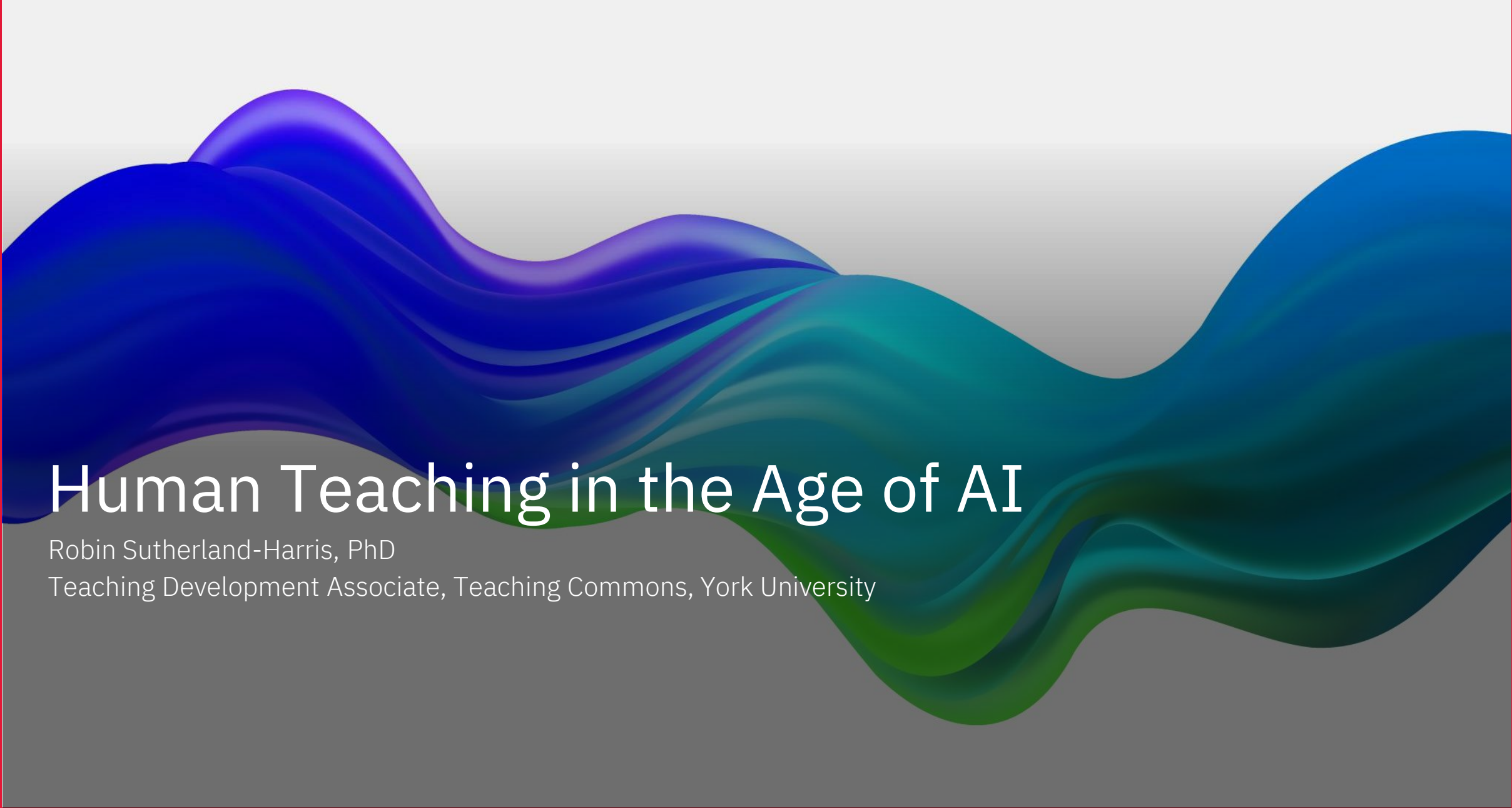


An abstract graphic featuring several overlapping, wavy, ribbon-like shapes in shades of blue, purple, and teal. These shapes flow horizontally across the frame, creating a sense of movement and depth. The background is a light gray gradient, and the entire composition is set against a solid red border.

Human Teaching in the Age of AI

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We will critically reflect on how AI changes our roles as educators. We will discuss how institutional and student expectations are evolving and explore strategies for maintaining pedagogical integrity amidst change.



Human Teaching in an Age of AI

- State of the Field
- A Strategy for Human Design?
- Discussion/Cases

Overview

How does GenAI work?

GenAI...

Identifies patterns:

- Not random! Identifies & selects statistically probable outputs
- No particular adherence to the truth – can “hallucinate”

Based on training data:

- Decides what is statistically probable based on training data
- Outputs reflect biases inherent in training data & society in general

To create original material:

- Technically original, but still bound by statistical probability
- The more you know about a topic, the more you can see where GenAI misses the mark

As it constantly changes:

- Agentic AI can now perform multi-step research & writing workflows autonomously – we are past AI just responding to single prompts
- AI-generated synthesis may now be mistaken for rigorous scholarship – this “illusion of understanding” goes beyond individual hallucinations

GenAI: Who does the learning?

➤ Consider cognitive offloading: “the use of physical action [*or a tool*] to alter the information processing requirements of a task so as to reduce cognitive demand.”

- Risko, E. F., & Gilbert, S. J. (2016). Cognitive Offloading. *Trends in Cognitive Sciences*, 20(9), 676–688. <https://doi.org/10.1016/j.tics.2016.07.002>
- See also:
 - Cecutti, L., Chemero, A., & Lee, S. W. S. (2021). Technology may change cognition without necessarily harming it. *Nature Human Behaviour*, 5(8), 973–975. <https://doi.org/10.1038/s41562-021-01162-0>
 - Grinschgl, S., Papenmeier, F., & Meyerhoff, H. S. (2021). Consequences of cognitive offloading: Boosting performance but diminishing memory. *Quarterly Journal of Experimental Psychology*, 74(8), 1477–1487. <https://doi.org/10.1177/17470218211008060>

What do you think?

- In your teaching context...
 - What can students *only* do/learn with other humans?
- What, then, does GenAI mean for how we *teach* students?



Scan the QR code, click the link in the chat, or visit www.menti.com and enter the code **4125 9749**

State of the Field: Human/AI Teaching

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What's at Stake?

- Five recent contributions to the conversation
- AI's arrival sheds light on what is fundamentally human about education
- Education is not just the same as teaching and learning

Disciplinarity is Important – for Faculty

Baytas, C., & Ruediger, D. (2025, May 1). [Making AI Generative for Higher Education](#). Ithaka S+R.

Faculty experience AI differently – and disciplinary context is crucial.

“What may be more particular to a discipline are the specific templates or examples for how to apply generative AI. ...One of the reasons interviewees are so eager to learn from their peers is to learn about concrete examples of AI use that they can subsequently try out in their own work.”

Disciplinarity is Important – for Students

Qu, Y., Tan, M. X. Y., & Wang, J. (2024). Disciplinary differences in undergraduate students' engagement with generative artificial intelligence. *Smart Learning Environments*, 11(1), 51.

<https://doi.org/10.1186/s40561-024-00341-6>

Disciplinary epistemology shapes what AI can and cannot do in a student's learning.

“These findings underscore the complex interplay between disciplinary characteristics and AI adoption in academia. Both the soft/hard and pure/applied distinctions significantly vary in terms of AI usage intentions. This nuanced understanding suggests that strategies for promoting AI integration in higher education may require tailored approaches, considering the unique attributes and needs of each academic field.”

Converging and Diverging Pedagogies

Turvey, K., & Pachler, N. (2026). A topological exploration of convergence/divergence of human-mediated and algorithmically mediated pedagogy. *British Journal of Educational Technology*, 57(3), 619–638. <https://doi.org/10.1111/bjet.70007>

Human and algorithmic pedagogies converge – but also genuinely diverge and conflating them risks stagnation.

“Without an understanding of the diversity of pedagogical repertoire underpinned by a broad range of theories of learning and mind from which to delineate the distinctive value of both human-mediated and algorithmically mediated pedagogy—the differences that matter—teachers may well become bystanders as commercial and political mediators continue to prioritise productivity and narrowly defined efficiency over purposeful and meaningful education.”

Developing Human Agency

Jin, H., & Wang, S. (2025). Why not replace people with machines? Exploring Artificial Intelligence's (in)capacity for education as subjectification. *Journal of Philosophy of Education*.

<https://doi.org/10.1093/jopedu/qhaf087>

What AI cannot do for students is ontological, not technical: it cannot call them into subject-ness.

“The large-scale replacement of human educators with AI systems could not only deprive the (human) students of the intersubjective experience needed for the manifestation of their subject-ness but also impede their respect for the subject-ness of others due to their habituation to the instrumental interactions with AI systems.”

Placebo/nocebo

Tishenina, M. (2026). Generative AI and the Irreducible Role of Teachers as Callers into Subjectness: A Placebo–Nocebo–Treatment Framework. *Studies in Philosophy and Education*.
<https://doi.org/10.1007/s11217-026-10051-w>

Two risks with AI in education – the illusion of agency, and the retreat from it. The solution is in the teacher's irreducible presence.

“It is important to distinguish tool-use that scaffolds skill and knowledge acquisition (qualification) and participation in education as a particular social practice (socialisation) from the tool-use that substitutes for the formative struggle and intersubjective interruption through which subjectification is initiated and sustained.”

The Scholarly Conversation

What is distinctly human about teaching is structurally irreducible and disciplinarily nuanced.

Human Design?

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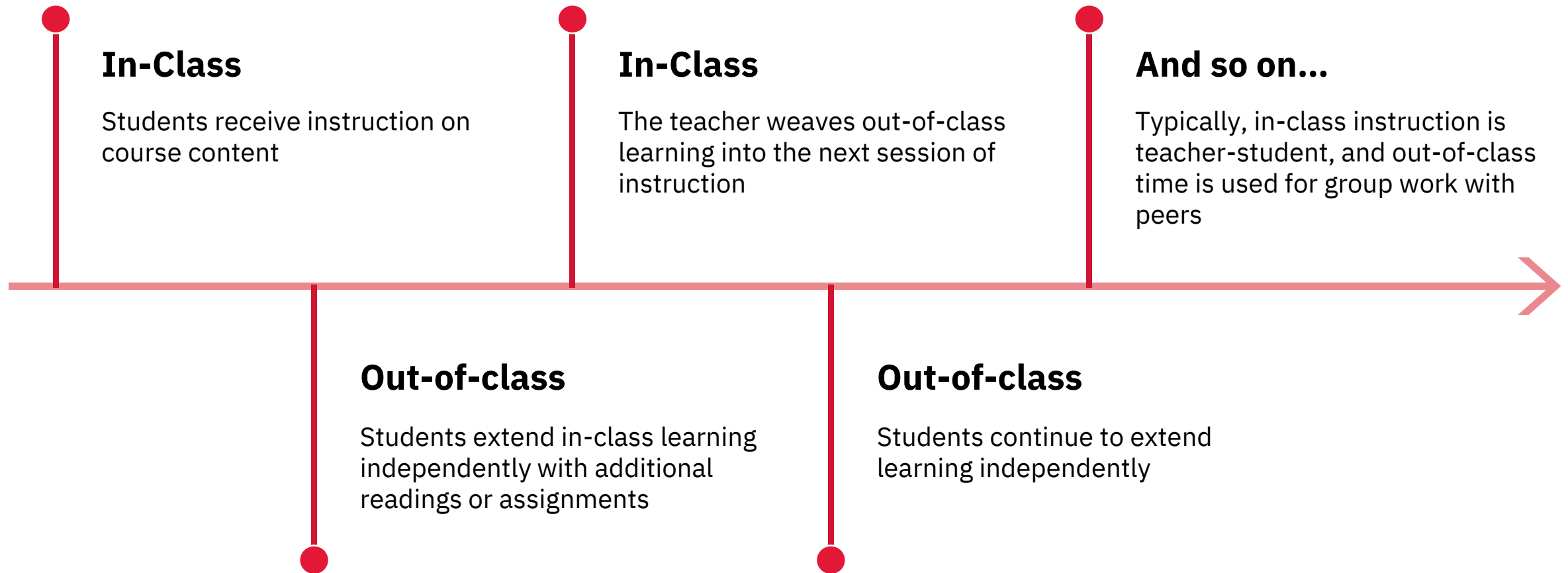
From diagnosis to design

- Using a structural model to ask: where does the human fit?

Talbert, R. (2017). *Flipped Learning: A Guide for Higher Education Faculty*. Stylus Publishing, LLC.

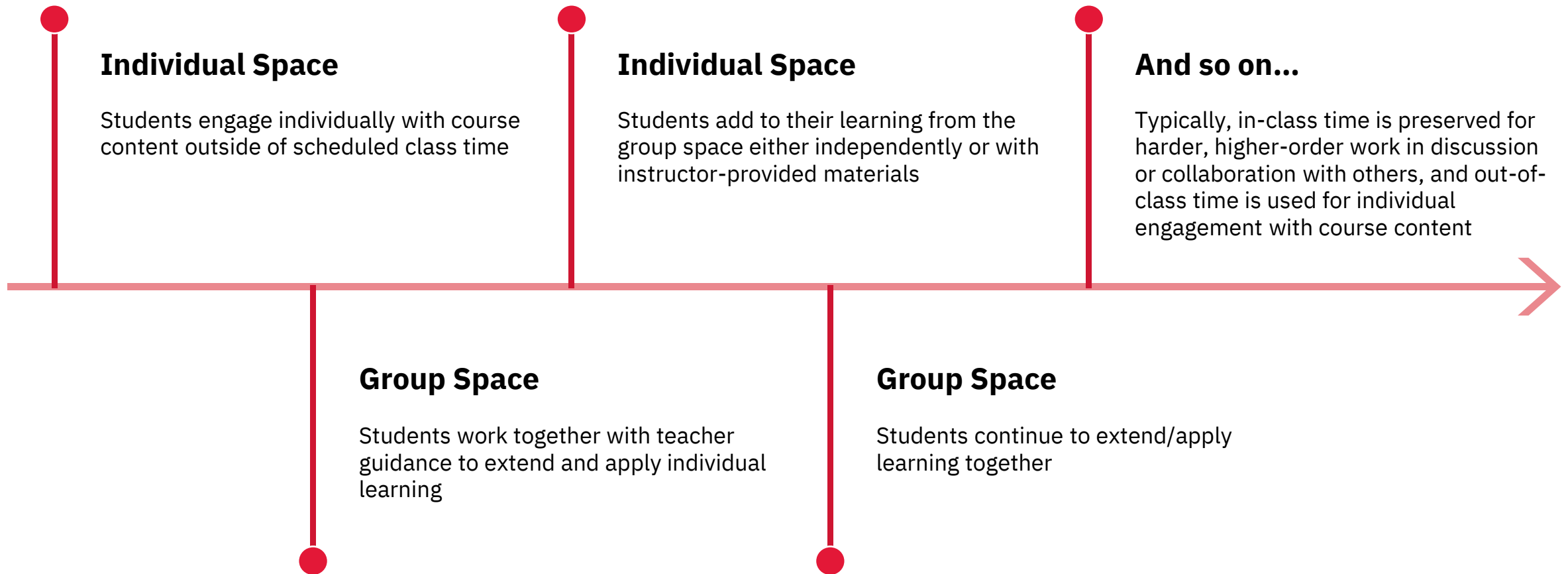
In-Class and Out-of-Class

Castle-top course design



Group Space and Individual Space

Castle-top course design and the flipped classroom



Checking In

What is one thing that belongs in your group space?

Case Scenarios



Case Scenarios

In breakout groups...

- Join the group you most want to explore
 1. Lab, natural sciences
 2. Discussion-focussed, humanities/social sciences
 3. Clinical reasoning, health sciences
 4. Argumentation, humanities/social sciences
 5. Helpful AI, STEM

Wrapping Up



Thank you!

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