Guidebook for the Ethical Implementation and Use of Artificial Intelligence (AI) in Education

developed by the Arkansas State University–Mountain Home Workgroup on Artificial Intelligence (AI)



"Education is the passport to the future, for tomorrow belongs to those who prepare for it today."

—Malcolm X

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Context

In the contemporary educational environment, integrating Artificial Intelligence (AI) technologies promises to enhance many teaching, learning, and administrative processes. As institutions experiment with the advantages of using AI, they must consider ethical implications to ensure that these technologies are used responsibly, equitably, and in alignment with the core values and principles of the organization. In response to these considerations, the ASUMH Workgroup on Artificial Intelligence (AI) has created this guidebook for the ethical use of AI in education. The guidebook is intended to guide ASUMH toward ethical AI implementation and use.

Having emerged from a collaborative effort across the ASUMH campus, the guidebook was inspired by the input of various stakeholders through Workgroup meetings, a campuswide forum, and survey. Moreover, the Workgroup drew inspiration from and aligned with the Education, a thorough and informative open article which is licensed under a Creative Commons Attribution 4.0 International License.

From the open article and campuswide input, the Workgroup identified six core ideals, designated in this document as **guiding principles**. The guiding principles serve as a foundation upon which the guidebook was built. The guiding principles are as follows:

Guiding Principle 1: Institutions should prioritize the establishment of transparent and **accountable** governance structures that uphold ethical principles and values.

Guiding Principle 2: Institutions should prioritize **communication** throughout all stages of AI implementation to build trust, encourage collaboration, and uphold ethical standards.

Guiding Principle 3: Institutions should prioritize **proportionality** to ensure that Al interventions are appropriately scaled and aligned with educational goals.

Guiding Principle 4: Institutions should prioritize the **protection of student and staff data** to uphold privacy rights and maintain trust in Al-driven educational systems.

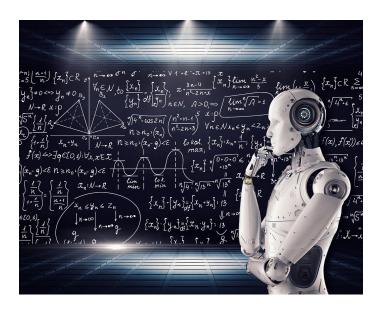
Guiding Principle 5: Institutions should prioritize **accessibility** to ensure that AI-driven educational systems are accessible, inclusive, and respectful of the diverse needs, backgrounds, and identities of all stakeholders.

Guiding Principle 6: Institutions should prioritize the development and deployment of AI systems that are **human-centered** and are therefore designed to augment, rather than replace, human intelligence and expertise.

In accordance with the established guiding principles, the Workgroup wishes to acknowledge the use of generative AI (ChatGPT 3.5) for specific minor writing tasks within this guidebook, including statement rephrasing and example generation. It is important to note that generative AI played a minimal role in the development of this guidebook; artificial intelligence was not engaged in establishing guiding principles, expectations, or in structuring the book.

"Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important."

—Bill Gates



"Artificial Intelligence & AI & Machine Learning" by mikemacmarketing is licensed under CC BY 2.0.

Further in keeping with established guiding principles, the Workgroup recognizes this guidebook as a dynamic resource, realizing its status as a living document. As such, the guidebook will require continual review and revision to remain pertinent within the dynamic and evolving landscape of artificial intelligence. Any suggested updates or revisions should be directed to the chair of the ASUMH Workgroup on Artificial Intelligence (AI).

Blueprint

aligned with Guidebook for the Ethical Implementation and Use of Artificial Intelligence (AI) in Education

Guiding Principles	<u>Expectations</u>	Faculty Applications	Institutional Applications
Guiding Principle 1 Institutions should prioritize the establishment of transparent and accountable governance structures that uphold ethical principles and values. As such, institutions should do the following: • Follow ethical principles and guidelines in the design, development, and deployment of AI technologies in education. • Promote a culture of continuous assessment, reflection, and improvement to adapt to evolving ethical standards, technological advancements, and societal needs. • Establish mechanisms for accountability to monitor and address the ethical use of AI technologies.	Expectation 1.1 Establish clear guidelines and procedures for the deployment and use of AI technologies.	Faculty Application 1.1.a Faculty should establish clear guidelines for the use of AI in courses. Example(s) 1.1.a Faculty Application 1.1.b Faculty should develop clear guidelines for the use of AI-powered grading systems. Example(s) 1.1.b	Institutional Application 1.1.i Institutions should establish clear Al guidelines and procedures. Example(s) 1.1.i
	Expectation 1.2 Ensure transparency in decision-making processes related to Al adoption.	Faculty Application 1.2.a Faculty should clearly communicate the rationale behind the adoption of AI technologies to students.	Institutional Application 1.2.i Institutions should document decision-making processes related to Al adoption and use. Example(s) 1.2.i
	Expectation 1.3 Regularly review and update governance frameworks to keep pace with technological advancements and evolving ethical standards.	Faculty Application 1.3.a Faculty should conduct periodic assessments of existing course guidelines to identify areas for improvement or updates.	Institutional Application 1.3.i Institutions should regularly review Al policies/procedures. Example(s) 1.3.i

Expectation 1.4	Faculty Application 1.4.a	Institutional Application 1.4.i
Foster a culture of ethical awareness and responsibility among stakeholders involved in AI implementation and use.	Faculty should educate students about ethical considerations surrounding the use of AI.	Institutions should create opportunities for open dialogue and communication about the ethical use of AI.
	Example(s) 1.4.a	Example(s) 1.4.i
Expectation 1.5	Faculty Application 1.5.a	Institutional Application 1.5.i
Develop robust mechanisms for monitoring and evaluating the use of Al technologies, including impact on student outcomes, bias, equity, and	Faculty should use analytics tools to track how students interact with the Al-enhanced materials.	Institutions should set up channels for collecting feedback from students on Al-enhanced materials.
privacy.	Example(s) 1.5.a	Example(s) 1.5.i
	Faculty Application 1.5.b	
	Faculty should create opportunities for students to provide feedback on Al-enhanced curricula.	
	Example(s) 1.5.b	
Expectation 1.6	Faculty Application 1.6.a	Institutional Application 1.6.i
Use monitoring and evaluation findings to inform decision-making and improve Al policies and practices in education.	Faculty should use student feedback to continually refine practices and Al-enhanced curricula.	Institutions should use student feedback to continually refine practices across departments and disciplines.
	Example(s) 1.6.a	
Expectation 1.7		Institutional Application 1.7.i
Continuously update monitoring and evaluation frameworks to reflect emerging ethical concerns and best practices in Al governance and stewardship.		Institutions should regularly review and update institutional policies related to Al governance and stewardship.

	Expectation 1.8 Clarify roles and responsibilities for stakeholders involved in the deployment and oversight of Al technologies.	Institutional Application 1.8.i Institutions should develop comprehensive procedures and guidelines outlining the roles and responsibilities of stakeholders in Al deployment and oversight.
	Expectation 1.9 Establish mechanisms for holding individuals accountable for the ethical use of AI, including adherence to relevant laws, procedures, and ethical guidelines.	Institutional Application 1.9.i Institutions should develop and enforce transparency and accountability policies that require individuals responsible for Al initiatives to document their decision-making processes and justify their actions in alignment with ethical principles and legal requirements.
	Expectation 1.10 Foster a culture of accountability through training, awareness-raising, and incentives that reward ethical behavior and discourage misconduct.	Institutional Application 1.10.i Institutions should implement mandatory ethics training programs for all individuals involved in the development and deployment of AI technologies.
		Institutional Application 1.10.ii Institutions should establish incentives and recognition programs to reward individuals and teams who demonstrate exemplary ethical behavior and adherence to relevant laws, procedures, and ethical guidelines in the use of AI.
	Expectation 1.11 Provide avenues for recourse and redress for individuals who experience harm or discrimination as a result of AI technologies.	Institutional Application 1.11.i Institutions should implement mediation and conflict resolution processes specifically tailored to address disputes arising from Al-related harms or discrimination.

Guiding Principle 2	Expectation 2.1	Faculty Application 2.1.a	Institutional Application 2.1.i
Institutions should prioritize communication throughout all stages of Al implementation to build trust, encourage collaboration, and uphold ethical standards. As such, institutions should do the following: Establish transparent communication channels to inform stakeholders about the use of Al technologies. Involve stakeholders in decision-making processes related to Al implementation in education.	Provide clear information about the use of AI technologies, including their purpose, guidelines, and potential impact on stakeholders.	Faculty should clearly communicate guidelines and policies for student use of Al. Example(s) 2.1.a	Institutions should clearly communicate guidelines and policies for the use of Al to all stakeholders. Example(s) 2.1.i
	Expectation 2.2 Promote collaboration among faculty, students, staff, administration, and other stakeholders in implementing and using AI and to advance knowledge and best practices in ethical AI in education.		Institutional Application 2.2.i Institutions should solicit input from stakeholders when implementing AI resources. Example(s) 2.2.i Institutional Application 2.2.ii Institutions should offer professional development to advance knowledge of AI. Example(s) 2.2.ii
Institutions should prioritize proportionality to ensure that AI interventions are appropriately scaled and aligned with educational goals. As such, institutions should do the following: • Ensure that AI interventions are proportional to educational goals, needs, and priorities. • Regularly assess the impact and effectiveness of AI interventions to ensure proportionality and sustainability.	Expectation 3.1 Ensure that the use of AI technologies is proportional to the intended goals and objectives, avoiding overreliance on automation or algorithmic decision-making. Expectation 3.2 Regularly assess the proportionality of AI applications and adjust implementation strategies as needed to maintain alignment with ethical principles and educational priorities.	Faculty Application 3.1.a Faculty should consider whether AI is necessary to achieve goals, or whether other methods will suffice. Example(s) 3.1.a Faculty Application 3.2.a Faculty should periodically evaluate the proportionality of AI tools used. Example(s) 3.2.a	Institutional Application 3.1.i Institutions should develop educational initiatives aimed at raising awareness about the limitations of AI technologies and the importance of maintaining human oversight. Institutional Application 3.2.i Institutions should regularly assess the proportionality of AI tools utilized across various functions and departments.

Guiding Principle 4 Institutions should prioritize the protection of student and staff data to uphold privacy rights and maintain trust in Al-driven educational systems. As such, institutions should do the following: Obtain informed consent from students, faculty, staff, administration, and other stakeholders before collecting, processing, or sharing their personal data for Al applications in education. Deploy safeguards to prevent misuse of Al systems.	Expectation 4.1 Prioritize user and data safety and well-being in the use of Al technologies.	Faculty Application 4.1.a Faculty should prioritize user safety and well-being by creating safe learning environments when integrating AI technologies into the curriculum.	Institutional Application 4.1.i Institutions should develop and implement robust data protection policies that prioritize the safety and well-being of users.
	Expectation 4.2 Conduct thorough risk assessments to identify potential safety hazards and mitigate risks associated with Al-driven interventions.		Institutional Application 4.2.i Institutions should establish standardized protocols for conducting thorough risk assessments before implementing institution-level Al-driven interventions.
	Expectation 4.3 Implement safeguards to prevent accidents, errors, or misuse of AI systems that could harm students or staff.		Institutional Application 4.3.i Institutions should develop and implement comprehensive policies and guidelines aimed at preventing accidents, errors, or misuse of AI systems that could harm students or staff.
	Expectation 4.4 Provide training and support to users on safe and responsible use of AI technologies, including cybersecurity awareness and online safety practices.		Institutional Application 4.4.i Institutions should provide safety training and education programs for faculty, staff, and students to ensure they are aware of potential risks associated with Al systems and how to mitigate them.
	Expectation 4.5 Establish protocols for reporting and responding to safety incidents or concerns related to AI, ensuring prompt resolution and follow-up actions.		Institutional Application 4.5.i Institutions should establish clear protocols and channels for reporting safety incidents or concerns related to AI technologies.

Institutions should prioritize accessibility to ensure that Al-driven educational systems are accessible, inclusive, and respectful of the diverse needs, backgrounds, and identities of all stakeholders. As such, institutions should do the following: • Prioritize accessibility in the design and development of Al technologies for education, following universal design principles and accessibility guidelines. • Take proactive measures to bridge the digital divide and reduce disparities in access to technology and educational resources among students and staff. • Ensure that Al-driven solutions consider the unique challenges faced by individuals with limited access to digital tools and infrastructure, and strive to mitigate these barriers through innovative approaches.	Expectation 5.1 Engage stakeholders from diverse backgrounds and communities in the design, development, and evaluation of AI technologies to ensure their inclusiveness and relevance.		Institutional Application 5.1.i Institutions should gather feedback from diverse stakeholders throughout the design and development process of AI technologies.
	Expectation 5.2 Prioritize accessibility in the development and implementation of Al-driven educational tools and	Faculty Application 5.2.a Faculty should become familiar with best practices and guidelines for web accessibility and assistive technologies.	Institutional Application 5.2.i Institutions should select Al-driven educational tools and platforms that prioritize accessibility.
	resources, following best practices and guidelines for web accessibility and assistive technologies.		Institutional Application 5.2.ii Institutions should consult accessibility experts and resources when developing and implementing Al-driven resources.
			Institutional Application 5.2.iii Institutions should regularly assess and update accessibility of Al-driven tools.
	Expectation 5.3 Conduct usability testing with diverse user groups, including individuals with disabilities, to identify and address accessibility barriers in Al systems and interfaces.		Institutional Application 5.3.i Institutions should assemble diverse user testing panels, including individuals with disabilities, to conduct usability testing of AI systems and interfaces.
	Expectation 5.4: Take proactive measures to bridge the digital divide and reduce disparities in access to technology and educational resources among students and staff.	Faculty Application 5.4.a Faculty should be aware of students' technological needs and provide support or guidance on accessing and using technology tools required for coursework.	Institutional Application 5.4.i Institutions should ensure that all students and staff have access to necessary technology tools, such as laptops, tablets, and software applications, including Al programs.

Guiding Principle 6 Institutions should prioritize the development and deployment of AI systems that are human-centered and are therefore designed to augment, rather than replace, human intelligence and expertise. As such, institutions should do the following: • Design AI technologies to enhance human capabilities, rather than replace them.	Expectation 6.1 Establish mechanisms for human oversight and control over Al-driven processes and outcomes, allowing educators to intervene when necessary to ensure fairness, accuracy, and ethical conduct.	Faculty Application 6.1.a Faculty should avoid blindly accepting the output of AI algorithms without considering its validity and relevance to objectives. Faculty Application 6.1.b Faculty should validate information obtained from AI through manual verification methods. Faculty Application 6.1.c Faculty should consider data biases when using AI.	
	Expectation 6.2 Ensure that AI technologies are used to augment, rather than replace, human decision-making and intervention.	Faculty Application 6.2.a Faculty should encourage critical thinking skills in students when interacting with AI technologies. Example(s) 6.2.a	
	Expectation 6.3 Respect and promote the autonomy of faculty and institutions in making decisions about the use of Al technologies in teaching, learning, and administration.		Institutional Application 6.3.i Institutions should empower faculty to lead evaluation and assessment efforts to determine the effectiveness of Al technologies in achieving teaching, learning, and administrative goals.
	Expectation 6.4 Provide faculty with the flexibility and support to customize and adapt Al technologies to meet the needs and preferences of their students and learning environments.		Institutional Application 6.4.i Institutions should offer ongoing professional development opportunities for faculty to learn about new Al technologies and explore strategies for customizing them to enhance teaching and learning.

For this guidebook, the term **guiding principle** refers to a fundamental belief, value, or rule that serves as a guiding force or standard for decision-making, behavior, or action. These principles represent core ideals and philosophies that provide direction, purpose, and coherence in the educational context.

These guiding principles are intended to help institutions and individuals navigate sometimes complex situations, make consistent choices, and align their actions with desired expectations. The guiding principles listed here form the foundation upon which the entire guidebook stands, providing a framework for its construction and content. These principles not only underpin the structure of the guidebook but also shape its meaning and purpose.

Institutions should prioritize the establishment of transparent and **accountable** governance structures that uphold ethical principles and values. As such, institutions should do the following:

- Follow ethical principles and guidelines in the design, development, and deployment of AI technologies in education.
- Promote a culture of continuous assessment, reflection, and improvement to adapt to evolving ethical standards, technological advancements, and societal needs.
- Establish mechanisms for accountability to monitor and address the ethical use of AI technologies.

Guiding Principle 1 Description

Institutions should recognize the critical importance of transparent and accountable governance structures rooted in ethical principles and values. To achieve this, they should adopt a multifaceted approach. Firstly, institutions should adhere rigorously to ethical principles and guidelines throughout the entire lifecycle of AI technologies, from conception to deployment. Next, fostering a culture of continuous assessment, reflection, and improvement is essential. This entails regularly evaluating the ethical implications of AI technologies, staying informed of evolving ethical standards, technological advancements, and societal needs, and adjusting practices accordingly. Finally, robust mechanisms for accountability must be established to monitor and address any ethical breaches in the use of AI technologies.

Institutions should prioritize **communication** throughout all stages of Al implementation to build trust, encourage collaboration, and uphold ethical standards. As such, institutions should do the following:

- Establish transparent communication channels to inform stakeholders about the use of AI technologies.
- Involve stakeholders in decision-making processes related to AI implementation in education.

Guiding Principle 2 Description

Effective communication is essential for institutions implementing and using AI, as it serves to build trust, foster collaboration, and uphold ethical standards. To achieve these goals, institutions should undertake several key initiatives. To begin with, they should establish transparent communication channels that provide stakeholders with comprehensive information about the purpose, scope, and implications of AI technologies. This ensures that stakeholders are well-informed and empowered to engage meaningfully with the implementation process. Next, involving stakeholders in decision-making processes related to AI implementation is crucial. By soliciting input, feedback, and perspectives from diverse stakeholders—including students, faculty, staff, administration, and community members—institutions can leverage collective wisdom, identify potential concerns or opportunities, and foster a sense of ownership and inclusivity.

Institutions should prioritize **proportionality** to ensure that AI interventions are appropriately scaled and aligned with educational goals. As such, institutions should do the following:

- Ensure that AI interventions are proportional to educational goals, needs, and priorities.
- Regularly assess the impact and effectiveness of AI interventions to ensure proportionality and sustainability.

Guiding Principle 3 Description

It is essential that institutions recognize the significance of proportionality in the implementation of AI interventions, ensuring alignment with educational objectives and needs. This requires a concerted effort to calibrate AI interventions so that they are appropriately scaled to meet goals, needs, and priorities effectively. Regular assessments of the impact and effectiveness of these interventions are imperative to maintain proportionality and sustainability over time. By continually evaluating the alignment between AI interventions and objectives, institutions can make informed adjustments to ensure that resources are allocated judiciously and that interventions remain commensurate with the overarching educational mission. This commitment to proportionality ensures that AI technologies are leveraged as supportive tools rather than dominating forces, thereby maximizing their potential to enhance learning outcomes while preserving the integrity and coherence of the educational experience.

Institutions should prioritize the **protection of student and staff data** to uphold privacy rights and maintain trust in Al-driven educational systems. As such, institutions should do the following:

- Obtain informed consent from students, faculty, staff, administration, and other stakeholders before collecting, processing, or sharing their personal data for AI applications in education.
- Deploy safeguards to prevent misuse of AI systems.

Guiding Principle 4 Description

Institutions should safeguard the privacy and security of student and staff data to uphold their rights and preserve trust in Al-driven systems. This requires proactive measures to protect sensitive information and ensure ethical handling of data throughout its lifecycle. Firstly, institutions should obtain informed consent from all relevant stakeholders—students, faculty, staff, administration, and others—before collecting, processing, or sharing their personal data for any Al applications. This ensures transparency and empowers individuals to make informed decisions about the use of their data. Additionally, deploying robust safeguards is essential to prevent any misuse or unauthorized access to Al systems and the data they handle.

Institutions should prioritize **accessibility** to ensure that Al-driven educational systems are accessible, inclusive, and respectful of the diverse needs, backgrounds, and identities of all stakeholders. As such, institutions should do the following:

- Prioritize accessibility in the design and development of AI technologies for education, following universal design principles and accessibility guidelines.
- Take proactive measures to bridge the digital divide and reduce disparities in access to technology and educational resources among students and staff.
- Ensure that Al-driven solutions consider the unique challenges faced by individuals with limited access to digital tools and infrastructure, and strive to mitigate these barriers through innovative approaches.

Guiding Principle 5 Description

Institutions should place a high priority on accessibility to ensure that Al-driven systems cater to the diverse needs, backgrounds, and identities of all stakeholders. This requires a proactive approach to designing and developing Al technologies with accessibility as a central focus, following universal design principles and accessibility guidelines from the outset. By prioritizing accessibility from the initial stages of development, institutions can ensure that resources and opportunities are inclusive and equitable for individuals with diverse abilities, learning styles, and preferences. This commitment to accessibility not only promotes equal participation and engagement but also fosters a more inclusive environment where every learner can thrive. Furthermore, it underscores the institution's dedication to upholding principles of equity and social justice, reinforcing its role as a responsible and inclusive educational institution in the age of Al.

Institutions should prioritize the development and deployment of AI systems that are **human-centered** and are therefore designed to augment, rather than replace, human intelligence and expertise. As such, institutions should do the following:

• Design AI technologies to enhance human capabilities, rather than replace them.

Guiding Principle 6 Description

Institutions should develop and deploy AI systems that are deeply rooted in human-centered design principles, with a fundamental focus on augmenting rather than supplanting human intelligence and expertise. This approach necessitates a deliberate effort to design AI technologies that complement and enhance human capabilities, rather than seeking to replace them outright. By fostering symbiotic relationships between humans and AI systems, institutions can harness the unique strengths of both to achieve optimal outcomes. This involves tailoring AI solutions to empower faculty, students, and other stakeholders, leveraging technology to amplify human creativity, insight, and decision-making processes.

Expectations

For this guidebook, the term **expectations** refers to the anticipated outcomes, standards, or objectives that faculty, staff, administrators, and other stakeholders can reasonably anticipate or aspire to achieve through the implementation of the guidebook's recommendations, strategies, or practices. These expectations encompass a wide range of goals related to the deployment and use of artificial intelligence, establishment of transparent and accountable governance structures, development and use of transparent communication channels, alignment of AI interventions with goals, protection of student and staff data, adoption and development of accessible AI tools, and maintenance of human-centered AI systems.

Guiding Principle 1 Expectations

Institutions should prioritize the establishment of transparent and accountable governance structures that uphold ethical principles and values. Therefore, institutions should meet the following expectations:

- Expectation 1.1: Establish clear guidelines and procedures for the deployment and use of AI technologies.
- Expectation 1.2: Ensure transparency in decision-making processes related to Al adoption.
- Expectation 1.3: Regularly review and update governance frameworks to keep pace with technological advancements and evolving ethical standards.
- Expectation 1.4: Foster a culture of ethical awareness and responsibility among stakeholders involved in Al implementation and use.
- Expectation 1.5: Develop robust mechanisms for monitoring and evaluating the use of AI technologies, including impact on student outcomes, bias, equity, and privacy.
- Expectation 1.6: Use monitoring and evaluation findings to inform decision-making and improve AI policies and practices in education.
- Expectation 1.7: Continuously update monitoring and evaluation frameworks to reflect emerging ethical concerns and best practices in Al governance and stewardship.
- Expectation 1.8: Clarify roles and responsibilities for stakeholders involved in the deployment and oversight of AI technologies.
- Expectation 1.9: Establish mechanisms for holding individuals accountable for the ethical use of AI, including adherence to relevant laws, procedures, and ethical guidelines.
- Expectation 1.10: Foster a culture of accountability through training, awareness-raising, and incentives that reward ethical behavior and discourage misconduct.
- Expectation 1.11: Provide avenues for recourse and redress for individuals who experience harm or discrimination as a result of AI technologies.

Guiding Principle 2 Expectations

Institutions should prioritize communication throughout all stages of Al implementation to build trust, encourage collaboration, and uphold ethical standards. Therefore, institutions should meet the following expectations:

- Expectation 2.1: Provide clear information about the use of AI technologies, including their purpose, guidelines, and potential impact on stakeholders.
- Expectation 1.2: Promote collaboration among faculty, students, staff, administration, and other stakeholders in implementing and using AI and to advance knowledge and best practices in ethical AI in education.

Guiding Principle 3 Expectations

Institutions should prioritize proportionality to ensure that AI interventions are appropriately scaled and aligned with educational goals. Therefore, institutions should meet the following expectations:

- Expectation 3.1: Ensure that the use of AI technologies is proportional to the intended goals and objectives, avoiding overreliance on automation or algorithmic decision-making.
- Expectation 3.2: Regularly assess the proportionality of Al applications and adjust implementation strategies as needed to maintain alignment with ethical principles and educational priorities.

Guiding Principle 4 Expectations

Institutions should prioritize the protection of student and faculty data to uphold privacy rights and maintain trust in Al-driven educational systems. Therefore, institutions should meet the following expectations:

- Expectation 4.1: Prioritize user and data safety and well-being in the use of AI technologies.
- Expectation 4.2: Conduct thorough risk assessments to identify potential safety hazards and mitigate risks associated with Al-driven interventions.
- Expectation 4.3: Implement safeguards to prevent accidents, errors, or misuse of AI systems that could harm students or staff.
- Expectation 4.4: Provide training and support to users on safe and responsible use of AI technologies, including cybersecurity awareness and online safety practices.
- Expectation 4.5: Establish protocols for reporting and responding to safety incidents or concerns related to AI, ensuring prompt resolution and follow-up actions.

Guiding Principle 5 Expectations

Institutions should prioritize accessibility to ensure that Al-driven educational systems are accessible, inclusive, and respectful of the diverse needs, backgrounds, and identities of all stakeholders. Therefore, institutions should meet the following expectations:

- Expectation 5.1: Engage stakeholders from diverse backgrounds and communities in the design, development, and evaluation of AI technologies to ensure their inclusiveness and relevance.
- Expectation 5.2: Prioritize accessibility in the development and implementation of Al-driven educational tools and resources, following best practices and guidelines for web accessibility and assistive technologies.
- Expectation 5.3: Conduct usability testing with diverse user groups, including individuals with disabilities, to identify and address accessibility barriers in AI systems and interfaces.
- Expectation 5.4: Take proactive measures to bridge the digital divide and reduce disparities in access to technology and educational resources among students and staff.

Guiding Principle 6 Expectations

Institutions should prioritize the development and deployment of AI systems that are human-centered and are therefore designed to augment, rather than replace, human intelligence and expertise. Therefore, institutions should meet the following expectations:

- Expectation 6.1: Establish mechanisms for human oversight and control over Al-driven processes and outcomes, allowing educators to intervene when necessary to ensure fairness, accuracy, and ethical conduct.
- Expectation 6.2: Ensure that AI technologies are used to augment, rather than replace, human decision-making and intervention.
- Expectation 6.3: Respect and promote the autonomy of faculty and institutions in making decisions about the use of AI technologies in teaching, learning, and administration.
- Expectation 6.4: Provide faculty with the flexibility and support to customize and adapt AI technologies to meet the needs and preferences of their students and learning environments.

Applications

In this guidebook, the term **application** refers to the practical implementation or use of the outlined expectations. These applications involve translating the guiding principles and underlying expectations into tangible actions, strategies, or practices that can be executed within institutions. Applications involve putting expectations into action, through specific initiatives, procedures, programs, or interventions aimed at achieving desired outcomes and fostering positive change. Applications serve as the means through which stakeholders—such as faculty, staff, administrators, students, and community members—engage with expectations within their respective roles and responsibilities.

The applications outlined in this guidebook represent potential uses of the expectations listed. However, these applications might not be universally applicable across all situations or institutions. Additionally, there may be other suitable applications not mentioned here that align with the respective expectations.

In addition, those applications labeled as **faculty applications** are generally suitable for implementation by individual faculty members within their teaching practices, while **institutional applications** are those more appropriate for implementation by the institution as a whole, potentially involving multiple departments or administrative units.

Guiding Principle 1 Applications

Guiding Principle 1:

Institutions should prioritize the establishment of transparent and accountable governance structures that uphold ethical principles and values. As such, institutions should do the following:

- Follow ethical principles and guidelines in the design, development, and deployment of AI technologies in education.
- Promote a culture of continuous assessment, reflection, and improvement to adapt to evolving ethical standards, technological advancements, and societal needs.
- Establish mechanisms for accountability to monitor and address the ethical use of AI technologies.

Expectation 1.1 Applications

Expectation 1.1: Establish clear guidelines and procedures for the deployment and use of AI technologies.

Expectation 1.1 Faculty Applications

Faculty Application 1.1.a

Faculty should establish clear guidelines for the use of Al in courses.

Faculty Application 1.1.b

Faculty should develop clear guidelines for the use of Al-powered grading systems.

Expectation 1.1 Institutional Applications

Institutional Application 1.1.i

Institutions should establish clear AI guidelines and procedures.

Expectation 1.2 Applications

Expectation 1.2: Ensure transparency in decision-making processes related to AI adoption.

Expectation 1.2 Faculty Applications

Faculty Application 1.2.a

Faculty should clearly communicate the rationale behind the adoption of AI technologies to students.

Expectation 1.2 Institutional Applications

Institutional Application 1.2.i

Institutions should document decision-making processes related to Al adoption and use.

Expectation 1.3 Applications

Expectation 1.3: Regularly review and update governance frameworks to keep pace with technological advancements and evolving ethical standards.

Expectation 1.3 Faculty Applications

Faculty Application 1.3.a

Faculty should conduct periodic assessments of existing course guidelines to identify areas for improvement or updates.

Expectation 1.3 Institutional Applications

Institutional Application 1.3.i

Institutions should regularly review AI policies/procedures.

Expectation 1.4 Applications

Expectation 1.4: Foster a culture of ethical awareness and responsibility among stakeholders involved in AI implementation and use.

Expectation 1.4 Faculty Applications

Faculty Application 1.4.a

Faculty should educate students about ethical considerations surrounding the use of Al.

Expectation 1.4 Institutional Applications

Institutional Application 1.4.i

Institutions should create opportunities for open dialogue and communication about the ethical use of Al.

Expectation 1.5 Applications

Expectation 1.5: Develop robust mechanisms for monitoring and evaluating the use of AI technologies, including impact on student outcomes, bias, equity, and privacy.

Expectation 1.5 Faculty Applications

Faculty Application 1.5.a

Faculty should use analytics tools to track how students interact with the Al-enhanced materials.

Faculty Application 1.5.b

Faculty should create opportunities for students to provide feedback on Al-enhanced curricula.

Expectation 1.5 Institutional Applications

Institutional Application 1.5.i

Institutions should set up channels for collecting feedback from students on Al-enhanced materials.

Expectation 1.6 Applications

Expectation 1.6: Use monitoring and evaluation findings to inform decision-making and improve AI policies and practices in education.

Expectation 1.6 Faculty Applications

Faculty Application 1.6.a

Faculty should use student feedback to continually refine practices and Al-enhanced curricula.

Expectation 1.6 Institutional Applications

Institutional Application 1.6.i

Institutions should use student feedback to continually refine practices across departments and disciplines.

Expectation 1.7 Applications

Expectation 1.7: Continuously update monitoring and evaluation frameworks to reflect emerging ethical concerns and best practices in Al governance and stewardship.

Expectation 1.7 Institutional Applications

Institutional Application 1.7.i

Institutions should regularly review and update institutional policies related to Al governance and stewardship.

Expectation 1.8 Applications

Expectation 1.8: Clarify roles and responsibilities for stakeholders involved in the deployment and oversight of AI technologies.

Expectation 1.8 Institutional Applications

Institutional Application 1.8.i

Institutions should develop comprehensive procedures and guidelines outlining the roles and responsibilities of stakeholders in AI deployment and oversight.

Expectation 1.9 Applications

Expectation 1.9: Establish mechanisms for holding individuals accountable for the ethical use of AI, including adherence to relevant laws, procedures, and ethical guidelines.

Expectation 1.9 Institutional Applications

Institutional Application 1.9.i

Institutions should develop and enforce transparency and accountability policies that require individuals responsible for AI initiatives to document their decision-making processes and justify their actions in alignment with ethical principles and legal requirements.

Expectation 1.10 Applications

Expectation 1.10: Foster a culture of accountability through training, awareness-raising, and incentives that reward ethical behavior and discourage misconduct.

Expectation 1.10 Institutional Applications

Institutional Application 1.10.i

Institutions should implement mandatory ethics training programs for all individuals involved in the development and deployment of AI technologies.

Institutional Application 1.10.ii

Institutions should establish incentives and recognition programs to reward individuals and teams who demonstrate exemplary ethical behavior and adherence to relevant laws, procedures, and ethical guidelines in the use of AI.

Expectation 1.11 Applications

Expectation 1.11: Provide avenues for recourse and redress for individuals who experience harm or discrimination as a result of AI technologies.

Expectation 1.11 Institutional Applications

Institutional Application 1.11.i

Institutions should implement mediation and conflict resolution processes specifically tailored to address disputes arising from Al-related harms or discrimination.

Guiding Principle 2 Applications

Guiding Principle 2:

Institutions should prioritize communication throughout all stages of AI implementation to build trust, encourage collaboration, and uphold ethical standards. As such, institutions should do the following:

- Establish transparent communication channels to inform stakeholders about the use of AI technologies.
- Involve stakeholders in decision-making processes related to AI implementation in education.

Expectation 2.1 Applications

Expectation 2.1: Provide clear information about the use of AI technologies, including their purpose, guidelines, and potential impact on stakeholders.

Expectation 2.1 Faculty Applications

Faculty Application 2.1.a

Faculty should clearly communicate guidelines and policies for student use of Al.

Expectation 2.1 Institutional Applications

Institutional Application 2.1.i

Institutions should clearly communicate guidelines and policies for the use of AI to all stakeholders.

Expectation 2.2 Applications

Expectation 2.2: Promote collaboration among faculty, students, staff, administration, and other stakeholders in implementing and using AI and to advance knowledge and best practices in ethical AI in education.

Expectation 2.2 Institutional Applications

Institutional Application 2.2.i

Institutions should solicit input from stakeholders when implementing AI resources.

Institutional Application 2.2.ii

Institutions should offer professional development to advance knowledge of Al.

Guiding Principle 3 Applications

Guiding Principle 3:

Institutions should prioritize proportionality to ensure that AI interventions are appropriately scaled and aligned with educational goals. As such, institutions should do the following:

- Ensure that AI interventions are proportional to educational goals, needs, and priorities.
- Regularly assess the impact and effectiveness of AI interventions to ensure proportionality and sustainability.

Expectation 3.1 Applications

Expectation 3.1: Ensure that the use of AI technologies is proportional to the intended goals and objectives, avoiding overreliance on automation or algorithmic decision-making.

Expectation 3.1 Faculty Applications

Faculty Application 3.1.a

Faculty should consider whether AI is necessary to achieve goals, or whether other methods will suffice.

Expectation 3.1 Institutional Applications

Institutional Application 3.1.i

Institutions should develop educational initiatives aimed at raising awareness about the limitations of AI technologies and the importance of maintaining human oversight.

Expectation 3.2 Applications

Expectation 3.2: Regularly assess the proportionality of AI applications and adjust implementation strategies as needed to maintain alignment with ethical principles and educational priorities.

Expectation 3.2 Faculty Applications

Faculty Application 3.2.a

Faculty should periodically evaluate the proportionality of AI tools used.

Expectation 3.2 Institutional Applications

Institutional Application 3.2.i

Institutions should regularly assess the proportionality of AI tools utilized across various functions and departments.

Guiding Principle 4 Applications

Guiding Principle 4:

Institutions should prioritize the protection of student and staff data to uphold privacy rights and maintain trust in Al-driven educational systems. As such, institutions should do the following:

- Obtain informed consent from students, faculty, staff, administration, and other stakeholders before collecting, processing, or sharing their personal data for AI applications in education.
- Deploy safeguards to prevent misuse of AI systems.

Expectation 4.1 Applications

Expectation 4.1: Prioritize user and data safety and well-being in the use of AI technologies.

Expectation 4.1 Faculty Applications

Faculty Application 4.1.a

Faculty should prioritize user safety and well-being by creating safe learning environments when integrating AI technologies into the curriculum.

Expectation 4.1 Institutional Applications

Institutional Application 4.1.i

Institutions should develop and implement robust data protection policies that prioritize the safety and well-being of users.

Expectation 4.2 Applications

Expectation 4.2: Conduct thorough risk assessments to identify potential safety hazards and mitigate risks associated with Al-driven interventions.

Expectation 4.2 Institutional Applications

Institutional Application 4.2.i

Institutions should establish standardized protocols for conducting thorough risk assessments before implementing institution-level Al-driven interventions.

Expectation 4.3 Applications

Expectation 4.3: Implement safeguards to prevent accidents, errors, or misuse of AI systems that could harm students or staff.

Expectation 4.3 Institutional Applications

Institutional Application 4.3.i

Institutions should develop and implement comprehensive policies and guidelines aimed at preventing accidents, errors, or misuse of AI systems that could harm students or staff.

Expectation 4.4 Applications

Expectation 4.4: Provide training and support to users on safe and responsible use of AI technologies, including cybersecurity awareness and online safety practices.

Expectation 4.4 Institutional Applications

Institutional Application 4.4.i

Institutions should provide safety training and education programs for faculty, staff, and students to ensure they are aware of potential risks associated with AI systems and how to mitigate them.

Expectation 4.5 Applications

Expectation 4.5: Establish protocols for reporting and responding to safety incidents or concerns related to AI, ensuring prompt resolution and follow-up actions.

Expectation 4.5 Institutional Applications

Institutional Application 4.5.i

Institutions should establish clear protocols and channels for reporting safety incidents or concerns related to AI technologies.

Guiding Principle 5 Applications

Guiding Principle 5:

Institutions should prioritize accessibility to ensure that Al-driven educational systems are accessible, inclusive, and respectful of the diverse needs, backgrounds, and identities of all stakeholders. As such, institutions should do the following:

• Prioritize accessibility in the design and development of AI technologies for education, following universal design principles and accessibility guidelines.

Expectation 5.1 Applications

Expectation 5.1: Engage stakeholders from diverse backgrounds and communities in the design, development, and evaluation of AI technologies to ensure their inclusiveness and relevance.

Expectation 5.1 Institutional Applications

Institutional Application 5.1.i

Institutions should gather feedback from diverse stakeholders throughout the design and development process of AI technologies.

Expectation 5.2 Applications

Expectation 5.2: Prioritize accessibility in the development and implementation of Al-driven educational tools and resources, following best practices and guidelines for web accessibility and assistive technologies.

Expectation 5.2 Faculty Applications

Faculty Application 5.2.a

Faculty should become familiar with best practices and guidelines for web accessibility and assistive technologies.

Expectation 5.2 Institutional Applications

Institutional Application 5.2.i

Institutions should select Al-driven educational tools and platforms that prioritize accessibility.

Institutional Application 5.2.ii

Institutions should consult accessibility experts and resources when developing and implementing Al-driven resources.

Institutional Application 5.2.iii

Institutions should regularly assess and update accessibility of Al-driven tools.

Expectation 5.3 Applications

Expectation 5.3: Conduct usability testing with diverse user groups, including individuals with disabilities, to identify and address accessibility barriers in AI systems and interfaces.

Expectation 5.3 Institutional Applications

Institutional Application 5.3.i

Institutions should assemble diverse user testing panels, including individuals with disabilities, to conduct usability testing of AI systems and interfaces.

Expectation 5.4 Applications

Expectation 5.4: Take proactive measures to bridge the digital divide and reduce disparities in access to technology and educational resources among students and staff.

Expectation 5.4 Faculty Applications

Faculty Application 5.4.a

Faculty should be aware of students' technological needs and provide support or guidance on accessing and using technology tools required for coursework.

Expectation 5.4 Institutional Applications

Institutional Application 5.4.i

Institutions should ensure that all students and staff have access to necessary technology tools, such as laptops, tablets, and software applications, including AI programs.

Guiding Principle 6 Applications

Guiding Principle 6:

Institutions should prioritize the development and deployment of AI systems that are human-centered and are therefore designed to augment, rather than replace, human intelligence and expertise. As such, institutions should do the following:

• Design AI technologies to enhance human capabilities, rather than replace them.

Expectation 6.1 Applications

Expectation 6.1: Establish mechanisms for human oversight and control over Al-driven processes and outcomes, allowing educators to intervene when necessary to ensure fairness, accuracy, and ethical conduct.

Expectation 6.1 Faculty Applications

Faculty Application 6.1.a

Faculty should avoid blindly accepting the output of Al algorithms without considering its validity and relevance to objectives.

Faculty Application 6.1.b

Faculty should validate information obtained from AI through manual verification methods.

Faculty Application 6.1.c

Faculty should consider data biases when using AI.

Expectation 6.2 Applications

Expectation 6.2: Ensure that AI technologies are used to augment, rather than replace, human decision-making and intervention.

Expectation 6.2 Faculty Applications

Faculty Application 6.2.a

Faculty should encourage critical thinking skills in students when interacting with AI technologies.

Expectation 6.3 Applications

Expectation 6.3: Respect and promote the autonomy of faculty and institutions in making decisions about the use of AI technologies in teaching, learning, and administration.

Expectation 6.3 Institutional Applications

Institutional Application 6.3.i

Institutions should empower faculty to lead evaluation and assessment efforts to determine the effectiveness of AI technologies in achieving teaching, learning, and administrative goals.

Expectation 6.4 Applications

Expectation 6.4: Provide faculty with the flexibility and support to customize and adapt AI technologies to meet the needs and preferences of their students and learning environments.

Expectation 6.4 Institutional Applications

Institutional Application 6.4.i

Institutions should offer ongoing professional development opportunities for faculty to learn about new AI technologies and explore strategies for customizing them to enhance teaching and learning.

Application Examples

Application examples serve as tangible illustrations that showcase how the expectations outlined in this guidebook can be translated into actionable steps or practices.

Moreover, **faculty application examples** demonstrate how strategies or methodologies can be applied by individual faculty members within their respective teaching contexts, whereas **institutional application examples** illustrate how these approaches can be implemented at an institutional level, involving multiple departments or groups within the institution as a whole.

Guiding Principle 1 Application Examples

Expectation 1.1 Application Examples

Expectation 1.1: Establish clear guidelines and procedures for the deployment and use of AI technologies.

Faculty Application 1.1.a Example(s)

Faculty Application 1.1.a: Faculty should establish clear guidelines for the use of Al in courses.

Example Guidelines and Procedures

Faculty can establish clear guidelines and procedures for the deployment and use of AI technologies in their courses through various methods:

- 1. Include a dedicated section in the course syllabus that outlines the guidelines and procedures for using Al technologies.
 - a. Sample Syllabus Al Statements
- 2. Include specific instructions and expectations regarding the use of AI tools or software for individual assignments in assignment guidelines or rubrics.
- Conduct an orientation session at the beginning of the course to introduce students to the AI technologies that will be used, explain their purpose and relevance to the course objectives, and clarify the guidelines and procedures for their use.
- 4. Develop and distribute written policies or guidelines specifically addressing the deployment and use of Al technologies.
- 5. Keep students informed about any updates or changes regarding the deployment and use of AI technologies throughout the course.

Faculty Application 1.1.b Example(s)

Faculty Application 1.1.b: Faculty should develop clear guidelines for the use of Al-powered grading systems.

Example Guidelines

Faculty can meet the expectation of developing clear guidelines for the use of Al-powered grading systems through various methods:

- 1. Faculty should establish guidelines to ensure fairness, equity, and transparency in grading practices and to mitigate biases in Al algorithms and grading outcomes.
- 2. Faculty should establish guidelines to verify the accuracy and reliability of Al-generated grades, to maintain consistency in grading criteria and standards, and to address any discrepancies between Al-generated grades and instructor assessments.
 - a. Sample Faculty Guidelines for Al Detector Usage for Grading Purposes
- 3. Faculty should establish guidelines to clearly communicate to students how Al-powered grading works and to provide explanations of grading criteria, algorithms, and factors considered.
- 4. Faculty should establish guidelines to adhere to data privacy regulations and institutional policies and to protect student data collected and processed by Al grading systems

Institutional Application 1.1.i Example(s)

Institutional Application 1.1.i: Institutions should establish clear Al guidelines and procedures.

Example Institutional AI Guidelines

Institutions can meet the expectation of establishing clear Al guidelines and procedures by implementing various strategies:

- 1. Create comprehensive policies that outline the ethical, legal, and technical aspects of AI use in academic settings.
- 2. Provide training and awareness programs for faculty, staff, and students to ensure they understand the ethical implications, risks, and best practices related to AI usage.
- 3. Provide training and awareness programs for faculty, staff, and students to ensure they understand the ethical implications, risks, and best practices related to AI usage.
- 4. Establish robust data governance policies to ensure the ethical collection, storage, sharing, and protection of data used in Al applications, adhering to relevant regulations.

Expectation 1.2 Application Examples

Expectation 1.2: Ensure transparency in decision-making processes related to Al adoption.

Institutional Application 1.2.i Example(s)

Institutional Application 1.2.i: Institutions should document decision-making processes related to Al adoption and use.

Example Documentation Methods

Institutions can document decision-making processes related to Al adoption and use through several key steps:

- 1. Clearly articulate the objectives of Al adoption and the criteria against which potential solutions will be evaluated.
- 2. Set up a governance structure with clear roles and responsibilities for decision-makers, stakeholders, and subject matter experts involved in the AI adoption process.
- 3. Document the process of evaluating different Al solutions, including the methodologies used, the data sources analyzed, and the criteria applied.
- 4. Clearly document the rationale behind the final decision, including how it aligns with organizational objectives, addresses stakeholder concerns, and meets the defined criteria.
- 5. Promote transparency and accountability by making decision-making processes and documentation accessible to relevant stakeholders, including employees, customers, regulators, and the public where appropriate.

Expectation 1.3 Application Examples

Expectation 1.3: Regularly review and update governance frameworks to keep pace with technological advancements and evolving ethical standards.

Institutional Application 1.3.i Example(s)

Institutional Application 1.3.i: Institutions should regularly review Al policies/procedures.

Example Review Method

Institutions can regularly review AI guidelines and procedures by implementing a structured and iterative process. Here's a brief outline of how they can do it:

- 1. Form a dedicated committee comprising experts from various relevant disciplines such as data science, ethics, law, and education administration.
- 2. Determine a regular schedule for reviewing Al guidelines and procedures.
- 3. Solicit feedback from stakeholders including faculty, staff, students, and external partners who are involved in or affected by AI initiatives.
- 4. Compare existing Al guidelines and procedures against industry best practices, relevant regulations, and standards set by professional organizations.
- 5. Evaluate the impact of existing Al guidelines and procedures on educational outcomes, ethical considerations, institutional operations, and stakeholder satisfaction.
- 6. Based on feedback, benchmarking, and impact assessment, revise and update Al guidelines and procedures as needed.
- 7. Clearly communicate any updates or revisions to Al guidelines and procedures to all relevant stakeholders.
- 8. Continuously monitor the implementation of updated Al guidelines and procedures to ensure adherence and effectiveness.
- 9. Document the entire review process including feedback received, decisions made, rationale for changes, and outcomes achieved.

Expectation 1.4 Application Examples

Expectation 1.4: Foster a culture of ethical awareness and responsibility among stakeholders involved in Al implementation and use.

Faculty Application 1.4.a Example(s)

Faculty Application 1.4.a: Faculty should educate students about ethical considerations surrounding the use of Al.

Example Education Avenues

Faculty can educate students about ethical considerations surrounding the use of AI using numerous strategies:

- 1. Facilitate classroom discussions on ethical considerations related to AI, covering topics such as bias, privacy, accountability, transparency, and fairness.
- 2. Invite guest speakers, such as ethicists, AI researchers, industry professionals, or activists, to share their perspectives on ethical considerations in the use of AI.
- 3. Assign readings from academic articles, news reports, or opinion pieces that discuss ethical issues in Al.
- 4. Assign research projects or papers on specific ethical topics related to AI, such as algorithmic bias, data privacy, or autonomous weapons.
- 5. Organize debates or role-playing exercises in which students take on different perspectives and argue for or against ethical positions on Al-related issues.
- 6. Collaboratively develop a code of conduct or ethical guidelines for the use of AI in the classroom or in student projects.
- 7. Assign reflection assignments or journal prompts asking students to reflect on their own ethical beliefs, values, and responsibilities as future practitioners or users of AI technologies.
- 8. Engage students in exploring real-world applications of AI technologies that raise ethical questions, such as self-driving cars, social media algorithms, or healthcare diagnostics.

Institutional Application 1.4.i Example(s)

Institutional Application 1.4.i: Institutions should create opportunities for open dialogue and communication about the ethical use of Al.

Example Opportunities

Institutions can create opportunities for open dialogue and communication about the ethical use of AI through various strategies:

- 1. Develop clear and comprehensive ethical guidelines for AI use within the institution.
- 2. Host workshops, seminars, and panel discussions on AI ethics, inviting experts from diverse fields including ethics, technology, law, sociology, and philosophy.
- 3. Integrate discussions about AI ethics into relevant academic programs and courses across disciplines.
- 4. Establish ethical review boards or committees tasked with evaluating AI projects and initiatives from an ethical perspective.
- 5. Ensure that discussions about AI ethics incorporate diverse perspectives and voices, including those of marginalized or underrepresented groups.
- 6. Offer training programs, resources, and guidelines to educate stakeholders about ethical considerations in Al development and use.
- 7. Foster a culture of transparency and accountability regarding AI practices within the institution.
- 8. Demonstrate institutional commitment to ethical AI by adhering to ethical guidelines, engaging in transparent practices, and prioritizing ethical considerations in decision-making processes related to AI adoption and use.

Expectation 1.5 Application Examples

Expectation 1.5: Develop robust mechanisms for monitoring and evaluating the use of AI technologies, including impact on student outcomes, bias, equity, and privacy.

Faculty Application 1.5.a Example(s)

Faculty Application 1.5.a: Faculty should use analytics tools to track how students interact with the Al-enhanced materials.

Example Analytics Uses

Faculty can leverage analytics tools to track how students interact with Al-enhanced materials in several ways:

- 1. Analytics tools can provide insights into how students engage with Al-enhanced materials.
- 2. By analyzing student interactions with Al-enhanced materials, faculty can assess the effectiveness of different content elements.
- 3. Analytics tools can help faculty monitor students' learning progress by tracking their interactions with Al-generated quizzes, assessments, or simulations.
- 4. Faculty can use analytics tools to collect feedback from students on their experiences with Al-enhanced materials.
- 5. Analytics data collected from student interactions with Al-enhanced materials can also inform ongoing research and development efforts.

Faculty Application 1.5.b Example(s)

Faculty Application 1.5.b: Faculty should create opportunities for students to provide feedback on Al-enhanced curricula.

Example Feedback Mechanisms

Faculty can meet the expectation of creating opportunities for students to provide feedback on Al-enhanced curricula by implementing any of several strategies:

- 5. Design and administer surveys or questionnaires specifically focused on gathering students' feedback regarding their experiences with Al-enhanced curricula.
- 6. Schedule dedicated feedback sessions during which students can provide verbal feedback or submit written comments on AI-enhanced components of the curriculum.
- 7. Use online platforms or learning management systems (LMS) to create digital feedback channels where students can anonymously or openly share their feedback on Al-enhanced course materials, tools, and activities.
- 8. Integrate peer review mechanisms into AI-enhanced assignments or projects, allowing students to provide feedback to their peers on the use of AI technologies and receive feedback in return. Encourage reflective practices and peer learning.
- 9. Place physical or virtual feedback boxes where students can anonymously submit their feedback on Al-enhanced curricula.
- 10. Schedule regular check-ins or office hours dedicated to discussing students' experiences with Al-enhanced learning.
- 11. Actively incorporate student feedback into the iterative design and refinement of Al-enhanced curricula.

Institutional Application 1.5.i Example(s)

Institutional Application 1.5.i: Institutions should set up channels for collecting feedback from students on Al-enhanced materials.

Example Feedback Collection Methods

Institutions can set up channels for collecting feedback from students on Al-enhanced materials through various methods:

- 1. Create online surveys using platforms like Google Forms, SurveyMonkey, or the institution's learning management system (LMS).
- 2. Create dedicated discussion forums or threads within the institution's online platform where students can share their feedback, engage in conversations, and ask questions about Al-enhanced materials.
- 3. Include specific questions related to Al-enhanced materials in course evaluations conducted at the end of each semester or academic term.

Expectation 1.6 Application Examples

Expectation 1.6: Use monitoring and evaluation findings to inform decision-making and improve AI policies and practices in education.

Faculty Application 1.6.a Example(s)

Faculty Application 1.6.a: Faculty should use student feedback to continually refine practices and Al-enhanced curricula.

Example Feedback Uses

Faculty can use feedback from students to improve practices and Al-enhanced curricula in several ways:

- 1. Continuously collect and review student feedback on Al-enhanced curricula through surveys, focus groups, feedback sessions, and other feedback mechanisms.
- 2. Analyze feedback data systematically to identify common themes, trends, strengths, weaknesses, and areas for improvement in AI integration and teaching practices.
- 3. Adopt an iterative approach to curriculum design by using student feedback to refine and update Al-enhanced course materials, assessments, learning objectives, and instructional methods over time.
- 4. Conduct pilot studies or small-scale implementations of Al-enhanced curricula to gather real-time feedback from students.

Guiding Principle 2 Application Examples

Expectation 2.1 Application Examples

Expectation 2.1: Provide clear information about the use of AI technologies, including their purpose, guidelines, and potential impact on stakeholders.

Faculty Application 2.1.a Example(s)

Faculty Application 2.1.a: Faculty should clearly communicate guidelines and policies for student use of Al.

Example Communication Methods

Here's are some ways faculty can communicate AI guidelines and policies:

- 1. Faculty members can include a section in the syllabus specifically dedicated to guidelines and policies for student use of Al.
 - a. Sample Syllabus Al Statements
- 2. Faculty members can create a dedicated page or module within the course website or LMS platform to host guidelines and policies for student use of AI
- 3. Faculty members can discuss guidelines and policies for student use of Al during the course orientation session.
- 4. Faculty members may choose to periodically revisit guidelines and policies for student use of Al during in-class discussions throughout the course.
- 5. When assigning tasks or projects that involve the use of AI tools or technologies, faculty members can include specific instructions and reminders about adherence to guidelines and policies for ethical conduct.

Institutional Application 2.1.i Example(s)

Institutional Application 2.1.i: Institutions should clearly communicate guidelines and policies for the use of AI to all stakeholders.

Example Communication Methods

Here's are some ways institutions can communicate AI guidelines and policies:

- 1. Develop detailed policy documents that outline the principles, procedures, and expectations regarding Al usage.
 - a. Sample Student Handbook Statement
- 2. Offer training sessions and workshops for faculty, staff, and students to familiarize them with Al guidelines and policies.
- 3. Use various communication channels such as email newsletters, campus announcements, and social media platforms to regularly update stakeholders about Al guidelines and any changes or updates to policies.
 - a. Sample Canvas Al Notification

Expectation 2.2 Application Examples

Expectation 2.2: Promote collaboration among faculty, students, staff, administration, and other stakeholders in implementing and using AI and to advance knowledge and best practices in ethical AI in education.

Institutional Application 2.2.i Example(s)

Institutional Application 2.2.i: Institutions should solicit input from stakeholders when implementing AI resources.

Example Input Methods

Institutions can solicit input from stakeholders when implementing AI resources through various methods:

- 1. Conduct surveys to gather input from various stakeholders, including faculty, students, administrators, IT staff, and other relevant parties.
- 2. Organize focus group sessions or workshops with representatives from different stakeholder groups to facilitate in-depth discussions and gather qualitative input.
- 3. Establish advisory committees or workgroups made up of diverse stakeholders to provide ongoing input and guidance throughout the implementation process.

Institutional Application 2.2.ii Example(s)

Institutional Application 2.2.ii: Institutions should offer professional development to advance knowledge of Al.

Example Professional Development Options

Institutions can offer various professional development opportunities to advance knowledge of AI among faculty, staff, and students. Here are some examples:

- 1. Host workshops and seminars focused on AI fundamentals, emerging trends, and practical applications.
- 2. Offer online courses and certification programs on Al-related topics through the institution's learning management system (LMS) or in partnership with external platforms such as Coursera, edX, or Udacity.
- 3. Invite experts from academia, industry, and government to deliver guest lectures and participate in panel discussions on Al-related topics.

Guiding Principle 3 Application Examples

Expectation 3.1 Application Examples

Expectation 3.1: Ensure that the use of AI technologies is proportional to the intended goals and objectives, avoiding overreliance on automation or algorithmic decision-making.

Expectation 3.1 Faculty Application Example(s)

Faculty Application 3.1.a Example(s)

Faculty Application 3.1.a: Faculty should consider whether AI is necessary to achieve goals, or whether other methods will suffice.

Example Methods

Faculty can consider whether AI is necessary to achieve goals or if other methods will suffice by following these methods:

- 1. Clearly define the goals and objectives of the project or task at hand.
- 2. Explore different methods and approaches that could be used to achieve the goals.
- 3. Assess the feasibility of using AI compared to other methods.
- 4. Determine whether AI is likely to be more effective than other methods in achieving the desired outcomes.

Expectation 3.2 Application Examples

Expectation 3.2: Regularly assess the proportionality of AI applications and adjust implementation strategies as needed to maintain alignment with ethical principles and educational priorities.

Expectation 3.2 Faculty Application Example(s)

Faculty Application 3.2.a Example(s)

Faculty Application 3.2.a: Faculty should periodically evaluate the proportionality of AI tools used.

Example Methods

Faculty can evaluate the proportionality of AI tools using the following methods:

- 1. Periodically assess whether the use of AI tools contributes to achieving desired learning outcomes.
- 2. Assess whether the use of Al tools enhances or hinders equity and accessibility in education.
- 3. Review whether the use of Al tools aligns with pedagogical principles and instructional strategies.

Guiding Principle 6 Application Examples

Expectation 6.2 Application Examples

Expectation 6.2: Ensure that AI technologies are used to augment, rather than replace, human decision-making and intervention.

Faculty Application 6.2.a Example(s)

Faculty Application 6.2.a: Faculty should encourage critical thinking skills in students when interacting with AI technologies.

Example Methods

Faculty can encourage critical thinking skills in students when interacting with AI technologies through various strategies:

- 1. Encourage students to ask questions, explore different perspectives, and engage in inquiry-based learning activities when interacting with AI technologies.
- 2. Teach students to approach AI technologies with a healthy skepticism and to critically evaluate the information and results provided by AI systems.
- 3. Provide real-world examples and case studies that illustrate the ethical, social, and practical implications of Al technologies.
- 4. Facilitate discussions and debates about ethical considerations related to AI technologies, such as privacy, bias, fairness, and accountability.
- 5. Provide opportunities for students to experiment with AI technologies, explore different tools and applications, and engage in hands-on learning experiences.
- 6. Teach students how to critically evaluate data sources, assess the quality and reliability of data, and interpret the results of Al analyses.
- 7. Encourage students to reflect on their own thinking processes, biases, and assumptions when interacting with AI technologies.
- 8. Provide constructive feedback to students on their critical thinking skills, highlighting strengths and areas for improvement.

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Appendix

As appropriate statements, procedures, and documents are approved through the ASUMH shared governance process, samples will be listed in these appendices.

ASUMH-Approved Samples

Sample Syllabus Al Statements

Context and Rationale

The ASUMH Workgroup on Artificial Intelligence (AI) recognizes that faculty need to clearly communicate expectations and guidelines regarding students' responsible use of AI tools within their courses. To facilitate this, the Workgroup has developed two examples of optional supplemental language designed for faculty—at their discretion—to add to the end of the existing Academic Integrity/Plagiarism Syllabus Statement.

The examples are intended to offer students additional clarity and guidance concerning the use of AI tools for completion of their coursework. Further, the examples allow for flexibility, acknowledging the varied needs and approaches across different courses when integrating AI tools. By providing these resources, the Workgroup hopes to assist faculty in fostering transparency and fairness, while also continuing to encourage high standards of academic integrity.

Sample 1: Sample Syllabus Academic Integrity/Plagiarism Statement for Courses Prohibiting Student Use of Al

Academic Integrity/Plagiarism

Dishonesty in any form, including but not limited to plagiarism, submitting assignments prepared by others, unauthorized use of Generative Artificial Intelligence (AI), such as ChatGPT, unauthorized possession of exams, or using unauthorized materials during exams, may result in the student being withdrawn from the class with a failing grade or being suspended from the university. For further information, refer to the ASUMH Catalog and Student Handbook.

In this course, students are prohibited from using generative artificial intelligence (AI) tools or systems for any assignments, projects, or assessments unless explicitly authorized by the instructor. Generative AI refers to technologies capable of autonomously creating or producing original content, such as text, images, or audio, based on input data or algorithms.

Violation of this policy may result in any of the penalties listed above, as determined by the instructor and in accordance with the college's academic integrity policies. If students have questions about whether a specific tool or technology falls within the scope of this policy, they should consult with the instructor for clarification before proceeding.

Sample 2: Sample Syllabus Academic Integrity/Plagiarism Statement for Courses Limiting Student Use of Al

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In this course, students are permitted to use generative artificial intelligence (AI) tools or systems for specific assignments, projects, or assessments with prior approval from the instructor. Generative AI refers to technologies capable of autonomously creating or producing original content, such as text, images, or audio, based on input data or algorithms.

Students may request permission to use generative AI for relevant assignments or projects, provided that they clearly articulate how its use aligns with the learning objectives of the course and contributes to their academic growth. Requests should be submitted to the instructor in writing and must be approved in advance. The use of generative AI must adhere to ethical standards, respect copyright laws, and maintain academic integrity. Students are responsible for ensuring that any content generated using AI tools is appropriately cited and attributed, and they must be able to demonstrate their understanding of the processes involved.

Al Tools Appropriate for Use this Course:

- Grammar and style checkers
- Text summarization tools
- Language translation software
- Research and citation management tools
- Writing enhancement tools (e.g., for vocabulary suggestions)

Al Tools Not Appropriate for Use in this Course:

- Text generation tools (e.g., for creating essays or creative writing)
- Content spinning software (rewriting existing content)
- Plagiarism detection tools used for unethical purposes

Any AI tool that creates content without student input or authorship

The instructor reserves the right to deny permission for the use of generative AI if it is deemed inappropriate or incompatible with the goals of the course. Additionally, students are encouraged to explore alternative methods and approaches to assignments that do not involve generative AI.

Failure to comply with these guidelines or misuse of generative AI may result in any of the penalties listed above, as determined by the instructor and in accordance with the college's academic integrity policies. If students have questions or concerns about the use of generative AI in the course, they are encouraged to discuss them with the instructor for clarification and guidance.

Sample Faculty Guidelines for Al Detector Usage for Grading Purposes

Context and Rationale

The integration of AI detectors into grading processes represents a significant advancement in educational technology, offering the potential to streamline assessment procedures and provide valuable insights into student performance. However, with this innovation comes the responsibility to ensure that its implementation aligns with ethical standards, promotes fairness, and upholds the integrity of academic evaluation.

Guidelines

In order to ensure the ethical and fair use of Al-enhanced grading tools, faculty should do the following:

- 1. communicate clearly to students that AI detectors are being used for grading purposes and explain how they are used.
- 2. protect student data and ensure that Al detectors comply with relevant privacy regulations and institutional policies.
- 3. ensure that any Al detector used in grading is applied consistently to maintain fairness and accuracy.
- 4. review regularly the performance of any AI detector used in grading to identify and address any biases that may affect grading outcomes.
- 5. review any Al-detected issues to confirm accuracy and provide additional context or insights as needed.
- 6. establish a feedback mechanism for students to contest Al-detected issues and provide explanations or evidence to support their case.
- 7. ensure that decisions related to grading are transparent and accountable.
- 8. monitor and update Al detectors continuously based on feedback, new data, and evolving best practices to improve their effectiveness and fairness.

Sample Student Handbook Statement (Pending Approval)

Context and Rationale

The ASUMH Workgroup on Artificial Intelligence (AI) acknowledges the definition of plagiarism as the unauthorized use of another person's work without proper attribution. In our proposed revisions to the student handbook plagiarism and cheating statements, the Workgroup highlights the expanding relevance of AI in academic settings and emphasizes that plagiarism and cheating extend to artificial intelligence-created content. By incorporating AI into the definitions of plagiarism and cheating, we underscore the critical need for accurate citation and attribution in all forms of content creation, including those produced and enhanced by AI systems. This recognition not only reflects the evolving nature of academic work but also reinforces the ethical imperative of acknowledging the contributions of both human and machine-generated content.

Plagiarism

Plagiarism is the act of using the ideas, research, or words of another person or of artificial intelligence without acknowledging the source.

Disciplinary Action against Plagiarism

Faculty members may respond to cases of plagiarism in different ways. These include but are not limited to

- · returning the paper or other item for reworking and/or a lowering of the grade
- · assigning a failing grade on the paper or other item
- assigning a failing grade in the course
- initiating disciplinary procedures
- initiating procedures to have the student expelled from the University

Cheating

Cheating is an act of dishonesty with the intention of obtaining and/or using information in a fraudulent manner. Cheating includes, but is not limited to

- observing and/or copying from another student's work
- having another person perform classwork on behalf of the student or turning in or representing another's work as his/her own

- giving or receiving unauthorized assistance during an examination period
- using unauthorized information during an examination period
- using, buying, selling, stealing, transporting, or soliciting the contents of an exam or other assignment not yet taken or completed by the student or others
- using for credit in one class a term paper, report, or other assignment for credit in another class without permission from the instructors involved
- altering grades or other official records
- improperly collaborating on work when instructed to work independently
- engaging in the unauthorized use of artificial intelligence to complete assignments or exams

Disciplinary Action against Cheating

Faculty members may respond to cases of cheating in different ways. These include but are not limited to

- taking the exam or other coursework from the offender and awarding no credit
- taking the exam or other coursework from the offender and awarding a failing grade on that exam or assignment
- taking the exam or other coursework from the offender and awarding a failing grade for the course
- initiating disciplinary procedures that may result in suspension or expulsion from the university

OTHER

Violating specific policies, procedures, guidelines, rules, or regulations related to or required for the student's academic program at ASUMH.

Sample Canvas Al Notification

Context and Rationale

In accordance with the guiding principles set forth in the Guidebook for Ethical Implementation and Use of Artificial Intelligence (AI) in Education, and in acknowledgement of the changing landscape of AI usage in education, the ASUMH Workgroup on Artificial Intelligence (AI) recognizes the importance of clear communication and transparency regarding guidelines for student use of AI tools in their coursework. As a result, the Workgroup has crafted the following notification and requests that it be prominently displayed in each student's Canvas dashboard.

Subject Line/Title:

Students, Please Look for Course Al Guidelines

Message:

Students,

For each of your courses, please review any available information and guidelines regarding the use of artificial intelligence (AI) for completion of coursework. **Keep in mind that AI guidelines vary from course to course**. Some courses may have strict prohibitions on the use of AI while others may allow limited usage. As with any outside source, AI assisted work must include appropriate citation acknowledging its use. You are responsible for carefully reading and following the guidelines provided by the instructors for each of your classes.

If Al guidelines are available for a specific course, you may find them within Canvas course announcements, in the course syllabus, within individual assignment instructions, and/or in other appropriate places as designated by the instructor. Alternatively, individual instructors may choose to send their Al guidelines to students via student email.

If you have questions about the Al guidelines for a particular course, please contact your course instructor.