Faculty Framework for Generative Artificial Intelligence in Teaching and Learning

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Butler University
Last updated: August 20, 2024

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What is Generative AI?

Generative artificial intelligence (generative AI or GAI) refers to technologies that can create content such as text, images, audio, and video, closely mimicking what humans can produce. It excels at recognizing patterns across various formats and replicating those patterns when generating new content.

GAI marks a significant intellectual and cultural shift both in the classroom and across campus. One of the first areas impacted is the trust between educators and students, as GAI tools are not only easier and faster to use but also less reliably traceable than previous technologies. These circumstances can contribute to an adversarial tone, with instructors concerned about students using GAI to shortcut assignments and students worried about being accused of doing so. To address these challenges, education and openness are essential—hence, the need for this Framework.

Purpose and Audience

The purpose of this Framework is to equip Butler faculty with a solid foundation for exploring, utilizing, and responding to GAI in teaching and learning. Organized around seven key principles, the Framework provides a clear and structured approach to guide learning and discussion. While this approach may occasionally seem oversimplified, it effectively makes this complex and evolving topic more manageable, setting the stage for future efforts.

Aspirational in its intent, the Framework also models what ethical and responsible questioning of GAI might look like within university settings. Its Guiding Questions and Ethical Considerations are designed to establish a unified line of inquiry across different Colleges, while also supporting independent exploration of GAI technologies.

When implementing this Framework, it's important to understand its specific focus and intended purpose. This Framework concentrates on Generative AI (GAI) and does not encompass other AI technologies like predictive analytics or machine learning models for data analysis, which would be better addressed through separate resources. Additionally, it's important to note that this Framework is not about dictating specific rules but rather providing a starting point for you to explore and make decisions for yourself and your classroom.

Design of the Framework

This Framework is designed to assist Butler University faculty in achieving the following goals:

- Baseline literacy: The Framework prompts faculty members to develop a foundational understanding of the basic concepts, capabilities, and limitations of GAI tools, empowering them to make informed decisions in their teaching and learning.

- Learning outcomes: The Framework recognizes how the appropriate use of GAI tools can enhance teaching and learning outcomes for both faculty and students.

- Ethical practices: The Framework promotes the safe, responsible, and ethical use of GAI tools by Butler faculty.

- Equity and inclusion: The Framework ensures that GAI tools are used in ways that are fair, accessible, and inclusive for all Butler University students.

These goals are the basis of the Framework's 7 Principles and 28 Guiding Statements. Figure 1 provides a high-level illustration of the Framework, highlighting the interconnectedness of the Principles.
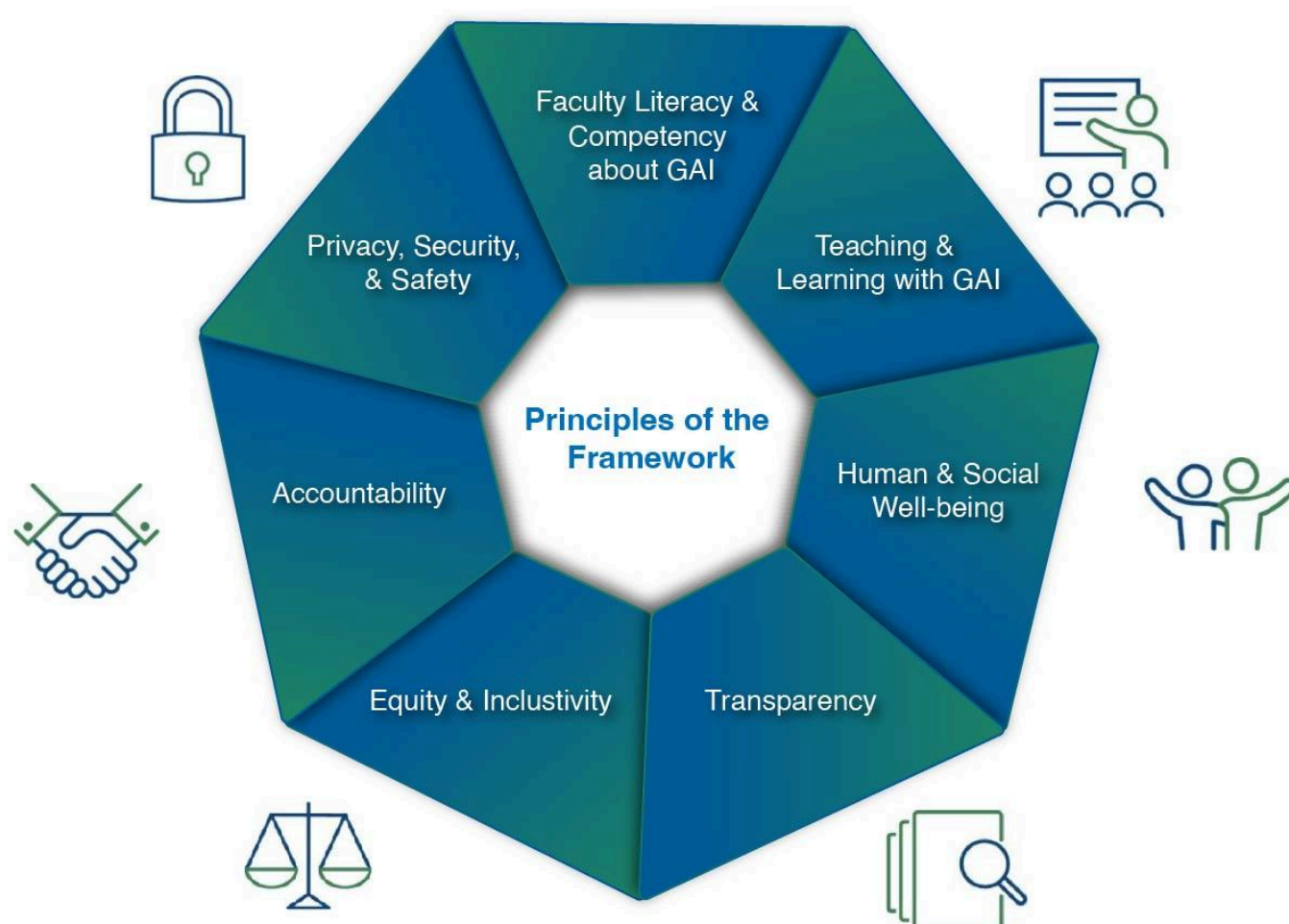

Figure 1: Visualisation of Faculty Framework for Generative Artificial Intelligence

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Opportunities and Risks

Generative AI technology holds significant potential to enhance teaching and learning while reducing administrative workloads in higher education. The increasing accessibility and sophistication of generative AI tools open up new opportunities for creating human-like text and rich multimedia content, enabling creative possibilities previously out of reach.

However, to fully harness the benefits of high-quality and safe generative AI, faculty must be equipped to navigate a range of privacy, security, and ethical considerations. Effective risk management is crucial given the potential consequences associated with the use of GAI. These consequences include the risk of errors, algorithmic bias in generated content, misuse of personal or confidential information, and the potential for GAI to be used inappropriately, such as in discriminatory practices or to compromise the integrity of student assessments.

About the Framework

In developing a resource tailored specifically to the needs and interests of Butler faculty, our 2024 summer work group—comprising **Megan Grady**, **Wade Javorksy, Chloe Moushey, Steve Nyktas, Kristen Palmer, and Ashlee Tietje**—drew inspiration from the Australian Framework for Generative Artificial Intelligence in Schools developed by the National AI in Schools Taskforce [licensed under Creative Commons Attribution 4.0 International (CC BY 4.0)]. While the original Framework was designed to address the needs of Australian schools, we adapted its core principles to better serve the higher education context at Butler. Our modifications included expanding the principles from six to seven, refining guiding statements to align with the unique challenges of higher education, incorporating guiding questions and ethical considerations to enhance the Framework's practical applicability, and providing key learning resources for each of the seven principles. These changes reflect our commitment to creating a resource that not only draws on established best practices but also meets the specific needs of our academic community.

The Australian Framework served as an excellent foundation for our work due to its comprehensive approach to addressing the challenges and opportunities presented by GAI in education. Developed through extensive collaboration with various stakeholders, including educators, industry experts, and policymakers, the Australian Framework provides a balanced and well-researched set of principles. Its emphasis on ethical considerations, inclusivity, and alignment with broader educational goals provided a solid basis for us to adapt and expand upon, ensuring that our final product is both relevant and effective within the context of higher education.

Review

The Framework will be reviewed by Butler's Generative AI Workgroup within six months of publication and every six months thereafter to accommodate the fast-moving pace of technological development in generative AI. Campus leaders may opt to review the Framework more frequently at their discretion.

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Principles	Guiding Statements	Guiding Questions and Ethical Considerations
1. Faculty Literacy and Competency <u>about</u> GAI Faculty understand how generative AI tools work and how they can be used. **Key Resource:** [What is Generative AI? (LinkedIn Learning Course)](#) [A Framework for AI Literacy (Barnard College)](#)	**1.1. Information and support:** Faculty and staff have access to clear and appropriate information and guidance about generative AI	**1.1.a.** Do I understand how generative AI tools work? **1.1.b.** Have I checked the generative AI resources available for Butler instructors? **1.1.c.** Have I contacted Online Education and Educational Technology for support as needed?
	1.2. Tool Selection: Instructors are capable of choosing the right generative AI for the job/project.	**1.2.a.** Am I aware of the different types of generative AI tools? What kind of information do they accept as input and return as a response (text, video, audio, etc.)? **1.2.b.** Have I selected a tool that aligns to the goals of my project? **1.2.c.** Does the tool meet Butler's IT standards and other ethical guidelines outlined in this document? Is it allowed/appropriate for this task? **1.2.d.** What am I gaining and what am I losing by using AI for this task? (Is the tool doing more than I need it to do? Am I engaging with or encouraging overreliance on AI with this tool?)
	1.3. Competency: Instructors able to interact with generative AI as effectively as possible (known as prompt engineering) while keeping in mind limitations of the technology.	**1.3.a.** Do I have a minimally acceptable level of understanding of generative AI material? **1.3.b.** Do I know strategies to improve my generative AI interactions (known as prompt engineering)? **1.3.c.** Do I understand how to adhere to ethical and practical guidelines of GAI use? **1.3.d.** Does this AI response truly represent what I personally would have expressed and agreed with if I had completely done it on my own? Is my authentic voice still in the response? **1.3.e.** What are some AI limitations? **1.3.f.** What does "hallucination" mean regarding AI?
2. Teaching and Learning <u>with</u> GAI Generative AI tools are used to support and enhance teaching and learning of the discipline/subject matter. **Key Resources:** [Teaching with Generative AI Resource Hub (MIT)](#) [AI Pedagogy Project](#) [Butler Syllabus Statements](#)	**2.1. Impact:** Generative AI tools are used in ways that enhance and support teaching and student learning.	**2.1.a.** Does the use of AI support student progress toward a learning outcome for the course? **2.1.b.** Does the use of AI contribute to the knowledge and skills necessary for the field of study?
	2.2. Instruction: Students are engaged in learning about generative AI tools and how they work, including their potential limitations and biases, and deepen this learning as student usage increases.	**2.2.a.** When using an AI tool in the classroom, have I explicitly communicated with students both the benefits and the limitations of the tool being used? **2.2.b.** When using an AI tool in the classroom, have I explicitly given instructions on how to use the tool effectively and ethically? **2.2.c.** Have I guided students to think about what level of control they want over their intellectual property and which AI tools would achieve that?
	2.3. Instructor Expertise: Generative AI tools are used in ways that support instructor expertise, and instructors are recognised and respected as the subject matter experts within the classroom.	**2.3.a.** In what ways does this encourage students to rely on my guidance and insights, ensuring that generative AI serves as an aid to their learning rather than as the primary source of information? **2.3.b.** Does using generative AI for this task allow me to prioritize my time on tasks that only I can complete with my subject matter expertise? **2.3.c.** When using AI, am I encouraging human job displacement in my or other fields?
	2.4. Critical and Creative Thinking: Generative AI tools are used in ways that support and enhance critical thinking and creativity, rather than restrict human thought and experience, allowing for a clear and unbiased evaluation of student ability.	**2.4.a.** Are students required to think creatively in this activity or could it easily be completed with generative AI? **2.4.b.** What are students gaining or losing by using AI to complete this task? **2.4.c.** Is the assessment designed in a way that allows for the unbiased evaluation of student ability? **2.4.d.** Would an AI be able to complete and pass this assessment?
	2.5. Student Use: Students are supported to use generative AI tools ethically in their work, including clear guidance on how generative AI tools should or should not be used.	**2.5.a.** Are the expectations for how generative AI should or should not be used (including correct documentation and citations) clearly expressed in the syllabus? **2.5.b.** Are the expectations for how generative AI should or should not be used (including correct documentation and citations) clearly expressed in the instructions for each assignment where appropriate? **2.5.c.** Have students been given clear guidelines on how and when to acknowledge the use of generative AI in the syllabus or individual assessments?

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3. Human and Social Wellbeing Generative AI tools are used to benefit all members of the university community. **Key Resources:** [Taxonomy of Human Rights Risks Connected to Generative AI](#) [Ethical and social risks of harm from Language Models](#) (p. 10)	**3.1. Wellbeing:** Generative AI tools are used in ways that do not harm the wellbeing and safety of any member of the university community.	**3.1.a.** How can generative AI be leveraged to improve mental health and wellbeing? **3.1.b.** In what ways can AI be used to contribute to a better work/life balance? **3.1.c.** Could the AI tool perpetuate or introduce biases in educational content? **3.1.d.** Could community members be harmed by harassment or misrepresentation of their identity (e.g., likenesses, voices, history) through use of generative AI tools? (e.g., revenge porn, deep fakes, jokes gone awry, etc.)
	3.2. Human rights: Generative AI tools are used in ways that respect human and worker rights, including individual autonomy and dignity.	**3.2.a.** Is the use of the tool promoting job displacement? **3.2.b.** Is the use or development of AI tools harming the people who train the models?
	3.3. Community and connection: Use of generative AI tools have a positive or neutral impact on community, belonging, and retention.	**3.3.a.** Does the use of AI enhance or hinder community or connection between those in the Butler community (i.e. students, faculty, staff, alumni, community members, partners, etc?) **3.3.b.** How does the AI tool impact student belonging and retention?
	3.4. Environmental Impact: Use of generative AI tools aligns to Butler's commitment to environmental stewardship.	**3.4.a.** Has the environmental impact of AI been considered? How is AI impacting the local or global environment and how does that impact use of the tool? **3.4.b.** Have I calculated or considered your new carbon footprint with GAI?
4. Transparency Any use of GAI is appropriately and intentionally disclosed by all. **Key Resources:** [Acknowledging the use of generative artificial intelligence](#) [Example disclosure language](#)	**4.1. Disclosure:** University communities are appropriately informed when generative AI tools are used in ways that impact them.	**4.1.a.** Is the use of AI disclosed in some capacity for course design, grading, or other faculty use? For example, have you referenced the [Butler-provided example language](#) or something similar for transparency, student understanding, and accessibility?
	4.2. Academic integrity: Faculty model academic integrity in their own use of generative AI and guide students to do the same.	**4.2.a.** Am I following academic and professional integrity standards by properly disclosing use of AI? **4.2.b.** Are course materials and plans using GAI maintaining academic integrity standards? Am I modeling expected behaviors? Am I unintentionally encouraging students to plagiarize or fabricate work? **4.2.c.** What ethical strategies can be employed to differentiate between legitimate vs. misuse of GAI in academic submissions? **4.2.d.** How do I maintain academic integrity in academia in a way that doesn't create adversarial relationships between instructors and students? For example, how do I address the culture of mistrust that GAI can generate between me and my students?
	4.3. Sources: Faculty ensure that GAI tools used are transparent and explainable	**4.3.a.** When AI is used, am I able to present and explain the information generated by AI *and* identify my process for fact-checking for accuracy? **4.3.b.** Do I know enough about the GAI tool that I am using that I can explain how it works to others?
5. Equity and Inclusivity Generative AI tools are used in ways that are accessible, fair, and respectful. **Key Resource:** [Equity, Diversity, and Inclusion (Madison College LIbraries)](#)	**5.1. Accessibility and Inclusivity:** Generative AI tools are used in ways that enhance opportunities, and are inclusive, accessible, and equitable for people with disability and from diverse backgrounds.	**5.1.a.** Does this tool conform to accessibility laws (WCAG, ADA) and best practices (UDL)? **5.1.b.** Does the use of the tool affect students with SDS accommodations? **5.1.c.** Is there a way to use AI to make my classroom more accessible?
	5.2. Equity and Access: Diverse communities are considered when implementing generative AI, including access to internet, training, and support.	**5.2.a.** Do students have access to reliable internet and a computer? **5.2.b.** Does this tool limit access to features based on what users pay? **5.2.c.** What support is available for this tool? Do students have equal access to learn how to use the tool? **5.2.d.** How might students' learning and/or grades be impacted by *not* using AI compared to peers who are?
	5.3. Diversity of Perspectives: Generative AI tools are used in ways that expose users to diverse ideas and perspectives and avoid the reinforcement of biases.	**5.3.a.** Could this educational tool perpetuate or introduce biases into educational content? **5.3.b.** Is there an array of diverse perspectives and representation of various viewpoints? Or is it a colonized or otherwise one-sided editorial opinion?
	5.4. Cultural and Intellectual Property: Generative AI tools are used in ways that respect the rights of various cultural groups.	**5.4.a.** Was the AI tool trained on culturally diverse datasets that include indigenous knowledge, sacred texts, or traditional practices? How did the AI company handle consent and/or compensation for this information?

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6. Accountability Generative AI tools are used in ways that are open to challenge and retain human agency and accountability for decisions. **Key Resources:** [Evaluating the Reliability and Authority of AI Generated text and media](#) [Intelligence as Agency: Evaluating the Capacity of Generative AI to Empower or Constrain Human Action](#)	**6.1.** **Human responsibility:** Faculty, students, and administrators retain control of decision making and remain accountable for decisions that are supported by the use of generative AI tools.	**6.1.a.**	Who is responsible when decisions made based on AI inputs go awry?	
		6.1.b.	What steps have I taken to verify outputs from generative AI?	
		6.1.c.	How am I guiding students to take responsibility from information and logic derived from AI tools?	
	6.2. **Reliability:** Generative AI tools are tested before they are used, and reliably operate in accordance with their intended purpose.	**6.2.a.**	Can the AI tool deliver accurate and reliable content? If not, how can I ensure accuracy and reliability?	
		6.2.b.	When using an AI tool with my students, have I first used it and evaluated its reliability with my discipline in mind?	
	6.3. **Monitoring:** The impact of generative AI tools on the university community is actively and regularly monitored, and emerging risks and opportunities are identified and managed.	**6.3.a.**	How will the ethical use of AI tools be monitored and evaluated over time?	
		6.3.b.	How will opportunities and risks be addressed when they arise?	
		6.3.c.	Am I reevaluating the tools I use on a regular basis (and including student feedback)?	
	6.4. **Contestability:** Members of the university community that are impacted by generative AI tools are actively informed about, and have opportunities to question, the use or outputs of the tools and any decisions informed by the tools.	**6.4.a.**	How are students informed about the AI tools that are used in their educational journey or that affect them as a student at Butler?	
		6.4.b.	What avenues exist for students to contest or question AI outputs used in course materials, course assignments, grading, feedback, advising, etc.?	
		6.4.c.	Do students have the option to opt out of using AI tools?	
7. Privacy, Security and Safety Students and others using generative AI tools have their privacy and data protected. **Key Resource:** Generative AI Policy (Butler IT) - expected Oct. 2024	**7.1** **Privacy and data protection:** Generative AI tools are used in ways that respect and uphold privacy and data rights, comply with all laws (including FERPA), and avoid the unnecessary collection, limit the retention, prevent further distribution, and prohibit the sale of student data.	**7.1.a.**	How is the AI company using data input into the tool (e.g, will it be part of their training database)?	
		7.1.b.	Does the tool provide any privacy settings that you can opt in or out of?	
		7.1.c.	Am I taking measures to protect individual and private/sensitive information?	
		7.1.d.	Does the tool meet Butler's security and privacy requirements and received approval from Information Technology?	
	7.2 **Privacy Disclosure:** University communities are proactively informed about how and what data will be collected, used, and shared while using generative AI tools, and consent is sought where needed.	**7.2.a.**	How are uses of AI disclosed? Have I disclosed what data is given to AI companies or the university through my students' use of the tools?	
		7.2.b.	How do I protect private data?	
		7.2.c.	Has consent been obtained from students when necessary?	
		7.2.d.	What measures should be put in place to protect individuals' identities in the age of advanced AI technologies?	
	7.3 **Protection of Student Inputs:** Students, instructors, and staff take appropriate care when entering information into generative AI tools which may compromise any individual's data privacy following all FERPA requirements.	**7.3.a.**	Can students opt out of having their work/materials used in AI?	
		7.3.b.	Are we following FERPA requirements when using AI?	
	7.4 **Protection of Student Outputs:** Students, instructors, and staff take appropriate care when sharing student work, especially publicly.	**7.4.a.**	How am I protecting student work from being repurposed by AI tools?	
		7.4.b.	Have I received consent from the student before posting student work publicly (e.g., department website, social media, etc.)?	
		7.4.c.	Do students have privacy options for assignments that require public engagement (e.g., e-portfolios, authentic assessments, etc.)?	
		7.4.d.	Have I given students resources to protect their work?	
	7.5 **Copyright Compliance:** When using generative AI tools, schools are aware of, and take measures to comply with, applicable copyright rights and obligations.	**7.5.a.**	Is this tool utilizing copyrighted materials as a source to generate content?	
		7.5.b.	Have I followed copyright when uploading material into generative AI?	

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Acknowledgements

Commonwealth of Australia. (2023). *Australian framework for generative artificial intelligence (AI) in schools* [Creative Commons Attribution 4.0 International license]. https://www.education.gov.au/schooling/resources/australian-framework-generative-artificial-intelligence-ai-schools

Knutson, B., Smale, J., & Young, M. (2024, June 10). *A framework for AI literacy*. EDUCAUSE Review. [Creative Commons 4.0 International license] https://er.educause.edu/articles/2024/6/a-framework-for-ai-literacy

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