The AI-Infused Educator:
Foundations for Future-Ready Teaching

Utah's *Portrait of an AI-Infused Educator* identifies the knowledge, skills, and dispositions necessary for appropriate artificial intelligence (AI) use by an educator in Utah classrooms. AI is a consistently growing and changing technology, but any educator utilizing these knowledge, skills, and dispositions will be able to appropriately navigate AI in education and how to best support their learners with AI. By appropriately keeping a human in the AI system we can close the AI divide and build appropriate responses to future AI technologies.

Knowledge

AI Literacy

Understands what AI is, how it works, and how AI has been historically integrated into our society to guide future applications and the impact of AI.

Key Concepts At-a-Glance:

1. Defining what AI is/is not
2. History of AI
   a. GEN AI vs. Classical AI
3. Types of AI: Predictive, Reactive, Generative
4. How AI Works
   a. Training Data
   b. Algorithms
   c. Machine Learning
   d. Neural Networks
   e. Large Language Models (LLM)
5. How Gen AI tools produce content
6. Interactions with AI (Prompting and more)
7. How AI interacts with different content areas in education
8. Types of AI Gen AI Tools (Chatbots, Multimodal, Image/Video Creation)
9. Differences across platforms (NotebookLM vs. SchoolAI, etc.)
10. Societal Impact
11. Environmental Impact

Data Use

Understand and follow the guidelines and parameters set by state and local agencies for AI use. Understands where inputs are going, how they are stored, and how the model uses and learns from them. Can determine what is appropriate to utilize in various AI environments to ensure privacy protections for student PII.

Key Concepts At-a-Glance:

1. How AI Tools Use Data
2. Data Storage
3. Overarching Data Protections
4. Data Privacy Storage: Personal Privacy Information
5. AI for data summarization and analysis of the output information

Integration

Activating prior knowledge, educators will apply AI skills and tools in multiple systems, which benefit a variety of student populations.

Key Concepts At-a-Glance:

1. Current AI Best Practices
2. High-Leverage AI Practices
3. Assessment Considerations
4. Differentiation
5. Interdisciplinary
6. Postsecondary Skills
7. AI for Special Populations: Multi-Language Learners, Special Education, etc.

Safety Principles

The AI-infused learner uses technology safely and responsibly by protecting privacy, making informed decisions, and ensuring that human judgment and well-being remain at the center of AI use.

Key Concepts At-a-Glance:

1. Law for Educators
2. Organization Policies
3. AI Bias/Algorithms
4. AI Hallucinations/Fake Content/Misleading Content
5. Data Privacy for FERPA, HIPAA, CIPA, COPPA, and DPA

Dispositions

Human Centered Use

Believes that AI should be human-centered by honoring human creativity, ingenuity, and self-efficacy that must persist in advocating for the ethical and responsible integration of AI.

Key Concepts At-a-Glance:

1. Identify Appropriate AI Use
2. Healthy Skepticism
3. Appropriate Citing and Usage
4. Appropriate Human Involvement

Curiosity and Creativity

Seek out new ideas, ask thoughtful questions, and explore multiple possibilities in order to design original and meaningful solutions. Throughout the creative process, learners will apply flexible thinking, imagination, and a willingness to revise and take risks.

Key Concepts At-a-Glance:

1. Curiosity, Responsibility, and Creativity
2. Support Learner Needs with AI
3. AI in the Creative Process

Critical Thinking

Thoughtfully evaluate when and how to use AI tools, guide transparent communication about AI decision-making processes, and demonstrate adaptability as educational technologies and capabilities evolve.

Key Concepts At-a-Glance:

1. Critical thinking: Question AI
2. Adaptability
3. Communicate AI Use Expectations

Skills

Prompting & Communication

Uses clear, purposeful, and strategic prompts to communicate effectively with AI tools, ensuring accurate, relevant, and meaningful outcomes to support learning, problem-solving, and creative tasks.

Key Concepts At-a-Glance:

1. Appropriate AI Tool Usage
2. Prompt Engineering
4. Using AI for Communication
5. AI Privacy Controls
6. Private vs. Public AI Spaces

Machine and Human Collaboration

Educators use AI effectively for professional tasks, and appropriately integrate AI in the classroom through planning, designing, and facilitating opportunities for students to collaborate with AI to cultivate AI Collaboration skills.

Key Concepts At-a-Glance:

1. AI Integration Appropriateness
2. Task Automation
3. Classroom Task Automation

Adaptive Application

Educators will be able to thoughtfully evaluate, select and utilize AI tools across educational, creative and professional contexts while maintaining ethical responsibility and supporting diverse learning needs.

Key Concepts At-a-Glance:

1. Digital Discernment
2. Appropriate Tool Selection
3. AI Application Best Fit
4. AI Development
5. AI for Special Program Context