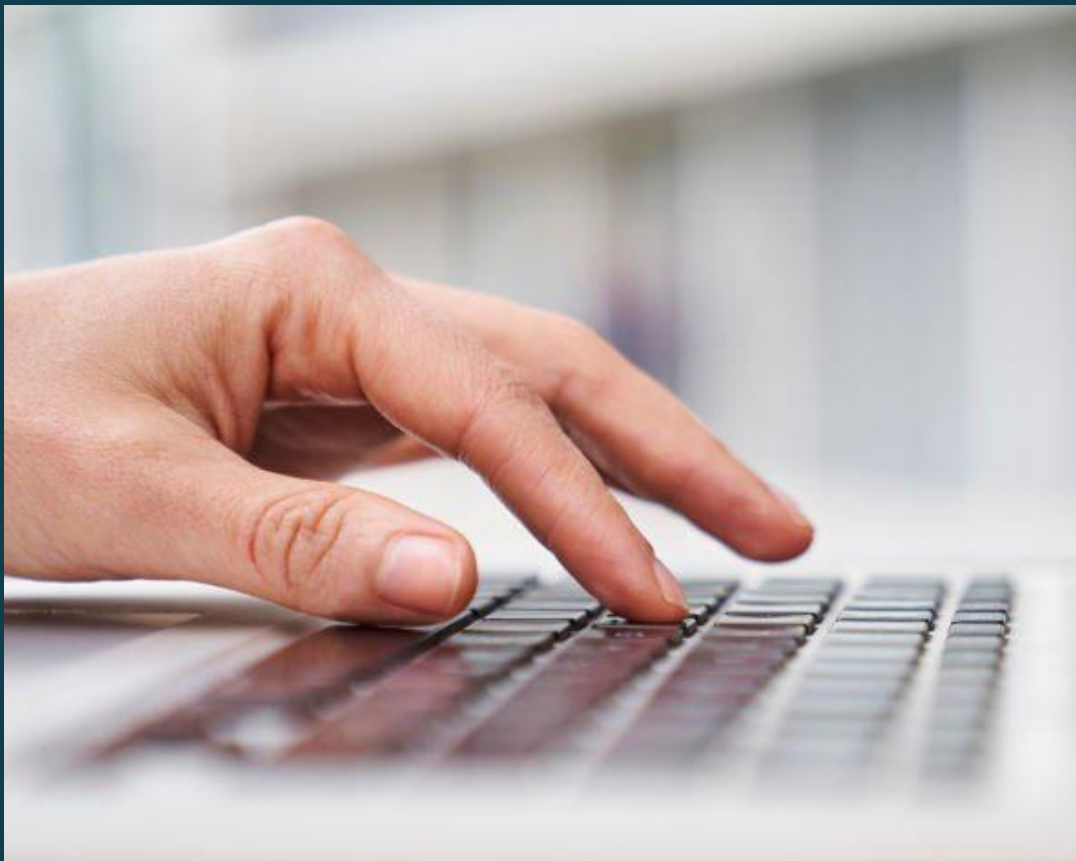


HIGHLIGHTS

Measuring Digital Literacies in the Age of AI



AUTHORS

Jesse R. Sparks,
Managing Senior
Research Scientist

Teresa M. Ober,
Research Scientist

Caitlin Tenison,
Research Scientist

Burcu Arslan,
Research Scientist

Ido Roll,
Senior Research Director

Paul Deane,
Principal Research Scientist

Diego Zapata-Rivera,
Distinguished
Presidential Appointee

Reginald M. Gooch,
Research
Project Manager

Tenaha O'Reilly
Managing Principal
Research Scientist

EXAMINING THE IMPACT OF AI

The arrival of AI has changed what it means to be digitally literate.

THE AUTHORS TACKLE QUESTIONS ABOUT MEASURING AI LITERACY SUCH AS:

HOW SHOULD WE DEFINE AI LITERACY SKILLS?

HOW SHOULD WE DESIGN ASSESSMENTS THAT MEASURE AI LITERACY SKILLS?

HOW CAN WE ENSURE THAT THESE ASSESSMENTS PROMOTE EQUITY AND SUPPORT HUMAN PROGRESS?

01

The evolution of literacy is accelerating with the advent of AI.

02

AI literacies are best measured within digital literacy tasks.

03

We must be ready to face the risks and complexities of assessing AI skills.

Defining the skills required to be literate in AI-enabled environments is especially challenging, as the changing nature of AI creates a moving target.

01.
The evolution of literacy is accelerating with the advent of AI.

THE EVOLUTION OF SKILLS NEEDED TO ACCESS, UNDERSTAND, EVALUATE, SYNTHESIZE, AND SHARE INFORMATION, FROM TRADITIONAL LITERACIES TO TODAY'S AI LITERACIES

Pre-1990s

Traditional Literacies

Skills needed to understand and communicate, including reading and writing

Prior to the advent of the Internet, information was disseminated via printed texts, books, reports, and journals.

1990s

Digital Literacies

Skills required to access, manage, and evaluate digital information

Information began to be stored, shared, and accessed via the Internet and emerging web search tools.

2020s

AI Literacies

Skills required for accessing, managing, and creating information via AI

Enabled by AI, accessing and generating information is much faster, but may be less reliable.

AI impacts each part of the inquiry cycle, introducing dynamic challenges for the measurement of digital literacy skills.

02.
AI literacies are best understood within the context of digital literacies.

To effectively assess AI literacy, it's essential to evaluate not just the end products, but the processes that reflect one's ability to use AI to gather, organize, critically evaluate, and express information.

Digital inquiry tasks can be used to measure both digital and AI literacies in an integrated fashion.

DIGITAL INQUIRY

Digital literacies supporting digital inquiry involve a cyclical process of defining problems and information needs, locating sources, evaluating sources, processing, analyzing, and synthesizing those sources, and communicating results.

AI LITERACY CONSTRUCTS

Use and Apply AI

Interact effectively with AI technologies and apply them to solve problems and communicate ideas by engaging with and refining prompts within conversational threads.

Recognize and Evaluate AI

Identify the presence and role of AI in various digital tools and contexts, understanding how AI can influence the ways information is presented and the potential inaccuracies in AI responses.

Know how to evaluate and verify information produced with AI tools.

Navigate AI Ethically

Understand the ethical implications of AI technologies and their applications, demonstrating the ability to reason about biases, privacy, data ownership, and societal impact.



There are significant risks associated with the assessment of AI literacy competencies.

03.
We must be ready to face the risks and complexities of assessing AI skills.

Narrow focus

Risk of defining competencies in a way that does not adequately capture crucial relationships to other foundational literacy skills.

Inequity

Risk of developing frameworks that widen or introduce inequity.

Instability

Risk of AI systems providing inconsistent answers over time, making scoring unreliable.

Lack of creativity

Risk of diminishing opportunities for learners to develop or demonstrate creative, divergent thinking.

Limited generalizability

Risk of designing frameworks that cannot be adapted in global contexts.

Maintaining equity and fairness in the 21st century becomes even more critical in the age of AI.

EQUITY IN DIGITAL AND AI LITERACIES

Digital divide

Unequal access to technology affects the ability to develop and assess digital and AI literacies.

Cultural norms and values

Assessments must reflect diverse perspectives, especially in large-scale international contexts.

Equity in education

Teaching and assessing digital and AI literacies is crucial for equity, reducing vulnerability to unethical technology use.

Final Note

We encourage further discussion, debate, and research on how to measure digital and AI competencies in ways that power human progress.