ST. JOHN'S UNIVERSITY

OFFICE OF THE PROVOST

GENERATIVE AI — Academic Guidance for Faculty

1. DEFINITION

Artificial intelligence (AI) language models that use natural language processing to generate human-like text are a rapidly growing technology moving towards ubiquity. Examples of such systems include ChatGPT (GPT stands for Generative Pre-trained Transformer), Bard, and other similar programs. These systems are essentially computer-based language models that can engage in conversations, comprehend complex language patterns, and generate coherent responses. The models have been trained on a massive amount of text data from books, articles, and online sources, enabling them to understand context, provide explanations, and even simulate discussions. These AI tools have the potential to assist in various educational scenarios, such as drafting documents, providing insights, and facilitating communication. It is important to note that the tools are not human and have limitations and biases in their responses. Hence, while generative AI offers innovative possibilities, it requires careful consideration in terms of privacy, accuracy, and ethical use within the University's academic framework.

2. FOUNDATIONAL CONSIDERATIONS

2.1. PEDAGOGICAL INTEGRATION

Faculty members are encouraged to explore innovative ways to incorporate AI tools into their teaching methods. It is expected that AI will be used across fields in many creative ways. We should prepare our students for these uses, present, and future. Examples may include:

- Supplemental Learning: Can be used as a supplementary tool to provide additional explanations, examples, and resources to enhance students' understanding of course materials.
- Discussion Facilitation: Can stimulate discussions by generating prompts, questions, or hypothetical scenarios that encourage critical thinking and class participation.
- Active Learning: Can create engaging assignments in which students work in groups to conduct a comparative analysis of AI-generated content related to coursework and curricular content.
- Personalized Feedback: Can provide personalized feedback on assignments, projects, or assessments, addressing individual students' questions and concerns.
- Language Practice: Can allow students to practice language skills, simulate real-world conversations, or engage in various learning exercises.
- Virtual Reality (VR) and Augmented Reality (AR): Can enhance virtual and augmented reality experiences in education by creating immersive simulations and scenarios, allowing students to explore complex concepts in a more engaging manner.

2.2. ETHICAL CONSIDERATIONS

It is important that the integration of AI tools aligns with ethical standards. To aid in this alignment, Faculty should explicitly outline their AI use expectations for students, clearly defining the boundaries between acceptable and unacceptable uses:

- Transparency: Students should know whenever they are interacting with an AI tool and not a human. Clear disclosure of the technology's involvement in classroom activities helps maintain trust and avoids confusion.
- Bias and Fairness: AI models inherit biases from the data they are trained on, which can lead to biased or unfair responses. Faculty should be cautious and actively work to counteract biases to ensure that students receive unbiased and equitable interactions.
- Accessibility: Faculty should ensure that the use of AI tools does not exclude students with disabilities from participating in class activities. The technology should be used in a way that is accessible for all students.
- Reduced Learning Engagement: Overreliance may hinder deep engagement with course material, leading to incomplete learning experiences.
- Ethical Development of AI: Faculty should encourage responsible use of AI and raise awareness about the limitations of AI tools to help students develop a better understanding of AI technologies and their societal implications.
- Academic Integrity: Faculty should clearly define boundaries for student use of AI tools so that the academic integrity of students' work is not compromised. Faculty should ensure their students understand and avoid plagiarism, unauthorized collaboration, or use of the tool to gain an unfair advantage in assessments.
- Plagiarism and Misattribution: Generative AI use should always be disclosed, and students must not plagiarize or fail to attribute AI generated content, compromising originality and proper citation.
- Unauthorized Collaboration: AI tools might be used for improper collaboration, blurring individual contributions and violating academic integrity.
- Cheating: Students obviously should not use AI tools to cheat on exams or assessments, gaining unfair advantages.

3. FACULTY DEVELOPMENT AND SUPPORT

The University plans to provide faculty with training and resources to effectively integrate language processing tools into their teaching practices. These are examples of how one might employ these tools in the classroom.

For Students:

- Preliminary Research Assistance: Students can use AI to gather information for research projects. They can ask specific questions, request summaries of articles, and get recommendations for further reading. Application of critical information literacy skills are necessary here to be able to identify source limitations and differentiate between real and "fake" resources, authors, citations, etc. Note: any use of AI generated information should be properly cited.
- Writing Support: AI tools can help students brainstorm ideas, outline essays, and provide suggestions for improving their writing. These tools can also assist in proofreading for grammar and style errors.
- Language Learning: Language students can practice conversational skills by engaging in conversations. AI tools can provide vocabulary explanations, correct grammar mistakes, and simulate real-life language interactions.
- Prompt Engineering: Students can learn how to interact appropriately with generative AI tools. By adequately prompting and guiding the AI-BOT in the chat, students can generate high-quality output while being aware that an AI-BOT should not be used to replace a search engine and that some of the generated content could be inaccurate or even blatantly false.
- Creative Problem-Solving: Students can use AI-BOTS support to generate solutions and new content in various formats.
- AI Content Editing: Students will hone their editing skills to screen solutions and improve their quality while disclosing that the output has been obtained through human-machine collaboration.
- Personalized Learning: AI can analyze students' learning patterns, strengths, and weaknesses to tailor learning experiences. It can offer personalized recommendations, adaptive content, and individualized study plans to cater to each student's pace and style of learning.
- Intelligent Tutoring Systems: AI-powered tutoring systems can provide real-time assistance to students. These systems can offer explanations, examples, and practice problems based on the student's progress and performance, effectively acting as a virtual tutor available 24/7.
- Smart Content Recommendation: AI can suggest additional resources, readings, and multimedia materials based on the content being studied, enhancing students' understanding and engagement.

For Faculty:

- Automated Preliminary Grading: AI tools can preliminarily grade assignments that require subjective evaluation, such as essays and short answer questions. AI can follow rubrics and guidelines to provide consistent feedback.
- Curriculum Enhancement: AI can help faculty develop engaging lesson plans and learning materials. It can suggest multimedia resources, case studies, and real-world examples to make the content more relevant.
- Creative and Original Assignment: Faculty can use AI to frequently refresh student learning outcomes and associated assignments that directly relate to class-specific discussions and group work.
- Student Support: AI tools can be an important resource for students with learning disabilities or special needs. It can provide explanations in different formats, such as visual or auditory, to accommodate different learning styles.
- Data Analysis for Insights: AI can analyze large amounts of educational data to identify trends and patterns. This can help educators make informed decisions about curriculum design, teaching methods, and identifying struggling students who might need additional support.
- Administrative Automation: AI can automate administrative tasks like attendance tracking, scheduling, and resource allocation, allowing teachers to focus more on teaching and interacting with students.

4. ADDITIONAL FACULTY SUPPORT

- AI Task Force: The University has created an AI Task Force comprised of faculty and administration to keep abreast of current trends, potential issues, learning methodologies and best practices. The Task Force will be providing a newsletter to inform the University on a regular basis.
- Workshops: Regular workshops and training sessions will be offered to familiarize faculty with capabilities, limitations, and practices for usage.
- Support Channels: We are in the process of establishing support channels where faculty can seek assistance, share experiences, and collaborate on innovative uses.
- Detection Tools: Faculty can employ various tools designed to detect AI-created text such as GPTZero and AI Content Detector to validate students' work.

5. REVIEW AND UPDATES

Moving forward, collective research (including from the AI Task Force) on tools to detect ChatGPT and other generative AI software may be provided and implemented to assist faculty. This guidance is a starting point and will be periodically reviewed to ensure its relevance and effectiveness. By proactively engaging with this emerging technology, St. John's aims to harness the potential of natural language programs to enhance the educational experience while upholding ethical standards, academic integrity, and technological reliability.