



AI To Learn

Institute for Human-Centered AI Literacy

AI Literacy for Human Flourishing

An "AI To Learn" Framework

Sawa Kurotani, Ph.D.

Rapid advancement in artificial intelligence promises immense potential of enhancing human creativity and inquiry; at the same time, many institutions and enterprises recognize the need for effective frameworks and guidance on how to prepare learners and creators in the AI-infused environment of learning, creating and working.

AI To Learn framework captures AI literacy not merely as a technical capacity but as a humanistic disposition: a cultivated orientation toward using AI in ways that support human flourishing. This philosophy positions AI literacy as fundamentally about empowering individuals and communities to learn, create, and act with purpose, rather than simply mastering tools or keeping pace with technological change.

Within this framework, AI literacy consists of three interdependent layers: a learning mindset, a human-centered workflow, and context-specific competencies. Together, these layers establish a holistic and ethically grounded foundation for learning, creating, and working in an AI-mediated world, whether in school, at work, or in our daily lives.

1. A Learning Mindset

The foundation of AI literacy is a learning mindset that recognizes the intrinsic value and irreducible role of human learning. This mindset encompasses curiosity, creativity, intellectual humility, reflective awareness, and a willingness to engage uncertainty. It positions the learner/creator as an active agent whose growth is neither replaced nor diminished by technology.

An AI-literate learner/creator understands that the purpose of engaging with AI is not to shortcut the learning process but to deepen it. Those with this mindset approach AI as a partner in inquiry and creative work rather than as an answer engine. They understand that meaning, judgment, and interpretation remain fundamentally human tasks. This orientation helps prevent overreliance, reinforces ethical practice, and supports the development of transferable cognitive skills that endure even as tools evolve.

Cultivating such a mindset requires learning environments that value experimentation, encourage questioning, and normalize productive failure. It also requires explicit attention to metacognition: helping learners/creators articulate their goals, evaluating their processes, and understanding how AI either advances or obscures their purpose. In this sense, the learning mindset is not an optional attitude but the bedrock on which all other aspects of AI literacy rest.

2. A Human-Centered Workflow

Building on this mindset, the second layer of AI literacy is the design and use of a human-centered workflow. This workflow is defined by processes in which human intention, creativity, and inquiry direct how AI tools are used. Rather than beginning with what a tool can do, an AI-literate workflow begins with what humans want to explore, create, understand, or achieve.

Key practices within such workflows include purposeful prompting, iterative refinement, evaluation of outputs, and reflective revision. These practices ensure that AI contributes meaningfully to human-driven goals rather than dictating or constraining them. The workflow is characterized by cycles of intent → iteration → reflection, in which students articulate their aims, engage AI as a collaborator, and then assess how the interaction shapes their understanding.

A human-centered workflow also foregrounds ethical awareness. Learners consider issues such as bias, fairness, intellectual integrity, transparency, and the social implications of AI-mediated work. These considerations occur within the workflow itself, not as add-on modules. By embedding ethical reflection into the creative and analytical process, students develop the capacity to navigate real-world complexities with discernment.

In this model, AI literacy is not defined by discrete skills but by the quality and intentionality of the workflow through which AI is integrated into human inquiry, creativity and productivity.

3. Context-Specific Competencies

The third and most visible layer of AI literacy consists of context-specific competencies—practical skills that enable the productive and responsible use of AI tools in particular domains. These include:

- the ability to generate effective prompts for different goals
- the ability to evaluate, verify, and revise AI outputs
- the ability to use AI to enhance communication, research, creativity, and problem-solving

- the ability to adapt tool use to disciplinary norms and standards
- the ability to understand risks, limitations, and appropriate applications within professional and academic contexts

These competencies are inherently dynamic. They evolve as technologies change and as disciplines refine their expectations for AI use. For this reason, they should be taught not as fixed procedures but as adaptable practices grounded in the deeper layers of mindset and workflow. When embedded within a strong human-centered foundation, these competencies become transferable across contexts and resilient to technological change.

Integration of the Three Layers

These three layers—mindset, workflow, and competencies—are mutually reinforcing. A learning mindset anchors the entire framework by cultivating curiosity, ethical discernment, and human agency. A human-centered workflow operationalizes this mindset by providing structures for inquiry, reflection, and creativity. Context-specific competencies supply the practical tools that enable learners to act effectively within particular disciplines and professions.

Taken together, these layers create a model of AI literacy that is holistic, ethically grounded, and developmentally oriented. They ensure that students do more than use AI—they understand it, direct it, question it, and integrate it meaningfully into their own intellectual and creative processes.

AI Literacy for Human Flourishing

Framing AI literacy as a disposition oriented toward human flourishing shifts the emphasis from adapting to technology to shaping technology in service of meaningful human aims. Flourishing, in this context, includes the development of intellectual capacities, creative expression, and agency in work, a sense of purpose in learning and even in our day-to-day routines. It also encompasses the broader social dimensions of flourishing: equitable access, responsible use, and sensitivity to the impacts of AI on communities and society.

By situating AI literacy within this humanistic framework, institutions and enterprises can cultivate learners and professionals who are not only competent with emerging technologies but also capable of using them thoughtfully, ethically, and creatively. This philosophy positions AI literacy as a pathway to empowered learners, responsible citizens, and imaginative problem-solvers—individuals who can engage AI in ways that expand human possibility rather than diminish it.