

AI in Teaching and Learning Across BU: A Conversation with IETL

Educators' Collaborative Lunch

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 <https://www.bu.edu/excellence/>

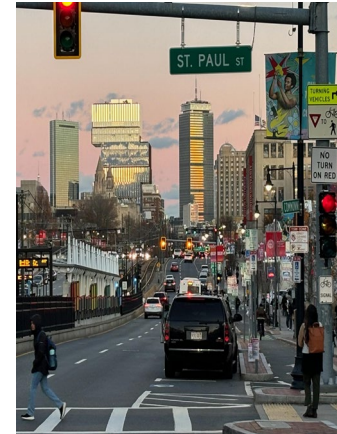
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Destination/Goals

- ❑ Increase contact across the Med Campus and the Charles River Campus; **identify spaces to collab**
- ❑ Learn about AI on the med campus: questions and strategies
- ❑ IETL's structure, funding opportunities, programming
- ❑ An evidence-based teaching frameworks to account for AI in the classroom (TILT)



Route/Agenda and Intros



Intros



Your experience with AI

- Discussion



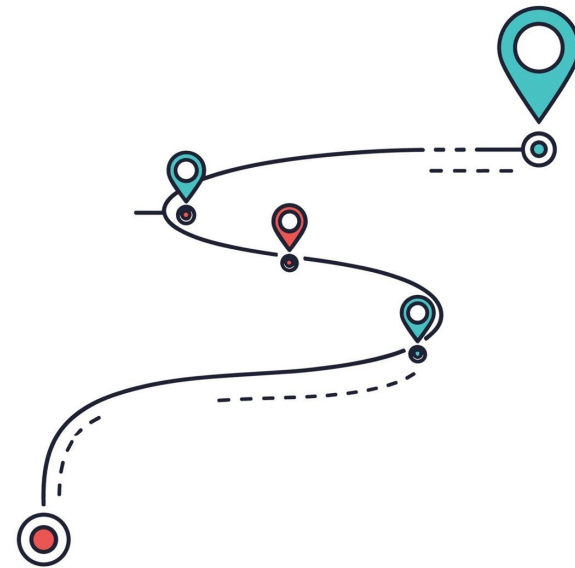
IETL/CRC overview



TILT + AI



Questions



Kenyon

UC Irvine
School of Humanities

MFA PROGRAMS IN WRITING

M | LSA JOINT PHD PROGRAM IN
ENGLISH AND EDUCATION
UNIVERSITY OF MICHIGAN



WAKE FOREST
UNIVERSITY

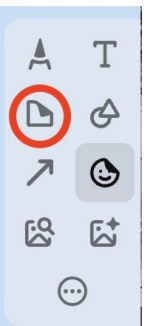
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Your turn: title,
what you teach,
your students.

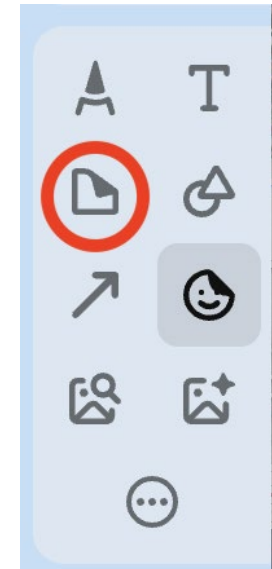
Padlet

<https://padlet.com/keatingb3/ietl-w7zm010wcc319mj3>



Your Experience with AI, via Padlet

1. What is exciting?
2. What is worrying?
3. How are you using AI?
4. Share?
5. AI tools?



computer

<https://padlet.com/keatingb3/my-funky-sandbox-w7zm010wcc3l9mj3>

mobile
devices

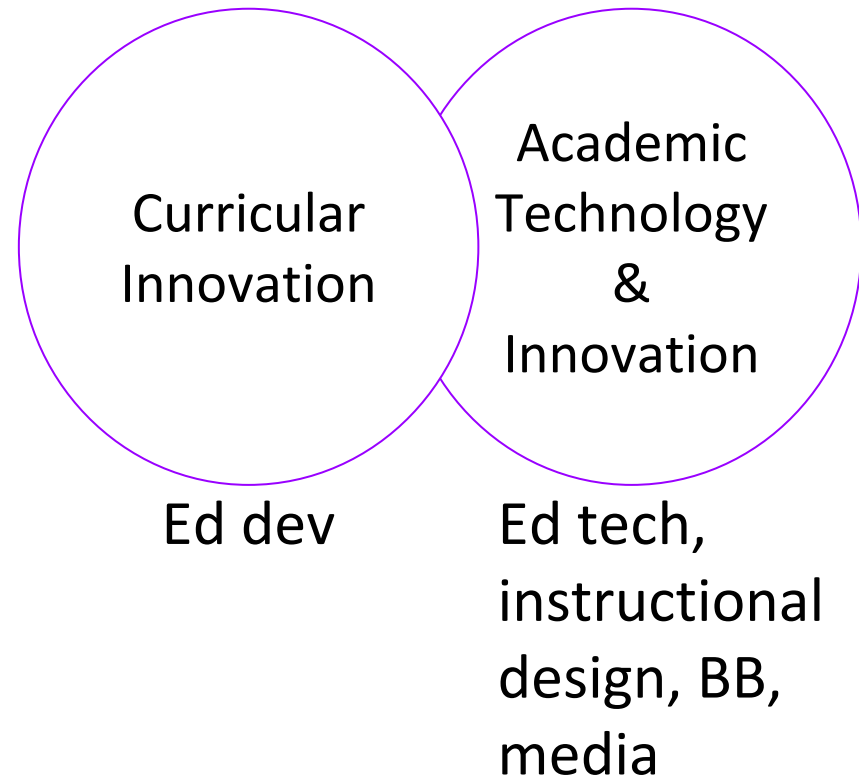


IETL's Mission & Structure

Foster a **culture of academic innovation** and excellence in teaching and learning at BU.

Celebrate **collaboration** in service of innovative pedagogy, teaching as a scholarly practice, and learning experiences that are engaging, inclusive, and accessible.

Collaborate with faculty across all disciplines to **maximize the impact of teaching**, advance student learning, and empower students to pursue their goals and aspirations.





Current Initiatives

Large
Course
Trans-
formation

AI in
Education →
AIDA & Cert;
J Byers,
Debbie
Cheng

Inclusive
Pedagogy →
Symposia

Campus LX
→ LMS

CRC is beginning to cohere re: AI

Workshops and consults on course
design, teaching, technology, media
production, research on teaching

ShIPLEY
Innovation
Fund

Curricular Innovation

- Enhance student learning by introducing new teaching methods or approaches across courses, programs and learning experiences
- Spotlight exemplars in teaching and learning across BU
- Foster opportunities to scale and expand impact



My Projects, past and future

Workshops for new faculty: active learning, backward design, equitable grading, syllabus design

Course Design Institute

Mentoring in ENG labs

Shipley Hub Grants

Mellon Grant: archives into gen ed

Teamwork in undergrad ENG

AI for Simulation with Sargent



David Farelo:
dgofar@BU.edu

AI and Education

- Collaborate with AIDA to align priorities for AI in Teaching & Learning
- Foster innovation and embrace ethical and responsible use of AI in teaching and learning
- Review AI tools and technologies to invite experimentation and inform future work and application
- Promote AI literacy for BU faculty



Assignment Design

GenAI's challenge to traditional education: *why*.

Why learn a skill that AI can do?
Why teach a skill that AI can do?
How to assess learning?
What is the role of AI in learning?



Where to
start?
**Learning
Goals**



**Major
assignments:**
where
students
demonstrate
their learning.



Enter TILT



Transparency in Learning & Teaching

- Purpose:
 - improve communication between instructors and students: why and how.
Priya Garg on the rules of the game, the unwritten expectations: **Are your expectations clear?**
- Structure:
 - Purpose, Tasks, Criteria
- Benefits:
 - Improve learning for **all** students

(Winkelmes, Mary-Ann, 2025)

[About TILT](#) (from
the TILT website)
[TILT Assignment
Template](#)
[Research on TILT](#)



TILT Framework

Purpose

Skills, knowledge, **long-term relevance to students' lives**

Role of AI and why?

Bloom's Taxonomy of Learning:

Analyze

Care

Create

Evaluate

Apply

Reflect

Remember

Understand

d

- Does
- Shows
- Knows how
- Knows

Tasks

What to do & **how** to do it

AI for which tasks and why?

Criteria

Standards/rubrics to evaluate student work

AI grading policy and why?



TILT: more and less transparent

Handout: SCI 101: Scientific Evidence

- increase familiarity with how scientific posters are constructed
- will help you later in the course when you research, design, and create your own effective poster with sufficient scientific evidence that supports your conclusion.
- identify the sources of scientific information, interpret the results, and critically analyze the scientific merit of the conclusion of an existing scientific poster.



TILT'ing an Assignment

I am a university instructor. AI is my assistant. I want to make my assignments more transparent using the TILT Framework:
<https://www.tilthighered.com/>. AI should read about TILT, then read my syllabus (uploaded) and my assignment prompt (uploaded).

AI should revise my assignment into the TILT framework: Purpose, Steps, Criteria. Retain the tone of my syllabus.

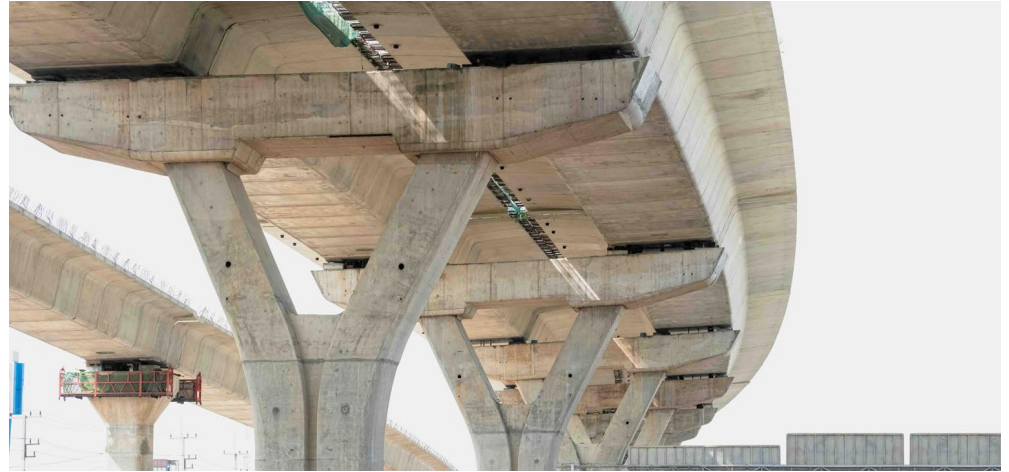
Use bullet points under each part of TILT.

For each task of the assignment, suggest whether it is good for student learning for students to use generative AI in some way.

Suggest ways that AI could be used for the task without impacting the purpose of the assignment.



Ben's example of a revised assignment. Includes the original assignment, the course syllabus, and two revised versions of the assignment, one by TerrierGPT (OpenAI 4.) and one by Perplexity.





TILT	Assign. Details	AI Role: why or why not use AI?	AI Tools
<u>Purpose</u> skills, knowledge, long-term relevance			
<u>Tasks</u> What to do & how to do it			
<u>Criteria</u> Standards to evaluate	Academic Honesty		



Wolthusen et al. on the risks of AI in medical education

- “remove much of the mental effort of learning by taking a learner’s input and producing a pleasing summary of complex ideas for memorization.
- bypasses the struggle required by these learning strategies and may lead to a regression to the mean, both elevating struggling learners by providing them with average answers to clinical problems and lowering top performers by limiting the creative insights produced by mastery of a topic.
- To counter this trend, as educators, we will need to teach our learners how to use GAI in a manner that allows these cognitive strategies to flourish so that expertise can grow.” (2025, p. 431)

Wolthusen, R. P. F., El-Tohami, M., Hendler, R. A., Riordan, P. A., & Stoklosa, J. B. (2025). A Framework for Artificial Intelligence in Medical Education: Could I, Would I, Should I?. *Journal of graduate medical education*, 17(4), 430–433. <https://doi.org/10.4300/JGME-D-25-00009.1>



Cognitive Learning Strategy	Description	Example of How to Leverage ChatGPT With Learning Strategy
Spaced retrieval	Spaced retrieval is the practice of recalling information over time to help information encode in long-term memory.	One can use ChatGPT to create flashcards of material for later testing.
Elaboration	Elaboration is the process of connecting new information to information already known. It is the process of adding the details, nuances, and refinements (ie, the branches, leaves, and flowers) to the trunk of a framework.	Once one has elaborated and filled in details to a medical question, one could turn to ChatGPT to ask it to critique one's thoughts for missing details and perspectives. For a clinical case, ChatGPT may help to hierarchically arrange a differential diagnosis for the presentation, helping the learner elaborate on diagnoses that are less likely but not considered by the learner.
Reflection	Reflection is the process of reviewing and analyzing recently learned material to prompt deeper understanding of the material.	One can use ChatGPT to create reflective questions for material that one has been learning. One can then type those answers back into ChatGPT to see if ChatGPT agrees with or disagrees with the analysis. This dialogue with ChatGPT can lead to deeper understanding.
Interleaving	Interleaving is the process where one learns better by studying 2 different topics simultaneously rather than focusing on a single topic.	One can use ChatGPT as an interlocutor to compare and contrast different diagnoses that are only loosely related. For example, in psychiatry, one could interleave studying on borderline personality disorder with bipolar disorder and then debate with ChatGPT about the similarities and differences of the 2 diagnoses.
Generation	Generation is the process of forcing oneself to create sentences, thoughts, and solutions to questions about a topic.	This is one of the hardest challenges, as ChatGPT effortlessly creates intelligent-sounding language from the simplest prompts. It will require discipline to first generate one's own thoughts and then run them by ChatGPT as an "editor" or "sounding board" if one wants to avoid regression to the mean.

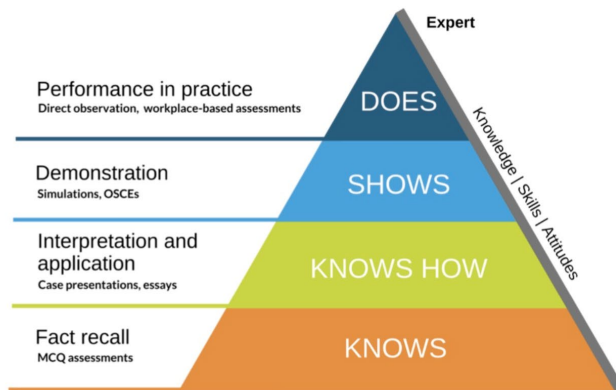
Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.



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Ramani, S., & Leinster, S. (2008). AMEE C clinical environment. *Medical Teacher*, 30(7), 571-577.
<https://doi.org/10.1080/01421590802061613>

	RECOMMENDATION	AI CAPABILITIES	DISTINCTIVE HUMAN SKILLS
CREATE	Review	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases	Formulate original solutions incorporating human judgement, collaborate spontaneously
EVALUATE	Review	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
ANALYZE	Amend	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, & choices
APPLY	Review	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea & solution development
UNDERSTAND	Review	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
REMEMBER	Amend	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible



AI Literacy Frameworks

Stanford University: This resource includes a comprehensive AI literacy approach that centers human values within functional, ethical, rhetorical, and pedagogical domains. It also includes a model, prompts, and very detailed information.

Barnard College: This article provides a thorough explanation of a 4-step AI literacy framework and includes a model.

Vanderbilt University: This resource includes an AI literacy model and framework with detailed skills-based prompts and examples that incorporate roles for use with benefits and risks listed for better understanding of uses.

What does AI Literacy look in health professions? [AAMC](#)

Thank you

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Sample Footer Text

