AI Tools and Their Influence on Teaching, Learning, and Assessment

May 11, 2023
Presenters

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Agenda

- Overview of AI Tools
- AI at the Institutional Level
- AI at the Faculty Level
- AI in the Classroom
- AUPHA's Role in Conversations About AI
- Q&A
Overview

- An AI tool is a software application that uses artificial intelligence algorithms to perform specific tasks and solve problems.
- Examples of everyday uses: Maps and Navigation, Facial Detection and Recognition, Text Editors, Search and Recommendation Algorithms, Chatbots, Digital Assistants, Social Media, Banking, etc.

TRANSFORMATIONAL TECHNOLOGY
Artificial Intelligence is expected to completely change the way things are done today
AI in Higher Education

- November 2022, OpenAI released ChatGPT
- ChatGPT is an evolution of a chatbot
- GPT-3, the third-generation Generative Pre-trained Transformer
- GPT-4, which is better at generating text than previous versions
- GPTZero, quickly detect A.I.-generated text
AI in Higher Education

Rather than give into the panic about AI, higher education institutions should view these new models as an opportunity to rejuvenate the classroom learning experience.
AI in Higher Education

Plus+

Legal Concerns
Copyright
Click Thru Agreement
AI in Higher Education

- Provost Working Groups
  - Academics and Research
  - Financials/Operations
  - Business Intelligence
  - Clinical/Medical Education
- Scope
- Library Workshops, Faculty Senate, Center for Teaching and Learning
AI at the Institutional Level

State of the LLM Response at NYU
The Way Forward
AI at the Institutional Level

Why TEE Committee?

Represents:
- faculty interests & concerns in choices and policies that affect how faculty teach using digital tools
- interests of different schools in specification and adoption of platforms for digital learning and analytics

Promotes:
- experimentation with new tools/approaches in schools
- Research on pedagogical benefits of those tools/approaches

Proposes & Recommends:
- means of informing faculty on availability and use of new tools/approaches
- incentive structures and contractual reqs. for faculty engaged in new uses of these tools/approaches
AI at the Institutional Level

Shift of Strategic Priorities for TEE

2022
- Student & faculty variable familiarity with tech
- High-stakes testing and proctoring
- Acknowledgement and support for faculty development of online materials

2023
- + LLM
- Ethics and equity
- Syllabus language
- Acknowledgement and citations
- Assessment and assignment design
Generative AI is here to stay, like Wikipedia, the internet, Google, the calculator, and all innovations predating it.

“You can’t fight technology,” says Adam Fontecchio, inaugural director of the Center for the Advancement of STEM Teaching and Learning Excellence and a professor of electrical and computer engineering at Drexel University.
AI at the Faculty Level

Teaching with Generative Tools (TGT) Working Group

- What has changed and might change in higher ed with generative tools?
- How can faculty
  - Avoid potential negative effects?
  - Take advantage of potential positive effects?
AI at the Faculty Level

January 2023: The Approaches Considered

Detection  Avoidance  Integration
AI at the Faculty Level

Guidance February 2023

Detection

Do not count on third-party detection tools in classes this Spring

If used, faculty should
- understand current weaknesses
- make it clear to students that to learn from class, they need their own writing

Sample statement for syllabus or class:

- Because writing is a form of thinking, you should not use ChatGPT or similar tools for drafting or editing written work. Doing so in this class is a violation of the Academic Integrity policy.
## AI at the Faculty Level

### Avoidance

Design assignments to be harder to complete using LLM

<table>
<thead>
<tr>
<th>Oral presentations</th>
<th>2x2 matrices</th>
<th>Apply personal experience</th>
<th>Briefs</th>
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<tbody>
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<td>Cases</td>
<td>Debates</td>
<td>JITTs</td>
<td>Infographics</td>
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<td>Mindmaps</td>
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<td>Interviews</td>
<td>Journals</td>
<td>Reflections</td>
<td>Single Google doc</td>
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AI at the Faculty Level

Integration

Give explicit permission to use tool in course, but in approved ways.

Students could prompt ChatGPT to write an essay, then write response based on resulting text for two essays on issue, one pro and one con, then discuss differences critique response, uncover bias, tweak prompt to get improvement
AI at the Faculty Level

Sample Statements for Syllabus or Class

Avoidance

It is important that the written work required by the course is yours. **You should not use ChatGPT or other AI tools for any purpose other than idea generation.** When you use any of these tools, you must include a note describing how you used them with the assignment.

Integration

Use of ChatGPT and related tools is allowed in this class, but only in ways noted in the assignments. When you use any of these tools, you must include a note describing how you used them with the assignment.
## AI at the Faculty Level

### Integrating Generative Tools

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
<th>Student Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility engine</td>
<td>Generates alternative ways of expressing an idea</td>
<td>Write queries and use the Regenerate response function to examine alternative responses.</td>
</tr>
<tr>
<td>Socratic opponent</td>
<td>Acts as an opponent to develop an argument</td>
<td>Enter prompts following the structure of a conversation or debate. Ask students to use ChatGPT to prepare for discussions.</td>
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<tr>
<td>Collaboration coach</td>
<td>Helps groups research and solve problems together</td>
<td>Find out information to complete tasks and assignments.</td>
</tr>
<tr>
<td>Personal tutor</td>
<td>Tutors each student and gives immediate feedback on progress</td>
<td>Provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).</td>
</tr>
<tr>
<td>Study buddy</td>
<td>Helps the student reflect on learning material</td>
<td>Explain their current level of understanding and ask for ways to help them study the material. Help students prepare for other tasks (e.g., Interviews).</td>
</tr>
<tr>
<td>Dynamic assessor</td>
<td>Provides educators with a profile of each student’s current knowledge</td>
<td>Tutorial-type dialogue and then ask for a summary of their current state of knowledge to share with their teacher/for assessment.</td>
</tr>
</tbody>
</table>

Adapted from: UNESCO 2023 ChatGPT and AI in higher education
# AI at the Faculty Level

## Designing Assignments and Assessments for LLM

<table>
<thead>
<tr>
<th>Blooms</th>
<th>Examples of appropriate assessments</th>
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<tbody>
<tr>
<td>Apply</td>
<td>Problem sets, performances, labs, prototyping, or simulations that require students to:</td>
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<tr>
<td></td>
<td>• use procedures to solve or complete familiar or unfamiliar tasks</td>
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<tr>
<td></td>
<td>• determine which procedure(s) are most appropriate for a given task</td>
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<td>Analyze</td>
<td>Case studies, critiques, labs, papers, projects, debates, or concept maps require students to:</td>
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<td></td>
<td>• discriminate or select relevant and irrelevant parts</td>
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<td></td>
<td>• determine how elements function together</td>
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<tr>
<td></td>
<td>• determine bias, values, or underlying intent in the presented material</td>
</tr>
<tr>
<td>Assess</td>
<td>Journals, diaries, critiques, problem sets, product reviews, or studies that require students to:</td>
</tr>
<tr>
<td></td>
<td>• test, monitor, judge, or critique readings, performances, or products against established criteria or standards</td>
</tr>
</tbody>
</table>

Adapted from: https://www.cmu.edu/teaching/assessment/basics/alignment.html
AI at the Faculty Level

All Faculty Now EdTech Designers
Ethan Mollick – OneUsefulThing.org

“access to a tool that can potentially act as the ultimate education technology…take advantage of the latest in pedagogical science, while doing so in a way that matches both the students and the local context”.

-GPT-4 free via Bing’s Creative Mode
AI at the Faculty Level

What does this mean for faculty?

Can we keep it from affecting us?
AI at the Faculty Level

What's changing?
What remains the same?
What opportunities can we capture?

Teachers and students warm up to ChatGPT

Jennifer A. Kingston

ChatGPT Used by Teachers More Than Students, New Survey from Walton Family Foundation Finds

Professors are using ChatGPT detector tools to accuse students of cheating. But what if the software is wrong?

Kayla Jimenez
USA TODAY
Published 5:31 a.m. ET April 12, 2023 | Updated 1:09 p.m. ET April 13, 2023
AI in the Classroom

- How to be better students
  - Preparation, Organization
- How to be better thinkers
  - Critical Evaluation, Questions
- How to be better managers
  - Faster work, Better products
- How to be better leaders
  - Better communication, Better grasp of landscape

“YOUR SCIENTISTS WERE SO PREOCCUPIED WITH WHETHER THEY COULD THEY DIDN’T STOP TO THINK IF THEY SHOULD.”

—DR. IAN MALCOLM
AI in the Classroom

Preparing leaders for the future of healthcare

From 'transformative' to 'tremendous fear': Takes on ChatGPT in healthcare at ViVE 2023
By Heather Landi, Paige Minemyer, Dave Muolo • Apr 4, 2023 07:30am
Feb 7, 2018 - Technology

Experts say AI isn't quite fire or the wheel — yet

Google CEO: AI is 'more profound than electricity or fire'
by Alanna Petroff @AlannaPetroff
January 24, 2018: 2:50 PM ET
Examples

• Preparing for Q&A:
  ○ What kinds of questions can I anticipate and prepare for?

• Clarity of Writing:
  ○ Do my main points effectively come across in my writing?

• Creative Prompts:
  ○ What initial ideas or suggestions can I use to spark creativity?

• Summarizing Articles:
  ○ What were the key themes, and can I apply and synthesize them?
Student Perspectives

System Usability Scale
Student Perspectives

Search Satisfaction Score

![Histogram showing search satisfaction scores](image-url)
Student Perspectives

Net Promoter Score

On a scale of 0 to 10, how likely is it that you would recommend ChatGPT to a friend or colleague?
Student Perspectives

NPS Over Time

Last week

Net Promoter Score

February
Thank You!  Q&A
AUPHA's Role

- Facilitate conversation and sharing of best practices among member programs
- Faculty Forum discussions regarding innovate uses of AI in the classroom
- JHAE

EXPLORING HEALTHCARE LEADERSHIP COMPETENCIES FOR THE FOURTH INDUSTRIAL REVOLUTION: A SCOPING REVIEW OF THE LITERATURE

Richard G. Greenhill, DHA, John S. Pearson, DHA, Ryan N. Schmidt, PhD, Daniel Stuart, PhD, & Stephen Rossettie, MBA
Annual Meeting Session

ChatGPT in Healthcare Administration Education: Users’ Experiences and Satisfaction

Presenters:
- Nancy Borkowski, The University of Alabama at Birmingham; Ganisher Davlyatov, University of Oklahoma Health Sciences Center; and Daniel Kim, Georgetown University

Session Description:
- The COVID-19 pandemic has accelerated the transition to remote learning in higher education institutions. However, without direct supervision in online classes, concerns about academic integrity have been raised, particularly in online exams. The recent release of ChatGPT, a free general-purpose conversation chatbot designed to generate human-like texts, has amplified these concerns. While ChatGPT can help students answer exam-style questions, follow-up questions, and even draft academic essays, it can also assist educators in generating curriculum, lecture notes, test questions, and grading student work. In this session, we will provide anecdotal data on the experiences of educators and students who have used ChatGPT and discuss some cases of its implementation in academia. Additionally, we will review its potential positive and negative impact on student learning.
Resources for Further Learning

Webinars and Video Recordings:

- Unlocking the Power of AI: How Tools Like Chat GPT Can Make Teaching Easier and More Effective
- 60 Minutes | The AI Revolution: Google's Developers on the Future of Artificial Intelligence
- TED | The Inside Story of ChatGPT's Astonishing Potential
- TED | The Amazing AI Super Tutor for Students and Teachers | Sal Khan

Newsletters:

- One Useful Thing