A Report on Generative AI

Prepared by The Citadel's Provost-Appointed Generative AI Taskforce

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This document was developed, authored, and reviewed by members of The Citadel's Generative AI Taskforce. The authors consulted with various members of The Citadel community including faculty and student; considered published articles and internet content; reviewed the AI responses of other universities; and employed AI technology as a resource in its development. We attest that all content contained is accurate and factual at the date of submission.

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Introduction

Artificial Intelligence technology in higher education offers opportunities for personalized learning, assessment, accessibility, tutoring, and streamlined administrative tasks. It can revolutionize the way we teach, learn, and work. However, there are challenges to consider. Ethical and legal concerns regarding data privacy, authorship attribution, potential machine-induced biases, and job displacement are also anticipated. Balancing human interaction with AI integration is crucial to the future success of The Citadel.

The Citadel needs to formulate policies and procedures to function effectively in this evolving environment. We must ensure that AI is ethically deployed, appropriately integrated, and used as a tool to enhance rather than replace the essential roles of humans. Those in academic communities are likely to encounter AI in most digital products in the future, and students, faculty, and staff must be trained to maximize the benefits and minimize the harms of this powerful innovative technology.

In light of the rapid pace of advancements and the continuous emergence of new generative AI tools, the strategic decision was made to shift focus from specific generative AI tools to the broader theme of types of generative AI tools. This decision stems from the recognition that the landscape of AI technology is dynamic and constantly evolving, with tools being developed at a rapid pace.

Relevant AI Technologies

The following Generative AI technologies are among those important for members of The Citadel community to consider along with their definitions.

Text Generation Definitions

- Automated Language Processing: Automated Language Processing involves the use of computer algorithms and techniques to analyze, understand, and generate human language automatically. This includes tasks such as text parsing, sentiment analysis, machine translation, speech recognition, and natural language generation. Automated language processing systems aim to enable computers to interact with humans through language, understand the content of textual data, and perform various language-related tasks autonomously.
- Intelligent Tutoring Systems: Intelligent Tutoring Systems are computer-based systems that provide personalized instruction or tutoring to learners. These systems utilize artificial intelligence techniques to adapt the tutoring process to the individual needs of learners, offering feedback, guidance, and support in real-time. ITS can simulate the role of a human tutor by assessing the learner's knowledge, understanding their learning style, and adjusting the instructional content and pace accordingly.
- Natural Language Processing (NLP): Natural Language Processing is a field of artificial intelligence and linguistics concerned with the interaction between computers and human (natural) languages. NLP focuses on enabling computers to understand, interpret, and generate human language in a meaningful way. This involves tasks such as language translation, sentiment analysis, text summarization, speech recognition, and language generation. NLP techniques are used in various applications, including virtual assistants, machine translation, and text analysis.
- Large Language Models (LLMs): Large Language Models are advanced artificial intelligence models that are trained on vast amounts of textual data to understand and generate human-like language. These models, such as OpenAI's GPT (Generative Pre-trained Transformer) series, consist of millions or even billions of parameters and are capable of performing a wide range of natural language understanding and generation tasks. LLMs have significantly advanced the capabilities of AI in tasks like language translation, text completion, question answering, and text generation.
- Plagiarism Detection: Plagiarism Detection refers to the process of identifying instances where someone has copied or closely paraphrased content from another source without proper attribution. Plagiarism detection systems use various techniques, such as text comparison algorithms and database searches, to identify similarities between documents and flag potential instances of plagiarism.

Image Generation Definitions

- Data Visualization: Data Visualization is the graphical representation of data and information to facilitate understanding and interpretation. It involves creating visual representations such as charts, graphs, and maps to convey insights and patterns hidden within large datasets. Data visualization techniques help users analyze complex data more easily, identify trends, patterns, and outliers, and communicate findings effectively to stakeholders. Visualization tools often allow users to interact with the data dynamically, enabling exploration and deeper understanding.
- Content Creation: Content Creation refers to the process of generating digital media and material for various purposes, such as entertainment, education, marketing, or information dissemination. Content creation can involve producing written content, images, videos, audio recordings, and multimedia presentations.
- Augmented Reality (AR) and Virtual Reality (VR): Augmented Reality (AR) and Virtual Reality (VR) are immersive technologies that alter users' perceptions of the real world or create entirely virtual environments.
    - Augmented Reality (AR) overlays digital content, such as images, videos, or 3D models, onto the real-world environment, typically viewed through smartphones, tablets, or AR glasses. AR enhances the user's perception of reality by adding computer-generated elements that interact with the physical world.
    - Virtual Reality (VR) immerses users in entirely virtual environments generated by computers. Users typically wear VR headsets that block out the physical world and provide a fully immersive experience. VR technology enables users to interact with and explore virtual worlds in a highly immersive and interactive manner.
- Accessibility: Accessibility refers to the design and implementation of products, services, and environments to ensure they can be accessed and used by individuals with disabilities or special needs. In the context of technology, accessibility encompasses making digital content, software, websites, and applications usable for people with diverse abilities, including those with visual, auditory, motor, or cognitive impairments. Accessibility features may include screen readers, alternative text for images, keyboard navigation, voice commands, and adjustable font sizes and color contrasts.

Computer Coding Definitions

- Software Coding: Software Coding, also known as programming or software development, is the process of writing instructions or code that tells a computer how to perform specific tasks or functions. Software developers use programming languages such as Python, Java, C++, and JavaScript to create software applications, websites, mobile apps, and other digital systems. Coding

involves designing algorithms, writing code, debugging and testing programs, and maintaining software to ensure it meets user requirements and functions correctly.

- Application (App) program interfaces (APIs): Application Program Interfaces (APIs) are sets of rules, protocols, and tools that allow different software applications to communicate and interact with each other. APIs define how various software components should interact, enabling developers to access functionality and data from other applications or services without needing to understand their internal workings. APIs facilitate integration between different systems, streamline development processes, and enable the creation of new applications by leveraging existing functionalities.

Strategic Insight into the Identified Capabilities and Limitations of AI Technologies

Text Generation

Capabilities:

- Automated Language Processing: AI text tools efficiently perform tasks like grammar and spell checking, language translation, and proofreading.
- Intelligent Tutoring Systems: AI-powered tutoring systems offer personalized feedback, identify areas for improvement, and provide revision suggestions based on analyzing students' written work.
- Natural Language Processing (NLP): NLP techniques enable AI systems to understand and generate human-like text, enabling interactive learning materials and virtual teaching assistants.

Limitations:

- Contextual Understanding: AI text tools may struggle with nuanced or context-dependent language, leading to occasional inaccuracies or misinterpretations.
- Lack of Creativity: AI can generate text based on patterns and examples, but it lacks the originality and creativity of human expression.
- Ethical Concerns: AI text generation raises ethical issues related to bias, misinformation, and potential misuse of technology.

Image Generation

Capabilities:

- Data Visualization: AI can generate visually appealing and interactive data visualizations, aiding in understanding complex information.
- Content Creation: AI image creation tools can automate the generation of visuals such as charts, graphs, diagrams, and illustrations, saving time for users.
- Augmented Reality (AR) and Virtual Reality (VR): AI can enhance immersive

learning experiences by creating virtual environments or overlaying digital content in the real world.

Limitations:

- Creative Limitations: AI-generated visuals may lack the creativity and artistic judgment that human designers possess.
- Complexity: Some complex visuals or intricate designs may be challenging for AI to generate accurately.
- Biased representation of images: AI image recognition and generation algorithms may exhibit biases or inaccuracies, requiring careful monitoring and consideration to avoid unintended consequences.
- Ethical Considerations: AI-generated visuals may create offensive or harmful images, fake imagery, or real artwork without obtaining proper permissions and adhering to copyright laws

Computer Coding

Capabilities:

- Efficiency and Speed: AI can review code quickly and efficiently, saving time compared to manual code reviews.
- Consistency and Accuracy: AI can consistently and accurately analyze code, reducing the risk of human error and bias.
- Detection of Hard-to-Find Errors: AI can detect complex or obscure errors that might be missed in manual reviews.
- Enhanced Learning and Skill Development: AI code review tools can serve as valuable learning aids for students. They provide detailed feedback and recommendations for a wide variety of coding issues and errors, helping students improve their skills and learn new techniques.
- Real-Time Suggestions: AI coding tools can enhance code accuracy by providing real-time suggestions based on industry best practices, alerting on potential bugs or security vulnerabilities, and acting as a safeguard against common coding mistakes.
- Empowering Non-Developers and Newcomers: AI coding tools make code development more accessible to non-developers and newcomers by giving contextual guidance and responding to natural language queries.

Limitations and Threats:

- Bias in Training Data: AI models can inherit biases present in their training data, leading to biased decisions or outputs in coding tasks.
- Job Displacement: Automation driven by AI could lead to the displacement of coding jobs, particularly for repetitive or lower-skilled tasks.
- Security Vulnerabilities: AI-generated code may introduce security vulnerabilities

if not properly tested or if malicious actors exploit weaknesses in AI systems.

- Lack of Transparency: Complex AI algorithms may lack transparency, making it difficult to understand how decisions are made or to troubleshoot errors.
- Dependency on AI: Over-reliance on AI tools for coding tasks could lead to a decline in human coding skills and problem-solving abilities.
- Ethical Concerns: AI systems may make ethical decisions or code changes that conflict with societal values or principles, raising ethical concerns.
- Privacy Risks: AI-powered coding tools may inadvertently leak sensitive information or violate privacy regulations if not properly designed and implemented.
- Quality Control Issues: AI-generated code may lack the quality and readability of human-written code, leading to maintenance difficulties and bugs.
- Regulatory Challenges: The use of AI in coding may raise regulatory challenges related to intellectual property rights, liability, and accountability for code errors or failures.
- Unintended Consequences: AI systems may produce unintended consequences or unforeseen behaviors in code, especially in complex or dynamic environments.

Unforeseen Capabilities and Threats

Capabilities:

- The various AI systems use randomization algorithms as part of their inner workings. As a result, they routinely create valuable and unanticipated content.

Threats:

- AI systems can fail in surprising ways that are not always easy to identify. It is difficult or impossible to understand how some AI algorithms generate their output. Large language models (LLMs), like ChatGPT and others, have demonstrated a propensity to ‘hallucinate’ and create output text that seems to be true or accurate but is actually false or inaccurate. LLMs can also create output that many would find offensive and biased due to inherent bias in the training of the algorithms.

Potential Impact on The Citadel Campus

Potential Impact on Academics

Capabilities

- Students: AI can potentially support students by offering personalized learning experiences, identifying areas of weakness, and providing tailored support to enhance their learning.
- Teachers: AI can potentially aid teachers in creating and grading assignments and delivering feedback, saving time for more meaningful student interaction and

instructional planning.

- Scholarly Works and Publications: AI can potentially assist in brainstorming ideas for research and quickly identifying relevant articles and publications in their field, streamlining the literature review process.
- Predictive Analytic and Data-Driven Decisions: AI can potentially be used to analyze trends and predict future developments. This data can potentially be leveraged for informed decision-making and robust support services.
- Personalized Learning: AI can potentially provide personalized learning experiences, improving the effectiveness of education and helping students achieve their goals.
- Operational Efficiency: Automating tasks to enhance overall operational efficiency.

Limitations

- Data Privacy Concerns: There are potential concerns related to the privacy of data involved in AI processes.
- Bias in Algorithms: There are potential issues associated with biases embedded in AI algorithms.
- Overreliance/ Dependence on AI Technology: Users must be cautious of overreliance and potential dependence on AI.
- Ethical Concerns/ Academic Integrity AI Detection Issues: AI detectors are not infallible. AI detectors may struggle to accurately detect paraphrasing or rephrasing of content, leading to false negatives where instances of plagiarism go undetected. AI detectors might inadvertently flag common phrases or terminology as plagiarized, resulting in false positives and unnecessary accusations. The effectiveness of AI detectors heavily relies on the quality and diversity of the training data, potentially leading to biases or inaccuracies in detection, particularly when dealing with niche or specialized topics.

Potential Impact on Academic Integrity

- Academic Misconduct: AI can be used to generate answers to test questions, allowing students to cheat on exams and assessments. Chatbots like ChatGPT can also be used to generate answers to homework assignments, undermining the integrity of academic work.
- Plagiarism: AI can generate research papers and essays, making it easier for students to engage in plagiarism by copying and pasting information from online sources without proper attribution.
- Bias and Discrimination: AI depends on the internet and other public domain materials for its training data, and if the data is biased, the algorithms may make biased or discriminatory decisions, affecting the fairness and objectivity of

academic processes.

- Automation of Grading: AI can automate grading, but the lack of human interaction may limit educators' ability to provide meaningful feedback and assessment. Important nuances in student work that a human grader would detect may be overlooked.
- Impact on Originality: AI can reduce the incentive for students to think critically and creatively, as they can rely on AI algorithms for answers and solutions instead of developing their own original ideas.

Additional Potential Impacts

- Digital Divide: Not all students, staff, or institutions have equal access to the necessary hardware, software, or high-speed internet needed to utilize AI technologies. This is particularly true for individuals in rural areas, low-income families, or those in developing countries.
- Technical Literacy: The effective use of AI technology often requires a certain level of digital literacy. People who lack these skills may not be able to fully benefit from these technologies, which can lead to further inequities.
- Language and Cultural Barriers: Many AI technologies are developed and optimized for English language users, which can marginalize non-English speakers. Also, AI can unintentionally perpetuate cultural biases if they are primarily trained on data from a certain group of people.
- Cost of Implementation: Implementing AI technology in administrative functions often involves significant costs, including the cost of the technology itself, the cost of training people to use it, and the cost of maintaining and updating it. These costs may not be bearable for smaller or less well-funded educational institutions, widening the gap between them and more resourced institutions.
- Data Privacy and Security: Not all institutions or individuals may have the resources or knowledge to effectively protect the data used and generated by AI systems, potentially leading to unequal risks regarding data privacy and security.
- Bias: AI can perpetuate existing biases, leading to unfair and unequal treatment of different groups of students. For example, facial recognition technology has been shown to be less accurate in recognizing individuals with certain skin tones, which can create disparities in access to certain educational opportunities and resources.

Implications for Teaching and Learning

The use of AI can bring about positive outcomes for students, faculty, and staff, enhancing the overall success and competitiveness of The Citadel. However, the increased reliance on AI may result in the loss of certain skills and knowledge as some

tasks become automated, potentially affecting the long-term competitiveness of universities. Below are both the positive and negative implications of AI in areas such as teaching, scholarship, authorship, copyright, administrative functions, and legal applications.

Teaching

Positive Implications:

- Personalized Learning: AI can provide personalized learning experiences by adapting content, pace, and feedback to individual student needs, enhancing student engagement and academic performance.
- Efficient Assessment: AI-powered tools can automate grading, provide immediate feedback, and offer data-driven insights into student performance, allowing instructors to focus on instructional strategies and providing targeted support.
- Enhanced Accessibility: AI technologies can improve accessibility for students with disabilities by providing alternative formats, closed captioning, and text-to-speech capabilities, promoting inclusivity in education.
- Intelligent Tutoring: AI-based intelligent tutoring systems can provide round-the-clock support, answer student queries, offer guidance, and provide additional resources to enhance learning outside the classroom.
- Streamlined Administrative Tasks: AI can automate administrative tasks like scheduling, course registration, and managing learning materials, freeing up faculty time for instructional planning and engagement with students.

Negative Implications:

- Ethical Concerns: AI raises ethical concerns related to data privacy, security, and potential bias in algorithms, requiring careful implementation and monitoring to ensure fairness and accountability.
- Human Interaction: Overreliance on AI in teaching may reduce the opportunities for face-to-face interaction and personalized support from instructors, which can be essential for building relationships and addressing complex learning needs.
- Job Displacement: Integrating AI in teaching may raise concerns about job displacement among educators, as some routine tasks could be automated. However, it can also create new roles and opportunities for instructors to utilize AI technologies.
- Dependence on Technology: Overreliance on AI technologies may diminish critical thinking and problem-solving skills among students, as they may excessively rely on automated tools for learning and assessment.
- Accessibility Challenges: While AI has the potential to enhance accessibility, it may also introduce new challenges if the technology is not inclusive and fails to

consider diverse student needs, potentially creating barriers for students with disabilities.

Administrative Functions

Positive Implications:

- AI can automate routine tasks, such as scheduling appointments and processing lab results, improving operational efficiency in higher education.

Negative Implications:

- There can be an over-reliance on AI systems for administrative tasks, which can lead to job displacement and a lack of human oversight.
- Errors or biases in the AI can also lead to significant mistakes or inequalities, such as incorrect scheduling or unfair treatment of students or staff.
- Implementation of AI can be costly and technically complex.
- AI systems struggle with tasks requiring nuanced understanding, empathy, or discretion, which are often important in educational administration.
- Privacy and data security are also significant concerns when using AI for handling sensitive information.

Recommendations Regarding AI in The Citadel Community

The following recommendations are provided by the Provost's Generative AI Taskforce for members of The Citadel community. These include guidelines for teachers and students, staff, and for use in the Academic Integrity Policy and Honor Code.

Teaching and Learning

Emphasize the Learning Process:

- Recommend a paradigm shift for faculty in educational approaches to prioritize understanding the learning process facilitated by generative AI, rather than solely concentrating on the final product.

Prioritize Fundamental Skills and Content:

- Prioritizie fundamental skills and content in educational endeavors, ensuring that generative AI complements and enhances foundational knowledge.
- Encourage the integration of generative AI as a supportive tool to enhance the understanding of core subjects.

Cultivate Higher-Order Thinking Skills:

- Recognize the importance of cultivating higher-order thinking skills, with generative AI serving as a tool to facilitate critical thinking and problem-solving.

Adaptation of Teaching Materials and Clear Expectations:

- Encourage educators to adapt existing teaching materials to integrate generative AI appropriately or discourage its use, while setting clear expectations for

students regarding its use.

- Establish clear guidelines and expectations for students, both encouraging responsible use of generative AI and discouraging its misuse.

Integrate Fact-Checking and Citation Skills:

- Incorporate educational strategies that teach students how to fact-check and cite sources, mitigating potential challenges associated with misinformation and plagiarism in the age of generative AI.

These policy recommendations aim to provide a framework for educators, institutions, and policymakers to thoughtfully integrate generative AI into teaching and learning environments while fostering responsible and effective use among students.

Best Practices

Establish Clear Ethical Guidelines:

- Ensure responsible and transparent practices in the use of generative AI. This includes policies for faculty, students, and staff.

Implement Comprehensive Training Programs:

- As the widespread use of AI technologies has emerged so suddenly and for all members of the university community simultaneously, an unprecedented amount of training will be needed at all levels of The Citadel. Teachers, students, and staff will need to be trained in the effective and appropriate uses of AI tools. It will be important that training be developed at various levels and available on a school-wide level as well as in more granular and discipline-specific settings.
- Campus organizations including the Center for Excellence and Innovation in Teaching, Learning and Distance Education, Student Success Center's Writing Lab, and the Daniel Library should be involved in developing and providing this training.
- The task force recommends that the training be accessible and delivered in multiple modalities and be ongoing due to the evolving nature of the situation.

Continuously Refine AI Implementation

- Stay informed about new developments in AI and regularly update knowledge on emerging trends and advancements in generative AI to adapt strategies and technologies accordingly. This involves maintaining awareness of innovative tools and methodologies.
- Invest in faculty training and support by allocating resources for training programs for faculty and students. This investment ensures that all stakeholders possess the necessary skills and understanding to navigate and leverage generative AI effectively within the academic context.

Comply with Data Protection Regulations:

- Anyone using generative AI must adhere to existing and evolving data protection

standards. This involves implementing measures to safeguard sensitive information and ensuring compliance with legal and ethical guidelines governing data use in AI applications.

Ensure Inclusive Access:

- The Citadel should actively consider and address factors such as affordability, device compatibility, and accessibility features. This involves creating an inclusive environment that accommodates diverse needs, ensuring that all students, regardless of economic or physical constraints, can fully participate in AI-driven educational experiences.
- The integration of AI into education at The Citadel should prioritize inclusivity and accessibility, striving to eliminate disparities in access and opportunity. This includes implementing measures to make AI-enhanced educational resources available to all students, irrespective of socioeconomic background, geographical location, or any other factors that might create disparities.

Discuss Accountability in AI Use:

- Anyone engaging with AI technologies must proactively address issues related to bias, transparency, and accountability. This involves fostering open discussions and implementing strategies to identify and rectify biases in AI applications. Transparency in the deployment of AI, coupled with clear accountability mechanisms, is crucial to building trust and mitigating potential ethical concerns.

Integrate AI Literacy into Curriculum:

- Recognizing the transformative impact of AI on various fields of study, The Citadel should integrate AI literacy into its curriculum. This involves exposing students to fundamental AI concepts early in their academic journey, fostering a foundational understanding of AI's principles, applications, and ethical considerations.

Develop a Centralized AI Resource Hub:

- To facilitate efficient utilization of AI resources The Citadel should establish a centralized hub for AI. This hub, accessible through platforms like Canvas or a dedicated website, would serve as a one-stop shop for both students and teachers seeking information and guidance related to AI. The centralized resource hub would aim to streamline access and enhance the overall effectiveness of AI integration in educational settings.
- The Centralized AI Resource Hub would contain comprehensive guidelines for the ethical usage of generative AI for students, faculty, and staff. Included are resources such as AI usage posters and sample presentation slides, facilitating informed discussions on incorporating AI into educational settings. The initiative is designed to offer a user-friendly repository of information, fostering responsible engagement with AI technologies within the academic community. This consolidated approach ensures that all stakeholders have access to the

necessary tools and information, promoting a seamless and ethical integration of AI in The Citadel's educational landscape.

- Several campus offices are recommended to participate in the AI Resource Hub, including the Center for Excellence and Innovation in Teaching, Learning and Distance Education, the Daniel Library, and the Student Success Center.

Guideline Formation

Guidelines for the ethical and effective use of generative AI

Generative AI Usage Guidelines for Students

- **The use of AI must be documented.** AI content without proper attribution or authorization is considered a form of plagiarism.
- **AI should help you think; it should not think for you.** AI should serve as a tool to assist and enhance your thought process rather than replacing it.
- **You are responsible for your final product.** AI is known to make mistakes. You are fully accountable for AI-generated content. Make sure you can attribute and source all facts so they can be verified.
- **Engage ethically with AI.** Evaluate your AI-generated outputs and consider any potential biases, limitations, and ethical implications. Respect privacy, confidentiality, and intellectual property rights.
- **Confidential or personal data should never be entered in generative AI tools.** AI tools may expose data to third parties, lack confidentiality, and be vulnerable to data breaches.
- **These guidelines are in effect unless your instructor gives you alternate guidelines.** It is your responsibility to know and follow your instructor's guidelines for AI use on each assignment. Please note it may vary for different assignments.

Generative AI Usage Guidelines for Teaching

- **AI should help you teach; it should not teach for you.** AI can serve as a complementary tool to support instructors but is not a replacement for human interaction. Instructors should continue to play an active role in the teaching process and maintain direct engagement with students.
- **Balance quality and timeliness for grading purposes.** Take into consideration whether AI is suitable for grading an assignment. If it is deemed appropriate, make sure to verify that the output generated by the AI accurately reflects the actual accomplishments or feedback you would otherwise provide to students. Further, think about the potential discomfort or opposition from students towards AI-driven grading and consider explaining your decision to employ it.
- **You are 100% responsible for your teaching materials.** You are responsible for any mistakes made by AI if you choose to incorporate its output into your

lectures or other course content. If you are unsure about the accuracy of a statement, it is your responsibility to research and verify it before using it. This includes properly attributing ideas, ensuring the accuracy of facts, and using correct sources.

- **The use of AI should be open and documented.** It is essential to be transparent and document the use of AI in your work. Inform your students about the use of AI in generating course assignments, exam questions, and other relevant materials. Provide explanations or demonstrations of how AI is employed, helping students understand the technology's role and limitations.
- **Adjust teaching practices to address AI use concerns.** Complement any limits placed on AI use with activities that promote intellectual aims challenged by uncritical AI practices. For example, emphasize in-class generation of knowledge and foreground process-based learning. Consider incorporating oral- or performance-based activities and identify opportunities for reflection and meta-cognition.
- **Select AI tools that align with course outcomes.** Utilize AI to align teaching strategies with course outcomes, making sure that it enhances rather than overshadows the learning process. AI tools should be selected to support students' learning needs. Consider ease of use, accessibility, and the potential for personalized learning. Instructors should ask themselves what they are trying to do to help students learn and which AI tool best facilitates that learning. The integration of AI should be purposeful and beneficial to the learning process, rather than being incorporated merely for its own sake.
- **Ensure that AI use is inclusive**. Make sure that the AI tools and instructions provided are accessible to all students and consider the needs of all students when selecting or designing AI-based instructional materials.
- **Facilitate and encourage critical thinking.** While AI can provide valuable insights and assistance, instructors must encourage students to think critically and question information provided by AI tools. Foster a culture of inquiry and intellectual curiosity and assist students in developing AI literacy.
- **Emphasize human skills**. Highlight the importance of human skills such as empathy, creativity, and critical reasoning alongside the use of AI. Teach students to leverage AI as a tool while emphasizing the unique qualities that humans bring to the learning process.
- **Specify AI policies for your course.** As different instructors may have different guidelines, remind students regularly of your AI policies and if or how they can use these tools appropriately in your course.
- **Confidential or personal data should never be entered in generative AI tools.** AI tools may expose data to third parties, lack confidentiality, and be

vulnerable to data breaches.

Generative AI Usage Guidelines for Administrative Tasks

- **AI should help you think and not think for you.** You should think of Generative AI as a complementary tool that can support you rather than as a replacement for human expertise and judgment. You should maintain an active role in your work and continue to engage directly with relevant stakeholders.
- **You are responsible for your final product.** You are responsible for making sure any content you create using generative AI is of high quality and accurate. You hold full responsibility for AI-generated content as if you had produced the materials yourself. If you are unsure about the accuracy of a statement, it is your responsibility to research and verify it before using it.
- **Confidential or personal data should never be entered in generative AI tools.** AI tools may expose data to third parties, lack confidentiality, and be vulnerable to data breaches.
- **The use of AI should be open and documented.** It is essential to be transparent and document the use of AI in your work. You should disclose when you use generative AI for tasks that can impact decisions or have ethical or legal implications. You do not have to disclose when you use generative AI for minor tasks, or if you make significant edits to the output that a generative AI tool gives you.

Generative AI Usage Guidelines for Faculty Research

- It is recommended that a separate sub-committee be formed in conjunction with The Citadel's Office of Research and Grants to develop a set of guidelines for research and scholarly applications of generative AI. Several other universities have created similar sets of guidelines.

Guidelines for Addressing Academic Integrity

- Plagiarism is the act of using another source's words or ideas without properly citing the source. The use of generative AI tools without proper citations is considered deception and plagiarism and a violation of The Citadel's Honor Code. All members of the South Carolina Corps of Cadets are subject to the honor code at all times. All non-cadet students are also subject to the Honor Code.
- It is recommended that the following measures are put in place to mitigate the use of generative AI tools without instructor permission.
    - Instructors are required to clearly articulate their AI course policy in the course syllabus. Different classes at The Citadel will implement different

AI policies, and it is the student's responsibility to conform to expectations for each course and assignment before use.

- If students are granted permission to utilize generative AI tools, they should be requested to attribute the source and document the process of their usage, which must be included with the submission of the assignment.
- All academic areas on campus should have a poster on display that clearly outlines how to use generative AI appropriately and ethically. A sample poster can be found in Appendix A.
- AI literacy training should be offered to the campus community including students, faculty, and staff so everyone can use generative AI tools appropriately and ethically.

Guidelines for how generative AI is addressed in course syllabi

Content generated by Artificial Intelligence (AI) third-party services or sites (AI-generated content) without proper attribution or authorization is considered a form of plagiarism.

Clearly articulate your generative AI course policy.

i.e.-

This course specifically forbids the use of ChatGPT or any other generative artificial intelligence (AI) tools at all stages of the work process, including preliminary ones.

Violations of this policy will be considered plagiarism. Please draw your attention to the fact that different classes at The Citadel implement different AI policies, and it is the student's responsibility to conform to expectations for each course and assignment before use.

OR

Certain assignments in this course may allow the use of generative artificial intelligence (AI) tools such as ChatGPT.

The default is that such use is disallowed unless otherwise stated. Any such use must be appropriately acknowledged and cited. It is each student's responsibility to assess the validity and applicability of any generative AI output that is submitted; you bear the final responsibility. Violations of this policy will be considered plagiarism. Please draw your attention to the fact that different classes at The Citadel implement different AI policies, and it is the student's responsibility to conform to expectations for each course and assignment before use.

- **The use of AI must be documented.** AI content without proper attribution or authorization is considered a form of plagiarism.
- **AI should help you think; it should not think for you.** AI should serve as a

tool to assist and enhance your thought process rather than replacing it.

- **You are responsible for your final product.** AI is known to make mistakes. You are fully accountable for AI-generated content. Make sure you can attribute and source all facts so they can be verified.
- **Engage ethically with AI.** Evaluate your AI-generated outputs and consider any potential biases, limitations, and ethical implications. Respect privacy, confidentiality, and intellectual property rights.
- **Confidential or personal data should never be entered in generative AI tools.** AI tools may expose data to third parties, lack confidentiality, and be vulnerable to data breaches.
- **These guidelines are in effect unless your instructor gives you alternate guidelines.** It is your responsibility to know and follow your instructor's guidelines for AI use on each assignment.

Guideline Specifics

- Not following these guidelines may be a reportable violation to the Honor Court for cadet students and the Honor Code for non-cadet students. Suspected violations of the honor code by non-cadet students will be reported and adjudicated in accordance with college regulations.
- If the use of AI tools is explicitly permitted, you are required to adhere to the guidelines concerning AI citation, verification, and clarity as outlined below.

Sourcing Use of AI

- **Accuracy:** Generative AI may invent both facts and sources for those facts. Verification is your responsibility, whether the source of the error is you or the AI makes no difference. You need to check the facts, the quotes, the arguments, and the logic, and document what you did to validate your material.
- **Attribution:** All ideas that are not originally your own have a source and that source must be attributed. Please be aware that generative AI tends to invent sources. You have a two-fold obligation concerning attribution:
    1. If a source provided by Generative AI is identified, you must find and attribute the original source of the idea, identifying the location of the text within the source and providing a working link to the location (if the source is available online). If you are not able to locate the source, delete that content.
    2. Document the process by explaining how you used generative AI in a work statement that will accompany your submission of major projects in the class. As you submit a project, develop, and include an appropriate version of the below statements:
        - *"I attest that this project did not use AI at any stage in its development or in the creation of any of its components."*

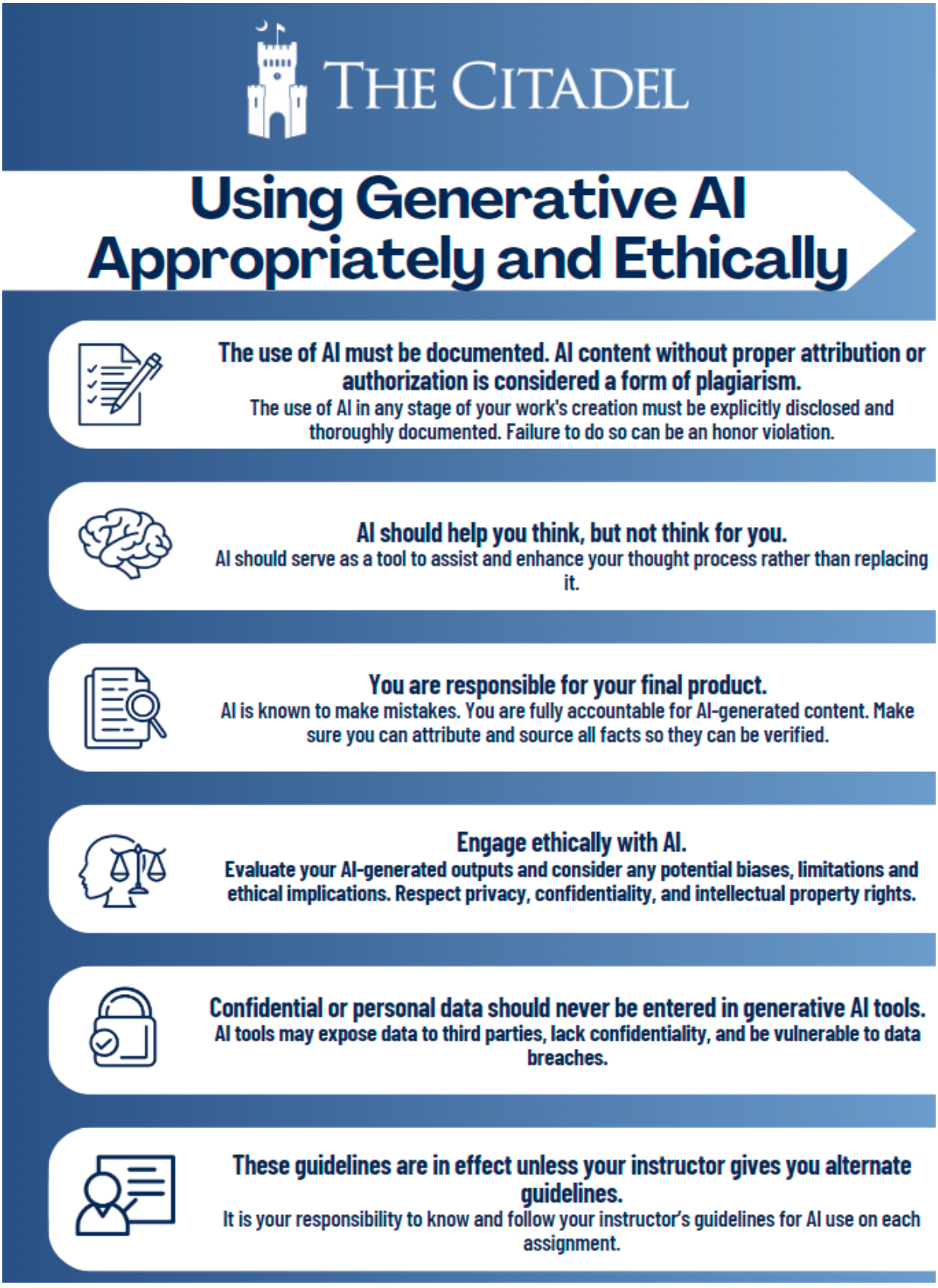
OR

- *"I attest that this project made use of AI in the following ways:"*
  - *You must then use a version of the following form to document your usage.* It is recommended that faculty members only list usages that are allowed for each assignment.*

Usage	**Tool Used (e.g., ChatGPT-4)**	**How did you edit the output, if at all**	**Conversation Link (If available)**
Topic selection			
Brainstorming/ idea generation			
Research			
Source valuation			
Outlining/planning			
Drafting			
Media creation			
Peer review			
Revising			
Polishing			
Other			

*Note that such attribution is not a valid source for facts, only for the output itself.

Appendix A


THE CITADEL
Using Generative AI Appropriately and Ethically
The use of AI must be documented. AI content without proper attribution or authorization is considered a form of plagiarism.
The use of AI in any stage of your work's creation must be explicitly disclosed and thoroughly documented. Failure to do so can be an honor violation.
AI should help you think, but not think for you.
AI should serve as a tool to assist and enhance your thought process rather than replacing it.
You are responsible for your final product.
AI is known to make mistakes. You are fully accountable for AI-generated content. Make sure you can attribute and source all facts so they can be verified.
Engage ethically with AI.
Evaluate your AI-generated outputs and consider any potential biases, limitations and ethical implications. Respect privacy, confidentiality, and intellectual property rights.
Confidential or personal data should never be entered in generative AI tools.
AI tools may expose data to third parties, lack confidentiality, and be vulnerable to data breaches.
These guidelines are in effect unless your instructor gives you alternate guidelines.
It is your responsibility to know and follow your instructor's guidelines for AI use on each assignment.