

What the Classroom Provides That AI Cannot: Strategies for Offline Engagement and Community Building in the Classroom

Focus on Teaching and Learning

Loyola University Chicago

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Overview

- I. Intro of myself & my teaching & my outlook on AI
- II. Fears and doubts about AI in our courses
{respond, breakout and share}
- III. Creating authentic experiences in learning
{breakout and share, return and share with whole group}
- IV. Using Place-Based Learning

I. Introduction

- At Loyola for 8.5 years
- Advanced Lecturer in School of Environmental Sustainability, Environmental Health & Toxicology Focus Area Coordinator
- Courses I teach: Foundations in Environmental Science I & II, Chemistry of the Environment, ENVS Capstone Seminar



Teaching Philosophy: Equip students to learn for a lifetime

Aims for this forum

- Recognize the value of the authentic course experience in student learning
- Ground ourselves in this value to protect our pedagogy from AI threats
- Share strategies for building community through our courses



Loneliness epidemic: need for community and authentic experiences

- Loneliness is a subjective negative experience of inadequate meaningful connections, or the discrepancy between one's desired level of connection and one's actual level.
- Several societal factors, including the rise of social media and decline of local community institutions, have contributed to the epidemic
- Compiled evidence suggests social connection can serve as a protective mechanism to lower our risk of negative health outcomes

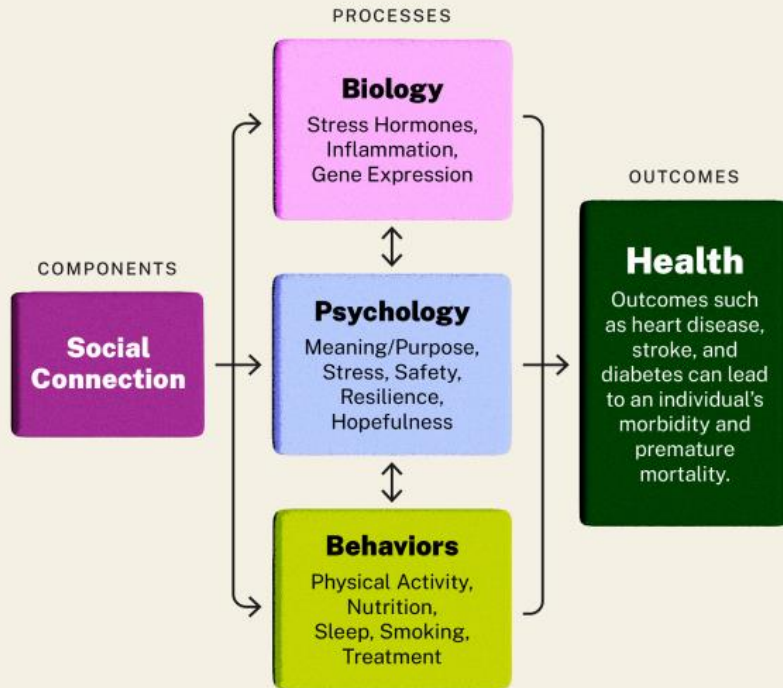
Source: Holt-Lonstadt, J. (2021). Loneliness and Social Isolation as Risk Factors: The Power of Social Connection in Prevention. *Journal of American Lifestyle Medicine* 15(5). 567-573.
doi:[10.1177/15598276211009454](https://doi.org/10.1177/15598276211009454)



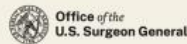
Cura personalis

How Does Social Connection Influence Health?

Social connection influences health through **three principal pathways**: biology, psychology, and behavior.



Source: Holt-Lunstad J. The Major Health Implications of Social Connection. *Current Directions in Psychological Science*. 2021;30(3):251-259.



- Loneliness increases risk of premature death by 26%²
- Poor or insufficient social connection is associated with 29% increase in risk of heart disease, 32% increase in risk of stroke along with a increasing risk of several mental health diseases²

Source: Our Epidemic of Loneliness and Isolation: The US Surgeon General's Advisory on the Healing Effects of Social Connection and Community (2023)



Loneliness and AI

- Increasingly AI aims to replace human interactions, not always with good results
- We are in a cultural moment of hype for AI, whether real or not
- Threats of AI replacing human intellect, threats to pedagogy

Sources:

Narayanan, Arvind and Kapoor, Sayash. (2024) *AI Snake Oil: What Artificial Intelligence can do, what it can't and how to tell the difference.* Princeton University Press. Princeton, NJ.

Payne, Kate. (2024). *An AI Chatbot pushed a teen to kill himself, a lawsuit against its creator alleges.* AP News October 25, 2024

Grose, Jessica. (2024). *Loneliness is a problem that AI won't solve* (opinion). New York Times, May 18, 2024.



AI consumes excessive resources

- Data Centers will soon consume as much energy as the entire nation of Japan
- Data centers have been increasing their consumption of water resources
- AI must consume human-generated content to train itself
- AI is not regulated or restrained in its competition with us for data, energy, or other natural resources

Sources:

Crawford, Kate. (2021). Atlas of AI: Power, power, and planetary costs of AI. Yale University Press, New Haven, CT.

Berreby, David. (2024). *As AI Soars so does the energy and water it requires*. Yale360. February 6, 2024.



II. First step in building community: vulnerability

- Learning requires a growth mindset
- Learning environments are enhanced when diverse perspectives can be shared and discussed
- Start with an environment open to questions and doubt

Examples from the classroom:

Beginning climate change units sharing denials of climate change science

Beginning chemistry courses with fears about the subject

Take a few minutes to reflect on what you fear most about AI as used by students in your courses

What do you fear your students may be losing by using AI?

What have you lost or changed in your course due to use of AI by students?

**{3 min on your own
followed by 7 min in breakout chat}**

III. The authentic experience

- AI cannot create authentic lived experiences
- AI cannot predict human behavior very well yet
- AI still frequently gets facts wrong



- Give students a reason to show up to class!

Example from the classroom: In-class assignments

- Be responsive to students in the course

Example from the classroom: responding to feedback

- Use personal reflections to differentiate novel student work

Example from the classroom: responsive essays



Using AI as a tool

Citing AI generators as a resource:

When prompted with “Is the left brain right brain divide real or a metaphor?” the ChatGPT-generated text indicated that although the two brain hemispheres are somewhat specialized, “the notation that people can be characterized as ‘left-brained’ or ‘right-brained’ is considered to be an oversimplification and a popular myth” (OpenAI, 2023).

Reference

OpenAI. (2023). *ChatGPT* (Mar 14 version) [Large language model].

<https://chat.openai.com/chat>

McAdoo, Timothy. (2023). How to cite ChatGPT. APA Style, April 7, 2023
<https://apastyle.apa.org/blog/how-to-cite-chatgpt> (last updated February 23, 2024).

Creating authentic experiences

What are some strategies you utilize to engage students in the classroom experience?

what reasons do you give them to show up to class?

**{7 min in breakout,
return and share 1 or 2 with whole group}**

Paperless classrooms and AI resistance

- Balance of environmental impacts of paper consumption vs. electronic resources is shifting
- Student accessibility and equity should be priority (burden of printing)

Example: Reusable handouts

Example: scratch paper in-class assignments

Example: mixed laptop use policy

IV. Place-Based Education

- Place-based education (PBE) refers to any educational approach that is locally-driven, community-based, or ecologically-focused.
- Draws on the shared experiences of students in the classroom
- Essential in Environmental Education and understanding our interconnectedness to the world around us



Source: Yemini, M., Engel, L., & Ben Simon, A. (2023). Place-based education – a systematic review of literature. *Educational Review*, 1–21.
<https://doi.org/10.1080/00131911.2023.2177260>



Placed-based learning/experiences

Connect to local resources: real people and places

Example: campus/local field trips

Example: expert interviews

Use creative outputs and displays that encourage interaction

Example: museum-style project showcase

avoid scripted presentations

Example: generative presentations

How do you use our campus or local resources to support your courses?

{open discussion}



Thank you for your
engagement and input!!!