

Crossing the Threshold Together: Bridging innovation and integrity in the age of AI

by Eddy M. Rojas
Executive Vice President and Provost

It was the best of times, it was the worst of times,
it was the age of wisdom, it was the age of foolishness,
it was the epoch of belief, it was the epoch of incredulity,
it was the season of Light, it was the season of Darkness,
it was the spring of hope, it was the winter of despair.

—Charles Dickens, *A Tale of Two Cities*¹

As we stand at the threshold of the artificial intelligence era, our experiences harken in many ways to Charles Dickens's famous words. For some, this moment holds the promise of unprecedented innovation and progress. For others, it portends significant ethical dilemmas, potential job disruptions, and cybersecurity risks. Such starkly different opinions about AI's transformative potential—toward the good or the bad—highlight the need for careful consideration and responsible stewardship to balance AI's vast opportunities with its potential for harm.

As Provost, my duty is to ensure that St. Thomas's values remain deeply rooted in our Catholic intellectual tradition and social teachings while we advance towards ever-increasing academic excellence. To steer our institution toward this bright horizon, I affirm we will all benefit if we enter into this moment of technological flux with *humility and excitement*. We must collectively envision a collaborative and synergistic environment where AI literacy flourishes among faculty, staff, and students while we remain ever grounded in unwavering ethical standards. Looking around St. Thomas, seeing the creative work and innovative discussions already underway, I am readily able to imagine a campus where AI applications are thoughtfully integrated into various facets of teaching and learning—as well as into business processes and workflows—without losing the academic brilliance and integrity we hold dear.

In keeping with this vision, I write first to elevate our community's awareness of St. Thomas's current AI initiatives and second to outline opportunities for your consideration as we step across the threshold into this brave new world. By investing in our own research and development (R&D) efforts and by critically

evaluating software offerings with an open mindset, we will ensure that our AI endeavors are both cutting-edge and principled. We will also craft forward-thinking institutional guidelines and policies that empower our faculty and staff while seeking out opportunities for federal grants, private partnerships, and cross-institutional collaborations. With decision-making transparency as our guiding light—and by carefully safeguarding individuals' privacy—we will unlock the vast potential of AI to position ourselves as a premier choice for students, faculty, and staff. I invite you to join me in assuring St. Thomas is a place where innovation meets integrity and where every member of our community can thrive in an ever-evolving world.

Where We Stand

Members of our St. Thomas community are actively engaged in a wide range of AI initiatives. As we look to the future, it is important to reflect on our past achievements and current efforts.

Our *Undergraduate Certificate in Applied Artificial Intelligence* is a testament to our commitment to interdisciplinary learning. This online, asynchronous program will offer students from all majors the opportunity to delve into AI's fundamental concepts, its role in promoting the common good, and practical applications. The curriculum—divided into three courses taught by the departments of Computer and Information Sciences, Philosophy, and Operations and Supply Chain Management—provides a holistic view of AI. By completing this credential, students will gain a comprehensive understanding of AI and develop the skills to critically evaluate its potential in real-world settings.

The *M.S. in Artificial Intelligence*, offered by the School of Engineering, empowers students at all experience levels with the technical expertise and ethical foundations needed to excel as AI practitioners. Students gain hands-on experience in machine learning, neural networks, and ethical AI under the guidance of leading scholars and industry experts.

Graduates of this in-person, online, or hybrid program emerge ready to serve in diverse roles, including as data scientists, software developers, machine learning engineers, and AI research scientists across various sectors.

Looking ahead, we are developing a multidisciplinary *M.A. in Artificial Intelligence Leadership*. This program will bridge the gap between technology and practical applications by educating non-technical specialists. Through a robust curriculum that spans foundational concepts, ethical considerations, and emerging opportunities, students will be prepared to navigate high-stakes AI environments and assume tomorrow's leadership roles—even those that may not exist today. This program consists of twelve online asynchronous courses. Graduates will leave with a profound understanding of AI that will prepare them to work collaboratively alongside engineers and developers building the AI systems of tomorrow.

The Center for Applied Artificial Intelligence, within the Department of Software Engineering and Data Science, serves as a dynamic hub where industry and academia collaborate to tackle real-world challenges. Partnering organizations engage in co-innovation by working alongside our faculty and graduate students to identify talent, facilitate internships, and execute impactful projects. Through these partnerships, both industry leaders and academic experts contribute to groundbreaking solutions while fostering the development of future professionals.

Currently in its beta phase, the *TommieBot* project—developed by the Department of Software Engineering and Data Science—exemplifies our innovative approach to enhancing the user experience. Leveraging state-of-the-art chatbot technology, TommieBot autonomously consolidates information from numerous university resources to provide users with detailed and accurate responses to their questions. In its first year, it has surpassed expectations, indexing a vast array of content, including public-facing webpages, institutional policies, the Faculty Handbook, and selected course materials. Looking ahead, we will extend TommieBot's functionality to create a highly adaptive and responsive AI-driven expert support system that will continuously evolve to meet the diverse needs of the St. Thomas community. Specific instances of TommieBot will be developed to explore virtual tutors, virtual teaching assistants, virtual advisors, virtual prospective international

student counselors, policy search assistants, and public-facing chat assistants, among others. Such efforts will support the resources St. Thomas already provides while enriching students' access.

Another related initiative is the beta version of *Tommie Tech AI Search*, a tool implemented by Innovation and Technology Services (ITS). This tool allows users to find solutions to technology issues by asking questions in natural language, eliminating the need to navigate the service catalog or use traditional search bars.

Building awareness and fostering experimentation with generative AI has also been a key focus in forming our *AI Literacy*. Various campus units—including STELAR (St. Thomas e-Learning and Research), the Staff Council, Faculty Development, and the deans' offices—have hosted a series of workshops and presentations to cultivate a vibrant AI community within the university. Additionally, the Generative Artificial Intelligence Faculty Learning Community provided a collaborative space for faculty to integrate AI into their teaching, which has facilitated the sharing of innovative practices. In support of Faculty Development and WAC (Writing Across the Curriculum), STELAR coordinated the Generative AI faculty listening sessions, which covered essential topics such as designing AI-resistant assignments, establishing effective classroom policies, and leveraging AI to enhance writing and learning.

The Generative AI in Higher Education summer seminar also highlighted our commitment to AI literacy by featuring sessions on AI integration in course design, academic integrity, and rethinking traditional teaching and learning paradigms. Faculty panels and hands-on workshops offered participants the opportunity to explore AI tools and techniques, catering to both beginners and advanced users. Ethical considerations, including intellectual property, copyrights, bias, sustainability, and preparing students for the workforce, were central themes of the discussions.

Another notable event St. Thomas offered in this vein was the interdisciplinary summer faculty seminar titled "Engineering Ourselves? AI, Transhumanism, and The Human Person." This seminar brought together faculty from various departments to engage in deep discussions about AI technology, personhood, and the future of work. This interdisciplinary approach

enriched the dialogue, providing diverse perspectives on the implications of AI.

The ITS faculty and staff AI book group was another significant activity expanding our considerations of AI. The offerings especially focused on integrating AI and DEI (Diversity, Equity, and Inclusion) efforts, leading the book group to stimulate valuable conversations about AI's impact on education and the need for a culture of inclusive excellence. By bringing together faculty and staff to explore the ethical and societal dimensions of AI, this initiative underscored our commitment to ethical AI literacy.

Moving Forward

STELAR's Expanded Mission

As part of its expanded mission, STELAR is being rebranded as ***Strategic Transformation in Education, Learning, and Research***. This change signifies STELAR's commitment to not only providing outstanding instructional technology services but also to leading the development of AI literacy across the university. By equipping the university community with the knowledge and skills necessary to navigate and leverage AI technologies effectively, STELAR will foster a culture of continuous learning and ethical innovation. This rebranding reflects our dedication to supporting both the technological and educational transformation required to thrive in an AI-driven world.

Institute for AI for the Common Good

We recognize that AI raises fundamental questions that transcend technical domains and delve into the essence of human existence, moral values, and societal norms. Addressing these profound questions requires a multidisciplinary approach, which is why we are launching the new ***Institute for AI for the Common Good*** to foster this comprehensive understanding.

The Institute will serve as the central hub for all AI-related activities at St. Thomas. To ensure coordinated and strategic efforts across the university, the Institute will function under the auspices of the Provost's office under the guidance of a Steering Committee composed of both faculty and staff members. This committee will be responsible for evaluating university-wide AI initiatives, overseeing R&D projects, and identifying new opportunities for innovation and collaboration. By centralizing accountability and decision-making within the Institute, we will ensure that our AI

endeavors are aligned with our ethical standards and institutional priorities while we simultaneously foster a cohesive and comprehensive approach to AI integration across St. Thomas. Furthermore, by hosting events to ***increase awareness of AI initiatives***, the Institute will promote collaboration and create synergies across the university. Throughout all such AI-implementing and AI-literacy efforts, we will remain rooted in our Catholic perspective and aware of the breadth of ethical considerations in play with AI. Consequently, in addition to coordinating our innovations, the Institute will enhance opportunities for ***dialogue and debate*** by organizing forums, discussion groups, workshops, and other events to bring together diverse perspectives on AI topics, including those of our students. By facilitating these interactions, we will foster a culture of open dialogue and critical thinking, which will ensure our educational resources are both informative and principled.

One major function of the Institute will be to ***explore and evaluate new AI tools*** for their social, economic, and ethical impact before St. Thomas considers their adoption. Notably, this vetting will include meticulously assessing technologies for both academic and administrative functions. By conducting these comprehensive evaluations, we will ensure that AI tools align with our values and ethical standards.

Guiding the ***infusion of AI across the curriculum***, the Institute will convene faculty to determine the best approaches for responsibly and ethically integrating AI applications within our academic offerings. By embedding AI into our courses and developing information literacy skills and ethical acumen, we will ensure our students do not outsource their thinking and are well-prepared for a dynamic and complex future.

Our commitment to innovation will be reflected by the Institute sponsoring ***internal R&D efforts***, where pilot programs will test AI technologies in real-world settings. By fostering a culture of innovation and experimentation, we will identify the most effective AI applications, refine these technologies based on practical feedback, implement appropriate guardrails, and ensure they align with our values.

By ***encouraging grant applications and fostering external partnerships***, the Institute will support our goal of becoming a leader in ethical AI development. We will organize activities to assist faculty, researchers, and staff in developing proposals for external funding opportunities and form

interdisciplinary research groups to study and address AI-related challenges. By leveraging synergies among different departments, faculty, and staff teams, we will enhance our chances of securing funding. Additionally, by establishing multiple *collaborations with industry* leaders on AI projects, R&D initiatives, and workforce development, the Institute will ensure that St. Thomas plays a pivotal role in shaping and influencing the development of ethical and principled AI applications while promoting continuous education and professional growth.

To support the development of *guidelines and policies*, the Institute will convene stakeholders to develop comprehensive rules for the ethical and effective implementation of AI technologies. By creating frameworks that ensure AI applications align with the university's values and ethical standards, we will draft and propose guidelines and policies related to AI usage, data privacy, and ethical considerations for university governance.

Finally, the Institute will provide *advice to external entities* by offering comprehensive consulting services to organizations on ethical AI implementation and best practices. This function will include engaging with communities to educate and inform them about AI and its societal impacts. By providing expert guidance and community outreach, we will establish St. Thomas as a recognized leader in promoting responsible and ethical AI practices.

An Invitation

We all know there are unique human qualities that no machine—no matter how intelligent—could ever replicate. Whether in our compassion and solidarity or our curiosity and even humor, we flourish in all our diversity as beloved persons dignified by our Creator as distinct and set apart. Thus, as Pope Francis eloquently stated, “Artificial Intelligence ought to serve our best human potential and our highest aspirations, not compete with them.”² In short, it is up to us to define how AI will be our partner, not our replacement.

I have always said that in life, as in theater, we encounter two kinds of people: actors and spectators. While spectating in the theater may be comfortable, in life, acting provides opportunity. In this moment of technological flux, we must be proactive rather than reactive to evaluate this new technology from a multidisciplinary perspective and to infuse it with robust ethical guidelines that respect human dignity

and safeguard the common good. We must ensure AI systems are inclusive, fair, and free of biases; address social inequities and promote social justice and human development; and support solutions that are environmentally sustainable. Ethical values must be integrated into AI systems by design, not by accident. Intentionality, not luck, must guide our efforts. *We can* achieve this goal.

Throughout my career, I have witnessed the transformative power of education and the vital role it plays in shaping not just individual lives, but society at large. AI represents one of the most significant advancements of our era and holds the potential to revolutionize industries, enhance our daily lives, and solve some of the world's most pressing problems. While I am curious and, indeed, excited to see where we may advance with this new collaborator, I am acutely aware that its positive potential will only be realized if we approach AI with intentionality and ethical stewardship. Consequently, I assert crossing this threshold into a new era together—whether one is a believer or a skeptic—is important because this next step embodies our commitment to integrating the Catholic intellectual tradition and social teachings with cutting-edge technology. It reflects our dedication to fostering an environment where ethical considerations are not an afterthought but a foundational element of innovation. I believe that by embedding AI within our curriculum, guiding ethical AI literacy, and fostering interdisciplinary collaboration, we can prepare our students to become thoughtful leaders who harness technology for the common good.

I invite each member of our community to join me in this journey. Together, we can ensure that St. Thomas stands at the forefront of ethical AI development, making a positive impact on our students, our society, and our world. Let's unlock AI together and step into the future.

Endnotes

1. Dickens, C. (1987). *A Tale of Two Cities* (Sir J. Shuckburgh, Intro.; Phiz, Illus.). Oxford University Press.
2. Pope Francis. (2023, December 14). *Message of His Holiness Pope Francis for the 57th World Day of Peace: Artificial Intelligence and Peace* [1st January 2024]. The Holy See. https://www.vatican.va/content/francesco/en/events/event_dir.html/content/vaticanevents/en/2023/12/14/messaggio-pace.html