

Human-centric pedagogies with genAI

Jason Torres, Ed.D.

Director, Strategic Digital
Learning Initiatives

September 10, 2024

[LIBRARY.GWU.EDU](https://library.gwu.edu)

Workshop objectives

- **Identify** and describe kinds of pedagogies that promote student-student and/or teacher-student engagement.
- **Plan** for the use of genAI in one of a given set of human-centric pedagogies in a way that generates a meaningful experience.
- **Generate** strategies for fostering collaborative and social learning environments using genAI tools and share one idea for revising something currently done.



Workshop agenda

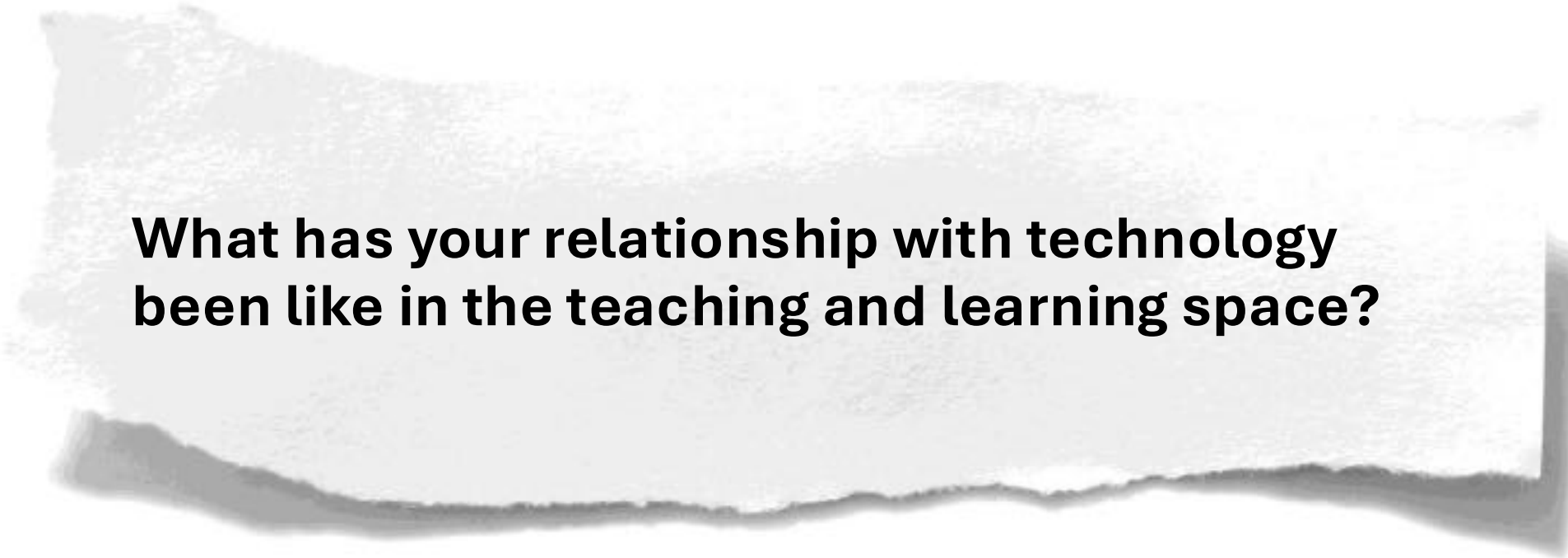
- Part 1: Our relationship with educational technology
- Part 2: Seven human-centric pedagogies
- Part 3: Demonstrations on leveraging genAI



Part 1: Our relationship with educational technology

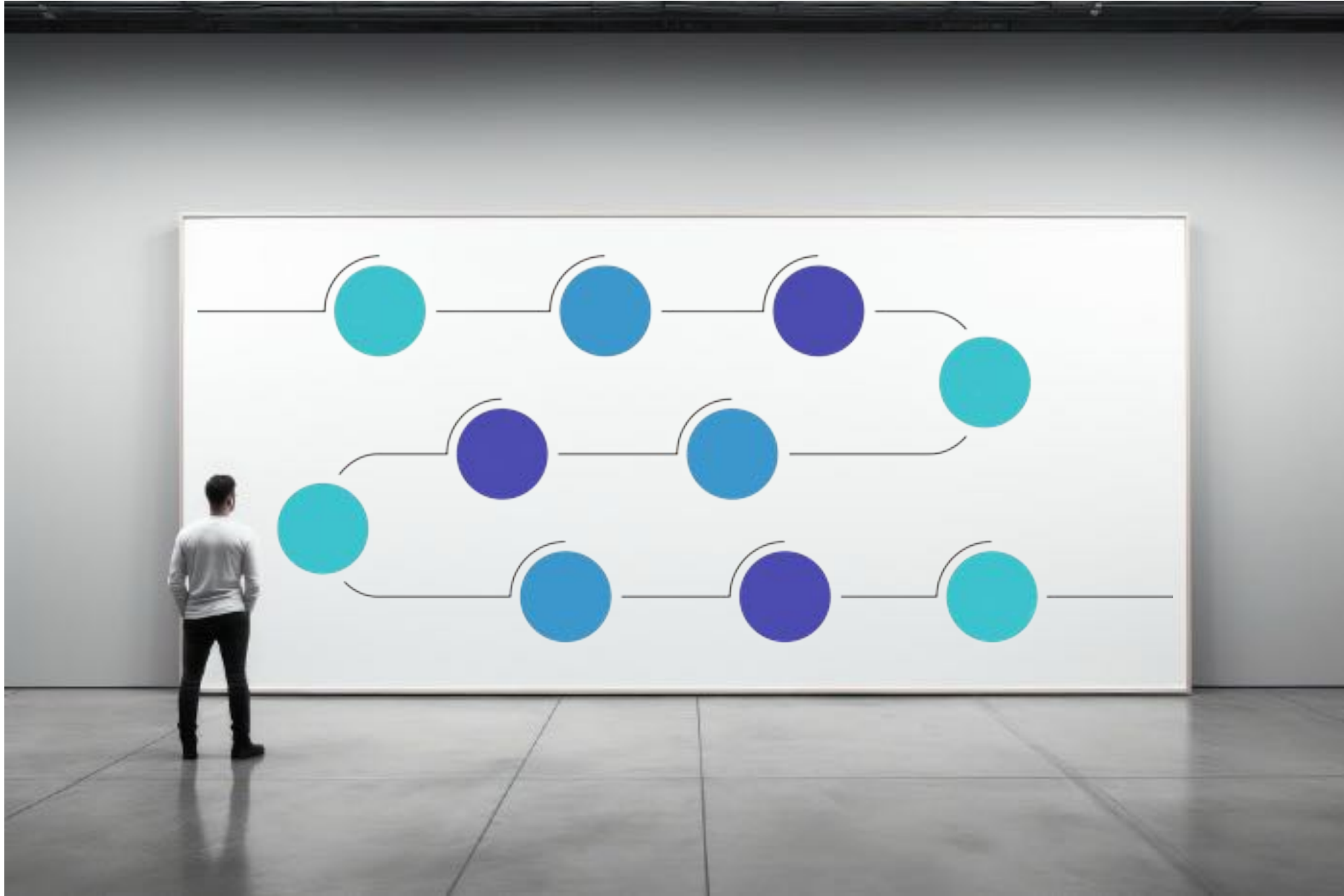
The past, present, and future of technology integration into education.

Let me start with a question...

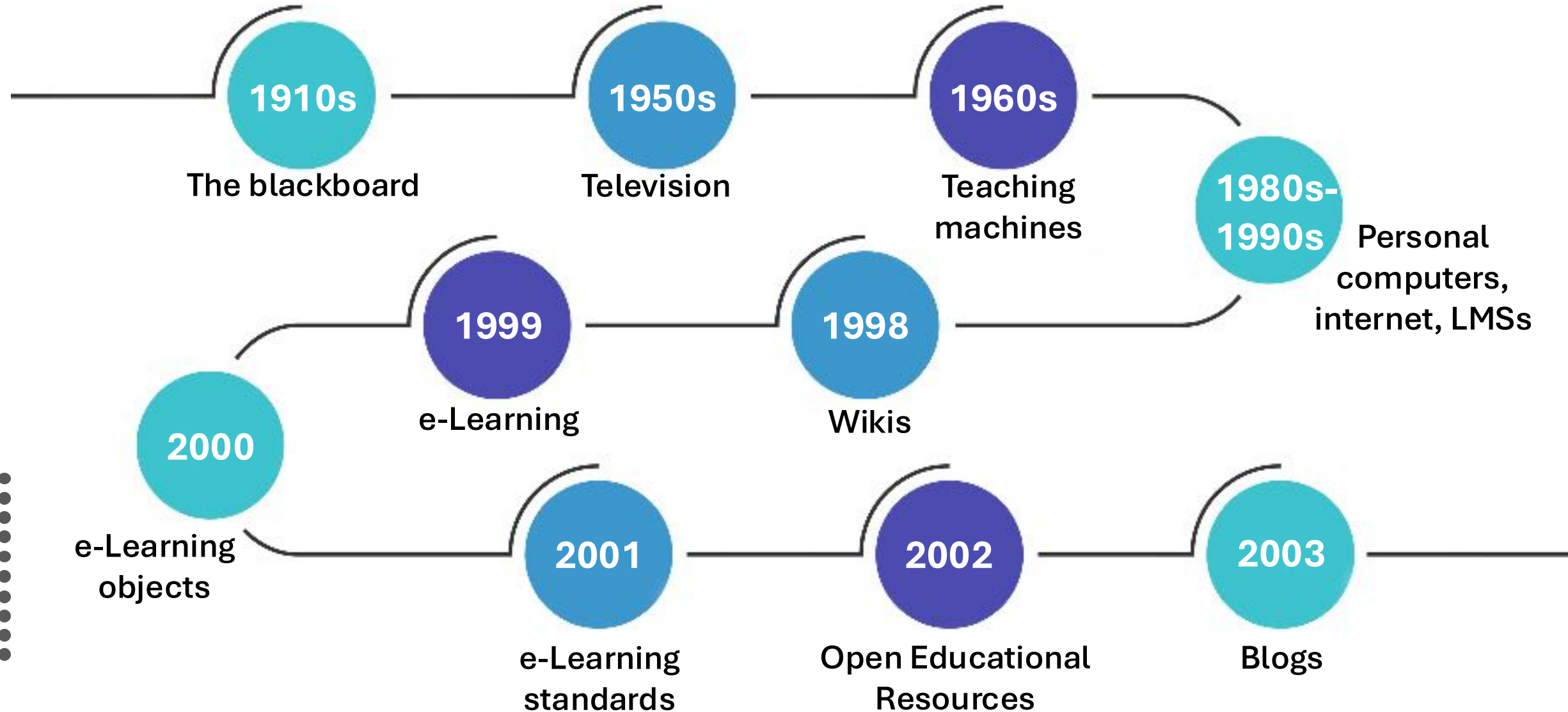
A piece of white paper with a torn, deckled edge is centered on the slide. It has a soft drop shadow beneath it, giving it a three-dimensional appearance. The paper contains the following text:

**What has your relationship with technology
been like in the teaching and learning space?**

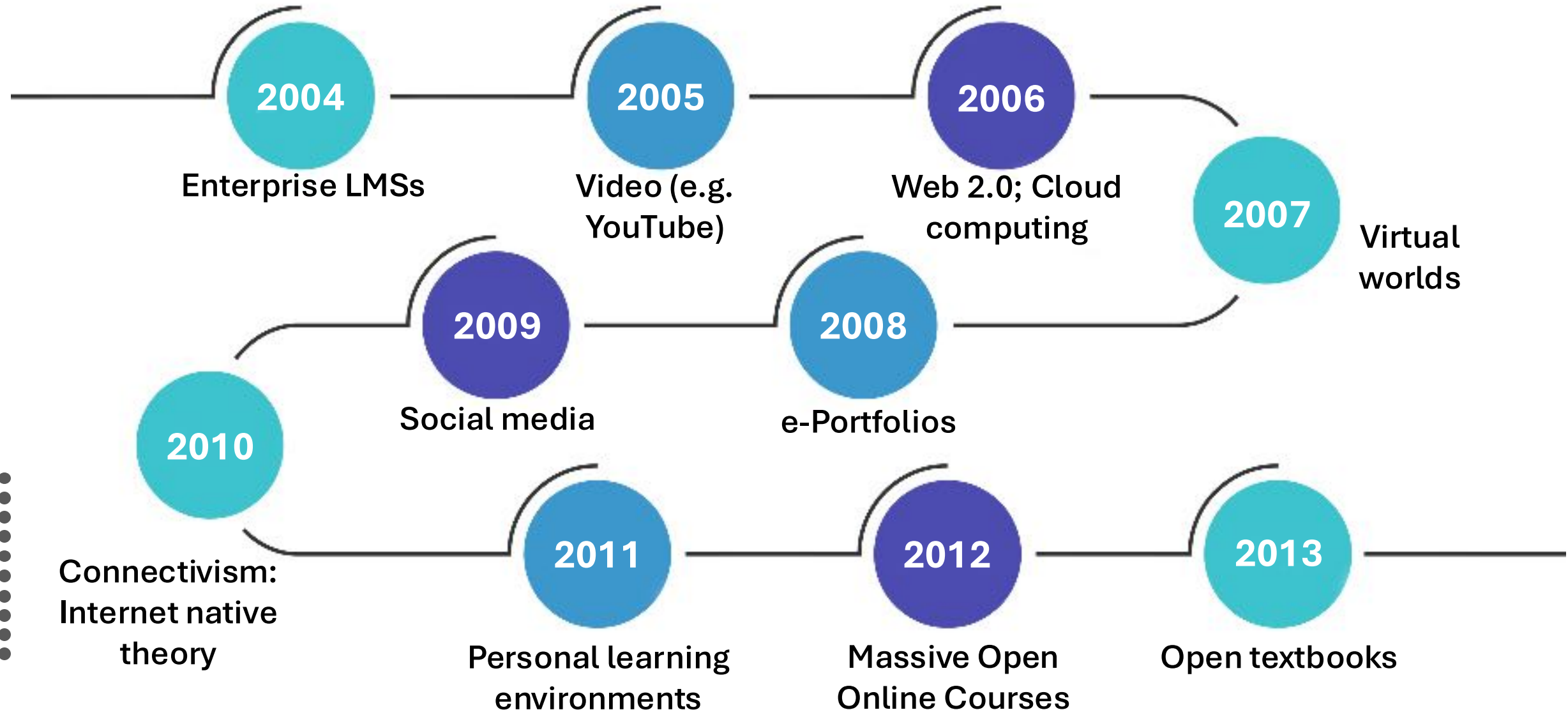
Zoom out before zooming in...



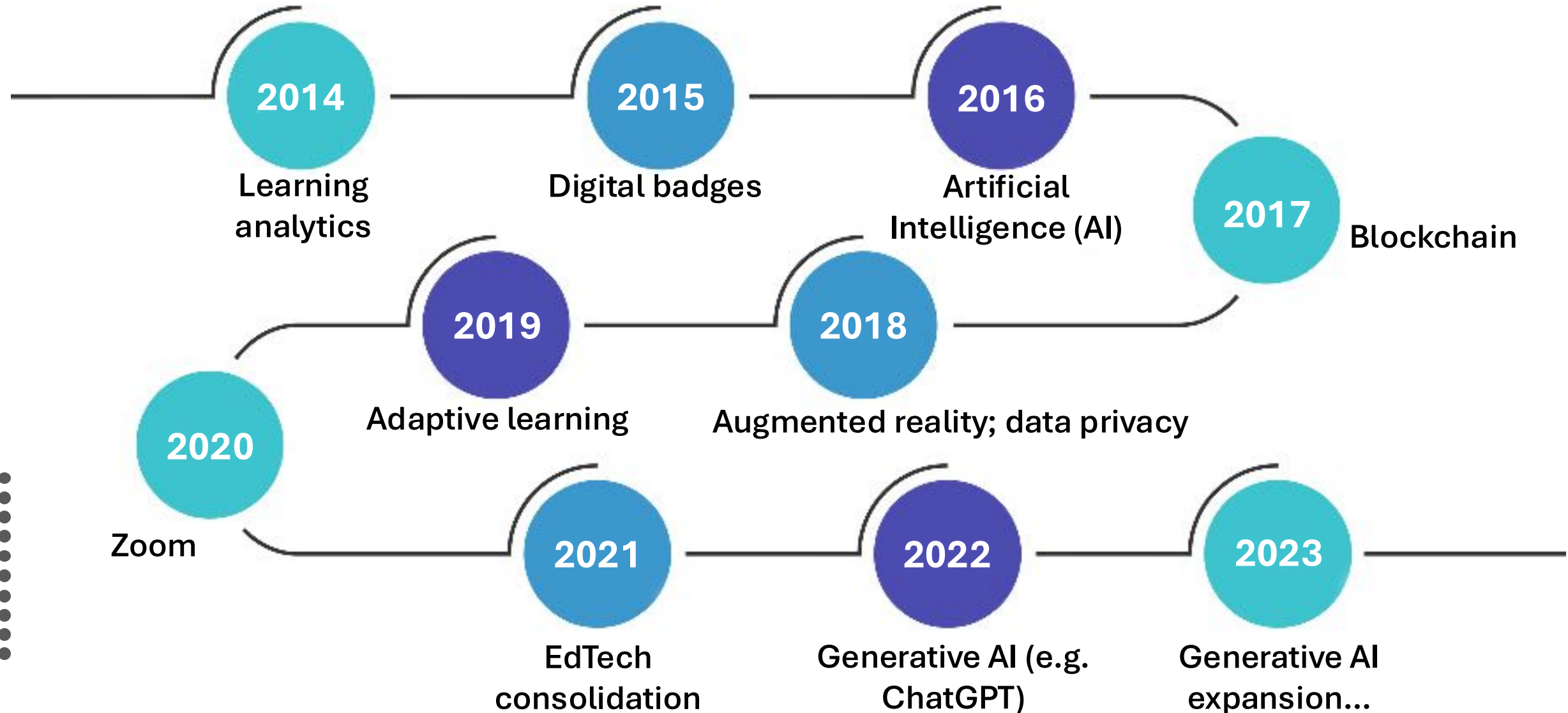
A short history of educational technology (1/3)



A short history of educational technology (2/3)



A short history of educational technology (3/3)





We are at another moment

Generations have pursued integrating technology into education for over 100 years.

Technology in education has excited some and made some others anxious/fearful/worried.

One consistent challenge...

How do we effectively integrate technology into teaching?

One great challenge...

How do we elevate human development and social connections to enable *working together*?

Forward thinking for students

Top 10 skills of 2023



1.  Analytical thinking
2.  Creative thinking
3.  Resilience, flexibility and agility
4.  Motivation and self-awareness
5.  Curiosity and lifelong learning
6.  Technological literacy
7.  Dependability and attention to detail
8.  Empathy and active listening
9.  Leadership and social influence
10.  Quality control

Type of skill

 Cognitive skills  Self efficacy  Management skills  Technology skills  Working with others

Source

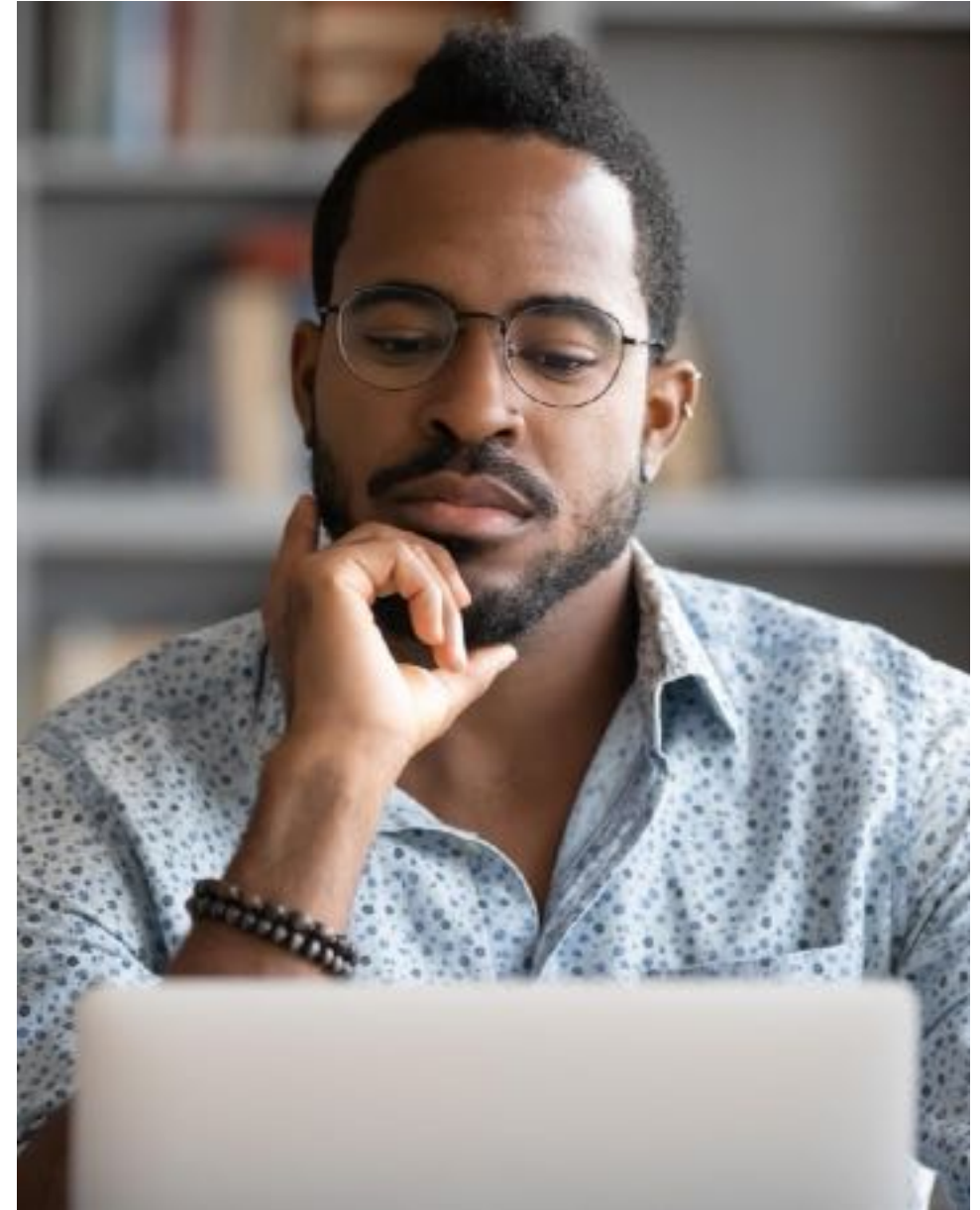
World Economic Forum, Future of Jobs Report 2023.

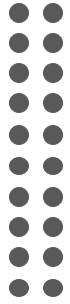
Note

The skills judged to be of greatest importance to workers at the time of the survey

What is your reaction to this list?

1. Analytical thinking
2. Creative thinking
3. Resilience, flexibility, and agility
4. Motivation and self-awareness
5. Curiosity and lifelong learning
6. Technological literacy
7. Dependency and attention to detail
8. Empathy and active learning
9. Leadership and social influence
10. Quality control





We should re-think relationships

Teacher-Learner

Learner-Learner

Learner-Content

Teacher-AI

Learner-AI

AI-Content

Teacher-AI-Learner

Learner-AI-Learner

Learner-AI-Content

Some questions for thought:

- If AI is a partner, how deep should that partnership be?
- What value should each – teacher, learner, content, AI – provide to the learning experience?
- How can we accept and build-in technology as a contributor to the learning experience?
- How to elevate individual human development and social connections *with AI* to enable working together?

Part 2: Seven human-centric pedagogies

Pedagogies that highlight the human experience and how they leverage educational technology.



Human-centric pedagogies

“Pedagogies that respect the intrinsic value of the whole person and their well-being, and focuses on cultivating qualities that can be described as human, including: curiosity, care, compassion, relationship and responsibility.”

– Stephanie Speicher, Weber State University

**Teaching and learning is
a human experience
built on trust.**

Humans learn from engagement

Student engagement

Refers to the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education.

Source: Glossary of Education Reform
<https://www.edglossary.org/student-engagement/>

Emotional and brought on by...

- Authenticity of content
- Course goals aligned with personal goals
- Instructor enthusiasm and depth of knowledge
- Visual presentation (including multimedia)
- Connection to emotional beings

#1: Personalized learning

About

Customizing learning for each student's strengths, needs, skills, and interests. It has been done with adaptable systems and by instructors for individual students.

w/ generative Artificial Intelligence

You can guide students to use genAI for themselves. They can create custom GPT's that are their own course tutors. Or use default models and pre-made GPT's as an on-demand research assistant. Have students share what they gather with you for a discussion.

#2: Student agency and choice

About

Aims to empower students to control their learning by making decisions about what, how, and when they learn. This approach encourages self-directed learning and fosters a sense of ownership and responsibility.

w/ generative Artificial Intelligence

You can guide students to use genAI as a brainstorming assistant. Students can tell a GPT about the assigned topic then explain their own interests and thoughts around it. Students can ask for a list of potential project topics, converse about a few, then decide for themselves on what they will do.

#3: Differentiated instruction

About

Tailors teaching methods, content, and learning activities to meet the diverse needs and learning styles of students. The goal is to provide all students with access to the same learning opportunities by addressing their individual differences.

w/ generative Artificial Intelligence

You can create customized learning materials to the varying abilities and preferences of students. Ask AI to generate different versions of instructional plans with the same content. Then modify to match differences in learning styles, interest areas, etc.

#4: Experiential and authentic learning

About

Providing students experiences where they can gain knowledge and/or develop skills by actually **doing** something. It involves engaging students in real-world experiences and hands-on activities that are meaningful and relevant to their goals.

w/ generative Artificial Intelligence

You can generate simulations and scenarios that replicate real-world environments and challenges. You can create a custom GPT to present and run students through simulations and you can work with default models to outline and write your own scenarios. You could flip this around as a student activity too.

#5: Flexible learning environments

About

It is about making learning accessible and personalized. Learners are offered multiple ways to access and engage with course materials depending on their schedule. They may attend class in-person, online, or hybrid.

w/ generative Artificial Intelligence

You can monitor student engagement and performance in the Learning Management Systems (LMSs), then leverage adaptive learning systems to adjust what learners receive and the pacing of it.

#6: Formative assessment and feedback

About

Provides students with regular and actionable feedback. Low-risk assessments are used to help students identify their strengths and areas for improvement, then providing them feedback to help them adjust their learning strategies and improve their performance.

w/ generative Artificial Intelligence

AI can be used to provide instant and personalized feedback on assignments. This may help students understand mistakes and how to improve. This may leverage AI built into an LMS or engagement with a custom built GPT by the instructor.

#7: Collaborative and social learning

About

Involves students in working together to solve problems, complete projects, and discuss concepts. Fundamentally, this pedagogy is interested in the importance of interaction, communication, and teamwork in the learning process.

w/ generative Artificial Intelligence

You can use genAI as a facilitator of group projects by helping to coordinate tasks, provide resources, mediate discussions, and provide a non-emotional perspective. AI can serve as another voice in the group.

Technology is widely used
for education. *genAI the
just the next step forward.*

Part 3: Demonstrations on leveraging genAI

Examples of using genAI as a partner in human-centric pedagogies.

Using genAI to support human collaboration

Methods of human interaction

Methods of genAI application

Teamwork ↔ Collaborative team member

Peer review ↔ Unemotional reviewer

Discussion ↔ Alternative perspectives

Let's focus on 3 pedagogies



1. Student agency and choice
 2. Collaborative social learning
 3. Experiential and authentic learning
-

We'll do these steps:

- About
- What partners bring
- Example setup
- Demonstration

Student agency and choice

About

Empower students to take ownership of their learning by providing them with choices and fostering a sense of control over their educational journey.

Example activity:

AI-driven course project mapping



Student agency and choice

What each partner brings in an activity

Instructor

- Topic(s)
- Project goals
- Duration
- Touch-points
- Expected outcomes and products

Student

- General interests
- Interests with topics
- Learning goals

AI

- Intakes instructor points
- Intakes student interests and goals
- Generates multiple project pathways
- Suggests (types of) products



Student agency and choice

An example

- Identify a product and create a communications strategy for informing a specific audience.
- Select an email marketing campaign, social media marketing campaign, or web marketing campaign.
- Complete over 12 weeks and plan to meet with your instructor for at least 6 times.
- Must prepare for marketing pitch meeting, including slides and product example.
- Must edit, refine, shape AI project map into your own.

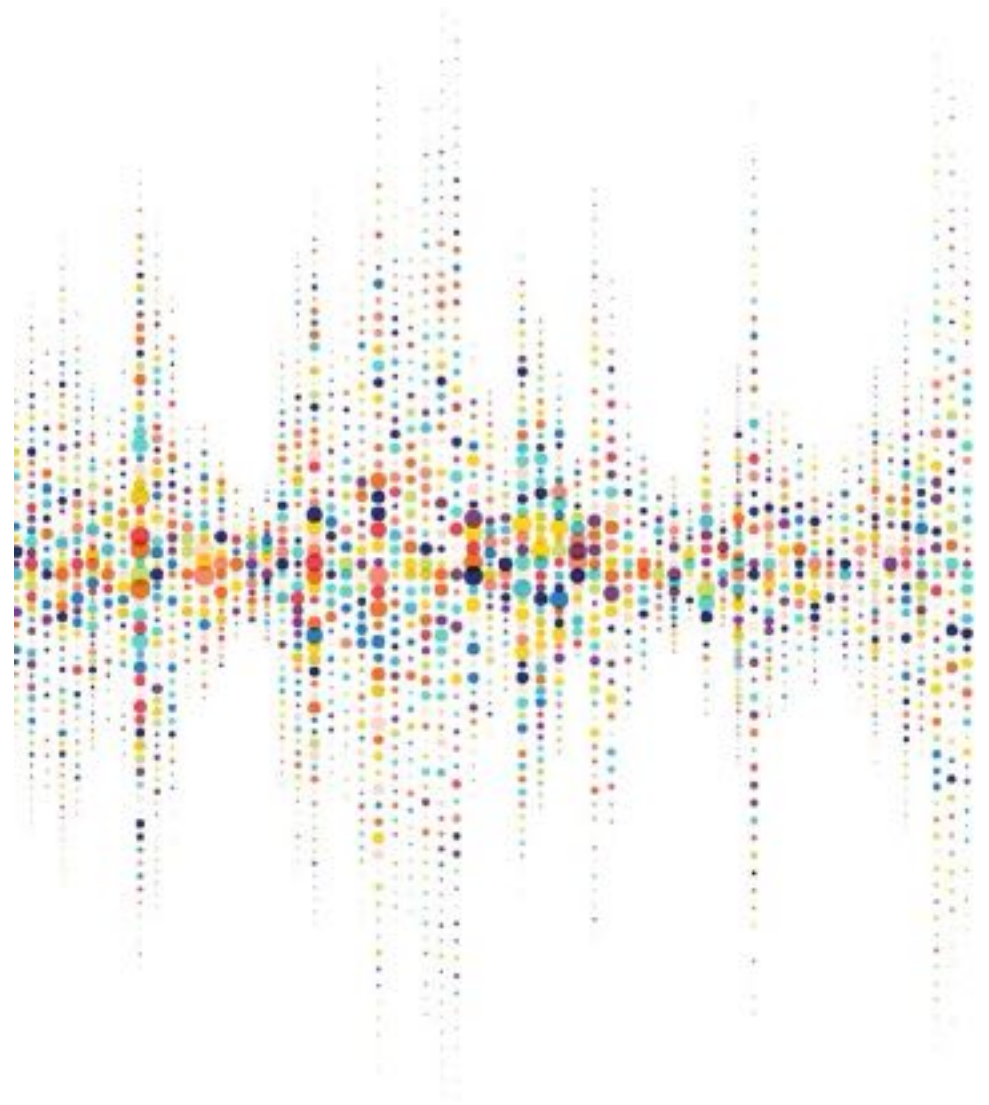
Craft a prompt as though you were the student.

Student agency and choice

Demonstration chat

Starting prompt:

I am currently taking a business marketing course and have a term project to complete. My professor has given me a series of topics but has really left the door open to what I do and what I create. I need your help as a project manager and digital marketer. I want to explain this to you first over a series of prompts. Then when I say "can you put together a draft of this for me", I'd like you to create a plan for this project. Are you ready?



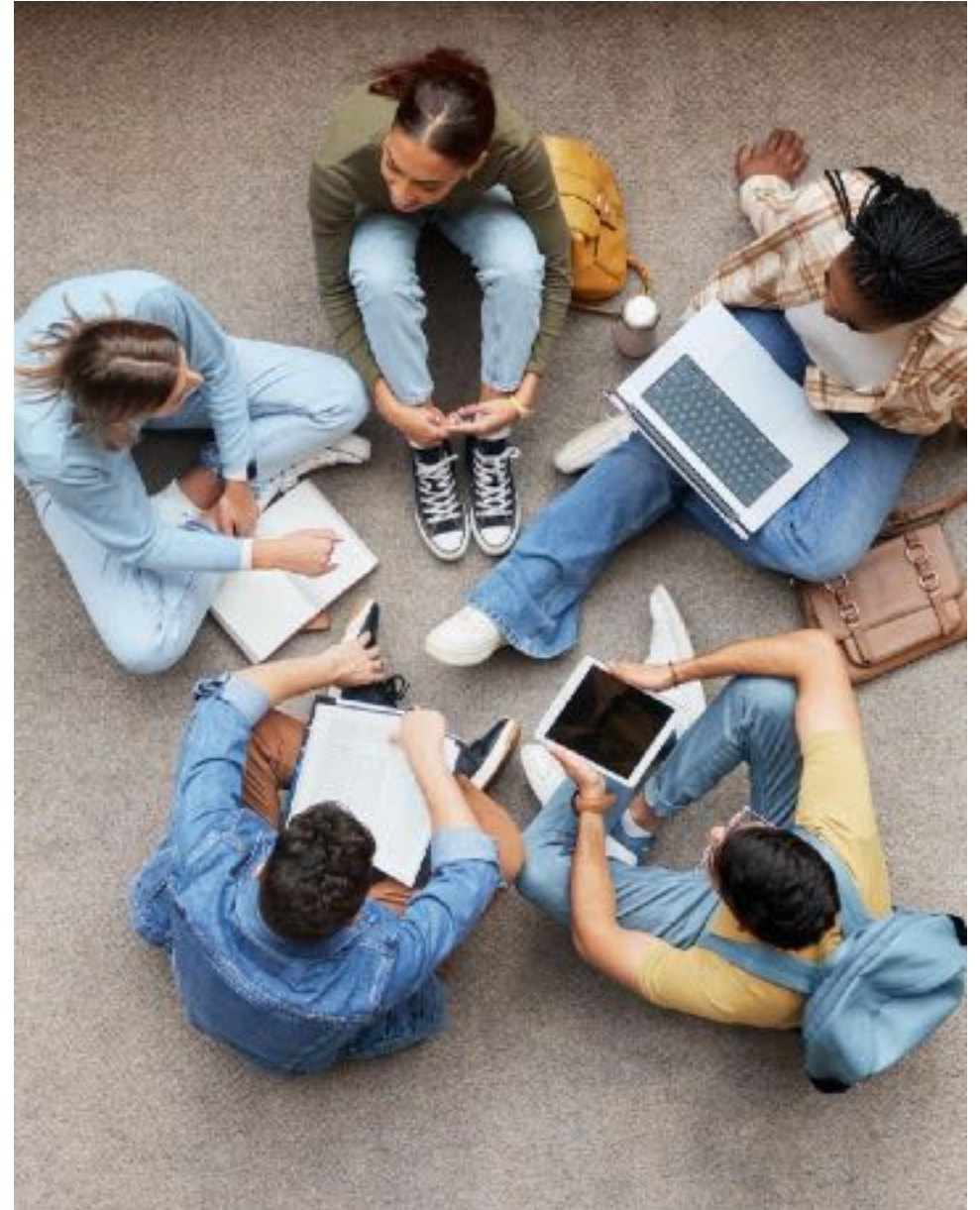
Collaborative and social learning

About

Facilitate collaborative and social learning by providing tools and platforms that call for practice of communication and collaboration among students.

Example activity:

AI alternative perspective partner



Collaborative and social learning

What each partner brings in an activity

Instructor

- Discussion topic
- Clear difference
- Identify GPT
- Instruct on argument design
- Instruct on minimum number of prompts
- Instruct on sharing
- Discuss with class

Student

- One-on-one or with a partner
- Counter-argue
- Challenge to provide evidence
- Try to convince to your side

AI

- Provide alternative perspective
- Counter-argue
- Explain reasoning



Collaborative and social learning

An example

- Identify a topic with 2 strongly opposing viewpoints (e.g. student loan forgiveness)
- Tell the GPT about the activity and why you are doing it.
- Ask the GPT to take an opinion opposite to yours.
- Ask the GPT to argue the other side, but be willing to change it's mind.
- Tell the GPT that you are open to changing your mind.
- Go through multiple rounds of prompts.
- Save conversation at the end for sharing and further human discussion.

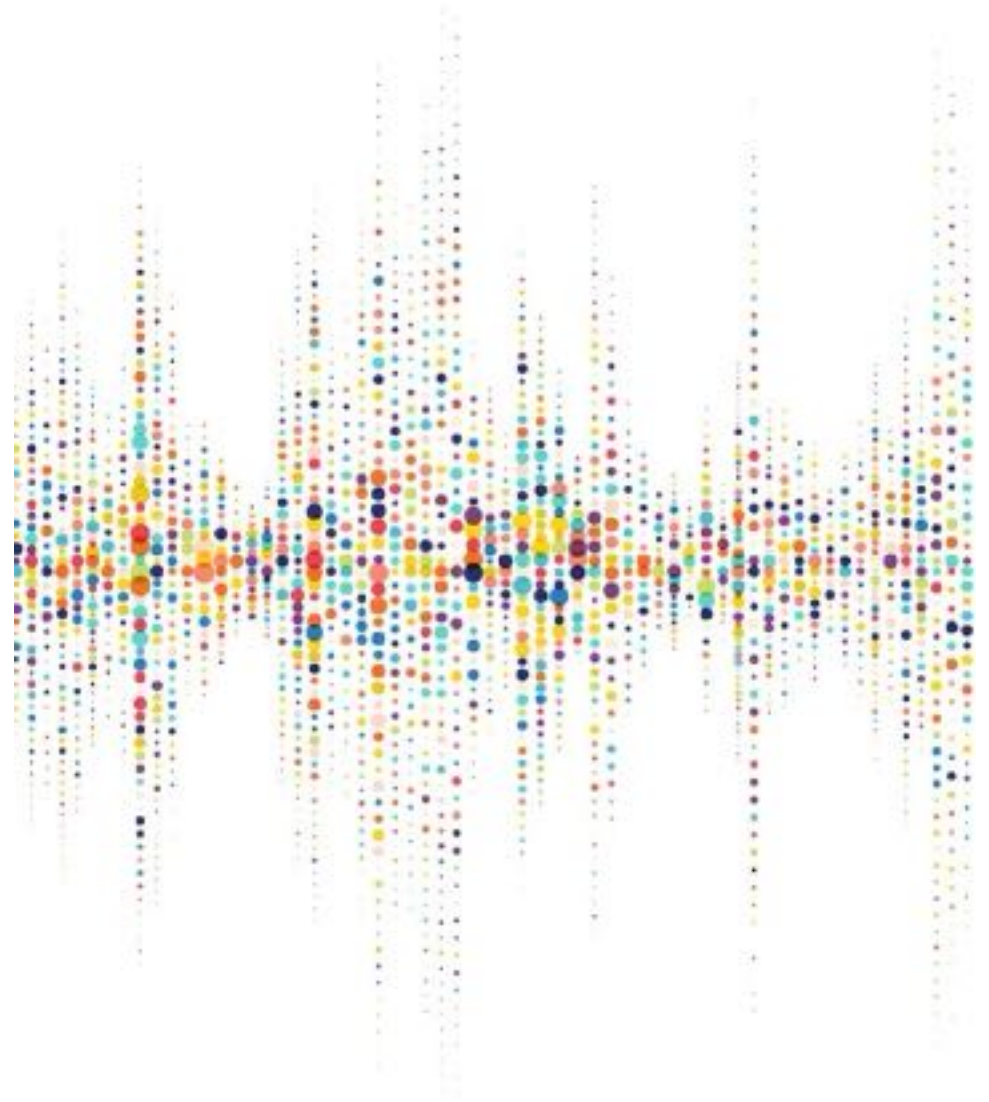
Craft a prompt as though you were the student.

Collaborative and social learning

Demonstration chat

Starting prompt:

I am taking course this term that overlaps with mass communications and political science. We are delving into a series of 'hot-topic' social issues that have a strong difference in opinion. My professor has asked each person in the class to select an issue that is of importance to them and spend this week examining the issue. One of the more important things that we've been asked to do is to research the opposite perspective of our own. I think you can help me with that. Are you up for it?



Experiential and authentic learning

About

Create immersive and realistic scenarios for students to engage with that mimic what they should or may encounter in their professional lives.

Example activity:

Simulated professional experience



Experiential and authentic learning

What each partner brings in an activity

Instructor

- Define topics and problems
- Tell the task to complete
- Tell about the conditions
- Identify GPT to use
- Describe what should be uncovered
- Explain what should be examined
- Demonstrate an example

Student

- Select a topic and problem
- Engage with GPT
- Question feedback
- Examine results
- Conduct separate analysis
- Compare results
- Share and discuss

AI

- Provide guidance and solutions
- Explain rationale
- Highlight possible directions



Experiential and authentic learning

An example

- Select a GPT to use.
- Tell the GPT about a problem you are solving for.
- Tell about the conditions and context.
- Ask about alternatives.
- Ask for reasoning.
- Save conversation at the end for sharing and further human discussion.

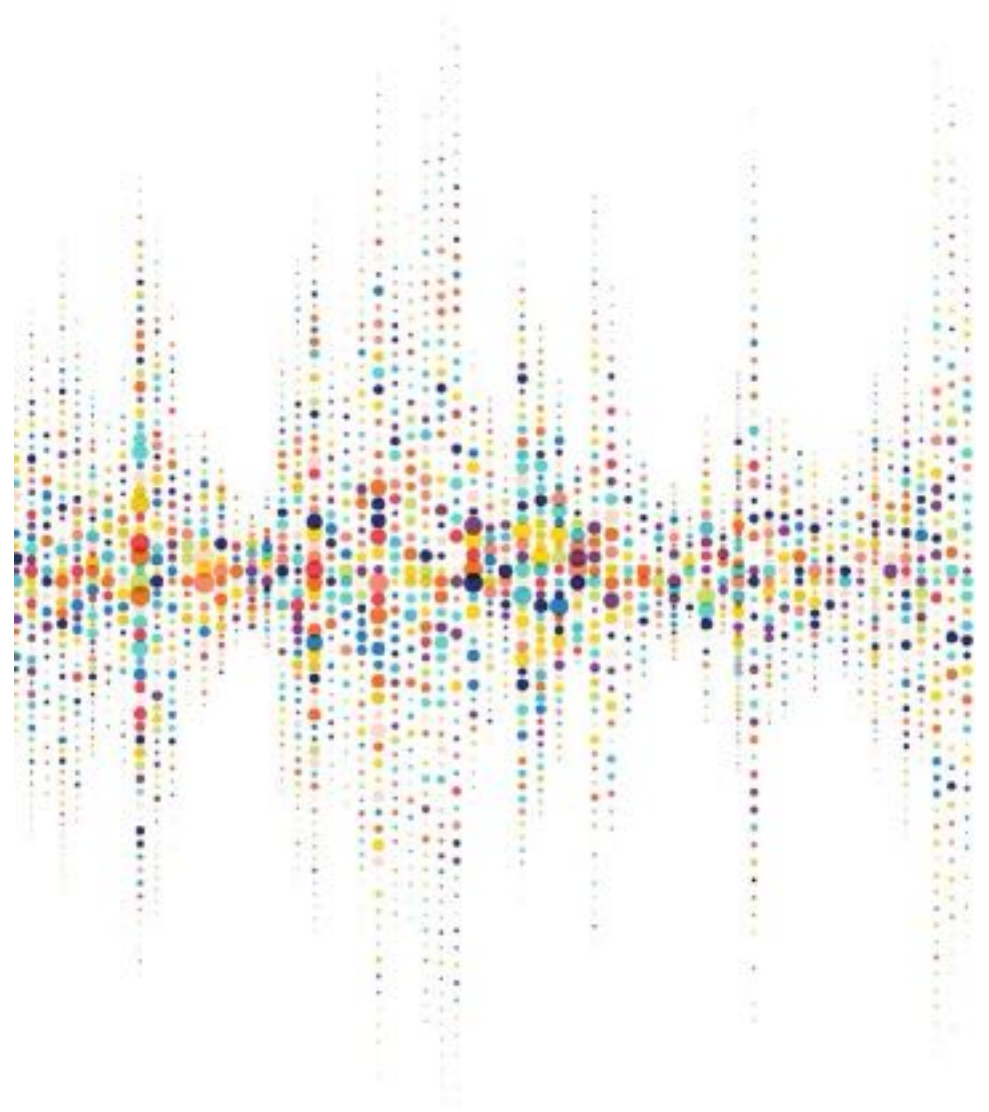
Craft a prompt as though you were the student.

Experiential and authentic learning

Demonstration chat

Starting prompt:

I am taking a course in pediatric diagnostics and would like you to simulate for me solving for a medical ailment in a child. I need you to be pediatrician for me. Are you ready?



In conclusion:
Try to view genAI as a partner, not a replacement.

Feel free to contact me at jason_torres@gwu.edu
and/or the Instructional Core at instructioncore@gwu.edu