

Post-Pandemic Pedagogical Pivots: Mental Health, AI, and Zoom Zombification in Engineering Education

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Susan Freeman, is a member of Northeastern University's First-Year Engineering team, a group of teaching faculty expressly devoted to the first-year engineering students and development of courses and curriculum to serve the program at Northeastern University. The focus of this team is on providing a consistent, comprehensive, and constructive educational experience that endorses the student-centered, professional and practice-oriented mission of Northeastern University. Susan has been part of ASEE and the First-year Programs Division for many years, serving in all leadership roles. She is also on the leadership team for the College of Engineering as Associate Dean Undergraduate Education.

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Presenters: Susan Freeman, Richard Whalen, Kathryn Schulte-Grahame, Jennifer Love, Angelina Jay (all Northeastern University)

Summary:

We survived teaching during a pandemic and all the challenges that came with it. We pivoted so many times, we were dizzy. When we got back into our classrooms, we embraced some great things that the pandemic brought, new technologies, new platforms, some new approaches. Yet, we are still facing students and faculty with increasing mental health challenges, and we realize that in many ways we need our approaches, classrooms, and words to be more inclusive.

There are many questions, and this workshop will focus on three main topics. All topics will be introduced, and participants may choose which topic they wish to explore further in the activity portion of the workshop,

The first section will discuss the rising concerns regarding the mental health of our students and present some lessons learned on inclusive design for teaching and inclusive teaching practices.

The next section will explore student motivation and methods for better engaging students.

Participants will be asked to consider what has ‘always’ worked and if there are more active learning approaches we need to use and other ways to refresh our active and engaged learning toolboxes. Namely - what works now?

The last section will focus on approaches for adapting to generative AI. Participants will consider: What are recommended practices? How can we adapt our teaching to embrace and work around the problems of things like ChatGPT while maintaining student engagement?

This will be an interactive workshop and participants will spend time working on what practical things they can adopt or adapt for their classrooms. One outcome is that participants will discover that some parts of what they are doing is on target for student learning already.

Additionally, in all areas of exploration, the workshop is intended to provide participants with practical approaches, useful references, food for thought, and reassurance that we are all on a new path towards improving teaching and learning.

Outline:

1. Introduction – 30 minutes
 - a. Student Identity - Discussion of current prevalent student identities, especially related to mental health. Empathy activity
 - b. Student Engagement - Discussion of trends and faculty perceptions
 - c. Generative AI – Discussion of current best practices and burgeoning issues
2. Activity – 30 minutes
 - a. Participants will choose the topic they most wish to explore and workshop presenters will facilitate three interactive activities to enable attendees to reflect directly about their classroom experiences.
3. Discussion + Wrap-up – 20 minutes
 - a. Participants will come back together as one larger group with time allotted for sharing out from the three individual activities. Presenters will lead a short summative activity to highlight ‘take-home’ messages/ideas.
 - b. Presenters will provide a list of useful resources which will be amended to include input from this discussion