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Introduction

This guide will introduce how ChatGPT, and other Generative Artificial Intelligence (AI) tools can best be used by UR faculty, staff, and students. Also, an understanding of the ethical, data, and privacy concerns related to AI usage at UR. Overall, this guide will show how AI can positively be harnessed to move the UR community forward while being aware of the impact of this evolving technology.

What is Generative Artificial Intelligence (AI)?

AI is a large language model that allows people to interact with a computer in a more natural and conversational way. The "GPT" in ChatGPT stands for "Generative Pre-trained Transformer" and is the name given to a family of natural language models developed by open Artificial Intelligence (AI). This is also known as a form of generative AI because of its ability to produce original results.

What can ChatGPT be used for?

- Teaching & Learning
 - ChatGPT can perform many simple or technical tasks (e.g., basic research, calculations, proofing) and the examples outlined in the table show how ChatGPT could be incorporated and used to augment teaching and learning. Below are additional examples.

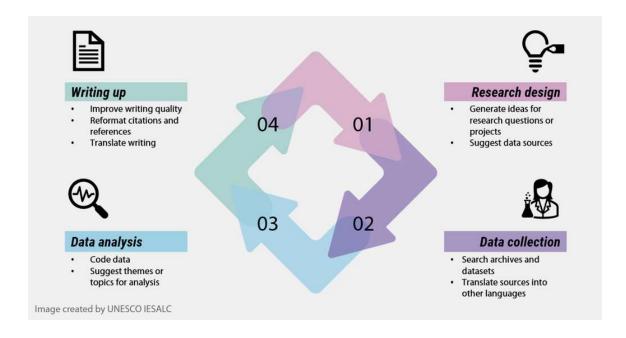
Role	Description	Example of Implementation
Possibility engine	AI generates alternative ways of expressing an idea	Students write queries in ChatGPT and use the Regenerate response function to examine alternative responses.
Socratic opponent	AI acts as an opponent to develop and argument	Students enter prompts into ChatGPT following the structure of a conversation or debate. Teachers can ask students to use ChatGPT to prepare for discussions.
Collaboration coach	AI helps groups to research and solve problems together	Working in groups, students use ChatGPT to find out information to complete tasks and assignments.
Guide on the side	AI acts as a guide to navigate physical and conceptual spaces	Teachers use ChatGPT to generate content for classes/courses (e.g., discussion questions) and advice on how to support students in learning specific concepts.
Personal tutor	AI tutors each student and gives immediate feedback on progress	ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).
Co-designer	AI assists throughout the design process	Teachers ask ChatGPT for ideas about designing or updating a curriculum (e.g., rubrics for assessment) and/or focus on

		specific goals (e.g., how to make the curriculum more accessible).
Exploratorium	AI provides tools to play with, explore and interpret data	Teachers provide basic information to students who write different queries in ChatGPT to find out more. ChatGPT can be used to support language learning.
Study buddy	AI helps the student reflect on learning material	Students explain their current level of understanding to ChatGPT and ask for ways to help them study the material. ChatGPT could also be used to help students prepare for other tasks (e.g., job interviews).
Motivator	AI offers games and challenges to extend learning	Teachers or students ask ChatGPT for ideas about how to extend students' learning after providing a summary of the current level of knowledge (e.g., quizzes, exercises).
Dynamic assessor	AI provides educators with a profile of each student's current knowledge	Students interact with ChatGPT in a tutorial-type dialogue and then ask ChatGPT to produce a summary of their current state of knowledge to share with their teacher/for assessment.

Reference: ChatGPT and Artificial Intelligence in higher education

o Research

ChatGPT can be used by researchers at different stages of the research process. Some examples include: writing up, research design, data analysis, and data collection. This is summarized below.



Administration

- ChatGPT's main role in supporting UR's administration has been in improving the efficiency of processes. Some examples include:
 - Responding to queries from applicants (potential students).
 - Helping students to sign up for courses, complete course requirements, check administrative information (e.g., exam timetables, location of classes).
 - Translation of information for international students/staff.



Community engagement

ChatGPT can be used to develop sound strategies for UR's community engagement. Considering UR's specific characteristics (geography, location, community needs, local demographics), ChatGPT could be asked to develop targeted strategies to improve the wellbeing of the overall community.



ETHICAL CONCERNS

When using ChatGPT in your learning, teaching, research, or outreach, consider the ethical implications of the model's use. This may include issues of the following below.

Academic Integrity

Understand existing technologies existing tools to detect plagiarism may not be effective in the face of writing done by ChatGPT.

Lack of Regulation

At this time ChatGPT is not currently regulated by the US government but institutions within the US have implemented their own organizational regulations in utilizing the technology in a safe manner.

Cognitive Bias

- ChatGPT is not governed by ethical principles and cannot distinguish between right and wrong, true and false.
- It collects information from the internet and processes it, so it also learns any cognitive bias found in that information.

Gender & Diversity

- The use of ChatGPT carries associated risks of sexist and/or racially prejudiced language biases based on existing sources.
- The output generated by ChatGPT is not always perfect and needs human supervision and editing, even though the model has been fine-tuned to a specific task.

Accessibility

There may be a lack of availability of ChatGPT in some countries due to government regulations, censorship, or other restrictions on the internet.

Commercialization

ChatGPT was created by a private company, OpenAI. Whilst the company has pledged to maintain a free version of ChatGPT, it has launched a subscription option (currently US\$20/month) that offers greater reliability and faster access to new versions of the tool.

DATA SECURITY & PRIVACY CONCERNS

When providing information to ChatGPT, it is important to understand both ChatGPT's and UR's data and privacy regulatory standards.

How does ChatGPT use your content aka data input?

- From the OpenAI terms of use:
 - "Our Use of Content. We may use Content to provide, maintain, develop, and improve our Services, comply with applicable law, enforce our terms and policies, and keep our Services safe."
 - What does this look like?
 - User input aka "chat history" is used to train and improve the models ChatGPT is built upon.
 - Of note, OpenAI (the company behind ChatGPT) has provided vague details on exactly how your data inputs are being used to train its ChatGPT machine learning platform.
 - ChatGPT may not be the only platform to use your data but also other companies.

- An API based on ChatGPT will allow companies to access the model ChatGPT is built upon and use it for their own products and services.
- Of note, users can opt out by turning off training for any conversations created while training is disabled, or you can submit this form. Once you opt out, OpenAI states "new conversations will not be used to train our models".

How does UR classify its data?

- Confidential Information
 - Sensitive information that must be safeguarded in order to protect the privacy of individuals and the security and integrity of systems and to guard against fraud. Confidential information includes, but is not limited to:
 - Social Security numbers
 - Credit and debit card numbers
 - University ID number
 - Bank account or other financial account numbers
 - Medical or counseling records or information
 - Passwords, passphrases, PIN numbers, security codes, and access codes
 - Tax returns
 - Credit histories or reports
 - Background check reports
 - Confidential Information must be afforded the highest level of privacy and security controls.

Restricted Information

Includes all data, records, documents or files that contain information that is: (a) required to be maintained confidentially under any applicable law, regulation or University policy; (b) subject to a contractual obligation to maintain confidentially; (c) subject to any applicable legal privilege or protection, such as the attorney-client privilege; and/or (d) deemed by the University to be a trade secret, confidential or proprietary.

- Education records
- Employment records
- Financial aid records
- Date and place of birth
- Business plans
- Public relations strategies
- Information security protocols or systems
- Financial records (other than audited financial statements published on the University website)
- Prospective and existing contracts and other business arrangements and/or business plans, procedures, and other strategies
- Library circulation records
- Official Use Only Information
 - Official Use Only Information is information about individuals that can be shared within the University Community for official purposes but will not be routinely made available to the public except by the Office of Communications. Official Use Information includes, but is not limited to:
 - Name
 - Addresses: permanent, campus, local (off-campus), e-mail and campus computer network (IP) address, NetID
 - Associated telephone numbers
 - School or college
 - Major and/or minor fields of study
 - Degree sought
 - Expected date of completion of degree requirements and graduation
 - Degrees conferred
 - Awards and Honors (e.g., Dean's list)

- Full or part time enrollment status
- Dates of attendance
- Previous institutions attended
- Participation in officially recognized activities and sports
- Weight and height of members of athletic team members
- Photograph
- Gender
- Race
- **Public Information**
 - Information that the University has made available or published for the explicit use of the general public.
- What are UR's data security and privacy regulatory standards?
 - Included, but is not limited to:
 - Data Security Policy
 - External Data Transfer Policy
 - This policy applies to the data transfer of Confidential or Restricted data to an external party performed on a manual, ad-hoc, or one-off basis.
 - Family Educational Rights and Privacy Act of 1974 ("FERPA")
 - Health Insurance Portability and Accountability Act of 1996 (HIPAA)
 - Payment Card Industry Data Security Standard (PCI DSS)
 - When providing information to ChatGPT and other Generative AI tools, it is important to understand UR's data and privacy regulatory standards.

Service	Is the service	Where is the	Does the service	What kinds of
	consumer or	information stored	have a current UR	information is
	enterprise	or processed?	Contract?	appropriate for
	focused?			the service?

Adobe Firefly	Enterprise	Third Party Cloud	Yes (Part of	Public, non-
			Creative Cloud)	identifiable
				information
ChatGPT 3.5	Consumer	Third Party Cloud	No	Public, non-
				identifiable
				information
ChatGPT 4.0	Consumer	Third Party Cloud	No	Public, non-
				identifiable
				information
Dall-E	Consumer	Third Party Cloud	No	Public, non-
				identifiable
				information
Google Bard	Consumer focused	Third Party Cloud	No	Public, non-
(Personal Google				identifiable
Accounts)				information
Google Bard (UR)	Consumer focused	Third Party Cloud	No, not enabled	Public, non-
				identifiable
				information
Microsoft Bing	Consumer	Third Party Cloud	No	Public, non-
Chat (Consumer)				identifiable
				information
Midjourney	Consumer	Third Party Cloud	No	Public, non-
				identifiable
				information

What are some examples of inappropriate use of ChatGPT at UR?

o Dishonest Uses: Generating Evaluated Content

- You are allowed to use ChatGPT for pedagogical and language support. However, you are not allowed to use ChatGPT to generate evaluated content. When using ChatGPT, ask yourself the following:
 - Did someone else do the work you are turning in, including ChatGPT?
 - Have you used ChatGPT to generate an evaluated text or section(s) of an evaluated text?
 - Have you used ChatGPT to demonstrate your knowledge of a course's learning outcomes?
- If you answered yes to any of these questions, you may have committed plagiarism.
- Problematic Uses: Generating "Hallucinations"
 - ChatGPT makes a lot of mistakes. The technical term for these mistakes is "hallucinations." Hallucinations are problematic because ChatGPT makes these mistakes convincingly. t. If you submit "hallucinated" references in an evaluated course text, you have committed plagiarism. If you would like to see how ChatGPT hallucinates, try the following:
 - Instruct ChatGPT to write a text about an academic topic such as social sustainability, conflict resolution, or climate change.
 - Tell ChatGPT to integrate references to peer-reviewed journal articles written by [insert your name] into the summary.
 - Check the references in Google Scholar and compare the results.
- For more info checkout, ChatGPT: Course Policy & Appropriate, Problematic, and Dishonest Uses in Higher Education.

SUMMARY

In summary, responsible use of ChatGPT requires transparency, awareness of potential biases, balance with human interactions, privacy and security considerations and continuous learning.

- ChatGPT is a tool that can positively be used to assist your work in the following below.
 - Teaching & Learning
 - Research
 - Administration

- Community Engagement
- Be wary of the negative implications of using ChatGPT.
 - Research has shown ChatGPT can be maliciously trained.
 - Additionally, ChatGPT may be biased depending on the algorithms and the data sources it is trained from. Therefore, it is important the data output needs to be evaluated for bias.
- Know what data you are sharing to ChatGPT.
 - Do not put restricted or confidential information into using ChatGPT, since there is no expectation of privacy or confidentiality.
 - Understand how to best use ChatGPT while being secure with your data.
 - If you don't know if something should be inputted to ChatGPT ask for help from your professor or reach out to Information Services Security at infosec@richmond.edu