AI readiness and existing teacher competencies.
- **Design and streamline training and support programmes on AI competencies:** Developing targeted training programs based on the framework's structure and specifications.
- **Develop contextual performance-based assessment tools:** Using the framework to guide the design of assessment methods and criteria for evaluating teacher competencies, including self-assessment tools.

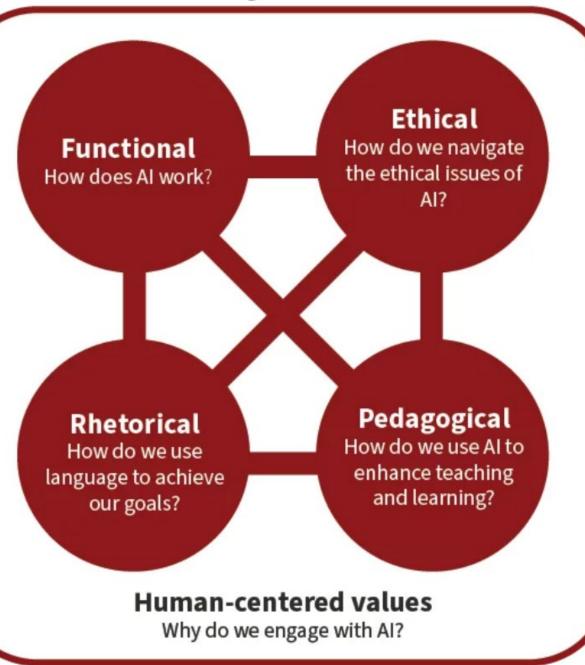
#### MAHA BALI'S CRITICAL AI LITERACY

- Towards Al Literacy: 101+ Creative and Critical Practices, Perspectives and Purposes (page 36).
- Bali: "critical refers to questioning and skepticism about hyperbolic claims, and also refers to
  emphasizing social justice when critiquing GAI or any technology. We need to critique GAI's potential [...]
  critique injustice or ethical issues in its processes or outputs, and critique its potential impact, while also
  being aware of the ways it can empower young people and professionals."
- Dimensions:
- **Understanding how it works**. This involves grasping concepts like machine learning, which can be explained using analogies such as the QuickDraw game to illustrate pattern recognition. Using metaphors is also suggested to help understand how it works and address misconceptions. Awareness of the nuances between different models and types of GAI is also useful. Free tutorials can be used for this.

#### MAHA BALI'S CRITICAL AI LITERACY

- Having an awareness of the biases the models themselves perpetuate and the inequalities the platforms may exacerbate. This includes considering questions about whose knowledge is dominant in AI models and whether some people are disadvantaged by insufficient access or a lack of digital literacies.
- **Having an awareness of ethical issues.** Beyond biases and inequalities, this dimension addresses the harm caused during the creation process of some models, such as harm to human labor (like Kenyan workers) and damage to the environment (climate, water).
- **Prompt Engineering.** Knowing how to write prompts, sometimes in sequence to get better quality results from Generative Artificial Intelligence (GenAI). Many free videos and tutorials.
- When, why, where it helps to use it. This requires recognizing the tendency of GAI to "hallucinate" (produce misinformation); requires awareness of one's own expertise level to verify the quality and truthfulness of the output; and involves being aware of the types of tasks AI is suited for versus those requiring special, nuanced human attention and care.

### Al Literacy Framework



### STANFORD TEACHING GUIDE ON AI LITERACY

- Understanding Al Literacy | Teaching Commons
- Framework draws inspiration from Selber's
   "Multiliteracies for a Digital Age," Becker et al.'s
   "Framework for the Future," and Miao and
   Cukurova's "AI Competency Framework For
   Teachers," adapting and expanding upon them
   to address the unique aspects of generative AI
   and the concerns of the Teaching Commons.
- Aims to equip educators and students with the skills and knowledge needed to navigate the opportunities and challenges presented by this technology.

#### STANFORD TEACHING GUIDE ON AI LITERACY

- **Functional literacy**: Understanding how AI works, including accessing and operating tools, basic and complex prompting, and knowledge of AI development and the broader landscape.
- **Ethical literacy**: Navigating the ethical issues of AI, such as academic integrity, reliability, bias, equity, accessibility, privacy, sustainability, misinformation, and labor practices.
- Rhetorical literacy: Understanding how to use natural and AI-generated language to achieve goals and analyzing the relationship between human and AI language. This includes prompting strategies, evaluating AI outputs, and understanding AI's role in society and communication.
- **Pedagogical literacy**: Using AI to enhance teaching and learning. This involves exploring effective teaching practices, examining AI-powered tools, integrating AI into assignments, and adapting to potential disruptions caused by AI.
- **Progressive Levels of Competency**: Each domain of the framework includes suggested objectives at novice, intermediate, and advanced levels, allowing individuals to build understanding and skills incrementally.

#### STANFORD TEACHING GUIDE ON AI LITERACY

- **Human-Centered Approach:** Stresses the importance of a human-centered approach, where human agency and well-being are prioritized over simply adopting AI technology.
- **Complex and Navigable Space:** Acknowledges that navigating AI is a complex and difficult space with few straightforward answers or policies. Encourages continuous engagement, experimentation, and connection with others to make good decisions.
- Illustrative Examples: Provides example educational applications for each literacy domain (e.g. Copyright and authorship for Ethical, writing-to-learn vs. writing-to-communicate for Rhetorical, and Zone of proximal development for Pedagogical) to help readers understand how the concepts apply in practice.
- Resources and Community: Links to various resources and encourages joining communities to further develop AI literacy.
- **Application Scenarios:** Presents scenarios to encourage readers to practice applying the AI literacy framework to real-life educational situations.

#### EDUCAUSE REVIEW: A FRAMEWORK FOR AI LITERACY

- •Background: Barnard College developed an Al literacy framework to support Al education in higher education
- •Framework Levels (Pyramid Structure). Each has questions to ask A Framework for AI Literacy | EDUCAUSE Review:
- Level 1: Understand Al
  - •Define AI, machine learning, large language models.
  - •Recognize AI capabilities and limitations.
  - Build basic AI concepts and vocabulary.

#### Level 2: Use and Apply Al

- •Effectively use generative AI tools.
- •Experiment with prompting techniques.
- •Review and refine Al-generated content (awareness of hallucinations, bias).

#### Level 3: Analyze and Evaluate Al

- •Analyze AI in broader contexts (discipline, role).
- Critically evaluate AI tool effectiveness and reliability.
- •Examine ethical considerations (bias, privacy, copyright).

#### Level 4: Create Al

- •Conceive novel uses for AI.
- •Propose theories about Al's impact.
- Engage in creative projects leveraging AI.
- •(May involve building models for some).

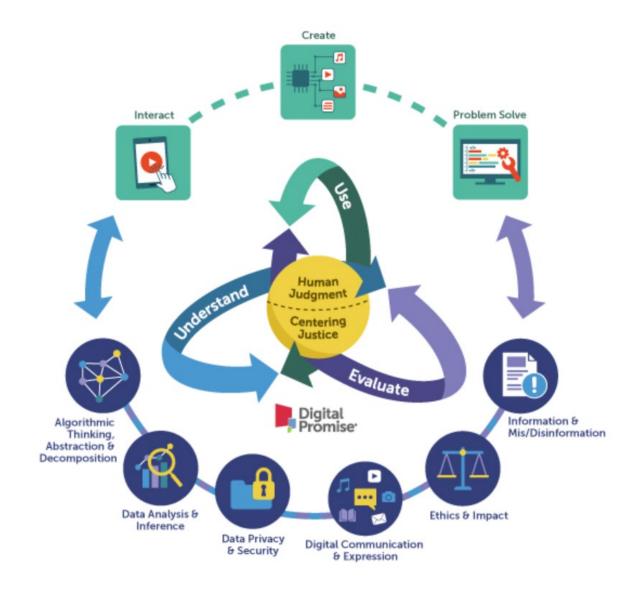
### DIGITAL PROMISE AI LITERACY FRAMEWORK (PK-12)

- Al Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology Digital Promise
- The critical importance of AI literacy in an increasingly digital world: As AI becomes more pervasive, equipping individuals with the knowledge and skills to interact with it safely and effectively is essential.
- The need for intentional integration of AI literacy in PK-12 education: Emphasizes the critical role of public schools in ensuring all learners, educators, and community members develop AI literacy.
- Strategies for promoting Al literacy: The framework outlines specific strategies for educational leaders and policymakers to implement Al literacy initiatives.
- **Definition of Al Literacy**: Al literacy is defined as "the knowledge and skills that enable people to critically understand, evaluate, and use Al systems and tools to safely and effectively participate in an increasingly digital world." This definition forms the foundation of the framework.

### DIGITAL PROMISE AI LITERACY FRAMEWORK (PK-12)

- The Three Modes of Engagement: The framework is structured around three interconnected modes:
  - Understand: Focuses on acquiring fundamental knowledge about AI's capabilities and workings to inform evaluation and use.
  - Evaluate: Centers on using human judgment and a focus on justice to assess the benefits and costs of AI for individuals, society, and the environment.
  - Use: Encompasses interacting with, creating with, and problem-solving using AI for different purposes.
- Expanded AI Literacy Framework Components: The framework also includes:
  - Al Literacy Practices: Actionable demonstrations of understanding and evaluating AI, such as Data Privacy & Security and Information & Mis/Disinformation.
  - Core Values: Guiding principles for safe and effective AI use, including Human Judgment and Centering Justice.
  - Types of Use: Distinct purposes for engaging with AI tools, such as Interact, Create, and Problem Solve.

DIGITAL
PROMISE AI
LITERACY
FRAMEWORK
(PK-12)



#### HARVARD GENERATIVE AI LITERACY

- Generative Al Literacy Artificial Intelligence for Research and Scholarship Research Guides at Harvard Library
- Strategic Approach to Generative Al Use: Simply having access to generative Al tools is not enough; maximizing their benefits for research necessitates a "strategic approach to prompting and refining inquiries."
- Importance of Al Literacy: "Being Al Literate does not mean you need to understand the advanced mechanics of Al." Instead, it emphasizes "actively learning about the technologies involved and that you critically approach any texts you read that concern Al, especially news articles."
- Frameworks for Effective Prompting: Recognizing the importance of crafting effective prompts, the guide introduces the CLEAR Framework (Leo Lo) as a structured approach to "optimize the effectiveness of AI models like GPT in generating high-quality responses."
- **Critical Evaluation of AI Information:** Provides a tool, the **ROBOT Test**, to help users "critically approach any texts you read that concern AI," particularly when evaluating information about AI applications.

#### HARVARD GENERATIVE AI LITERACY

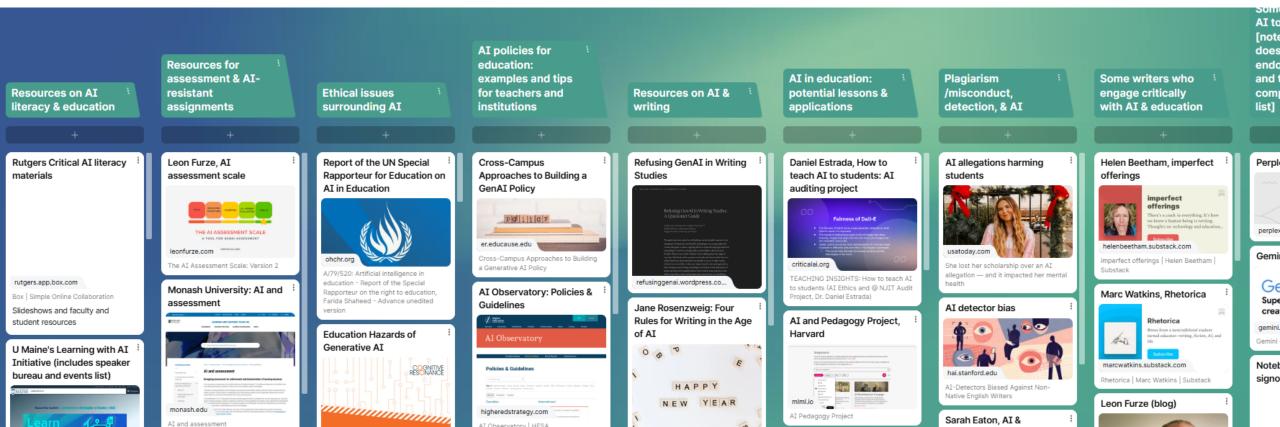
- CLEAR Framework (Leo Lo): A five-element framework for prompt engineering:
  - Concise: Brevity and clarity.
  - Logical: Structured and coherent progression.
  - Explicit: Clear specifications for output.
  - Adaptive: Flexibility through experimentation.
  - Reflective: Ongoing assessment and refinement. This framework "aims to optimize the effectiveness of AI models like GPT in generating high-quality responses."

#### HARVARD GENERATIVE AI LITERACY

- ROBOT Test: An evaluation tool for critically analyzing information about AI applications, focusing on:
  - Reliability: Assessing the credibility and completeness of information about the AI technology.
  - Objective: Understanding the purpose of the AI's use and the goal of sharing information about it.
  - Bias: Identifying potential sources of bias, ethical issues, and whether these are acknowledged.
  - Owner: Determining who developed, owns, and is responsible for the AI, and who has access to it.
  - Type: Identifying the subtype of AI, whether it's theoretical or applied, its information system, and reliance on human intervention.
- Al Pedagogy Project: An interactive guide for instructors on navigating and incorporating generative Al in educational settings.
- Al Information Literacy Module (University of Maryland): Focuses on understanding Al basics, recognizing inaccuracies, fact-checking, citing Al output, and exploring creative uses.

#### CRITICAL AI LITERACY RESOURCES IN ONE PLACE

Critical AI Literacy for Educators



### FRAME IT TOGETHER (20 MINS)

- Each group will collaboratively work on a Google Doc to brainstorm additional key elements typically found in AI literacy frameworks.
- Goal: Identify common themes and gaps across frameworks to foster deeper understanding and connections that are relevant to writing courses and tutoring.
- <a href="https://docs.google.com/document/d/1PJWg0uu8pFpm5hLlQZZb4d8dabqM8a-lhuVkjl9YzPk/edit?usp=sharing">https://docs.google.com/document/d/1PJWg0uu8pFpm5hLlQZZb4d8dabqM8a-lhuVkjl9YzPk/edit?usp=sharing</a>

Please share key insights that emerged during Frame It Together

## DISCUSSION

### 1-3-ALL (25 MINS)

- Step 1: Individually, attendees complete Google slides to answer the following:
  - ➤ Identify a strategy, activity, or something from the previously shared resources that promotes AI literacy within the context of writing courses and/or tutoring.
  - > Specify which dimensions of AI literacy it addresses.
  - Discuss challenges to implementation or questions raised.

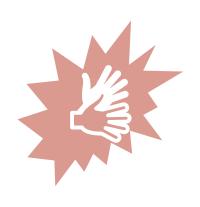
https://docs.google.com/presentation/d/1um77oRxgSXnhAfVsVnodCmt77\_lao-kLnicCnpmyh5k/edit?usp=sharing

- Step 2: In groups of 3, discuss individual responses, share experiences, and build on ideas collectively.
- Goal: To create a practical and useful resource we can all benefit from.
- Note: The completed slides will be compiled as a shared resource and posted in the Teaching Writing Interest Group for broader use by the AMICAL community.

## SHARING

Each group is invited to briefly share their key takeaways and ideas

### **CLOSING**





THANK YOU FOR ATTENDING AND PARTICIPATING!

PLEASE JOIN THE TEACHING WRITING INTEREST GROUP FOR FUTURE COLLABORATION.