Exploring AIs for Teaching at Brandeis
Organizers and Presenters

Center for Teaching and Learning (Irina Dubinina, faculty director) & The Library (Laura Hibbler, Deputy University Librarian)

2. Lisa Rourke, A&S, UWP
4. Aimee Slater, Librarian
5. Kristen Turpin, A&S, Spanish
6. Tim Hickey, A&S, COSI
7. Aldo Musacchio, IBS
8. Ian Roy, MakerLab and IBS
Key concepts

- **AI** (Siri, Alexa, various bots for chatting with sales people) and software with AI components (Grammarly):
  - can be both rule-based (where explicit rules are programmed) and machine learning-based (where algorithms learn patterns from data).

- **Generative AI**: “computer systems that can produce … various forms of traditionally human expression, in the form of digital content including language, images, video, and music” (MLA/CCCC Working Paper, 2023).

- **AGI**: artificial *general* intelligence = stuff of science fiction
Apprehensive of students' AI use

Exploring genAIs use in teaching & learning

Embracing genAIs use in teaching & learning
Some starting points for thinking about AI in teaching

- Should we learn what is already happening in our disciplines? How are genAIs affecting the work in our fields - positively and negatively? What guidelines do our fields have?

- Do we need to rethink our epistemologies and engage with colleagues and students in serious epistemological conversations?
  - e.g., what is creativity in the age of GenAI? what is integrity? what is authorship?
What is creativity?
What is authorship?
Some starting points for thinking about AI in teaching

- Our students will be shaping the AI world → do we have an imperative to give them **moral reasoning capabilities** so that they can **use** these tools ethically and responsibly?

- Machines are no longer instruments; should we think about the education and the future world in terms of **human-machine collaboration** (Human Intellect + Artificial Intellect)?

- Should we rethink what it means to be a student today?
  - Students as autonomous subjects before; today they are *networked subjects* and *humans with augmented skills*.

Sid Dobrin, Professor of English, University of Florida
Some starting points for thinking about AI in teaching

“Like writing and coding before it, prompt engineering is an emergent form of thinking. It lies somewhere between conversation and query, between programming and prose. It is the one part of this fast-changing, uncertain future that feels distinctly human.”

Charlie Warzel, “The Most Important Job Skill of This Century: Your work future could depend on how well you can talk to AI” the Atlantic (Feb 8, 2023)
Recommended reads

- MLA and CCCC Task Force on Writing and AI

- Minerva Project’s White Paper, *Integrating Artificial Intelligence: Key Strategies for Higher Education*

- *Sixty ideas for ChatGPT assignments (UCF) (created by faculty for faculty)*
Some starting points for thinking about AI in teaching

- Detection tools: unreliable, dangerous (?), biased;
- Detection based on our expertise: unreliable, time consuming, uncomfortable (?)

- Should we move the focus of conversations from integrity to quality/authentic/innovative/multimodal assessments?
- Do we need to rethink our approaches to assessment, task design, and grading?
How should faculty respond to AIs

- Educating yourself before educating students: how do these tools work in your discipline?
- Communication with students: regular conversations with students about why we want them to do a particular assignment and what we are looking for
- Redesign traditional tasks so as to deter students from going to AIs
- Change and adapt grading approaches:
  - Use rubrics for evaluation (process over product)
  - Ask students to have some kind of an 
    [Ai attestation form](https://example.com) with every written assignment
  - Introduce writing for benchmarking: ask students to submit writing samples produced in-person by hand
- Consider incorporating GenAI tools in assignments and teach students GenAI literacy as well as ethical and effective uses of these tools
Other uses of gen-Als in Higher Ed

- **AIs supporting students**
  - Helping students practice and prepare for assessments
  - Differentiated tasks for learning accommodations or multi-level classrooms
  - Develop student study skills

- **AIs supporting faculty**
  - Differentiating instruction for learning accommodations or multi-level classrooms
  - Creating and/or refining lesson plans
  - Creating case studies and/or learning scenarios
  - Modifying test questions
  - Creating or designing evaluation rubrics
Teaching and Learning with AI conference

University of Central Florida

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Generative AI

- LLMs (large language models) and one LLMs is called ChatGPT (“generative pre-trained transformer”)
  - uses probability calculations to predict what the next word is
  - “trained” on vast bodies of preexisting text
  - all of the text a model generates is original (i.e., it represents combinations of letters and words that generally have no exact match in the training documents); the content is unoriginal (i.e., it is determined by patterns in its training data)
  - the same model can generate different sequences in response to the same input prompt
  - LLMs do not think; they predict and can mimic the writing/thinking of sentient humans fairly convincingly.