

Reimagining Bloom's Taxonomy in the Age of Generative AI 🌱

As educators, we're constantly evolving our practice—and now, Bloom's Taxonomy is evolving with us.

This updated framework from Oregon State University Ecampus offers a fresh lens on how distinctively human skills can be complemented—not replaced—by Generative AI (GenAI) tools.

 Bloom's Taxonomy Revisited Use this table as a reference for evaluating and considering changes to aligned course activities (or, where possible, learning outcomes) that emphasize distinctive human skills and/or integrate generative AI (GenAI) tools as a supplement to the learning process. All course activities and assessments will benefit from ongoing review given the evolving capabilities of GenAI tools. Version 2.0 (2024)  This work is licensed under CC BY-NC 4.0	Distinctive Human Skills		How GenAI Can Supplement Learning*
	CREATE	Engage in both creative and cognitive processes that leverage human lived experiences, social-emotional interactions, intuition, reflection, and judgment to formulate original solutions	Support brainstorming processes; suggest a range of alternatives; enumerate potential drawbacks and advantages; describe successful real-world cases; create a tangible deliverable based on human inputs
	EVALUATE	Engage in metacognitive reflection; holistically appraise ethical consequences of other courses of action; identify significance or situate within a full historical or disciplinary context	Identify pros and cons of various courses of action; develop and check against evaluation rubrics
	ANALYZE	Critically think and reason within the cognitive and affective domains; justify analysis in depth and with clarity	Compare and contrast data, infer trends and themes in a narrowly-defined context; compute; predict; interpret and relate to real-world problems, decisions, and choices
	APPLY	Operate, implement, conduct, execute, experiment, and test in the real world; apply human creativity and imagination to idea and solution development	Make use of a process, model, or method to solve a quantitative or qualitative inquiry; assist students in determining where they went wrong while solving a problem
	UNDERSTAND	Contextualize answers within emotional, moral, or ethical considerations; select relevant information; explain significance	Accurately describe a concept in different words; recognize a related example; translate to another language
	REMEMBER	Recall information in situations where technology is not readily accessible	Retrieve factual information; list possible answers; define a term; construct a basic chronology or timeline

*AI capabilities derived with reference to an analysis of the MAGE framework, based on ChatGPT 4 as of October 2023. See Zaphir, L., Lodge, J. M., Lisee, J., McGrath, D., & Khosravi, H. (2024). How critically can an AI think? A framework for evaluating the quality of thinking of generative artificial intelligence. arXiv preprint arXiv:2406.14769.