Authentic Assessment with AI

Breakout Session: 2:30-3:20p

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Authentic Assessment with AI

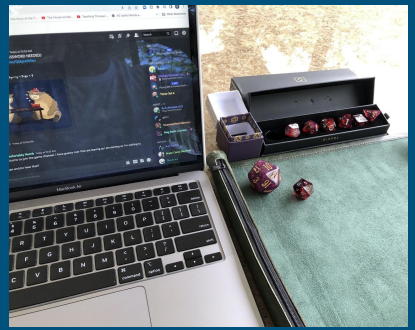
How can students utilize AI as a tool to support their own authentic learning?

How can teachers design authentic assessment experiences that challenges students to think critically?

Introduction & Objectives

Introduction - Rick De Leon

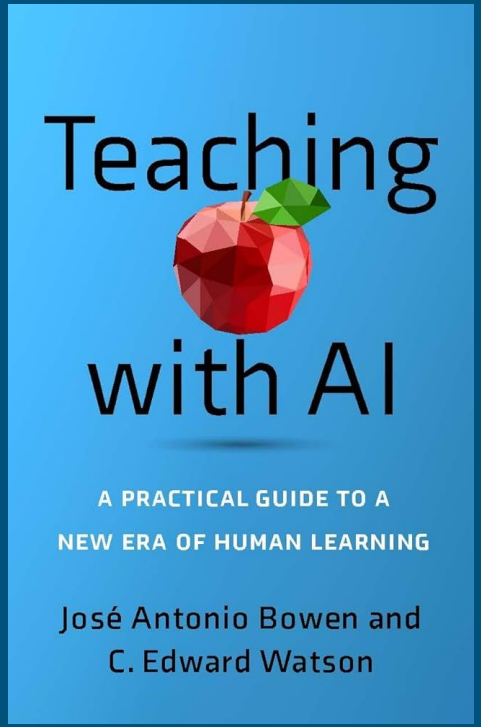
- ELA (9th/10th)/Critical Thinking
- Lifelong Learner/Realistic Idealist
- Former Computer Science Major
- D&D/Cyberpunk/TTRPG Enthusiast



Breakout Session Objectives

- Aligning Project-Based Learning (PBL) and its Key Components with AI supports
  - Key Components w/
  - ELA Examples
- Integrating AI/Literacy into PBL
  - Supports and Limitations
- Brainstorming Activity and Discussion
  - Prompt, Generate, and Share!

What have I been reading...
Teaching with AI (2024)



Nothing in life is to be feared, it is only to be understood.
Now is the time to understand more, so that we may fear less.

MARIE CURIE, Nobel Laureate in Physics (1903)
and Chemistry (1911)

There is a great deal to understand about AI. Like the internet, AI is a technology that is going to change everything—and not just education.

The internet, and more specifically, the World Wide Web, fundamentally changed our relationship with knowledge: moving us from a world where knowledge was scarce (but mostly reliable) to one where knowledge was abundant (but largely unreliable). When this framing was first floated (Bowen, 2006), we were all using the internet on our desktops: the iPhone was yet to arrive. We could all appreciate the increased access to research materials and expertise, but we were already wary of the rise of unfiltered and sometimes sinister misinformation.

(Bowen & Watson, 2024, pg. 1)

Warm up Discussion

True or False:
Students can use Wikipedia for research.

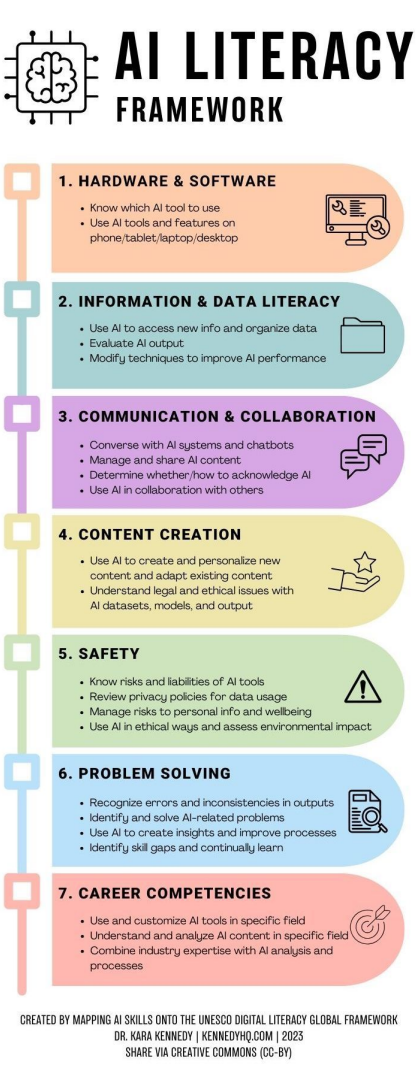
Why bring AI into our pedagogy?

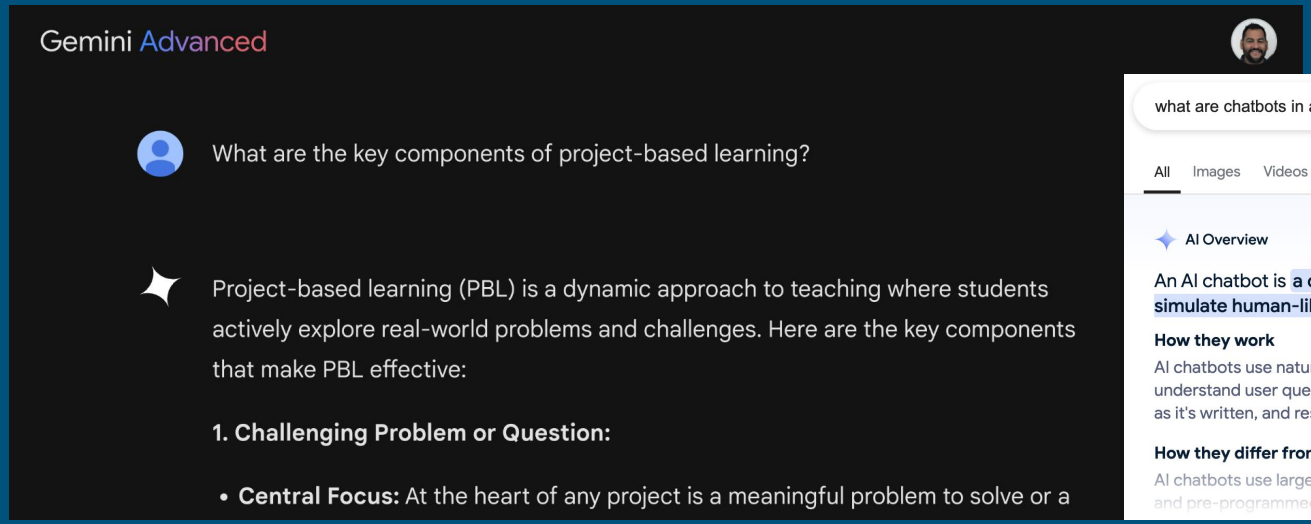
Digital Literacy >>> AI Literacy

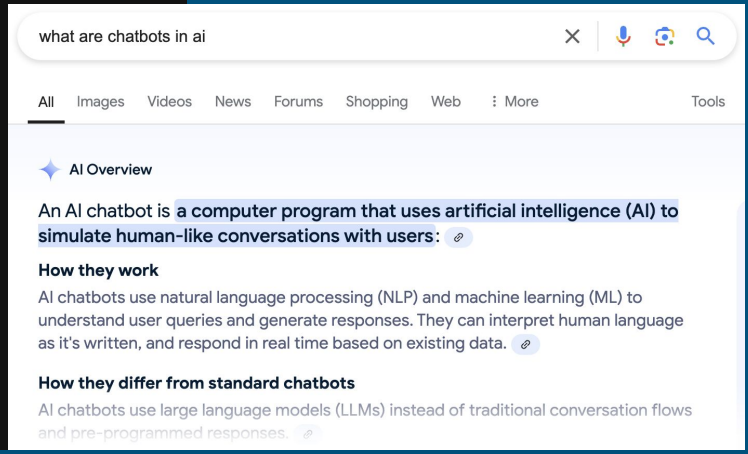
"Even if we don't think we teach digital literacy, we do. Kinda. We teach critical thinking and then hope our students will be as thoughtful and skeptical at doing web searches as we are.

The need for universal AI literacy is also an opportunity to integrate better skepticism, logic, and critical thinking across the curriculum."

(Bowen & Watson, 2024, pg. 42-43).

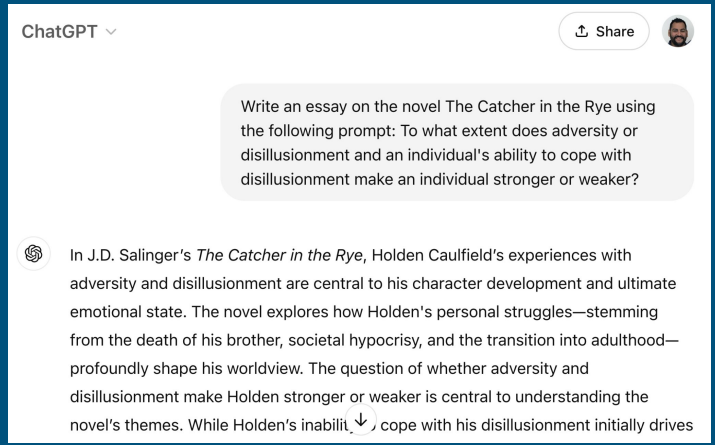


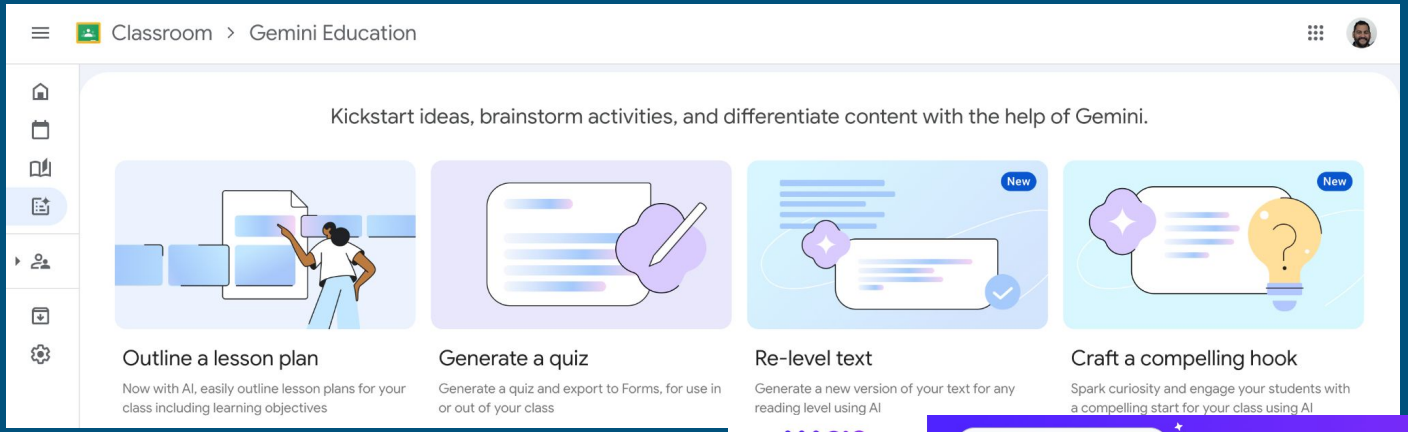




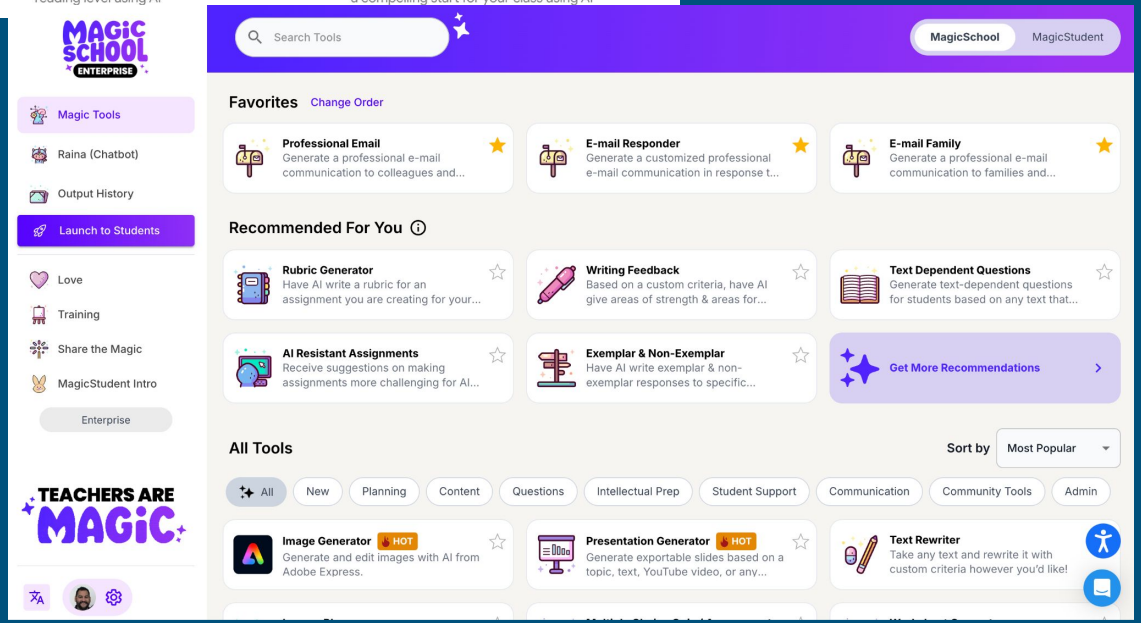
AI has arrived, and so has the need for AI Literacy!

"The World Economic Forum listed 'prompt engineering' as its number-one 'job of the future' in 2023..." *(Whiting 2023)*





...and not only has it arrived, but so have AI tools and assistants as well...



A Future with Artificial Intelligence

There's been a lot of buzz recently about artificial intelligence. AI—the ability of computers to solve problems like humans—can write poetry, essays, drive cars, and diagnose diseases. What will this technology mean for our future?

Turn & Talk: *Respond to one of the following:*

1. What's one task you think would be hard for computers to do as well as humans? Explain.
2. Should there be laws to control the use of AI? Why or why not?
3. Imagine you're a kid in 2100. Describe how you use AI in your daily life.

Oregon State University
Ecampus

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)

	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

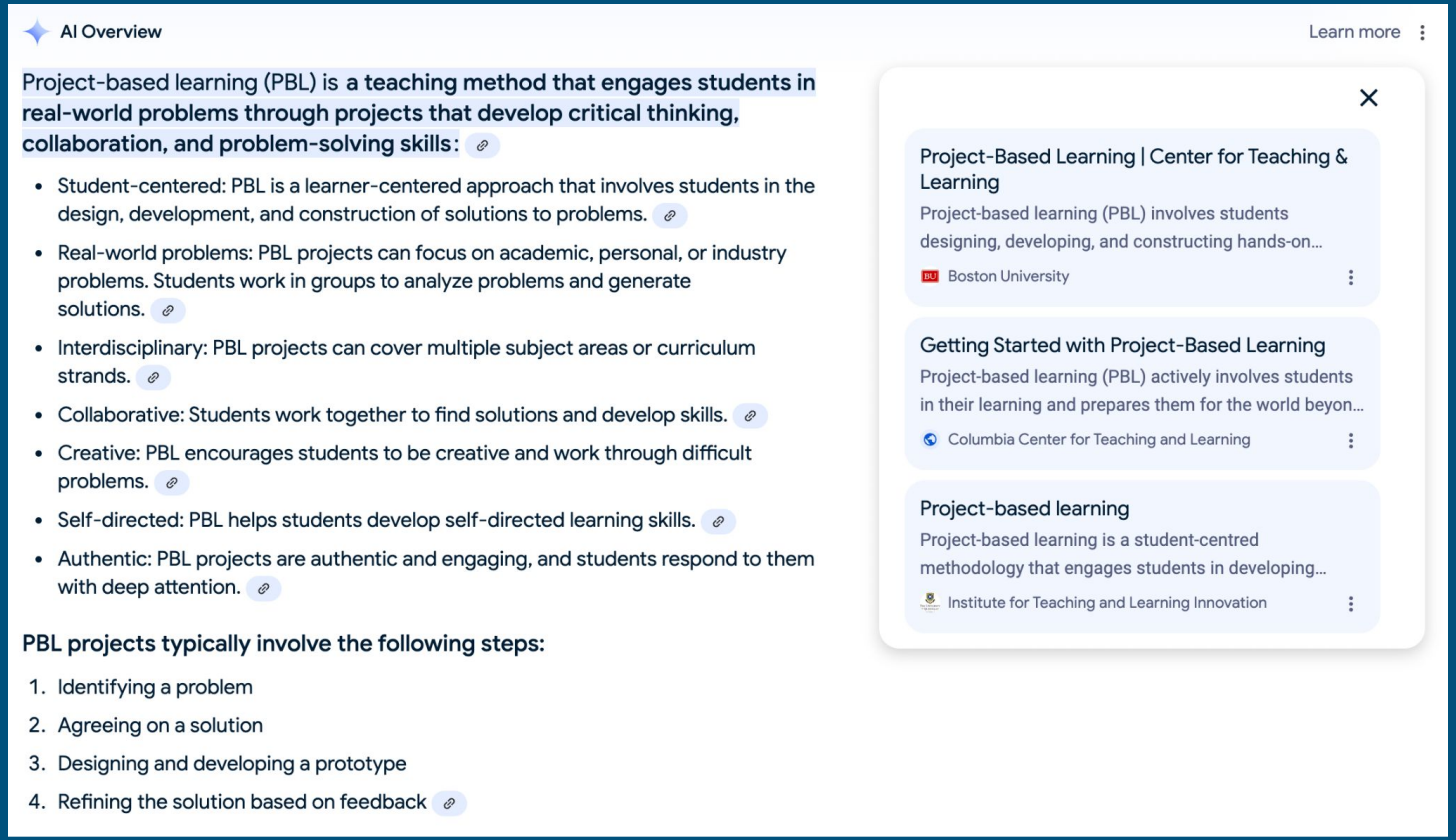
*AI capabilities derived with reference to an analysis of the MAGE framework, based on ChatGPT 4 as of October 2023. See Zaphir, L., Lodge, J. M., Lisec, J., McGrath, D., & Khosravi, H. (2024). How critically can an AI think? A framework for evaluating the quality of thinking of generative artificial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

https://ecampus.oregonstate.edu/faculty/artificial-intelligence-tools/blooms-taxonomy-revisited-v2-2024.pdf

Turn & Talk: *In what ways do your existing assessments require higher-order critical thinking skills…*

"We need to focus more of our grades on higher order Bloom thinking tasks and articulate what better (human?) work, writing, or thinking looks like." (Bowen & Watson, 2024, pg. 153)

Project-Based Learning: An AI Overview



Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

- **Driving Question:** A *challenging*, open-ended question that guides the project.
- **Core Learning:** Students identify the *knowledge* and *skills* required.
- **Voice and Choice:** *Students have agency in their learning and project outcomes*.
- **Inquiry and Innovation:** Encouraging exploration and *problem-solving*.
- **Reflection:** *Personal growth* & AI assistance.
- **Feedback and Revision:** Iterative process of *improvement*.
- **Public Product:** *Sharing the final project with an audience.*

Part I: Aligning with Project-Based Learning

***Catcher* Process Paper for Coping with Disillusionment**

Context: At the start of this unit, we asked, “How do we reconcile childhood illusion with reality?” This seemingly simple question invited us to consider issues of much greater complexity. For example, is it true, as Jules Romains asserts, that the world is “an enormous injustice”, and if so, how should one react? Is it better to “avoid pain” (Jefferson), or does suffering bring strength (Nietzsche)? Do illusions help (Bovee) or hurt (Emerson) us, and does education perpetuate (Sewell) or relieve (Carver) disillusionment?

The Problem: Throughout *The Catcher in the Rye* we will explore how disillusionment and adversity weakens and strengthens Holden and his ability to navigate the world, his relationships with others, and his own emotional responses. Is Holden stronger or weaker because of this journey, and ultimately what is the significance of his struggle?

Task: Using the entirety of J.D. Salinger’s *The Catcher in the Rye*, write an essay that responds to the question: **To what extent does adversity or coping with disillusionment makes the individual stronger and/or weaker and what does your conclusion suggests about dealing with adversity or disillusionment?** Choose an audience for your essay—other teenagers, parents, or teachers who witness a troubled teen’s journey.

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What assessment would <u>you</u> update?

Consider an assessment that you could update/rework to align with PBL…

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- **Real-world connection**
- Core to learning
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Aligning *The Catcher in the Rye* with PBL:

- **Real-World Connection:** Students will relate Holden's disillusionment in relationships to their own experiences (text-to-self) or societal experiences (text-to world).

- **Driving Question:** *How do societal pressures and expectations influence our relationships and self-perception?*
- Students are encouraged to reflect on modern challenges with trust, loyalty, and authenticity in relationships*, potentially tying in issues of peer pressure, social media influence, etc.*

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
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- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Core Learning:** Understanding disillusionment as a process (expectation, adversity, coping)

a. This project aligns with ELA goals such as analyzing character development, themes, and author's purpose.
b. Students will also build skills in critical thinking, literary analysis, synthesis, and developing media literacy
c. Students will critically analyze the novel's portrayal of disillusionment, developing coherent, well-supported arguments.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- **Student voice & choice**
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Voice and Choice:** Students have the freedom to incorporate their own experiences and/or societal observations, connecting with their choice of relationships (friends, family, etc.)
- Students can also choose a contemporary issue related to disillusionment (e.g. toxic relationships, social media vs. reality, etc.)
- Students can also choose how to present their final product (video, podcast, digital essay, interactive website, or blog)

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- **Inquiry & innovation**
- Reflection
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Inquiry:** Students will generate questions such as: *How do different types of relationships impact personal growth? Can disillusionment be beneficial? How has technology changed the nature of relationships and authenticity?*

- **Innovation:** Students will incorporate AI tools for brainstorming, research, and organizing their ideas. They will engage in digital literacy, using AI to explore new ways of looking at literary analysis and social patterns, and even explore how AI might impact future relationships.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- **Reflection**
- Critique & revision
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Human Reflection:** Students will maintain a digital reflection journal to reflect on their personal growth relating to their perspective on relationships, disillusionment, and authenticity.

- **AI vs. Human Reflection:** Students will also compare how AI tools shaped their ideas and analysis, noting the difference between AI insight and/or where personal reflections and the complexity of human emotions and relationships illustrate limitations with AI.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- **Critique & revision**
- Public product

Aligning *The Catcher in the Rye* with PBL:

- **Feedback and Revision:** Students will engage in multiple rounds of teacher/peer/AI feedback on their analysis and presentation format to question and strengthen their arguments.

- **Growth Mindset:** The revision process will be emphasized, with students reflecting on how their work has improved over time and how constructive criticism and AI assistance have shaped their product.

Part I: Aligning with Project-Based Learning

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- **Public product**

Aligning *The Catcher in the Rye* with PBL:

- **Public Product:** Students will conclude the project by presenting their multimedia analysis to an audience beyond the classroom, such as parents, peers, or online communities, and are encouraged to engage with their audience.

- **Student Ownership:** By presenting to a public audience, students take ownership over their learning and work to create a polished final product, which empowers students to take pride in their work.

Part II: AI Supports and Limitations - 70/30

AI Assistance/Supports:

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

AI Integration - Research and Content Development

- Brainstorming Guiding Questions
- Exploring Topics/Thematic Focus

- Research fundamental information/context
- Outlining/Structuring Content Development
- Designing visuals/multimedia elements

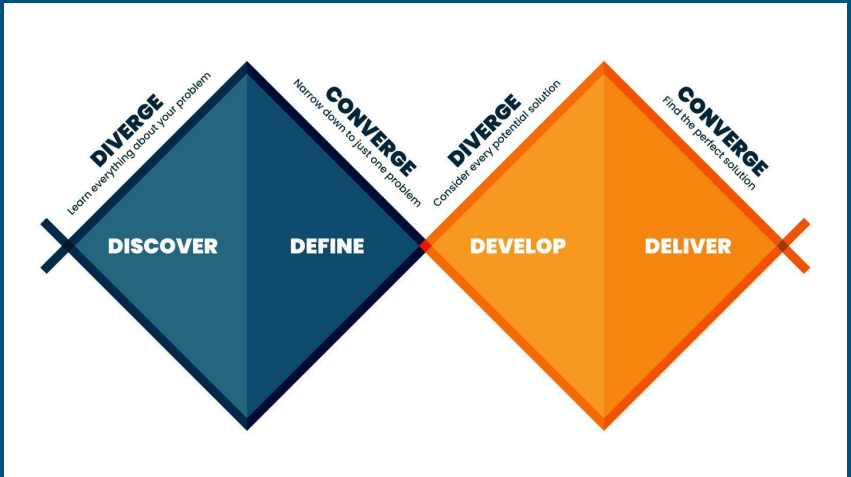
Scaffolding Support: *We must consider how students might use AI tools to enhance their learning independently OR whether it would be more appropriate for teachers to guide this process…*

Part II: AI Supports and Limitations - 70/30

AI Assistance/Supports:

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

"Since AI is such a prolific idea generator, it is especially useful in the divergent phases of the process" (Bowen & Watson, 2024, pg. 47).



https://www.fluxspace.io/resources/the-4-ds-double-diamond-design-thinking-model

Part II: AI Supports and Limitations

AI Limitations (Assistance Only):

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

Recognizing AI Limitations and Reliability

- **Creating -** Creativity? Originality? Maybe…
- **Evaluating -** AI struggles with understanding
- **Analyzing -** Misses context-specific insights

Promoting Critical Thinking

- Encourage students to evaluate AI content
- Foster reflection on process/decision-making
- Promote discussions on ethical use of AI

Part II: AI Supports and Limitations

AI Limitations (Assistance Only):

- **Real-world connection**
- Core to learning
- **Student voice & choice**
- **Inquiry & innovation**
- Reflection
- **Critique & revision**
- Public product

Recognizing AI Limitations and Reliability

- **Creating - Creativity? Originality? Maybe…**

"This ability to 'hallucinate' makes AI a terrific tool for creativity: it will put ideas and words together in ways that humans might never have done before."
(Bowen & Watson, 2024, pg. 19)

"The potential for more creative humans and better thinking is the promise of this new partnership: it is in the iteration, the reflection, the back and forth, and the refined questions that thinking and creativity happen.
(Bowen & Watson, 2024, pg. 77)

Part III: *What exactly do you want AI to do?*

Key Components of PBL:

- Real-world connection
- Core to learning
- Student voice & choice
- Inquiry & innovation
- Reflection
- Critique & revision
- Public product

Create, Summarize, Analyze, Elaborate, Reimagine, Explain, Identify, Translate, Transform, Transcribe, Resolve, Assemble, Argue, Monitor, Detect, Generate, Predict, Recommend, Brainstorm, Clarify, Combine, List, Compile, Make, Draw, Rephrase, Develop, Expand, Provide, Synthesize, Abridge, Explore, Invent, Write

"...moving students to use AI as part of a process means that we will need to both prompt and grade for process and rethink what we're expecting in terms of product."
(Bowen & Watson, 2024, pg. 157)