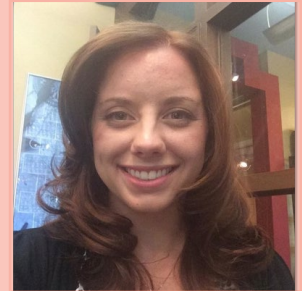


Human First: Applying the AI Sandwich Framework in Public Health Teaching

Amy Pinkerton
Senior Instructional Designer
BSPH Center for Teaching and Learning



Emerging to Ubiquitous: A Radically Compressed Timeline



Now **we** need to consider:

How?

Whom?

Conditions?

How do we make sure AI supports—not replaces—the human **judgment, empathy, and expertise** that define public health **teaching and learning**?



Apply the AI Sandwich framework in the design of teaching and learning.



The Scope of this Workshop



Think About It! Pre-Reflection (1m)

Consider your course activities and assessments.

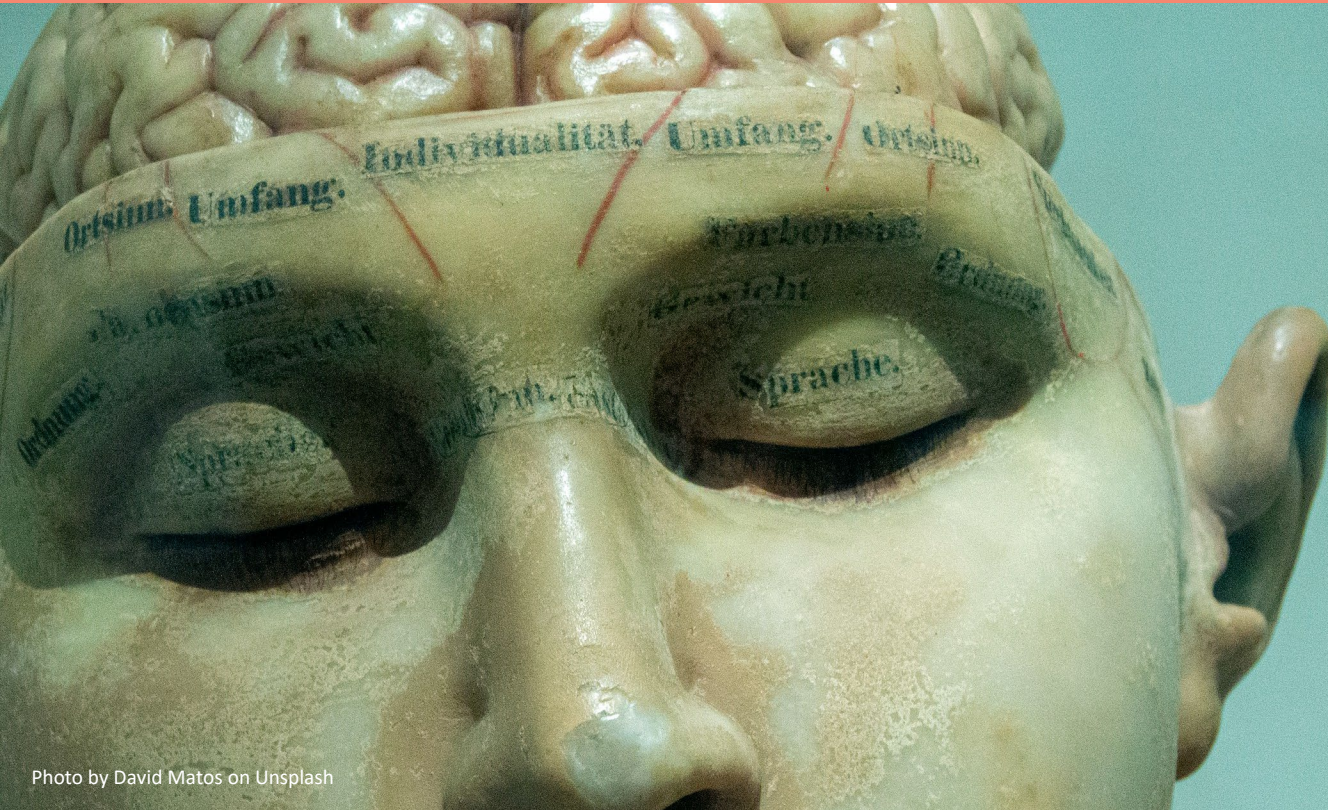
Where do you draw the line between what you would trust generative AI to do for your students and what you believe must remain fully human?



Outsourcing Tasks to Technology



Outsourcing Cognition



High Stakes



Too early: **Under-Development** of New Skills

Too Often: **Atrophy** of Acquired Skills

Teaching and Learning

“[Educators] are responsible for ensuring that learners **develop knowledge, skills, and judgment**. If students **outsource** too much thinking to AI, they may produce polished work without building the underlying understanding. The **challenge** is...***to help them use it in ways that enhance***, rather than **replace**, human creativity and critical thinking.”

Parts of the AI Sandwich

Think First (Human)

Partner/Tool (AI)

Think Again (Human)



“Think first, collaborate with AI second, and think again at the end.”



Top Bun: Human-First



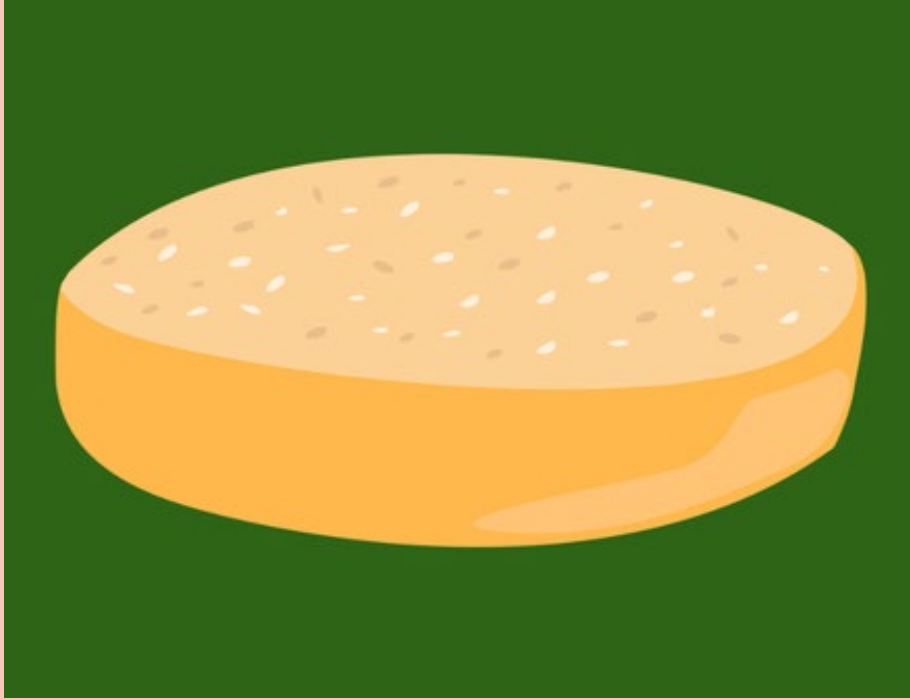
Thinking ***before*** outsourcing.

Ingredients: AI-Middle

A tool, ***not*** a substitute.



Bottom Bun: Human-Last



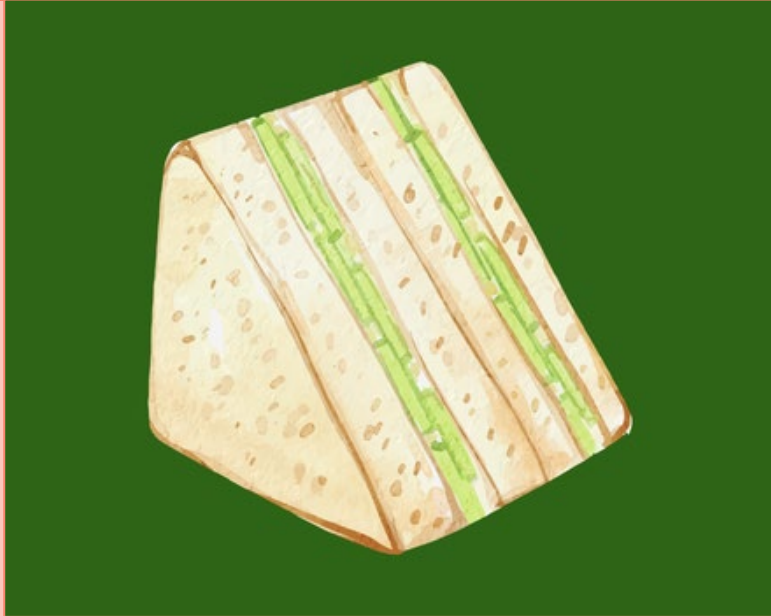
Where human
judgment lives.

Q&A: Questions about the AI Sandwich Framework?



Factors Impacting the Human to AI Ratio: Prior Knowledge

New to a Topic: More Bun

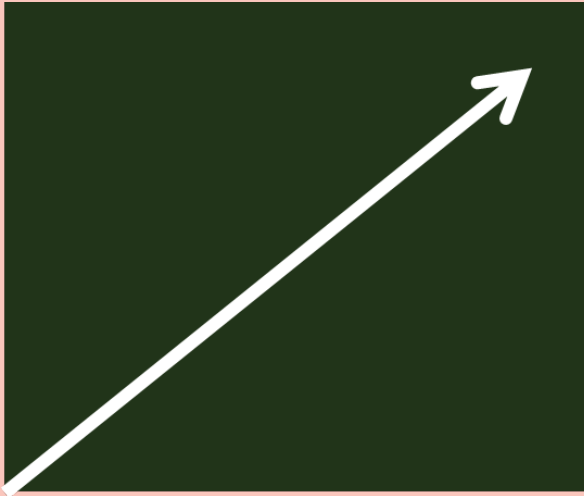


Experienced in a Topic: More Ingredients

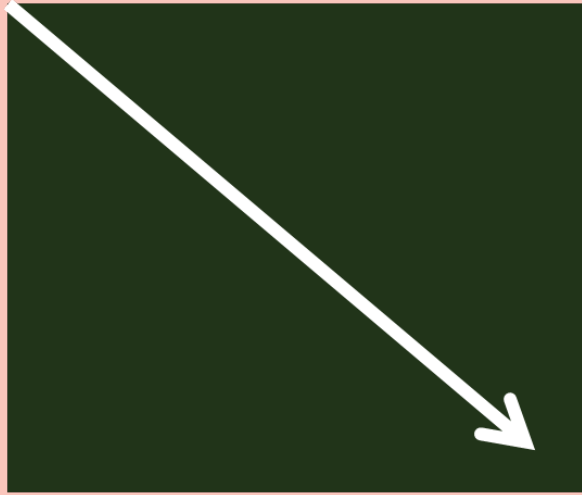


Factors Impacting Human to AI Ratio: Cognitive Complexity

As Complexity Increases



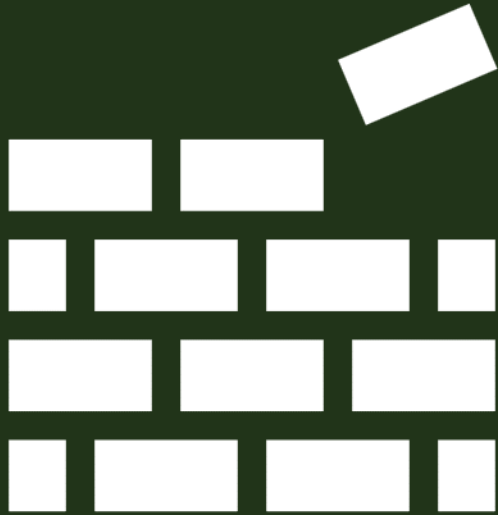
Outsourcing to AI Decreases



Bloom's Taxonomy



Factors Impacting Human to AI Ratio: AI Literacy Development



Public Health Considerations

Risk of **hallucinations** and
oversimplification

Importance of **context**, **equity**, and
population-specific **nuance**



Examples and Activity



Examples of Applying the AI Sandwich in Assessment Design - 1



- **Undergrad** student Yeon-u needs to **identify** a topic to focus on for their project. They are considering using AI to help them **brainstorm**.

How much AI, if any, would you let the student use in this example?

- No AI
- **Human-heavy**
- Balanced
- AI-Heavy

Examples of Applying the AI Sandwich in Assessment Design - 2



Doctoral student Matthew is **creating** a public health communication. He has decided to create a 45-second PSA in the form of a social media clip. He is considering using generative AI to **produce** the video.

How much AI, if any, would you let the student use in this example?

- No AI
- Human-heavy
- **Balanced**
- AI-Heavy

Examples of Applying the AI Sandwich in Assessment Design - 3



MPH student Karuna is **writing** and **editing** a **complex** analysis report. She is discussing how much AI can be used in the process with her instructor.

How much AI, if any, would you let the student use in this example?

- **No AI**
- **Human-heavy**
- **Balanced**
- **AI-Heavy**

Now it's Your Turn!

1. I will **present** different scenarios.

2. **You** decide the Human-to-AI ratio.

3. **Share** via the Zoom Poll.



How much AI, if any, would you let the student use in this example?

Scenario 1

You are designing a **nuanced** Health Equity Case Study on maternal mortality disparities in black communities. You want your **DrPH** students to **analyze** the case study.

How much AI, if any, would you let the students use in this example?

- No AI
- Human-heavy
- Balanced
- AI-Heavy



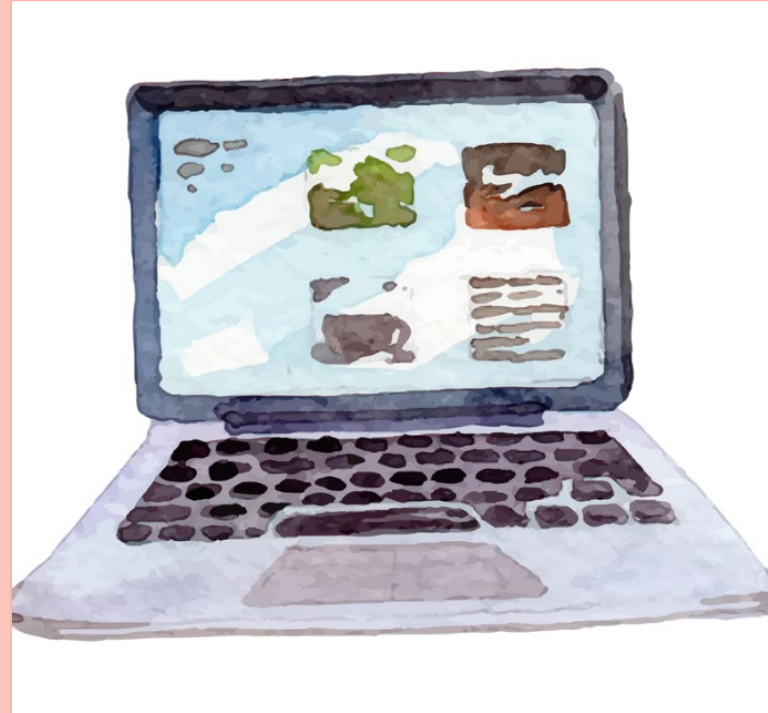
How much AI, if any, would you let the student use in this example?

Scenario 2

You have asked your **MPH** students to **summarize and discuss** a **complex** epidemiology article. You notice they are struggling to understand the article and have asked if they can use AI to summarize it.

How much AI, if any, would you let the students use in this example?

- No AI
- Human-heavy
- Balanced
- AI-Heavy



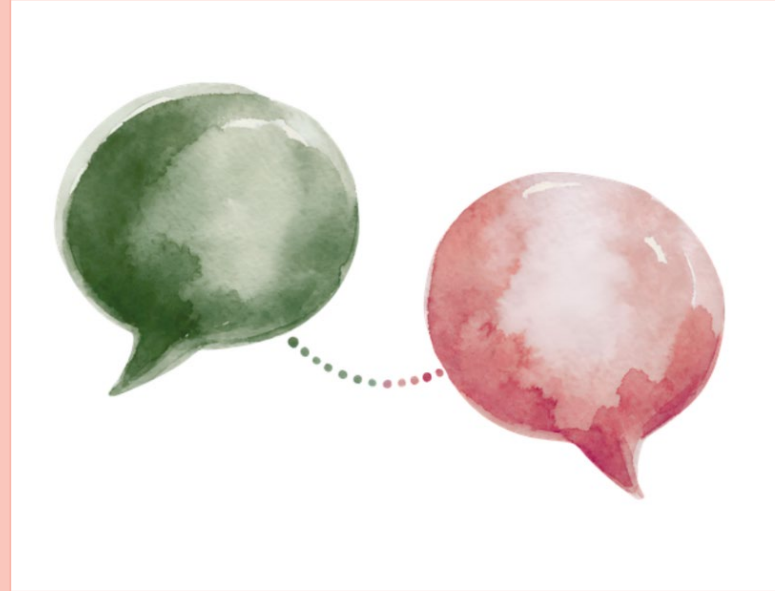
How much AI, if any, would you let the student use in this example?

Scenario 3

Your **undergraduate** students are organized into small groups. Each group member is assigned a different reading and then they are to **explain** their assigned reading to the group to **discuss**.

How much AI, if any, would you let the students use in this example?

- No AI
- Human-heavy
- Balanced
- AI-Heavy



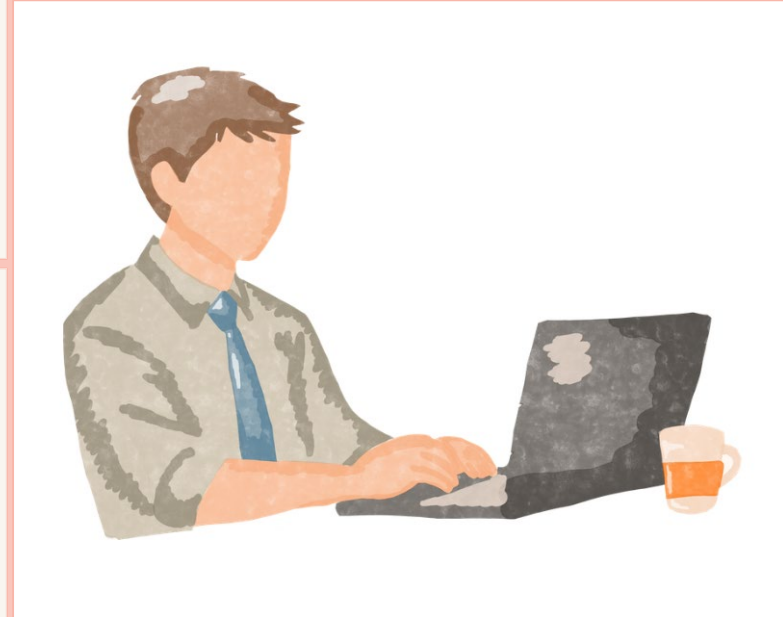
How much AI, if any, would you use in this example?

Scenario 4

You have asked your **TA** to **create** a **robust** question bank of 50 weekly quiz questions for a large enrollment **introductory** course. Your TA asks to use a CoursePlus tool to help them generate questions.

How much AI, if any, would you use in this example?

- No AI
- Human-heavy
- Balanced
- AI-Heavy



Think About It *Again!* Post-Reflection (1m)

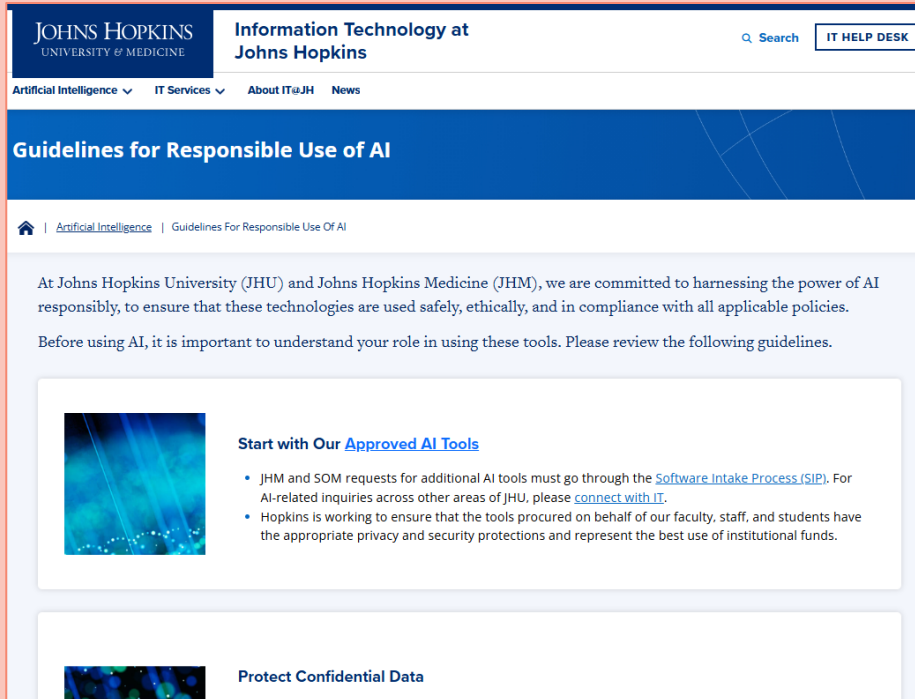


Revisit your earlier reflection on:

Where do you draw the line between what you would trust generative AI to do for your students and what you believe must remain fully human?

Has your answer changed?

Guidelines for Responsible Use of AI and HopGPT



The screenshot shows the Johns Hopkins University & Medicine website. The header includes the university logo, navigation links for 'Artificial Intelligence', 'IT Services', 'About IT@JH', and 'News', a search bar, and an 'IT HELP DESK' button. The main content area is titled 'Guidelines for Responsible Use of AI'. Below the title, a paragraph states: 'At Johns Hopkins University (JHU) and Johns Hopkins Medicine (JHM), we are committed to harnessing the power of AI responsibly, to ensure that these technologies are used safely, ethically, and in compliance with all applicable policies. Before using AI, it is important to understand your role in using these tools. Please review the following guidelines.' The first guideline is 'Start with Our [Approved AI Tools](#)', which includes two bullet points: 'JHM and SOM requests for additional AI tools must go through the [Software Intake Process \(SIP\)](#). For AI-related inquiries across other areas of JHU, please [connect with IT](#).' and 'Hopkins is working to ensure that the tools procured on behalf of our faculty, staff, and students have the appropriate privacy and security protections and represent the best use of institutional funds.' The second guideline is 'Protect Confidential Data'.

Today's session highlighted ways AI tools might support teaching and learning. As you consider these ideas, we encourage you to refer to the university's **Guidelines for Responsible Use of AI** to ensure alignment with institutional expectations and best practices.

BSPH-specific FAQs: **Artificial Intelligence in Teaching and Learning**

HopGPT offers members of the Johns Hopkins community secure and easy access to current large language models (LLMs).

We value your feedback!

Scan the QR code below or go to <https://forms.office.com/r/RpbCS5tm2e>

2026 Picnic PD (Professional
Development) with BSPH CTL
Workshop Evaluation Form



We value your feedback!

Please complete the survey. Responses are
anonymous.

References

Freeman, L. (2026, January 21). *The AI sandwich: Human-first, human-last in an AI-rich educational environment*. Online Learning Consortium (OLC) Insights. <https://onlinelearningconsortium.org/olc-insights/2026/01/the-ai-sandwich/>

Let's Discuss!

