The College of New Jersey
Task Force on Artificial Intelligence
White Paper Report (February 5, 2024)

Task Force Charge

Our Task Force was convened by the Steering Committee in the fall of 2023 to explore artificial intelligence (AI) usage for teaching, learning, and work-related activities. We were charged to:

(1) survey salient reports, guidance, and responses from relevant organizations (e.g., federal and state governmental departments, other institutions of higher education);

(2) develop a "white paper" summarizing key areas across TCNJ that are/will be impacted by AI and may need modifications in practice and/or policy (e.g., instruction, evaluation of student learning [cheating], research integrity, admissions, etc.) with examples of best/promising practices, strategies, and models from other organizations.

In addition, we were asked to provide recommendations for guiding the college's management of AI to ensure that TCNJ adheres to best practices and meets the interests and needs of its students in a manner that is consistent with our campus mission and vision.

Membership

A representative from the Center for Excellence in Teaching and Learning (CETL), serving as co-chair; four faculty members (one to serve as co-chair) appointed by the Faculty Senate; three staff members, appointed by Staff Senate; one dean, appointed by the Office of Academic Affairs; one additional representative appointed by Academic Affairs, and three students, appointed by Student Government.

1. Ben Akuma, Staff
2. Judi Cook, CETL (serving as co-chair)
3. Tabitha Dell'Angelo, Dean
4. Tao Dumas, Faculty (serving as co-chair)
5. Ellen Farr, Staff
6. John Oliver, Faculty
7. Jennifer Palmgren, Academic Affairs
8. Kim Pearson, Faculty
9. Nina Ringer, Staff
10. Andrea Salgian, Faculty
11. Daniel Wilson, Student

Table of Contents

Background

Artificial Intelligence (AI) tools introduce both opportunities and challenges to our campus for students, faculty, and staff. On the one hand, AI tools confer the benefits of personalized learning as well as increased accessibility, potentially supporting student success. Opportunities to automate routine tasks could lead to great efficiency for administrative staff and faculty. Conversely, AI tools sometimes produce plausible-sounding yet inaccurate results, and may introduce bias in decision-making processes. Development and use of AI tools may result in intellectual property infringement. The electrical power needed to support the technology may have an adverse effect on the environment. And, if students are not guided in the responsible use of AI tools, usage may disrupt student learning, distort grading and student evaluation processes, and impact academic integrity compliance. Understanding the benefits and challenges of AI is critical as we navigate its impact on professional and educational practices.

Overview of AI

Artificial intelligence, also known as AI, is a technology that utilizes a computer-based architecture to mimic human intelligence and reasoning. While people may or may not be aware of its presence in their lives, AI has become deeply ingrained in the fabric of our society. AI-assisted features infuse many of the technologies that we use for work, school, and personal purposes.

Definitions and Concepts

Artificial Intelligence (AI) is a subfield of computer science aimed at developing computer-based solutions to problems that typically require human intelligence. AI is any machine or software that mimics human cognition to perform complex tasks. Examples of AI include vision-based systems that can recognize faces or read license plates, natural language processing systems such as chatbots and digital assistants, medical expert systems, and any software that requires decision-making, from playing chess to deciding who should get a mortgage.

Machine Learning is a subfield of AI that uses algorithms trained on data to produce adaptable models that can perform a variety of tasks. A machine learning algorithm teaches a system to recognize certain features or patterns that are associated with specific categories of data. The goal is to use this data to classify new data points. Training data can be visual, textual, or numeric.Within the field of machine learning, **deep learning** is a set of approaches that uses several layers within artificial neural networks to do some of the most complex learning tasks without any human intervention. Systems trained with these approaches function like a “black box” whose internal workings are opaque to humans, which means we don’t know what features are learned and subsequently used for classification and decision-making. This can pose significant ethical issues.

Generative AI (GenAI) enables users to generate new data (text, images, or audio) based on an input prompt. These systems are trained on very large amounts of data from which they extract and learn various patterns that they replicate following a prompt. In the case of text, this happens at character level. A generative AI system will predict the most likely character to continue a sequence, and will thereby generate correctly spelled words, sentences, paragraphs, and even essays on the prompted topic, in a process that is similar to autocomplete. The result is "original" text, in the sense that it doesn't appear exactly like that in the training data, but it is very close. It is important to remember that a generative AI system does not understand the prompt, and it does not think when it generates the result. Answers to questions may be realistic but incorrect. A generative AI tool's answer to a question is better understood as probabilistic, a guess about a plausible continuation of a sequence. These text-generating AI tools (e.g., ChatGPT) are referred to as large language models (LLMs).

Generative AI is sometimes confused with **Artificial General Intelligence (AGI)**, which refers to human-like, sentient intelligence. AGI remains in the realm of science fiction, at least for now. It should be noted that AGI is a stated objective of some of the persons and organizations developing and disseminating generative AI tools.

Computational Literacy

Computational literacy is an important skill that can empower students, faculty and staff to understand various computer-based technologies, including artificial intelligence, and help them to use such tools to their benefit, while being aware of their limitations and dangers.
We are all familiar with the term computer literacy, the ability to use computers efficiently. Computational literacy takes this skill further, adding the ability to apply computational thinking, a thought process that formulates problem solving in terms of algorithms that can be executed by computers.

Benefits and Challenges of AI

Whether they are based on deep learning and generative AI or not, when used correctly, artificial intelligence systems can improve human work in various ways. However, use of AI tools poses significant challenges, and aspects of the development and refinement of AI systems are fraught with ethical problems.

Benefits of AI include:

- Personalized and interactive learning that can adapt to individual learning styles and paces, increasing student engagement and comprehension, as well as various study tools and instant feedback
- Tools that provide access to students with disabilities, including some well known technologies, such as screen readers, closed captioning, and automated translation
- Tools that can assist faculty with evaluating student work

- Simulations for highly specialized training
- Streamlining mundane or tedious tasks

Challenges of AI include:

- Lack of transparency (i.e., black box problem—See Prinsloo, 2020)
- Potential lack of accuracy and potential for unskilled use
- Potential for fraudulent use
- Bias in output results
- Intellectual property infringement
- Academic integrity violations
- Energy consumption
- Privacy infringement

Emerging AI Practices and Strategies in Higher Education

Colleges and universities are looking for ways to prepare students, faculty, and staff for "AI-infused futures" (Hodges & Ocak, 2023). Prior to conducting our internal data collection, we compiled a list of resources from other institutions and organizations to identify best practices and approaches to leverage AI. The websites, news articles, research reports, presentations, and industry guides we collected offer a range of pathways forward. Suggested activities included forming an AI task force, making changes to curriculum and assessments, training AI users, developing guidelines, establishing pathways for engaging in conversations about AI, reaching out to other institutions to create partnerships, and sharing knowledge across institutions (Robert & Muscanell, 2023). We incorporated these concepts into the instruments we used for collecting data from TCNJ stakeholders and took them into consideration when writing our recommendations.

Data Collection

To fully understand how AI can impact TCNJ, our Task Force gathered information from students, faculty, and staff. We used a mixed method approach of open forums, surveys, and targeted email queries to gather our data. Open forums were arranged in partnership with the Faculty Senate, Staff Senate, and Student Government. Members of the Task Force presented a brief overview of our charge before leading conversations and taking notes. See Appendix A for a list of the guiding questions. Following the open forums, surveys were distributed via email to all students, faculty, and staff (See Appendix B). Lastly, a small number of follow-up emails were sent to key stakeholders identified in our charge.

Student Feedback

The student open forum was held with Student Government representatives on November 15, 2023. Students raised a variety of questions regarding the ethical and responsible use of AI at TCNJ. Specifically, students wanted to know how the college plans to address: AI guidelines in

the classroom, academic integrity violations, developing AI literacy skills, and providing student access to subscription-based AI tools. Students also expressed an interest in understanding application beyond text-based generative AI tools, and what responsible usage and citation would look like.

A survey was distributed to all TCNJ students on November 13, 2023 with two weeks of data collection (see Appendix B). Four hundred and twelve students completed the survey in that time period. Sixty-two percent described themselves as knowledgeable or somewhat knowledgeable about AI, and eighty-five percent indicated that they had interacted with AI tools. More than half of the respondents (52%) reported receiving some guidance on AI usage from their TCNJ instructors. Yet twenty-eight percent reported receiving no guidance, and the remaining 17% of respondents were not sure (a combined 59%). These findings suggest that students are receiving incomplete guidance about AI usage from their instructors.

The 85% of students who indicated that they interacted with or used AI tools reported doing so for the following reasons: to understand difficult concepts (16.88%); to summarize or paraphrase (13.13%); to edit writing assignments (11.84%); to generate practice materials for studying (11.61%); to analyze or interpret data (10.2%); to create graphics or images (8.4%); to write resumes, cover letters, etc. (6.8%); to organize schedules (5.98%); to answer homework questions (4.92%). There was no consensus on general attitudes towards AI use, as 40% described themselves as positive or extremely positive about AI and 39% described themselves as either negative or extremely negative about AI use. The remaining 20% of students were neutral. However, 47% of students believe that AI will significantly impact their future careers. The open-ended responses suggest that some students see major potential for AI to expand what they'll be able to do in future careers, while students in creative fields like the arts and writing are especially concerned about AI eliminating jobs.

In terms of *potential benefits*, students ranked the following: automate mundane tasks (27%); accelerate research and development (24%); improving entertainment (15.61%); enhance creativity (15.52%); personalizing education (14.14%); other (2.57%). In terms of *potential challenges*, students ranked these concerns: lack of human interaction (36.36%); misinformation (35.35%); ethical implications (27.02%); security (23.74%); job displacement (22.47%).

Students indicated that they want guidance from the college on AI usage. Specifically, 37% of the students said they want to know how AI fits with the academic integrity policy. Thirty-two percent were seeking information about how AI might affect their future careers. Participants expressed a need for clarity on student usage in the context of our academic integrity policy:

- *"We need clear guidelines. I understand AI is in a messy grey area, but we either need clear guidelines or to let professors govern AI usage on a class by class basis. Maybe*

have general 'boiler plate' guidelines setup for the less tech savvy professors, but for those professors who know tech, let them decide for their own classes."

Numerous students raised concerns about the accuracy of AI detectors and nervousness about the possibility of being wrongly accused:

- *"I don't like using AI for assignments, nor do I encourage it, but I think having so many detection filters can be a bad thing as well. It can be easy for someone to get a false positive flag, but then they may not have a way to prove they truly did the assignment. It hasn't happened to me or anyone I know yet, but it has at other schools, and I'm afraid that it could happen here."*
- "*Don't use ai but i think that professors should be aware that the ai detectors don't always work and can sometimes show that a student used ai technology to write their papers but they did not. As a professor you have to take it all with a grain of salt."*

For other open-ended questions, students had mixed feelings about the place of AI on our campus. Some students expressed a wish to ban AI use:

- "*Ban it, this is insane and I can't believe this survey was sent out. What place does AI have in a school besides students cheating and teachers cutting corners?????*"

Several asked for clarity on ethical use and AI literacy:

- "*Prompt engineering, ethical use of AI, how to identify AI content in real world context, what AI can and can't do, the economic effects of AI, the benefits and drawbacks of AI*."

Similarly, others saw AI as a tool that could support student learning:

- "*I think AI is an extremely powerful tool with the capacity to greatly enhance learning if used correctly. However, there needs to be clear guidelines and training on how proper use of this technology looks so that students can feel confident in utilizing AI to enhance their learning. AI is not going away. Mastery of this tool will become essential for many careers. Therefore, the college has a duty to ensure students are receiving proper training on these tools in order to ensure career readiness."*

Other students were concerned with the ethical underpinnings of how AI was created:

- "*Please be aware that generative AI is based entirely on theft. Databases on trained on billions of images and bodies of text that were taken without consent, stored as data, and then used as a direct threat to the livelihoods of the original creators, who are often*

either not compensated or are compensated extremely poorly after the fact and still with no consent for their work to be used All uses of models like Midjourney, ChatGPT, etc. is benefiting from and facilitating this theft. Companies that make these programs are actively being sued due to their unethical and illegal scraping of the internet in order to use copyrighted materials or private information as data. The right thing to do is to avoid using these programs entirely. They are built unethically, therefore there are no ethical uses."

Several students, however, took the stance that AI's prominence in society is inevitable, and students must learn to live and work with it:

- "*Regardless of whether AI is 'good' or 'bad,' it is here to stay and students ought to understand how to use it in ways that will enrich themselves and the world around them. I think that emphasizing the importance of critical thinking and personal growth will help students against many of the dangers of AI (such as misinformation)*."

Faculty Feedback

A faculty open forum took place at a Faculty Senate meeting on November 1, 2023. Common themes raised included the ways AI will affect the evaluation of student work; ethical implications of AI use; and pedagogical benefits of AI.

A faculty survey (see Appendix B) was distributed on November 6, 2023 and closed on November 15, 2023. There were 155 survey respondents, representing all seven schools and the library. Sixty-six percent identified that they were "moderately," "very," or "extremely" familiar with AI technologies. Many faculty respondents indicated that they use AI technologies in teaching, research, or administrative tasks. For those faculty who use AI, "plagiarism checkers" and "large language models" were the most commonly used tools. However, it is important to note that 77 respondents reported that they do not use it at all.

The open-ended comments included some examples of the use of AI in teaching:

- *"Ask students to evaluate AI's answer to an assignment and consider AI's feedback for a research question."*
- *"Encouraging students to use it as an alternate study resource, e.g. generating practice problems or reviewing concepts."*
- *"I used AI chatbot generations to show students techniques to spot AI-generated content."*
- *"The course I teach deals with visual cultural literacy, so the subject of image generation technologies is a hot topic."*

Faculty also commented on their use of AI in research. Some examples:

- *"Students are implementing AI-based algorithms for my research project."*
- *"I consult with large tech companies to build their databases using Python. We then use the generated GPTs to create marketing materials, manuals, video scripts, market research, etc."*
- *"My work involves the application of deep learning models. This is a form of AI that is similar to, but distinct from, LLMs."*
- *"I am a researcher in the field of AI, including computer vision, machine learning, robotics, etc."*
- *"We use a wide range of AI/ML tools specific to our chemistry research implemented on the campus supercomputer."*
- *"I am a visual artist, and I frequently use a range of AI technologies for the development of ideas, concepts, and final works."*
- *"Part of my research is the development of AI methods to connect mathematical models to data. I also use AI to help ease the readability of my code, documentation, and papers."*
- *" . . . to generate human prose from a video."*
- *"I use it in editing photos from which I need to extract data . . . "*

When asked what guidance they would seek from TCNJ regarding integrating AI into teaching and research, the biggest concern of faculty respondents was for "ethical guidelines and policies for students' work" followed by "professional development and training." Some of the comments elaborated on this concern:

- *"Deliberation on when student AI use undermines student development or is essential to their development"*
- *"I want discussions on campus with students, but don't want to use it myself or want students to use it. I will try to create assignments that limit students' possible use of it."*
- *" . . . While I think things like having the school determine ethical guides for faculty and students is a great idea, I worry about the potential of short sightedness in the drafting of any official policies."*

Only 34 of faculty respondents were aware of any guidance on AI use within their discipline, and 110 respondents indicated that they were "somewhat" or "very" concerned with "the ethical implications of AI in academia." In response to the question about who should be responsible for ensuring its ethical use, the most common answer was "faculty" followed by "administration." The open-ended comments reflected both concern about "detecting illicit use" and excitement about the discovery of "creative uses" for AI. There was also concern about

whether time-strapped faculty and staff would have the capacity to take on this additional task of developing guidelines:

- *"I think there needs to be separate staffing to assist here. Faculty already have too much on their plate to tackle this."*
- *"Integration of AI should not be an excuse to add more unnecessary bureaucrats . . . "*

Finally, faculty were asked to share insights on how AI can impact their specific academic disciplines:

- *"It tends to hallucinate case law . . . "*
- *"If you count machine learning as AI, it enables users to process large amounts of text and numeric data. This can lead to insights."*
- *"In developing and presenting economic research, AI has a role . . ."*
- *"In mathematics, AI is still somewhat ill-equipped to solve advanced problems, though the gap is shrinking quickly . . . "*
- *"AI might write full length films, and create all the visuals, sounds, acting"*
- *"AI will likely transform healthcare . . . "*
- *"Many AI applications are being used in marketing . . . "*
- *" . . . The use of chatbots as a form of mental health assistance is terrifying to me as a clinical psychologist."*

Some raised concerns that over-reliance on AI tools would interfere with student learning, for example:

- *"Students rely on AI too much and lose their creativity."*
- *"Students using AI for take-home assignments raises serious concerns because of the difficulty in assessing the extent to which the assignment reflects student learning or AI-generated content."*
- *" . . . I worry that they will not develop those skills if they do not practice them."*
- *"I think we all need to think hard about how to design our classes and our assessments in a way that encourages students to think, struggle through challenges, and learn. It's so easy to ask AI to do the thinking for us, with potentially serious consequences on students' ability to learn new material and think critically about material."*
- *"In the library, the biggest problem I've encountered so far is patrons believing what AI like ChatGPT tells them . . . "*

Some faculty respondents took a broader perspective on the advantages, drawbacks, and inevitability of AI use:

- *"Advantages to AI include assistance with the generation of ideas and potential equaling of the playing field for multilingual or emergent bilingual learners . . . "*
- *"The prejudices and oppressions we currently exist under are not at all removed when machines learn from us . . . "*
- *" . . . If you're not using it fully, you will be left behind."*

Staff Feedback

An open forum took place on November 1, 2023 during a special Staff Senate session. Approximately 30 staff members were present in person or via Zoom. Staff Senate members raised several topics for discussion, including ethical and privacy issues, concerns on quality of output, and advantages and disadvantages of AI for education.

Following the open forum, a staff survey (see Appendix B) was distributed on November 6, 2023 and closed on November 16, 2023. One hundred and thirty-eight responses were received.

In the survey, nearly all staff respondents (97%) indicated awareness of AI technologies prior to the forum and survey. Of these, 8% self-identified their current understanding of AI as very knowledgeable; 40% as somewhat knowledgeable; 18% were neutral; and 34% expressed limited knowledge. Responses were evenly divided between those who have and have not used AI tools in their staff position. Of those who have used the tools, nearly half used large language models (e.g., ChatGPT) followed by plagiarism checkers (20%) and data and learning analytics (14%). Notably, only 4% reported that their department leadership has provided any guidance on AI use. Just two staff respondents expressed disinterest in seeking guidance or resources on AI from TCNJ. Others expressed an interest in TCNJ offering resources, weighing "in-depth training sessions on AI use" (22%); "workshops on AI ethics" (20%)'; and "regular updates on AI developments and best practices" (21%) as nearly equally important. "Access to technical support" (18%) and "opportunities for feedback and discussion" (16%) closely followed.

After assessing awareness and current use, staff were asked to identify possible benefits related to the implementation of AI in our college. Many respondents observed the potential advantages for AI to help gather, organize, and analyze data, potentially saving time. Some suggested that AI tools seem to be stronger in the management of data rather than generation of data. If we can eventually rely on AI tools to assist in managing data, it can free staff to work on tasks that require the more complex skills of creative thinking and idea generating.

In terms of concerns, the ethical use of AI and related privacy issues were a consistent theme through the survey open-ended responses. Some respondents expressed apprehensions about the ethical use of AI, especially when it involves datasets that contain copyrighted material. Others underscored the importance of understanding the treatment of data within AI and machine learning platforms. One respondent brought up the need to distinguish between generative and

predictive AI. These discussions across various departments reflect a widespread concern about the ethical implications and privacy risks associated with the use of AI at our institution.

The open-ended comments included some examples of the ethical use of AI and related privacy issues:

- *"... AI could be used to enhance productivity but it raises a host of ethical and privacy concerns about which I have serious reservations. I have seen peer institutions use AI/ChatGPT to help with generating letters for alumni, donors, etc - but from my understanding, whatever is entered into AI portals, such as ChatGPT, then becomes the intellectual property of ChatGPT. We also need to be aware of privacy concerns that AI and ChapGPT represent, such as safeguarding the names and addresses of donors and alumni."*

Several departments expressed concerns regarding the accuracy of information generated by AI. They emphasized a need to balance its convenience with concerns regarding accuracy and efficiency. While AI can be useful in initiating projects, tasks, or drafts, the information it generates requires meticulous review and assessment for accuracy and completeness. Concern was raised about the low quality of AI outputs, fearing it might hinder deep engagement and reflection. They pointed out issues related to the learning curve needed to use AI effectively and its potential to confidently produce false research sources:

- *"I think the challenging piece in my area is the accuracy of information provided."*
- *"Currently, AI is way too inaccurate for much 'real' use. For students, AI is potentially a great tool, but requires a large amount of education around it, much like library information literacy is needed to weed out good information from bad. AI will just increase that need."*

For staff who also teach, academic integrity was at the top of the concerns. Many feared that students will rely on AI tools to create the work they need to learn how to produce independently. Some departments stressed the importance of showing students both the possibilities and the limitations of what the tools can do for the particular work of the course to better inform students on instructors' expectations and what constitutes an academic integrity issue:

- *"As an instructor, I facilitated a conversation about AI with my students, set my expectations, collected in-person writing samples so that I got a sense of their writing, and also developed an assignment where I told them they could use AI (with the hope that by naming it instead of ignoring it, I could confront the reality and level with my students, and hopefully help them see its limitations and the dangers to cognitive development of relying on AI)"*

Those staff who teach saw the need for training to better understand the capabilities of AI and the potential AI-related academic integrity issues. Some were also interested in seeing how LLMs can be used in the classroom to make its capabilities and limitations more transparent for students. Administrative staff saw the need for training to better understand those capabilities and limitations in assisting with a number of workplace tasks, taking issues of privacy and ethical concerns into account.

Outreach to Key Stakeholders

Beyond the surveys and open forums, the Task Force sent additional correspondence to key stakeholders such as deans and representatives from targeted areas: The Accessibility Resource Center, Information Technology, General Counsel, Enrollment Management, Inclusive Excellence, and Human Resources. These stakeholders were invited to provide the task force with any additional information they wanted to share that might not have been captured in the surveys and open forums. We asked, "what would you like the Task Force to know?" Stakeholders were also invited to ask for a meeting with the Task Force on Artificial Intelligence in person.

Four respondents provided additional qualitative feedback with the following themes: (1) the need to explore both positive and negative aspects of AI use; (2) an awareness that faculty are struggling with how to change student assignments; (3) a desire to encourage responsible use of AI to reduce workload and increase productivity. None of the stakeholders asked to meet with the Task Force. We did get one request from an academic department for training and advice.

Recommendations

After spending the Fall 2023 term studying AI considerations on our campus and beyond, the Task Force developed five recommendations to help guide our institution forward. These recommendations are a starting point, as the landscape is changing rapidly and will undoubtedly require monitoring and evaluation to make strategic decisions that continue to meet the needs of the campus community. (Recommendations below are numbered for ease of reference and do not reflect rank-order priority).

1. Develop continuing collegewide AI/computational literacy support among students, faculty, and staff, and administration.

We encourage TCNJ to create opportunities for expanding existing knowledge about AI (and computational literacy in general) in order to empower our community members and help us make informed decisions going forward. Professional development events such as workshops, guest speakers, and training programs would foster an environment of continuous learning and innovation. For faculty and staff, this could be added to existing professional development initiatives through places such as The Center for Excellence in Teaching and Learning, Human Resources, and Academic Affairs. For students, we should introduce AI literacy early, perhaps in

connection with academic experiences such as 099 courses within each major, IDS102, First Year Seminar, new student orientation. Additional connections should be made for sophomores, juniors and seniors as they look toward entering the workforce or graduate school, perhaps in capstone courses within each major and through the Career Center. Beyond teaching students to become knowledgeable users of AI, the College might also want to consider creating educational opportunities for students interested in career paths related to the production, creation, and implementation of AI.

2. Explore solutions for continuously monitoring advancements in AI relevant to higher education.

The Task Force brought together a group of faculty, staff, and students to examine AI on our campus for a semester. In that short amount of time, we have only scratched the surface on the topic of AI. From week to week, we witnessed changes to the AI landscape that challenged us to continuously re-evaluate the issues. To help facilitate progress going forward, we advocate for the establishment of something more sustainable, such as the creation of a new governance council. In addition, we suggest the college consider making a curated news feed available to our campus members so that as new details emerge there is a trusted, readily available information source for all who are interested. Similarly, we suggest amplifying existing resources and leveraging the expertise of on-campus experts who can help move us forward.

3. Provide institutional guidelines for ethical use of AI for students, faculty, and staff.

Students, faculty, and staff all indicated an interest in guidelines on responsible AI usage. We recommend the college establish and distribute guidelines to the campus community. These guidelines should illuminate what responsible AI use looks like, as well as what would be considered problematic. For students, guidelines should align with the college's academic integrity policy, and should appear on the official Academic Integrity webpage. For faculty, guidelines should help illuminate options for AI adoption in the classroom and how to evaluate AI tools that could have an instructional function. There is a need for examples of how to communicate individual course policies in a syllabus for banning—or allowing—the use of AI tools. Further, faculty would benefit from discipline-specific guidance on course design options. Staff and faculty guidelines should address best practices for using AI tools to streamline work processes and aid in research. All guidelines should address accuracy, bias, privacy, intellectual property, and environmental impact in the context of AI use.

4. Establish partnerships with other New Jersey state colleges and universities to develop/purchase in-house AI tools/collaborate.

It is clear from our review of other college campuses that the need to respond to AI is a top concern for all those working in higher education. To strengthen the quality of our solutions, we recommend reaching out to our neighboring New Jersey colleges and universities to develop solutions that benefit institutions across the state. This could come in the form of regional

meetings or collaborations with the goal of sharing ideas, resources, and experiences. It could also be through the purchase of subscription AI tools that could be obtained at a reduced cost through partnerships.

5. Commit to algorithmic accountability.

TCNJ needs to be clear and intentional about AI's role in administrative decision-making on campus. There is a need to understand how AI is embedded in software packages that the college acquires from commercial vendors. In addition to institutional concerns, pending legislation such as the Congressional Algorithmic Accountability Act and new EU regulations may have implications for institutional policy (see Prinsloo 2020, Marcinkowski et. al. 2020, AI Now 2023). In addition, there is a growing student movement focused on data privacy rights on college campuses (Matthewson, 2023). In response to stakeholder concerns, the University of Michigan has a website, ViziBLUE, that allows community members to see what information the University collects about them.

Conclusion

We advise that TCNJ continues to monitor advances in AI technologies and engage in conversations across campus to stay current and encourage responsible and ethical use. As noted above, this work should be part of our ecosystem, so that we are adaptable to necessary developments in the near future. Regular and systematic reflection on AI's impact on higher education needs to be integrated into our processes, policies, and governance structures.

Our goal should be to position TCNJ in a strong place to leverage the opportunities brought about by AI while also giving consideration to the potential challenges. We must ensure all members of our community have the skills, competencies, and capabilities to understand AI tools and evaluate information created by generative technologies. We must identify places in our current academic integrity policies where responsible AI use needs to be addressed, and we must support the creation of guidelines for AI use among students, faculty, and staff that are transparent, equitable, and clear.

References

AI Now Institute. (2023, April 11). *Algorithmic accountability: Moving beyond audits*. AI Now Institute. https://ainowinstitute.org/publication/algorithmic-accountability

Bouregy, S., Gassaway, J., Stovall, B., & Sytch, S. (2023). The chief privacy officer: Positioning privacy in higher ed. *Educause Review*. Retrieved January 25, 2024, from https://er.educause.edu/articles/2023/6/the-chief-privacy-officer-positioning-privacy-in-higher-ed

Hanover Report: Benefits, challenges, and sample use cases of artificial intelligence in higher education. (2023). Retrieved February 2, 2024 from https://www.insidehighered.com/sites/default/files/2023-10/Benefits%2C%20Challenges%2C%20and%20Sample%20Use%20Cases%20of%20AI%20in%20Higher%20Education.pdf.

Hodges, C. & Ocak, C. (2023). Integrating generative AI into higher education: Considerations. *Educause Review.* Retrieved January 26, 2024, from https://er.educause.edu/articles/2023/8/integrating-generative-ai-into-higher-education-considerations

Jones, K. M. L., Rubel, A., & LeClere, E. (2019). A matter of trust: Higher education institutions as information fiduciaries in an age of educational data mining and learning analytics. *Journal of the Association for Information Science and Technology*, *71*(10), 1227–1241. https://doi.org/10.1002/asi.24327

Marcinkowski, F., Kieslich, K., Starke, C., & Lünich, M. (2020, January 27). Implications of AI (un-)fairness in higher education admissions. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*. http://dx.doi.org/10.1145/3351095.3372867

Mathewson, T. G. (2023*)*. He wanted privacy. His college gave him none, *The Markup.* Retrieved January 25, 2024, from https://themarkup.org/machine-learning/2023/11/30/he-wanted-privacy-his-college-gave-him-none

McCormack, M. (2023). Educause quickpoll results: Adopting and adapting to generative AI in higher ed tech. *Educause Review*. https://er.educause.edu/articles/2023/4/educause-quickpoll-results-adopting-and-adapting-to-generative-ai-in-higher-ed-tech

Prinsloo, P. (2020). Of 'black boxes' and algorithmic decision-making in (higher) education – A commentary. *Big Data & Society*, *7*(1). https://doi.org/10.1177/2053951720933994

Robert, J. & Muscanell, N. (2023). 2023 EDUCAUSE Horizon Action Plan: Generative AI. Retrieved January 25, 2-24 from https://library.educause.edu/-/media/files/library/2023/9/2023horizonactplangenai.pdf.

ViziBLUE / safecomputing.umich.edu. (n.d.). Retrieved January 25, 2024, from https://safecomputing.umich.edu/viziblue

Appendix A: Guiding Questions for Open Forums

Staff Senate Open Forum questions for discussion:

1. How/are you using AI in professional work: prompt for administrative tasks, purchasing, design, data analysis/reporting, advising, resource mgmt, supervision, etc.
2. Which tools
    a. What is your comfort level in using it (Prompt for: determining how/when to use, designing assignments/assessments, … as relevant)
    b. Does it make your job better? How?
3. What are advantages and disadvantages?
4. What support do you anticipate staff need in using/evaluating AI?
5. How do you see the role of AI evolving in the college setting over the next few years?
6. How should potential ethical breaches involving AI be managed within the college?

Faculty Senate Open Forum questions for discussion:

1. How/are you using AI in professional work: teaching, scholarship, service?
2. Do you believe AI has a place in the college curriculum, and if so, how?
3. What are advantages and disadvantages?
4. What support do you anticipate faculty need in using/evaluating AI?
5. What would you consider to be an ethical breach; how should ethical breaches involving AI be determined and handled in academic environments?
6. How do you envision the role of AI in higher education evolving over the next few years?
7. Do you have insights/concerns you would like to share regarding AI in academia?

Student Government Open Forum questions for discussion:

1. What do you want the task force to know?
2. How/are you using AI?
3. What are advantages and disadvantages?
4. How do you see the role of AI evolving in the college setting over the next few years?
5. How should potential ethical breaches involving AI be managed within the college?

Appendix B: Survey Questions

Staff Insights on AI

As part of the AI Task Force, we are conducting a survey to gather insights from college staff about the perceptions, potential applications, and ethical considerations of artificial intelligence (AI) within our institution. AI includes technologies capable of generating content such as text, images, and more. Your feedback is crucial in helping us shape informed strategies for the potential adoption and management of AI technologies. Responses will remain confidential and be used exclusively for internal strategy development and research.

1. Prior to the forum and this survey, were you aware of AI technologies?

Yes
No

2. How would you rate your current understanding of AI?

Very knowledgeable
Somewhat knowledgeable
Neutral
Limited knowledge
No knowledge

3. Have you encountered or used AI tools in your position?

Yes
No

4. What types of AI tools are you using?

Large Language Models (e.g,, ChatGPT, Bard, etc)
Plagiarism checker (e.g. Turnitin, ChatGPT Zero)
Grading assistant (e.g. Gradescope)
Data and learning analytics (e.g., Tableau, Aikko)
Scheduling (e.g. Ayanza, Trevor, etc)
Research (varies by discipline)
Other

5. What potential benefits do you think AI could bring to our college operations and administration? (Select all that apply)

Streamlining administrative tasks
Enhancing data analysis and reporting
Improving student services
Facilitating personalized communication
Optimizing resource management
Other:

6. What concerns do you have about the implementation of AI in our College? (Select all that apply)

Privacy and security of data
Accuracy of AI generated content/information
Job displacement
Ethical implications
Technical challenges or malfunctions
Other (please specify)

7. Has your department/unit provided any guidance on AI usage?

Yes
No

8. What kind of guidance on AI have you received from your department/unit? Please describe.

9. If AI were to be implemented more broadly within our college, what type of guidance or resources would you seek from TCNJ? (Select all that apply)

In-depth training sessions on AI use
Workshops on AI ethics
Regular updates on AI developments and best practices
Access to technical support
Opportunities for feedback and discussion
None (not interested)

Other (please specify):

10. The Task Force is exploring how AI can impact different College operations. Please share insights from your division regarding the specific challenges and/or advantages of AI:

11. Anything else you'd like the Task Force to know about AI usage at TCNJ?

12. What is your department/unit?

Your contribution is invaluable to us, and we sincerely appreciate your time and insight. Understanding diverse perspectives across our staff will greatly aid in responsibly navigating the future of AI at our college. Thank you for your participation.

Faculty Insights on AI

We invite you to participate in a survey conducted by the AI Task Force. This survey aims to understand faculty perspectives on artificial intelligence (AI), focusing on its ethical considerations, academic implications, and potential integration into the curriculum. Your insights will play a critical role in shaping the college's strategy regarding AI. All responses will be kept confidential and used only for institutional planning and academic research purposes.

1. How familiar are you with AI technologies?

Extremely familiar
Very familiar
Moderately familiar
Slightly familiar
Not familiar at all

2. In which areas are you currently using AI? Select all that apply.

Teaching
Administrative tasks
Research
Other:

I'm not using it at all

A. You indicated you use AI for teaching. Please select all that apply:

instruction
create student assignment/assessment prompts
provide student feedback
create teaching resources (e.g., lectures, presentations, study docs)
Other

B. You indicated you use AI for research. Please briefly explain how you are using it:

3. With regard to AI integration into teaching or research, what type of guidance or resources would you seek from TCNJ? (Select all that apply)

Professional development/training
Access to up-to-date AI tools
Ethical guidelines and policies for professional work
Ethical guidelines and policies for students' work
Technical support
Collaboration opportunities with AI experts
Research grants/funding
Other
Not applicable

4. What types of AI tools are you using?

Large Language Models (e.g,, ChatGPT, Bard, etc)
Plagiarism checker (e.g. Turnitin, ChatGPT Zero)
Grading assistant (e.g. Gradescope)
Data and learning analytics (e.g., Tableau, Aikko)
Scheduling (e.g. Ayanza, Trevor, etc)
Research (varies by discipline)
Other

5. Have professional organizations in your discipline provided any guidance on AI usage?

Yes

I'm not sure
No

6. How concerned are you about the ethical implications of AI in academia?

Very concerned
Somewhat concerned
Neutral
Not very concerned
Not concerned at all

7. Which ethical principles do you consider most important when integrating AI into academic endeavors? (Please Rank in order of importance)

Transparency
Consent
Privacy
Fairness and bias prevention
Accountability
Security Other

8. Who should be responsible for ensuring the ethical use of AI in educational institutions? (Select all that apply)

Faculty
Administration
IT departments
Student-led honor council
External regulatory bodies
AI developers/providers
Other

9. The Task Force is exploring how AI can impact different academic disciplines. Please share insights from your discipline regarding the specific challenges and/or advantages of AI adoption:

10. Anything else you'd like the Task Force to know about AI usage at TCNJ?

11. What is your academic department?

Your contribution is invaluable to us, and we sincerely appreciate your time and insight. Understanding diverse perspectives across faculty will greatly aid in responsibly navigating the future of AI at our college. Thank you for your participation.

Student Insights on AI

We invite you to participate in a survey conducted by the AI Task Force. This survey aims to understand student perspectives on artificial intelligence (AI), focusing on its ethical considerations, academic implications, and potential integration into the curriculum. Your insights will play a critical role in shaping the college's strategy regarding AI. All responses will be kept confidential and used only for institutional planning and academic research purposes. This survey will take less than 5 minutes to complete.

1. How would you rate your understanding of AI?

Very knowledgeable
Somewhat knowledgeable
Neutral
Limited knowledge
No knowledge

2. What is your initial reaction to AI technologies?

Extremely positive
Somewhat positive
Neither positive nor negative
Somewhat negative
Extremely negative

3. In your opinion, what are the potential benefits of AI? (Select all that apply)

Enhancing creativity
Automating mundane tasks
Accelerating research and development
Personalizing education
Improving entertainment (games, movies, music, etc.)
Other:

4. What concerns do you have about AI? (Please rank highest to lowest)

Misinformation/fake content generation
Ethical implications
Lack of human interaction
Security and privacy risks Job displacement
Other:

5. Have you ever interacted with or used AI tools?

Yes
No

6. How are you currently using AI? (Select all that apply)

Summarize or paraphrase text
Answer homework questions
Write resumes, cover letters, or job applications
Edit writing assignments

Organize your schedule
Understand difficult concepts
Analyze or interpret data
Generate practice materials for studying
Create graphics or images
Other:

7. How many of your instructors provided guidelines for AI usage (for example, on the syllabus, or in Canvas)?

More than 3
1-2
None
I'm not sure

8. What types of guidelines for AI usage would you like to receive from the College?

Information about how AI might affect my future career.
How AI fits with the academic integrity policy.
Instruction on different types of AI and how to use them.
Other:

9. Do you believe that AI will significantly impact your field of study or desired career?

Yes
I'm not sure
No

10. If you answered "yes", please explain how.

11. Is there anything else you'd like the Task Force to know about AI usage at TCNJ?

12. What is your academic major?