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BOARD #161: Lessons Learned- Facilitating conversations around Generative AI and its Impact on Society among faculty from different disciplines in a Jesuit University

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Background

Since the arrival of ChatGPT, generative AI has continued to shake up higher education institutions. Many institutions have scrambled to identify strategies and set policies for teaching and learning for faculty and students. One important fact to pay attention to is that generative AI impacts all disciplines—not only those with faculty that conduct "technical" research on generative AI, machine learning, or data science, but also disciplines and programs in the humanities. Hence, it is essential to include a broader range of interdisciplinary voices when investigating the impact of generative AI in higher education.

The authors from four different disciplines have worked together to lead the efforts on "Reimagining and Revising the Curriculum" (RRC) at Seattle University, a Jesuit University, as the selected Provost Fellows since 2022. Recognizing how generative AI would be a part of our curriculum changes, we designed and hosted a campus-wide workshop during the RRC summit, an event in Winter 2024 that assembled all department chairs and program directors on campus to exchange ideas on curriculum innovations and interdisciplinary collaborations. Our workshop aimed to provide faculty with a foundational understanding of generative AI, foster interdisciplinary discussions on its implications, encourage critical thinking on its responsible use, and support curriculum integration aligned with Jesuit values, which focus on educating the whole person for a just and humane world. As an essential part of the summit shaping institution-wide discussions on AI integration, our workshop drew 35 faculty members from all five colleges at the university, with 70% of the attendees representing their respective departments, engaging in critical discussions on the multifaceted implications of generative AI in higher education.

In this paper, we share the design aims and lessons learned from delivering the workshop to further the discussions on generative AI among faculty through an interdisciplinary, collaborative lens – in doing so, we identify two primary themes among our participants' perspectives on generative AI that are relevant to our future work: 1) a need for generative AI curriculum integration and skill development and 2) a need for more exploration of its ethical and social implications.

Structure of the Workshop

Our workshop explored four interconnected themes, thoughtfully chosen to promote a holistic and interdisciplinary understanding of generative AI and its societal impact. Drawing from our expertise in communication, philosophy, computer science, and engineering education, we aimed to create a space for reflective dialogue among faculty from diverse disciplines, emphasizing the importance of critical thinking in AI education, referencing religious, historical, and philosophical perspectives on technology's societal impact.

Each theme highlighted a specific dimension of the AI conversation, emphasizing their interdependence and relevance in a Jesuit educational context. The themes were structured to

progress logically from a broad societal perspective to practical applications, bridging foundational knowledge with actionable insights. The one-and-a-half-hour workshop featured multiple interactive exercises and a final survey to engage participants actively. Interactive exercises included using generative AI image tools (e.g., Huggingface's text-to-image models) to create prompts on analytical reasoning and ethical and social issues. Participants also shared their thoughts in a larger group discussion, analyzing case studies on the ethical challenges of AI in various contexts. These themes are:

1. Technology and its Impact on Society - Drawing parallels between the rapid evolution of social media and the current AI revolution, this theme offered participants an examination of social, political, and individual harms that social media has contributed to, including the proliferation of political and scientific mis/disinformation (on topics ranging from the Covid pandemic [1] to climate change [2]), mental health crisis among youth [3], and more. Such problems ask us to consider how we might have launched and regulated this technology differently to prevent such harms. With the growing ubiquity of AI, how might scholars and policymakers take those lessons to better manage this technology so that we minimize its negative fallout? Through this discussion, we ask participants to think through proactive, interdisciplinary approaches to emerging technologies in ways that promote the public good.

2. Historical Perspective - Examining past misconceptions and failed predictions concerning AI capabilities, this theme highlighted the need for a nuanced understanding of AI's potential and limitations and recognizing that it is often impossible to predict the effects of emerging technologies. These failures range from past predictions that a machine would never beat a human in chess [4] to the more recent discussions by linguists concerning the inherent limitations of neural networks when it comes to processing certain grammatical features of human language [5]. Behind these failures lay a faulty analogy between machine and human intelligence and a tacit assumption that machines will have to solve problems the way humans do. By providing this historical context, our aim was to remind the audience of the lesson Socrates taught long ago—that the first step to wisdom is knowing that we don't know.

3. Demystifying AI - This theme addressed a critical need: ensuring faculty from diverse disciplines develop a foundational understanding of generative AI and its underlying technologies. Many misconceptions and a general lack of clarity often hinder meaningful discussions about AI's capabilities and limitations.

By "demystifying" AI, we aimed to bridge knowledge gaps and empower participants to engage confidently in interdisciplinary conversations. The session began with an accessible explanation of generative AI and an overview of Large Language Models (LLMs), introducing their key components and functionalities. This foundational knowledge is tied into the workshop's broader themes by equipping participants to critically evaluate AI's societal impact and reflect on its historical context. It also set the stage for the practical applications discussed later. We examined both the opportunities and challenges AI poses, including transparency, governance, and issues like "hallucinations." By exploring LLMs' creative potential and limitations, we emphasized how these tools can foster analytical, ethical, and multidisciplinary reasoning—core values in Jesuit education—and enhance student learning.

4. Practical Applications and Curriculum Integration – The final theme focused on stimulating participants to reflect on what they learned and how they could apply and integrate generative AI into their curriculum. This section began with sharing the Pope's Message for World Day of Peace 2024—Artificial Intelligence and Peace [6], particularly emphasizing his statement that "Education in the use of forms of artificial intelligence should aim above all at promoting critical thinking." Participants reflected on the Pope's Message and responded to the following three questions:

- Does your program need a discipline-specific, program-level learning outcome about generative AI?
- What do you want the students in your program to know and be able to do with (or without) generative AI?
- In what specific courses in your program will students learn these skills?

Lessons Learned

The workshop's concluding questions prompted faculty to consider opportunities to incorporate generative AI into the curriculum. The 25 responses collected using MS Forms revealed the following key insights important for our next steps. We organized these responses into the two major themes below. Instead of qualitative research analysis, the themes reflect our interpretations of the survey responses, influenced by our individual disciplines and experiences. These themes were not identified as research results, but rather as lessons learned for us.

(1) Curriculum Integration and Skills Development

- Strategies for Curriculum Integration: Faculty debated whether to use generative AI broadly across courses or integrate it with specific program-level learning outcomes, with suggestions for targeted applications in ethics, business communications, media studies, and criminal justice.
- Technical and Practical Skills: Emphasis was placed on teaching technical aspects of AI, which foster critical thinking, and encourage practical applications such as brainstorming and efficiency.
- Program-Level Considerations: While some advocated cross-disciplinary opportunities, others expressed caution due to AI's rapid evolution.
- Student Outcomes: AI literacy and practical skills were prioritized, ensuring students can critically evaluate and apply AI tools effectively.

(2) Ethical and Social Implications

- Responsible Use of AI: Participants highlighted the importance of understanding AI's societal impact and using it responsibly. Ethical considerations were a recurring theme as it reflects the need to address potential biases and socio-ethical concerns.
- Balancing AI and Human Thinking: A key challenge identified was balancing AI use with fostering human critical thinking skills. Varying levels of instructor familiarity and comfort with AI technologies were also noted as barriers to effective integration.
- Curriculum innovations: Proposals included new courses focused on AI's role in fields like criminal justice and engineering and expanding AI-related content in existing programs.

The participants' responses provided valuable insights into faculty perspectives on integrating generative AI into the curriculum at Seattle University. A key takeaway for us was the diverse approaches to curriculum integration, with faculty debating between broad applications across courses and targeted program-level outcomes. Many emphasized the importance of equipping students with foundational technical knowledge of AI while fostering critical thinking and practical skills, such as brainstorming and improving efficiency. Ethical and social implications were recurring themes, highlighting the need for responsible use of AI and understanding its societal impact. Faculty also noted the challenge of balancing AI's capabilities with the development of human critical thinking skills, compounded by varying levels of instructor familiarity and comfort with AI technologies. Despite these challenges, participants proposed actionable ideas, such as introducing AI-focused courses in fields like criminal justice and engineering, as well as expanding AI-related content in existing programs. Collectively, these themes show the necessity of a nuanced, interdisciplinary approach to AI education, aligned with Jesuit values of critical thinking and ethical responsibility.

Discussion and Future Work

By blending technical knowledge with broader societal considerations, this workshop encourages faculty participants from various disciplines to address generative AI's challenges and opportunities within a Jesuit educational framework. Faculty responses underscored the need for AI literacy across disciplines, which helped us to identify three key initiatives. First, we conduct a literature review to define AI literacy criteria that align with Jesuit values. This effort ensures a shared understanding of how generative AI can support critical thinking, ethical reasoning, and interdisciplinary learning.

Second, we develop standalone learning modules that can be integrated into any course. These modules demystify generative AI by explaining its technical underpinnings, showcasing its potential for enhancing student learning, and addressing its limitations. They serve as flexible resources for faculty across various disciplines.

Finally, we create multidisciplinary course modules that explore generative AI's applications and implications. These modules address critical topics such as misinformation, socio-ethical concerns, biases, and errors, encouraging faculty and students to engage thoughtfully and creatively with AI technologies.

Looking ahead, we plan to establish a research community to foster interdisciplinary scholarship on Generative AI Literacy. This initiative will provide a collaborative environment for advancing research and sharing best practices. We also plan to develop a platform to host teaching modules and assessment tools, ensuring these resources align with Jesuit principles and are accessible to a broad academic audience. Through these efforts, we hope to contribute to global conversations on AI education and provide practical frameworks for integrating AI into higher education.

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