

Exploring Generative AI in Teaching & Learning at BU

AI INFO SERIES

FALL 2023

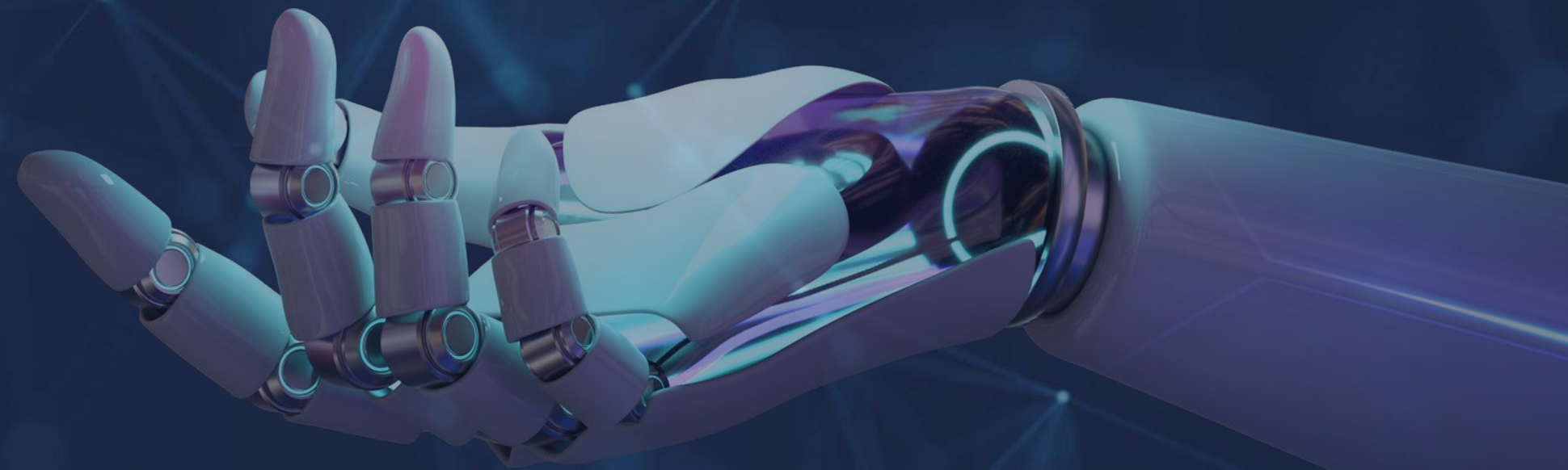
 Digital Learning & Innovation

 Center for Teaching & Learning

DEVELOPING COURSE MATERIALS WITH Generative AI

WEDNESDAY, SEPTEMBER 27, 2023

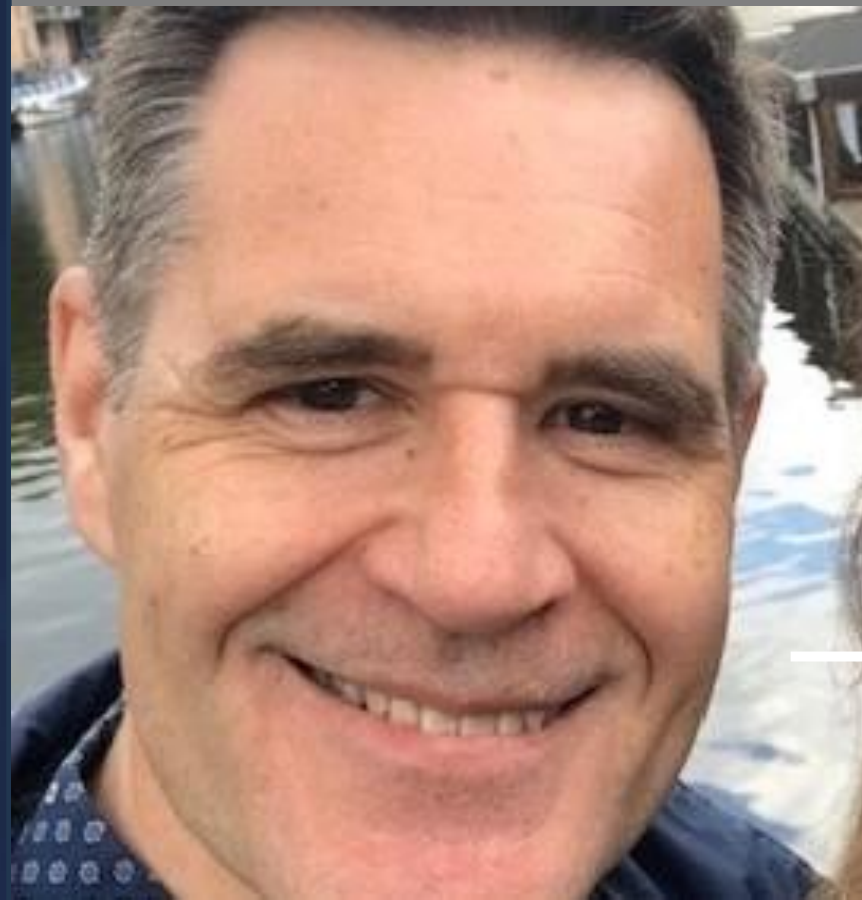
11:00 AM - 12:00 PM



The speakers



Matt Parfitt



Chris Dellarocas is associate provost for Digital Learning & Innovation and the Shipley Professor of Management at the BU Questrom School of Business.

Matt Parfitt is Associate Professor in the Rhetoric Division at the College of General Studies and a member of the BU AI Task Force.



Chris Dellarocas



CTL/DL&I Generative AI Information Series

<https://www.bu.edu/dli/ai-strategies/generative-ai-information-sessions/>

FALL TERM

Session 1 (Aug. 23): Introduction to Generative AI in Education (recording avail.)

Session 2 (Aug. 24): First Week of Class: Communicating with Your Students About AI (recording avail.)

Session 3 (Sep. 27): Developing Course Materials with AI

Session 4 (Oct. 19): AI in Education: The Student View

Session 5 (Nov. 15): AI and Learning Assessment

SPRING TERM (Dates TBD)

Generative AI as a learning assistant

Grand tour of latest Generative AI tools

Ethical and equity considerations

Why this session?

- Using ChatGPT in your own work is a fun and useful way to gain first-hand appreciation for its capabilities and limitations
- It is also a fantastic opportunity to reflect on a lot of the burning questions that pertain to our students
 - Does AI assist or impede learning growth?
 - Does AI change the skills that are needed to be an effective teacher?
 - What is the best way to integrate AI in your workflow, so that **human + AI > sum of its parts**

Today's plan

Four use case classes:

- Part I: Develop and improve course syllabi
- Part II: Develop case studies, lab assignments and lesson plans
- Part III: Develop practice problem sets and quizzes
- Part IV: Develop examples, active learning exercises and other ideas to liven up your course sessions

Considerations and pitfalls

Q&A

Part I: Develop and improve course syllabi

- Provide feedback on an existing syllabus
 - Data Management <https://chat.openai.com/share/5add6135-0012-40ce-93bb-3561637609f8>
- Revise an existing syllabus to bring a course up to date
 - Data Management <https://chat.openai.com/share/5add6135-0012-40ce-93bb-3561637609f8>
- Create a course syllabus from scratch
 - Political Science <https://chat.openai.com/share/bc210c4f-b8b6-4664-8ee3-e1709e6cb593>

Part II: Develop case studies, lab assignments and lesson plans

- Develop a case study and detailed lesson plan from a recent news article
 - Negotiations <https://chat.openai.com/share/7494c839-c536-4ad6-98fe-72b0aa28a5c1>
- Develop a lab assignment
 - Solid-state electronics <https://chat.openai.com/share/23f1768f-efc3-4c37-b099-b8cc9ccb7a33>
- Ralph Waldo Emerson's "The American Scholar"
<https://chat.openai.com/share/fd9acbb5-35ed-4fe8-bbd4-bb1dee25a15d>
- Zadie Smith's essay "Joy," uploaded to ChatGPT with AI-PDF
<https://chat.openai.com/share/a1266b34-4970-4058-ae40-03514c39b8ce>

Part III: Develop practice problem sets and quizzes

- Generate additional practice questions for students
 - SQL programming <https://chat.openai.com/share/0b90244b-6f12-4640-a4fa-5face55854a4>
- Generate diagnostic and review quizzes
 - Chemistry <https://chat.openai.com/share/f15257bf-5f1b-47a9-87ae-216693879822>

Part IV: Develop examples, active learning exercises and other ideas to liven up your course sessions

- Develop “hooks” to make lectures of a calculus course more engaging
 - Calculus <https://chat.openai.com/share/e5ddcea9-92f0-4478-8dba-3ff2cd22e0ec>
- Develop polling questions at the beginning and end of course sessions
 - Music appreciation <https://chat.openai.com/share/426ab488-3a60-47a2-be55-187e5f8acb65>
- Develop active learning activities
 - Algorithms <https://chat.openai.com/share/1d5066b2-1ac7-447b-84c5-898c48af419d>

Considerations for Creating Course Materials using Generative AI

1. Educational Objectives

- Am I including my course learning objectives in the prompts I create in order to ensure alignment in the AI product?
- Will students have the appropriate skills needed to complete the assignments or assessments that I create using generative AI

2. Ethical Implications

- Does my final product contain any biased language or content?
- Be transparent with student about the use of AI to help with the development of the course materials you provide.
- How might the AI generated content shape the thinking of others?

3. Accuracy

- Is the AI generated content accurate?
- Can the content being produced be validated using outside (non-AI) resources?

4. Accessibility

- Are the materials I am creating accessible? (alt text for images, screen reader accessible, uses tools that are accessible)
- If I require all in-class writing in order to prevent AI use, how does that affect accessibility for some students?

5. Privacy

- Obtain permission from students to use any of their work within an LLM tool. (Such as using an essay grader to provide feedback, or summarizing an assignment).
- Does my use of AI tools follow the policies set in place by the University, my school, and/or my department?

6. Assessment

- Determine if AI assistance to students is acceptable, and if it is, at what level.
- Is it clear how the use of the course materials I create with generative AI will be assessed?

Additional Resources

(will be made available as a separate document)

- More examples and ideas <https://shorturl.at/kloAH>
- [Using AI to Implement Effective Teaching Strategies in Classrooms: Five Strategies, Including Prompts](#) - pre-print by Ethan R. Mollick and Lilach Mollick at the University of Pennsylvania Wharton School.
 - [Summary of above article by author](#)
- [AI Prompts for Teaching](#): Cynthia Alby PhD at Georgia College Center for Teaching and Learning and Georgia Governor's Teaching Fellows Lead Lecturer.
- [AI Literacy guide](#) for faculty and students.

BU Repository of Generative AI Use Cases

- We invite BU instructors to share with us their own examples and experiences of using Generative AI in their teaching.
- We hope to build a repository of use cases that we will make available to the BU community and use as a basis for professional development events.

Contribute your use case(s) by filling out this form:

<https://forms.gle/kmugvo4v7z24pr8v5>

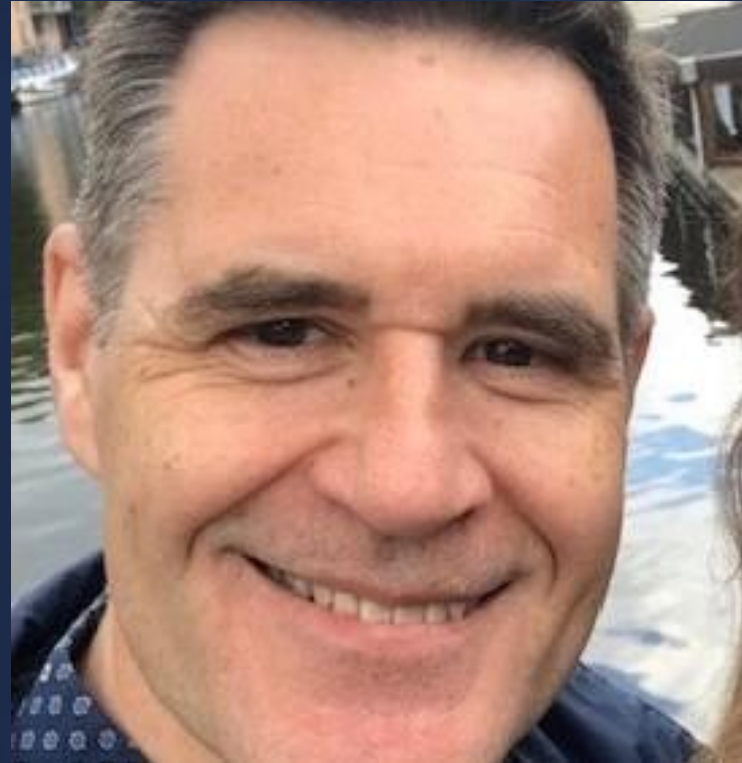


Q and A

ASK AWAY!



Chris Dell



Matt Parfitt

Thank You for attending our Information Session.

Questions or Comments?



dell@bu.edu



www.bu.edu/digital



parfitt@bu.edu

Contribute to our repository
of generative AI use cases

<https://forms.gle/kmugvo4v7z24pr8v5>

Apply for a Future of
Learning: AI Grant (FLAG)

<https://shorturl.at/qtV01>