DLSI NEWSLETTER

Supporting teaching and learning at La Salle

10 AI ETHICAL ISSUES

As I engage with colleagues and students about artificial intelligence (AI) and large language models (LLMs) like ChatGPT, I notice a range of reactions from those who begin to realize its power and potential, from awe and excitement to concern and trepidation. AI and LLMs present both incredible opportunities and complex ethical challenges. **We must explicitly consider and address these ethical issues.** Here, I provide a list of 10 ethical concerns (and there are plenty more), so that we might think them through for ourselves, with our students, for La Salle, and in future conversations with one another.

1. AI is only as good as the information it is trained on; that is, human-generated content. The potential for amplification of **biases and discrimination** is significant. We have to work to identify biases in these tools, while addressing discrimination and the reinforcement of social inequalities.

2. AI systems, including LLMs, rely on large amounts of data for training and functioning. Ensuring the **privacy and security** of user data is critical. Data breaches or misuse of personal information can have severe consequences for individuals and organizations.

3. As AI and LLMs become integrated into our daily lives, people may become overly dependent on these technologies. The potential **loss of critical thinking skills**, human intuition, and personal judgment is a clear risk. It will be important to continually examine the balance between AI-assisted work and human decision-making.

4. When AI systems make mistakes or generate biased or harmful content, it can be challenging to determine **who is accountable**—the developers, the users, or the AI system itself. Developing clear guidelines for AI use and accountability is necessary to ensure that responsible parties address any negative outcomes.

5. Increasing capabilities of AI and LLMs may lead to **job displacement** in certain industries, as automation and AI-driven processes replace human labor. Addressing the potential social and economic ramifications of this shift is essential for mitigating the negative impact on affected workers.

6. There is a notable lack of public information about how most of these AI technologies actually work. **Transparency and explainability** is necessary for users to be able to make sense of, make use of, and trust output. Especially as they are applied to more sensitive scenarios.

7. The rapid development and integration of AI will exacerbate **the digital divide**, as those with limited access to technology or a lack of digital literacy may be left behind. Ensuring equitable access to AI tools will be necessary.

8. AI-generated content has the potential to diminish the value of **original thought and creative expression**. We will need to discuss the balance between AI-assisted and traditionally produced content, especially in classrooms.

9. The resources required for training and running large-scale AI models, including LLMs, can consume significant amounts of energy, creating an **environmental impac**t that we should analyze.

10. At the moment, there are no consistent **AI regulatory frameworks**. Some countries are tightly regulating ChatGPT. Very recently, the Biden Administration began to [seek public comment on AI accountability measures](#). There are significant local, national, and

global implications that result from the widespread use of AI.

This is just a small number of broad concerns. We **have a responsibility to engage with one another, and our students,** in conversations about the ethical and social risks associated with AI and LLMs. We need to explore concepts of fairness, accountability, privacy, and academic integrity, while finding ways to balance AI's efficiency with critical thinking, creativity, and ethical reasoning.

These are complex issues, and they are on our doorstep. As AI begins to shift the economic landscape, we need to consider how various workforces will be impacted, and what these changes will mean for society and for academia. AI and LLMs are already being integrated into the workplaces of our students and life at the university.

The pace at which these technologies are being proliferated presents **unique challenges for academic institutions that often struggle with change.** It is imperative that we take proactive steps to understand, discuss, and navigate the complex landscape of AI ethics, preparing ourselves and our students for a future where AI and LLMs are increasingly integrated into our lives.

[I would like to thank OpenAI's ChatGPT-4 for providing valuable insights and suggestions in the preparation of this column.]

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ENGAGING PRACTICES ON CAMPUS
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As the old adage goes "variety is the spice of life." I use a **variety of teaching methods** to help my students retain information and be engaged in the classroom. In nursing, students need to develop clinical judgment to pass national boards and deliver quality nursing care. We know reading and PowerPoints are not effective in helping students learn and retain information.

A couple of years ago, I decided to flip my classroom. Now, I record lectures (no longer than 30 minutes) with the expectation they are listening prior to class. I start each class with a Kahoot that reviews the previous week's lecture. This is followed by a mini review that highlights key concepts for about 20 minutes. For the rest of class, I have students work in small groups on rolling case studies, practice questions, Socratic questioning, Jeopardy, and documentaries with reflection questions. I mix this up weekly.

The national boards that nursing students need to take was recently updated with new styles of questioning, which includes matrix, bowtie, and ordering, among others. This past year I have added these types of questions to many of the above-mentioned activities. I wrap up the class with a knowledge dump, using either "muddiest point" or "one minute" exercises. I do a midterm assessment using Qualtrics to assess what is working or not working in the class and adjust

according to the feedback.

It is challenging to create a variety of assignments that are congruent with course objectives, but student engagement and ability to apply their knowledge to clinical scenarios has improved.

AI IN THE CLASSROOM

As powerful LLMs like ChatGPT-4 become more accessible, we are gaining insight into their potential opportunities and challenges, particularly in education. While it is crucial to address ethical concerns, such as plagiarism and academic integrity, we also need to recognize that **we are going to have to adapt our teaching methods and assessments** to leverage these tools effectively. As Mollick points out here, (a) AI **cheating will remain undetectable** and be widespread, (b) **AI tutoring will be excellent**, and (c) AI will allow **human instructors to focus making learning better**.

Everyone must learn about ChatGPT. Create an account and begin to use the technology. It is imperative that you consider the opportunities and challenges that LLMs present. They are quickly becoming part of most of the economic sectors that our students will be moving into. **They are going to be part of our lives.**

You may find your initial interactions with ChatGPT to be a bit slow and unimpressive, partially because the widespread adoption and use of the free system continues to stress OpenAI's capacity, and partially because you

will need to explore and experiment.

Trying at different times of the day and being patient will help. A subscription to ChatGPT Plus, will provide you access to more advanced versions of the tool, and greatly improved response times. To experience ChatGPT connected to the internet, you will need to go to Microsoft Bing and sign up for the waitlist to gain access to Bing Chat. A month ago, it took about three weeks for me to gain access.

> The AI landscape is changing daily. Bookmark and visit this link often. New articles are added regularly.

Each of these systems works slightly differently. ChatGPT plus provides access to versions 3.5 and 4, which provide more accurate and creative responses than the free version. Bing Chat, with its access to the internet and use of ChatGPT-4, has the ability to search, analyze what it finds on the internet, and make use of that information as it responds. Regardless of version, the way one prompts the system (prompt crafting) is important. Experience helps, as does referring to the prompts that others are using, for example, here, and here. It will take some experimenting to break away from basic rudimentary questions. Ask follow up questions…ask for analogies…ask it to explain as if you were a child. You will begin to see the potential.

The output of current LLMs should always be checked for accuracy (they still frequently "lie"), and output almost always has to be edited prior to use, but here are a few ways that you might be able to incorporate these tools into your instruction:

ChatGPT can **generate discussion questions** or prompts based on course material. Asking for analogies or examples can further generate some creative thinking.

With some student instruction, ChatGPT can be used to provide **feedback** on assignments or projects. It appears to be pretty good at grammar and spell checking, revising for clarity and structure, developing analogies, and altering style. All output has to be checked for accuracy, but as a writing companion, ChatGPT can be very helpful.

ChatGPT can quickly create **low or no-stakes quizzes** for retrieval practice. Tell it your content and give it some guidance on level and what you want your students to practice. ChatGPT can also provide a quiz, one question at a time, let you know if you are correct or incorrect, and explain the answer; thus becoming **a personal tutor.**

ChatGPT can also **create scenarios or case studies.** Further, it can suggest **discussion questions**, or develop **role play** using those cases.

Recently, A Reddit user posted several prompts that are excellent for addressing specific teaching and learning strategies. Give these a try:

(Interleaving) Prompt: "Create a study plan that mixes different topics or skills within [subject area] to help me develop a more robust understanding and facilitate connections between them."

(Spaced practice) Prompt: "Design a spaced practice schedule for me to effectively review [topic or skill] over time, ensuring better retention and recall."

(Mental models) Prompt: "Help me create mental models or analogies to better understand and remember key concepts in [topic or skill]."

(Retrieval practice) Prompt: "Provide me with a series of challenging questions or problems related to [topic or skill] to test my understanding and improve long-term retention."

These are just a few straight-forward examples for now. You can find more information and ideas here. This technology is literally changing every week at this point. As I write this at the end of March, some are suggesting that ChatGPT 4, with just a few brief prompts, is close to being a "universal education simulator." Times are rapidly changing. We need to stay on top of this.

> The DLSI Newsletter is written, edited, and curated by
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