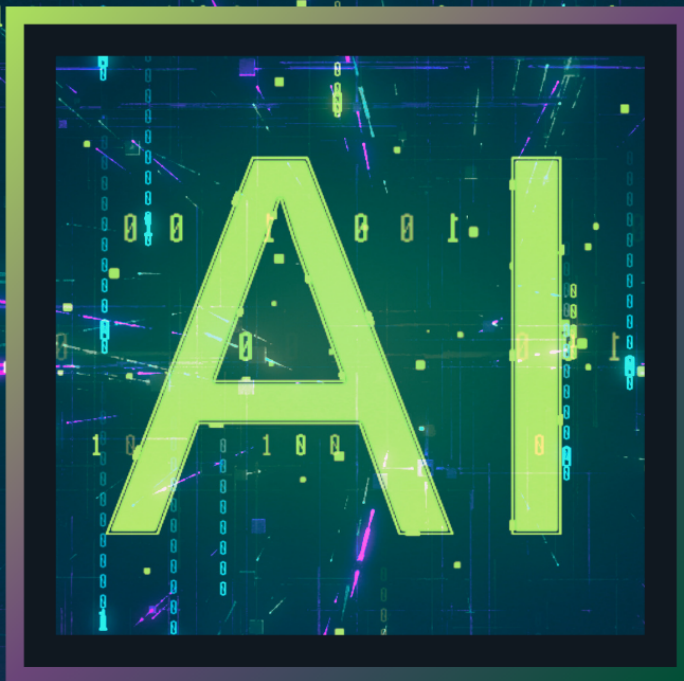




ARTIFICIAL INTELLIGENCE IN TEACHING AND LEARNING TASK FORCE

Report to the Provost
August 2025



UNIVERSITY OF NORTH CAROLINA
CHARLOTTE

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Executive Summary

AI in Teaching and Learning Task Force Report

As a university committed to growth and excellence, we are not just responding to AI, **we're called to shape it**. The [AI in Teaching and Learning Task Force](#) presents a guiding philosophy and recommendations to build an AI-enabled learning ecosystem that positions UNC Charlotte as a national model for excellence in teaching and learning with AI.

Guiding Philosophies for AI in Teaching and Learning

Four philosophies, grounded in core commitments, guide how we **teach**, **learn**, **govern**, and **grow** together in an AI-enabled university.



TEACH: Promoting Success in Teaching and Learning with AI

We commit to thoughtful, responsible, and ethical AI integration that supports teaching and learning in meaningful ways to enhance instruction, personalize learning, and support student achievement, keeping educational goals at the forefront.

LEARN: Balancing Human-AI Collaboration, Critical Thinking, and Creativity

We commit to leveraging AI as a learning partner, not a replacement, amplifying human and interdisciplinary collaboration, critical thinking, and creativity.

GOVERN: Advocating Ethical AI Governance for Openness, Transparency, and Accountability

We commit to maintaining openness, transparency, and accountability of AI use, ensuring responsible governance and ethical practices.

GROW: Intentional Growth in Resources for AI Adoption

We commit to systematically and intentionally growing resources that support thoughtful and effective AI adoption in support of teaching and learning.

Building an AI Ecosystem for Teaching and Learning

We need an *interconnected and evolving ecosystem of initiatives* rather than a series of isolated efforts. Initiatives should center on **three themes** that collectively address the ethical, instructional, and technological dimensions of AI adoption, further defined by **8 areas of need** and **34 actionable recommendations**. (See specific, prioritized task force recommendations in following pages.)

Theme	Areas of Need
A. Ethics, Policy, and Governance for AI Use in Teaching and Learning	1 - AI Policies and Guidelines for Responsible Use 2 - AI Governance Structures
B. AI Integration in Teaching, Learning, and Curriculum	3 - AI Curriculum Adoption and Reviews 4 - Preparation for the AI Workforce 5 - Assessment of AI Adoption in Teaching and Learning
C. Technology Infrastructure, Training, and Support for AI	6 - Training and Support for AI Awareness, Education, and Literacy 7 - Training and Support for AI in Teaching and Curriculum 8 - Expansion of AI Tools and Services

A. Recommendations on Ethics, Policy, and Governance of AI Use

Areas of Need	Recommended Action Items		Priority
1 - AI Policies and Guidelines for Responsible Use	1.1	Update syllabus policies to reflect accountability and transparency of AI use for both students and faculty	HIGH
	1.2	Develop a campus definition and framework for ethical and responsible use of AI	HIGH
	1.3	Develop university guidelines for student and faculty use of AI on accountability, transparency, trustworthiness	HIGH
	1.4	Define clearer institutional ethical & legal policies on data privacy, academic integrity, IP, and copyright	HIGH
	1.5	Develop tailored (i.e., not-one-size-fits-all) definitions, guidelines, and policies for contextual adoption of AI in teaching, learning, and curriculum across colleges	HIGH
	1.6	Improve uniformity in messaging on AI policy and use to students	HIGH
	1.7	Establish clear guidelines on faculty autonomy, flexibility, and agency on AI use	MED
	1.8	Review and update AI usage clauses in library databases	MED
2 - AI Governance Structures	2.1	Establish a university-wide AI governance body with defined roles	MED
	2.2	Engage in regular review and feedback on AI guidelines and policies	MED
	2.3	Form interdisciplinary, college-level AI advisory committees for continuous oversight	MED

B. Recommendations on AI Integration in Teaching, Learning, and Curriculum

Areas of Need	Recommended Action Items		Priority
3 - AI Curriculum Adoption and Reviews	3.1	Identify general education-specific (GenEd) learning outcomes in alignment to AI knowledge, skills, and competency areas (i.e., creativity, originality, critical thinking, numerical accuracy and analytical reasoning)	MED
	3.2	Engage in regular curriculum review and feedback on AI integrated programs and courses	MED
	3.3	Increase AI adoption with on-going curriculum review and inclusion of AI in topics, course outcomes, and assessments where applicable	MED
	3.4	Identify program- or course- specific learning outcomes in alignment to AI knowledge, skills, and competency areas	MED
	3.5	Establish faculty working groups (i.e., faculty fellows) for curriculum review and continuous development to meet AI needs	MED
	3.6	Review workload needs among all faculty and academic staff to facilitate increased and sustainable AI adoption	LOW
4 - Preparation for the AI Workforce	4.1	Strengthen university-industry collaboration to close the industry gap on AI workforce skills	HIGH
	4.2	Assess AI knowledge, skills, and competency areas essential to graduates and career goals	HIGH
5 - Assessment of AI Adoption in Teaching and Learning	5.1	Increase funding for AI SOTL research grants, experimentation, and tool integration	HIGH
	5.2	Conduct assessment and evaluation of AI in teaching and learning (academic performance, cognitive abilities, ethical decision-making, and risk assessment)	MED

C. Recommendations on Technology Infrastructure, Training, and Support for AI

Areas of Need	Recommended Action Items		Priority
6 - Training and Support for AI Awareness, Education, and Literacy	6.1	Develop educational awareness and literacy on use of AI tools, critical ethical and responsible use, and social and environmental impacts	HIGH
	6.2	Cultivate "AI literacy for all" by developing AI awareness, literacy, competency across all academic levels	HIGH
	6.3	Conduct regular AI needs analysis, evaluation, and feedback among students, faculty, and academic staff	MED
	6.4	Increase awareness and offer ongoing campus-wide AI training, workshops, and professional development	MED
7 - Training and Support for AI in Teaching and Curriculum	7.1	Support faculty in designing AI-enhanced courses, lessons, and learning materials	HIGH
	7.2	Provide resources and support for program and/or curriculum review	HIGH
	7.3	Implement discipline-specific strategic programs for instructional design, curriculum review, and course development work	MED
	7.4	Provide resources and support for new modes of assessments, grading, and feedback	MED
	7.5	Develop a curated repository of AI use cases across disciplines	MED

8 - Expansion of AI Tools and Services	8.1	Broaden access to campus-supported AI software and cloud services (e.g., copilot with tools)	HIGH
	8.2	Provide guidelines, user guides, and support for approved AI tools	HIGH
	8.3	Expand access to college-specific AI tools in courses (e.g., AI-powered feedback tools, simulations, and digital portfolios, virtual & augmented reality integration, adaptive courseware)	MED
	8.4	Expand access to AI tutoring systems for personalized learning	MED

Immediate Next Steps

The following next steps are recommended to continue this critical work:

- 1. Establish an AI Roadmap and Implementation Plan for Teaching and Learning:** Develop a comprehensive implementation roadmap, clearly outlining actionable items, timelines, and responsible parties. This roadmap will guide the university's efforts in a phased and intentional direction.
- 2. Establish New Teams to Address Task Force Recommendations:** Form three specialized teams to lead the next phase of implementation in AY 2025-26.
 - ☐ **Team on Ethics, Policy, and Governance for AI**
 - Develop new policies, guidelines, and governance structures at the university level for the use of AI in the classroom.
 - **Responsible units:** Faculty Academic Policy and Standards Committee, the Legal Office and other related units will address recommendations in the task force report.
 - ☐ **Team on AI Integration in Teaching, Learning, and Curriculum**
 - Accelerate AI across the curriculum by effectively aligning program and course goals with essential AI competencies for students.
 - **Responsible units:** College deans, curriculum committees, and the Office of Undergraduate Education will address recommendations in the task force report.
 - ☐ **Team on Technology, Training, and Support for AI**
 - Expand access to AI tools and services, faculty support, and campus-wide AI literacy through targeted training programs and resources.
 - **Responsible units:** The Office of OneIT and the Center for Teaching and Learning will address recommendations in the task force report.

Task Force Composition

Task Force Leadership

Name	Title	College/Unit
Kiran Budhrani	Co-chair, AI Faculty Task Force Director of Teaching and Learning Innovation	School of Professional Studies (SPS)/Center for Teaching and Learning (CTL)
Manuel Pérez-Quñones	Co-chair, AI Faculty Task Force Professor in Software Information Systems	College of Computing and Informatics (CCI)
Jordan Register	Instructional Designer & Technologist	School of Professional Studies (SPS)/Center for Teaching and Learning (CTL)

Task Force Members

Name	Title	College/Unit
Mona Azarbayjani	Professor and Director of Graduate Programs in Architecture	College of Arts + Architecture (COAA)
Beth Caruso	Digital Pedagogy & Emerging Technologies Librarian	J. Murrey Atkins Library (LIB)
Justin Cary	Senior Lecturer in Writing, Rhetoric and Digital Studies	College of Humanities & Earth and Social Science (CHESS)
Mohsen Dorodchi	Teaching Professor in Computer Science	College of Computing and Informatics (CCI)
Daniel Maxwell	University Supervisor/Lecturer in Middle, Secondary, and K-12 Education	Cato College of Education (COED)
Sam Suptela	Associate Teaching Professor in Biological Science and Director of Assessment	Klein College of Science (KCOS)
Lufei Young	Professor in Nursing	College of Health and Human Services (CHHS)
Lina Zhou	Professor in Business Information	Belk College of Business (BCOB)

	Systems and Operations Management	
Qiang Zhu	Associate Professor in Mechanical Engineering and Engineering Science	William States Lee College Of Engineering (COE)

Introduction

UNC Charlotte's Opportunity to Lead in the Next-Generation of AI in Higher Education

UNC Charlotte stands at a pivotal moment in higher education with artificial intelligence (AI). As a rapidly growing R1 university and a thriving tech hub, the institution is uniquely positioned to lead in shaping the next generation of learning experiences powered by AI. Located in the heart of a vibrant metropolitan region, UNC Charlotte has both the reach and the responsibility to **advocate** for and **accelerate** the adoption of *positive, ethical, responsible, and equitable* AI practices in teaching and learning.

The proliferation of AI invites urgency and shared opportunity to act on a shared vision towards how AI is used in teaching and learning. AI tools have the potential to be some of the most impactful technologies for the future of higher education. As a university that takes pride in innovation and excellence, we're not merely responding to AI, ***we're called to shape it***. We aim to be a university that is AI-enabled and AI-driven in the next decade where we're not just surviving the wave of AI innovation, but thriving.

National publications such as the [2024](#) and [2025 Educause Horizon Report](#) highlight the profound impact of AI on communication, pedagogy, and student experiences. AI is changing the way everyone communicates (e.g., via chatbots or virtual assistants) and AI tools have growing potential to reshape pedagogy and student experiences, through multimodal and interactive AI conversations. With this there is a need to identify appropriate uses for AI-enabled technology in teaching, learning, and curriculum.

The 2025 Horizon Report further emphasizes that at the institutional level, effective AI integration in higher education requires robust decision-making frameworks in AI governance that balance innovative potential with institutional needs. As access to AI increases for all stakeholders, capacity development for AI among all levels will be critical, including faculty, students, administrators, and academic staff. Faculty development is equally high priority to ensure that faculty are equipped to teach students about risks, benefits, and appropriate use. AI has been a significant catalyst for rethinking teaching and learning practices and is necessary for broader reasons beyond simply responding to technological advances, but for aligning to the needs of the future AI workforce.

Embracing Change and Innovation

In a world where technology is constantly advancing, UNC Charlotte positions itself not merely as an adopter of AI but as an innovator and leader in educational transformation. The university views AI as a dynamic tool—one that evolves rapidly, bringing new capabilities, platforms, and research breakthroughs. Rather than responding to these changes with apprehension, UNC Charlotte embraces them with a spirit of curiosity, adaptability, and responsible innovation. This approach is guided by a **dual-transformation strategy** ([Means, 2025](#)), balancing two complementary pathways:

- **Transformation Pathway A:** Focuses on *incremental improvements*, refining and strengthening existing educational models, enhancing their relevance, effectiveness, and sustainability.

- **Transformation Pathway B:** Pursues *disruptive innovations*, creating entirely new paradigms of learning and delivering novel value to students, employers, and the community.

These parallel pathways are mutually reinforcing. The first ensures thoughtful integration and adoption of AI into *existing* programs and courses, enhancing their relevance, effectiveness, while the second invites bold experimentation with AI-integrated offerings that deliver novel value to students, employers, and the community at large. By balancing these complementary transformation pathways, UNC Charlotte can *innovate today while architecting the university for tomorrow*.

Strides of AI innovation in Teaching and Learning for AY 2024-25

At UNC Charlotte, work towards AI innovation in the teaching and learning enterprise has already begun. At the start of the 2024-25 academic year, Chancellor Gaber and Provost Troyer [recognized the growing use of AI](#) in teaching and learning, research, administration, and a number of business operations.



With AI's growing presence, it is important for faculty, staff and students — now and moving forward — to adopt a university-wide understanding and acknowledgement of its acceptable, ethical, and responsible use.

As we prepare our students to enter a workforce that will require proficient use of AI tools, regardless of their field, students will be looking to faculty and staff to model the appropriate use of those tools.

– Chancellor Sharon Gaber & Provost Jennifer Troyer (August, 2024)

Just as AI continues to evolve, so too will its use on campus. Several campus and faculty engagement initiatives have made AI a priority:

AI Steering Committee

In Summer 2024, a campus-wide [AI Steering Committee](#) was established to draft Charlotte's [AI vision and guiding principles](#) to provide a flexible framework to guide university decision-making on the use and adoption of AI. This information has been published on the Charlotte website.

Charlotte's AI Vision: UNC Charlotte is committed to the ethical and responsible use of artificial intelligence to enhance academic and administrative endeavors. Our vision is to create an institutional environment where faculty, staff and students can engage with AI technologies to enhance teaching, learning, research and operations, while upholding the highest standards of responsibility and integrity.

Charlotte's AI Guiding Principles :

- Research and Innovation
- Ethical Use and Integrity

- Privacy and Data Protection
- Inclusivity and Accessibility
- Transparency
- Accountability
- Continuous Learning
- Performance

Professional Development Programs for Faculty and Academic Staff

The [Center for Teaching and Learning](#) (CTL) features an array of [AI Across the Curriculum](#) resources including [workshops](#), [online teaching guides and toolkits](#), the [Scholarship of Teaching and Learning](#) grants program, and a [microcredential on AI for educators](#) for faculty and academic staff. The CTL has also hosted the annual Charlotte AI Summit for Smarter Learning for faculty and academic staff since May 2023.

The [3rd Charlotte AI Summit for Smarter Learning](#), held on May 14, 2025, brought together over 280 faculty and academic staff for a full day of learning centered on the theme “Human-AI Partnerships.” The event featured professional development sessions and opportunities for sharing best practices. There was a consensus that there is a strong need to rise to the opportunity amidst knowing that AI is here to stay, presenting both challenges and opportunities. However, this also recognizes that educators need to take stock of what we value: ethics, responsibility, openness, community, interdisciplinarity, imagination, and curiosity. Breaking out of routine instruction is necessary for experimentation, play, and productive failure, while understanding that feedback is complementary and important. AI tools promise to transform educational and learning experiences in exciting, though sometimes concerning, ways with pressing questions related to academic integrity, intellectual property, job relevance, and societal impact.



This year’s theme, “AI for Human-AI Partnerships,” invites us to think differently about our relationship with AI. It challenges us to reconsider our roles as educators and learners—to reimagine if you will. To consider the possibility that AI can serve as a learning partner and assistant. To consider a future in which AI does not diminish the human element of education—but deepens it. Pairing machine intelligence with human imagination, we can expand possibilities for learning.

– Provost Jennifer Troyer at the 3rd Charlotte AI Summit for Smarter Learning (May, 2025)

New affordances of new tools make new approaches possible, but do not change fundamental learning principles.

– David Wiley, PhD, Chief Academic Officer of Lumen Learning, Keynote Speaker at the 3rd Charlotte AI Summit for Smarter Learning (May, 2025)

AI Faculty Fellows

In response to the need for tangible AI use cases across the UNC Charlotte curriculum, the Office of the Provost supported the recruitment of [10 AI Faculty Fellows](#) in Spring 2025 charged to work with faculty across colleges and the CTL to curate a repository of real AI use cases that highlight stories of how

faculty and students are integrating AI into teaching and learning. These stories serve as a resource for educators across disciplines, showcasing effective, innovative, and replicable AI applications that enhance student engagement and success. A separate report will be submitted for this initiative.

Faculty Task Force on AI in Teaching and Learning

The Provost Office convened the first [Artificial Intelligence in Teaching and Learning Task Force](#) (hereinafter referred to as the "AI faculty task force") is composed of representatives from each college, Faculty Council and Atkins Library. The task force worked through the 2024-25 academic year to develop a campus-wide philosophy regarding the use of AI in educating our students, review current University policies related to the use of AI in teaching and learning, examine needs related to building faculty capacity for AI integration in teaching and learning, and provide recommendations for professional development and support. More details in the following sections of this report.

Task Force Report Structure

This report presents a comprehensive summary of the task force recommendations, drawing on insights gathered from faculty, students, staff, and academic leaders (total of 418 contributors).

The report is organized and written using a "hub-and-spoke" structure:

- **Sections 1, 2, and 3 (The Hub: Recommendations from Academic Affairs):** These sections features a synthesis of ideas written by the task force leaders (Kiran Budhrani, Manuel Perez-Quinonez, and Jordan Register) which include an articulated AI philosophy for teaching and learning and recommendations for building an AI ecosystem for teaching and learning structured around areas of need and action items.
- **Section 4 (The Spokes: Recommendations from Colleges and the Library):** This section features individual college reports written by each college task force representative, summarizing college-specific contributions, recommendations, and insights.

Report sections include:

- **Section 1: About the AI Faculty Task Force** – Covers the task force's charge, membership, methodology, and engagement strategies.
- **Section 2: Guiding Philosophies for AI in Teaching and Learning** – Outlines the core principles and commitments guiding AI use in teaching and learning.
- **Section 3: Building an AI Ecosystem for Teaching and Learning** – Details the areas of need and action items (ranked by priority) for AI integration in teaching and learning.
- **Section 4: College-Level Recommendations** – Provides college-specific recommendations and insights.
- **Appendices** – Includes supplementary resources and templates.

The task force acknowledges that the AI landscape will continue to evolve rapidly. Rather than offering a fixed endpoint, this introduction invites readers into an ongoing conversation that requires curiosity, courage, and collective responsibility.

We now present the final report of the 2024-2025 Artificial Intelligence in Teaching and Learning Task Force.



Section 1: About the Artificial Intelligence in Teaching and Learning Task Force

AI is not a fleeting trend in higher education but a fundamental transformational shift that requires focused attention and strategic planning. In response to the accelerating impact of AI, the Office of the Provost established the first [UNC Charlotte's Artificial Intelligence in Teaching and Learning Task Force](#) (hereinafter referred to as the "AI faculty task force") on October 9, 2024 comprised of representatives from all colleges, the Atkins library, and the Center for Teaching and Learning.

The AI Faculty Task Force convened throughout the academic year 2024-2025 with the charge to examine and determine the following:

1. Philosophical Approach to AI in Teaching and Learning

- a. Develop and recommend a campus-wide philosophy related to the use of AI in educating our students, emphasizing AI as a partner in learning rather than a replacement. The philosophy should address positive, ethical and responsible use, self-directed learning, and equitable access in the integration of AI across the curriculum.
- b. Formulate related recommendations for students that align to UNC Charlotte's mission and commitment regarding responsible and ethical AI across the curriculum.

Recommendations should help identify the skills and knowledge students need to be equipped to use AI responsibly in their academic work.

2. Policy Review

- a. Identify policy gaps related to the use of AI in teaching and learning related to privacy, security, intellectual property, and academic integrity.
- b. Recommend new policies needed or policies that need to be reframed to match the Philosophical Approach proposed by the workgroup. *Note: Drafting clear policy language is beyond the scope of this task force.*

3. Building Faculty Capacity for AI Integration in Teaching and Learning

- a. Identify learning outcomes, teaching tasks and practices, and student engagement strategies that can be supported from integrating AI across the curriculum within the disciplines.
- b. Strategically examine the needs in each college related to differences in disciplinary teaching norms, learning outcomes, engagement with AI tools, and curriculum development.
- c. Provide recommendations for departmental-, college-, and/or campus-wide professional development and support resources needed to build faculty capacity for AI integration into the curriculum and student learning.



“The collective expertise of the task force’s members will illuminate the ways that AI can be a partner in teaching and student learning, and their recommendations will strengthen Charlotte’s policies and infrastructure for supporting AI integration into the curriculum and student learning.”

– Jennifer Troyer, Provost and Vice Chancellor for Academic Affairs (October, 2024)

Task Force Workplan

The work of the AI faculty task force spanned from October 2024 to May 2025. Monthly meetings held both in person and via Zoom served as the rhythm for planning and reporting progress. These coordinated meetings were led by Dr. Manuel Pérez-Quñones, Dr. Kiran Budhrani, and Dr. Jordan Register.

Monthly Goals:

- **October 2024:** Formation of the AI faculty task force
- **November 2024:** Kickoff meeting, coordinated planning, benchmarking, and instrument design [In-person/Zoom]

- **December 2024:** Round 1 of data gathering and open sharing sessions [Zoom]
- **January 2025:** Round 2 of data gathering and open sharing sessions [Zoom]
- **February 2025:** Data analysis, thematic review, and affinity mapping [Zoom]
- **March 2025:** Drafting college reports and peer review [Zoom]
- **April 2025:** Initial draft of task force recommendations and stakeholder feedback from academic leaders [In-person]
- **May 2025:** Refinement of task force recommendations and submission to provost office
- **June 2025:** Feedback and next steps from the provost
- **July 2025:** Finalization of task force report and presentation to senior leadership

From January to May 2025, the task force maintained a consistent schedule of monthly strategic coordination meetings with Provost Dr. Jennifer Troyer, Associate Provost and Chief of Staff Dr. Leslie Zenk, and the task force co-chairs, Dr. Manuel Pérez-Quñones and Dr. Kiran Budhrani. This regular cadence ensured high-level alignment, supported effective coordination, maintained timeliness, and upheld the thoroughness of the task force's work.

Methodology

The AI faculty task force's methodology was grounded in a mixed methods approach towards a comprehensive, multi-phased, multi-college, multi-stakeholder inquiry process. This methodology combined qualitative and quantitative methods, ensuring a broad understanding of AI's current utilization and impact across the university. Systematic data collection, collaborative stakeholder engagement, and iterative reviews characterized this process, leading to evidence-based recommendations.

Phase 1: Coordinated Planning, Benchmarking, and Instrument Design

The initial phase of the AI faculty task force's work focused on establishing a strong foundation for inquiry. The co-chairs reviewed AI policy and task force reports from 35 peer institutions and the literature. They drew particular attention to two influential frameworks: The [Report of the Yale Task Force on Artificial Intelligence \(2024\)](#) and The [Manifesto for Teaching and Learning in a Time of Generative AI: A Critical Collective Stance to Better Navigate the Future \(2024\)](#). This benchmarking process provided a comparative perspective of various leadership bodies taking the role of reviewing and defining campus needs, policies, guidelines, or strategies.

The AI faculty task force collaboratively developed a shared questionnaire with seven focus areas and standardized email templates to support each task force member data gathering process and ensure consistent data collection across colleges/units. The focus areas of the questionnaire served as the preliminary areas of inquiry (See Appendix A):

- AI's impact on colleges, programs, and courses
- AI's influence on learning outcomes
- AI's role in career readiness and job-seeking
- Student use of AI tools
- Faculty engagement with AI
- Domain-specific applications of AI
- Pedagogical opportunities, considerations, and challenges

Phase 2: Data Collection and Thematic Analysis

This second phase spanned from November 2024 to January 2025, marked by a dynamic and adaptive approach to stakeholder engagement. Recognizing the diverse contexts and needs of each college, task force members were encouraged to tailor their data collection methods. Some opted for structured surveys, capturing standardized data across large groups, while others prioritized deeper insights through focus groups and one-on-one interviews, both in-person or via zoom. This flexibility ensured that the data collected was both comprehensive and contextually relevant.

By the end of this phase, the AI faculty task force had successfully engaged a broad cross-section of the university community. A total of **357 participants** were involved in the data collection process, comprising **303 faculty members, 47 students, and 7 academic staff**, with each group contributing unique perspectives on AI's impact. Data were collected through **18 focus groups, 58 interviews, 7 surveys, and 1 typed response**, with each method offering a distinct lens on AI's influence (Table 1). The quantitative survey responses provided a foundation for comparative analysis, highlighting general trends and perceptions across colleges. In contrast, qualitative data from focus groups and interviews revealed more nuanced insights, uncovering specific challenges, opportunities, and concerns.

A defining characteristic of this phase was the collaborative reflection process among the AI task force. During monthly meetings, task force members openly shared preliminary findings, aha moments, and emerging realizations. These sessions were more than just updates; they were opportunities for collective sense-making.

In February 2025, the task force members engaged in an online group affinity mapping activity and thematic analysis via Zoom to cluster insights, identify common themes across colleges, as well as surface unique perspectives. This collective analysis process, combined with their individual writing and analysis process, ensured that the insights were not only systematically organized but also enriched through shared understanding.

Table 1. Data collection methods and participants across colleges/units

Unit	Methods Used	Participants
CCI	Focus groups (6) Survey (1) - faculty Focus group (1)	31 faculty 15 faculty 2 staff
BCOB	Focus Group (2) Survey (1) - faculty and staff Survey (1) - student Interview (2)	6 faculty 24 faculty, 4 staff 29 students 2 faculty
CHHS	Interview (45)	45 faculty
COAA	Survey (1) - faculty	20 faculty
COED	Focus group (1)	19 faculty
COE	Focus group (1) Interview (9)	3 faculty 9 faculty
CHESS	Focus groups (5) Survey (1) - faculty Survey (1) - student	9 faculty 77 faculty 18 students
KCOS	Focus group (1) Survey (1) - faculty	6 faculty 33 faculty
LIB	Focus group (1) Interview (2) Typed response (1)	1 faculty, 1 staff 2 faculty 1 faculty
Total	18 focus groups 58 interviews 7 surveys 1 typed response	303 faculty 47 students 7 academic staff

Phase 3: College-Level Report Writing

Through the months of February and March 2025, the task force members transitioned to their writing phase. Task force members drafted college-specific reports, each reflecting unique disciplinary contexts (See Section 6). Drafts were reviewed by task force members through an asynchronous peer review process and submitted to the task force co-chairs via Google Docs.

Phase 4: Stakeholder Feedback from Academic Leaders

In April 2025, the task force co-chairs and the provost's office agreed to engage in a round of structured stakeholder feedback, aiming to refine and validate initial findings and recommendations. The process began with the task force leadership team systematically reviewing all college-level reports, identifying

common themes, areas of need, and recommended actions. Through this analysis, an initial recommendation set with **11 areas of need** and **48 action items** were identified.

To ensure these recommendations were both practical and aligned with institutional priorities, the task force leadership team developed a structured feedback form (See Appendix B) and distributed it to **61 academic leaders** at the Deans Council meeting (April 2, 2025) and Department Chairs meeting (April 11, 2025). Using a three-point rating scale (1 - Low Priority, 2 - Medium Priority, 3 - High Priority), these academic leaders provided feedback on each item's priority and alignment with college needs. They also identified responsible units for each recommendation item as either university-led, college-led, department-led, or led by a specific unit outside of colleges (e.g., CTL, library, UGE).

The task force leadership team analyzed the data, identifying recommendations that had strong consensus and those requiring further consideration. The results of this feedback process led to a refined, more focused set of recommendations with **8 areas of need** and **34 action items** (see Section 4).

Additionally, guiding philosophy statements (see Section 3) were synthesized from the collective ideas and recommendations of college reports. These statements articulated high-level aspirations for AI at UNC Charlotte, providing a strategic commitment that aligns with institutional leadership's goals for responsible and ethical AI integration in teaching and learning. This phase ensured that the final recommendations were not only evidence-based but also grounded in leadership consensus, setting the stage for a well-supported and actionable final report.

Phase 5: Final Report Synthesis and Submission

From May to July 2025, the task force leadership team synthesized all insights gathered from faculty, students, staff, and academic leaders (total of 418 contributors) into a final report. This report was carefully reviewed and serves as a comprehensive report with actionable steps for advocating and accelerating AI integration in teaching and learning at UNC Charlotte.

Community of Contributors

The AI faculty task force extends heartfelt appreciation to the **418 members of the campus** who have generously shared their time, insights, and expertise in contributing to this report. This work is a testament to the collaborative spirit and shared commitment of our campus community towards ethical, responsible, and impactful AI integration in teaching and learning.

Our contributors include faculty, staff, students, academic leaders, administrators, and external partners who engaged with the task force in various capacities. Some participated in focus groups, offering their experiences and perspectives. Others provided written feedback, responded to surveys, or joined collaborative feedback discussions. Table 2 provides a list of contributors.

The task force also recognizes the valuable insights shared by those who chose to remain anonymous or did not include their names during the data gathering or feedback process. Their contributions, while not individually listed, have greatly enriched this report.

Table 2. List of known contributors to the work of the AI faculty task force (sorted by first name)

Name	College/Unit	Role
A B M Mohaimenur Rahman	College of Computing and Informatics	Faculty
Abbe LaBella	College of Computing and Informatics	Faculty
Abby Moore	J. Murrey Atkins Library	Faculty
Adriana Medina	Cato College of Education	Faculty
Ahmed Helmy	College of Computing and Informatics	Administrator
Aileen Benedict	College of Computing and Informatics	Faculty
Amanda Pipkin	College of Humanities & Earth and Social Science	Chair
Amirhossein Ghasemi	William States Lee College of Engineering	Faculty
Anabel Aliaga-Buchenau	College of Health and Human Services	Chair
Angela Rajagopalan	College of Arts + Architecture	Chair
Angela Rudd	Belk College of Business	Faculty
Ann Jolly	Cato College of Education	Administrator
Ann Loraine	College of Computing and Informatics	Faculty
Anne Cash	Cato College of Education	Faculty
Anthony Bombik	William States Lee College of Engineering	Faculty
Anthony Fodor	College of Computing and Informatics	Faculty
Anu Raina	Belk College of Business	Staff
Artur Wolek	William States Lee College of Engineering	Faculty
Asher Haines	School of Professional Studies	Associate Provost
Ashli Stokes	College of Humanities & Earth and Social Science	Administrator
Asis Nasipuri	William States Lee College of Engineering	Chair
Audrey Rorrer	College of Computing and Informatics	Faculty
Ayman Hajja	College of Computing and Informatics	Faculty
Banita Brown	Klein College of Science	Associate Dean
Bei-Tseng Chu	College of Computing and Informatics	Faculty
Bjarne Berg	Belk College of Business	Faculty
Beth Caruso	J. Murrey Atkins Library	Faculty
Beth Oyarzun	Cato College of Education	Faculty
Bill Tolone	Graduate School	Associate Provost and Dean
Blain Brownell	College of Arts + Architecture	Director
Bobby Hobgood	College of Humanities & Earth and Social Science	Faculty
Booshra Ahmed	Belk College of Business	Faculty
Bradley Smith	Cato College of Education	Staff
Bruce Taylor	Cato College of Education	Faculty
Camille Endacott	College of Humanities & Earth and Social Science	Faculty
Cat Mahaffey	College of Humanities & Earth and Social Science	Faculty
Cathy Blat	William States Lee College of Engineering	Staff
Catrine Tudor-Locke	College of Health and Human Services	Dean
Chandler Lutz	Belk College of Business	Faculty
Chandra Subramaniam	Belk College of Business	Chair
Cheryl Brown	College of Humanities & Earth and Social Science	Chair
Cheryl Kane	Belk College of Business	Faculty
Chris Boyer	College of Humanities & Earth and Social Science	Dean
Christin Lampkowski	J. Murrey Atkins Library	Faculty
Christine Richardson	Klein College of Science	Chair
Chuang Wang	Cato College of Education	Chair
Cindy Fox	Belk College of Business	Faculty
Cory Sheeler	College of Health and Human Services	Faculty
Craig Depken II	Belk College of Business	Faculty
Cynthia Gibas	College of Computing and Informatics	Faculty
D.I. Von Briesen	College of Computing and Informatics	Faculty
Daisy Ortiz-Berger	Belk College of Business	Faculty
Damien Williams	College of Humanities & Earth and Social Science	Faculty

Dan Grano	College of Humanities & Earth and Social Science	Chair
Daniel Maxwell	Cato College of Education	Faculty
Dante Bryant	College of Health and Human Services	Faculty
Daryl Lewis	College of Humanities & Earth and Social Science	Administrator
David Sinclair	Belk College of Business	Staff
David Wilson	College of Computing and Informatics	Faculty
Dean Adams	College of Arts + Architecture	Senior Associate Dean
Deb Thomas	Research Division	Associate Vice Chancellor
Debra Morris	Cato College of Education	Faculty
Denis Jacob Machado	College of Computing and Informatics	Faculty
Depeng Xu	College of Computing and Informatics	Faculty
Dhruv Dhamani	College of Computing and Informatics	Student
Diana Rowan	College of Health and Human Services	Interim Director
Dongsong Zhang	Belk College of Business	Faculty
Eddie Souffrant	College of Humanities & Earth and Social Science	Chair
Eric Heggstead	Academic Affairs	Associate Provost
Ethan Chiang	Belk College of Business	Faculty
Faith Neale	Belk College of Business	Faculty
Farah Deeba	William States Lee College of Engineering	Faculty
Frances Ferrante-Fusilli	College of Health and Human Services	Faculty
Gabriel Terejanu	College of Computing and Informatics	Faculty
George Banks	Belk College of Business	Faculty
Glenn Dutcher	Belk College of Business	Faculty
Glenn Moglen	Cato College of Education	Chair
Gordon Hull	College of Humanities & Earth and Social Science	Faculty
Greg Wiggan	Cato College of Education	Faculty
Gregory Starrett	College of Humanities & Earth and Social Science	Chair
Gretchen Alterowitz	College of Arts + Architecture	Chair
Harini Ramaprasad	College of Computing and Informatics	Administrator
Harish Cherukuri	William States Lee College of Engineering	Faculty
Heather Coffey	Cato College of Education	Faculty
Hilary Dack	Cato College of Education	Faculty
Holly Durham	Academic Affairs	Associate Provost
Hongfei Xue	College of Computing and Informatics	Faculty
Igor Kheifets	Belk College of Business	Faculty
Ivory Blakley	College of Computing and Informatics	Staff
J. Garvey Pyke	School of Professional Studies	Staff
J.P. Barfield	College of Health and Human Services	Chair
Jacquelyn Garcia	College of Health and Human Services	Faculty
Jamie Strickland	College of Humanities & Earth and Social Science	Faculty
Janaka Lewis	College of Humanities & Earth and Social Science	Administrator
Jennifer Brosek	J. Murrey Atkins Library	Faculty
Jessi Morton	College of Humanities & Earth and Social Science	Faculty
Ji Yae Bong	Cato College of Education	Faculty
Jill Sexton	J. Murrey Atkins Library	Dean
Joe Skiller	College of Arts + Architecture	Chair
John Nance	Cato College of Education	Faculty
Joohyun Kim	Belk College of Business	Faculty
Jordan Register	School of Professional Studies	Staff
José Gámez	College of Arts + Architecture	Dean
Julio Bahamon	College of Computing and Informatics	Faculty
Jun-Tao Guo	College of Computing and Informatics	Chair
Justin Cary	College of Humanities & Earth and Social Science	Faculty
Justin Grandinetti	College of Humanities & Earth and Social Science	Faculty
Karri Kennedy	School of Professional Studies	Senior Director
Kathy Asala	Klein College of Science	Faculty

Katie Garahan	College of Humanities & Earth and Social Science	Administrator
Kelly Vosters	Belk College of Business	Faculty
Kim Looby	J. Murrey Atkins Library	Faculty
Kimberly Harris	Belk College of Business	Faculty
Kiran Budhrani	School of Professional Studies	Staff, Task Force Co-Chair
Kosta Falaggis	Cato College of Education	Associate Chair
Kristin Davin	Cato College of Education	Faculty
Kyle Cox	Cato College of Education	Faculty
Lance Peterman	College of Computing and Informatics	Faculty
LaTazja Henry	University Communications	Staff
Laurel Powell	College of Computing and Informatics	Faculty
Lauren Slane	College of Computing and Informatics	Faculty
Lauren Woods	Klein College of Science	Faculty
Lee Gray	Academic Affairs	Senior Associate Provost
Leslie Zenk	Academic Affairs	Associate Provost
Lin Ma	William States Lee College of Engineering	Faculty
Lina Zhou	Belk College of Business	Faculty
Lipsa Sahoo	College of Computing and Informatics	Faculty
Lisa Rolan	Belk College of Business	Faculty
Liz Johnson	College of Computing and Informatics	Faculty
LuAnn Jordan	Cato College of Education	Faculty
Lufei Young	College of Health and Human Services	Faculty
M. Brittany Johnson	Klein College of Science	Faculty
Maciej Noras	William States Lee College of Engineering	Faculty
Madi Josupait	Belk College of Business	Staff
Magbor Atem	Belk College of Business	Faculty
Mahmoud Dinar	William States Lee College of Engineering	Faculty
Malcom Butler	Cato College of Education	Dean
Manuel Perez Quinones	College of Computing and Informatics	Faculty, Task Force Co-Chair
Marc Bess	J. Murrey Atkins Library	Faculty
Marlon Mejias	College of Computing and Informatics	Faculty
Mason Jenkins	Belk College of Business	Faculty
Matt Wyse	Academic Affairs	Staff
Matthew Metzgar	Belk College of Business	Faculty
Melin Pereira	Honors College	Dean
Michael Matthews	Cato College of Education	Chair
Michael Thompson	College of Health and Human Services	Chair
Mike Dulin	College of Health and Human Services	Faculty
Min Shin	College of Computing and Informatics	Administrator
Ming Chen	Belk College of Business	Faculty
Minwoo Lee	College of Computing and Informatics	Faculty
Miranda Parker	College of Computing and Informatics	Faculty
Mirsad Hadzikadic	College of Computing and Informatics	Faculty
Mohsen Dorodchi	College of Computing and Informatics	Faculty
Mona Azarbayjani	College of Arts + Architecture	Faculty
Monica Johar	Belk College of Business	Faculty
Morgan Carter	Klein College of Science	Faculty
Moutaz Khouja	Belk College of Business	Faculty
Nadia Najjar	College of Computing and Informatics	Faculty
Nowian Freese	College of Computing and Informatics	Faculty
Pamela Thompson	College of Computing and Informatics	Faculty
Patrick Robinson	College of Health and Human Services	Faculty
Per Norander	Belk College of Business	Faculty
Qiang Zhu	William States Lee College of Engineering	Faculty
Qiong Cheng	College of Computing and Informatics	Faculty
Ran Zhang	William States Lee College of Engineering	Faculty

Richard Buttimer	Belk College of Business	Dean
Rick Chakra	College of Computing and Informatics	Faculty
Rick Hudson	College of Computing and Informatics	Staff
Rob Keynton	William States Lee College of Engineering	Dean
Robert Reid	College of Computing and Informatics	Faculty
Ryan Kilmer	College of Humanities & Earth and Social Science	Chair
Sam Cacace	College of Health and Human Services	Faculty
Sam Suptela	Klein College of Science	Faculty
Sara Gagne	College of Humanities & Earth and Social Science	Chair
Sara Juengst	College of Humanities & Earth and Social Science	Faculty
Scott Fitzgerald	College of Humanities & Earth and Social Science	Chair
Scott Kissau	Cato College of Education	Administrator
Scott Tonidandel	Belk College of Business	Faculty
Sean McClaud	College of Humanities & Earth and Social Science	Chair
Shawnee Wakeman	Cato College of Education	Faculty
Shelley Linens	College of Health and Human Services	Faculty
Simon Hsiang	William States Lee College of Engineering	Chair
Steve Baruch	Belk College of Business	Faculty
Sung June Park	Belk College of Business	Faculty
Susan McLennon	College of Health and Human Services	Director
Suzanne Boyd	College of Health and Human Services	Faculty
Taghi Mostafavi	College of Computing and Informatics	Faculty
Taufikaur Khan	Klein College of Science	Chair
Tehia Glass	Cato College of Education	Faculty
Teresa Petty	University College / Office of Undergraduate Education	Associate Provost and Dean
Thalia Rodriguez	Belk College of Business	Staff
Thomas Crocker	J. Murrey Atkins Library	Staff
Thomas Fisher	Cato College of Education	Faculty
Tina Heafner	Cato College of Education	Faculty
Tisha Perkins Greene	Cato College of Education	Administrator
Todd Dobbs	College of Computing and Informatics	Faculty
Tom Schmedake	Klein College of Science	Chair
Tonya Bates	Klein College of Science	Faculty
Trevor Pearce	College of Humanities & Earth and Social Science	Chair
Victor Mack	Cato College of Education	Staff
Waseem Shadid	College of Computing and Informatics	Faculty
Weichao Wang	College of Computing and Informatics	Administrator
Wlodek Zadrozny	College of Computing and Informatics	Faculty
Xuejun Zhao	Belk College of Business	Faculty
Yong Zhang	William States Lee College of Engineering	Faculty
Youxing Chen	William States Lee College of Engineering	Faculty

Section 2: Guiding Philosophies for AI in Teaching and Learning

Philosophies to Teach, Learn, Govern, and Grow with AI

The AI faculty task force is committed to guiding our University community through both the opportunities and challenges AI presents. In order to frame a philosophy, it is necessary to recognize that innovation isn't one-size-fits-all and that AI is a transformative technology with both potential benefits and inherent risks.

With a forward-thinking approach, the AI faculty task force proposes the following **four philosophies**, grounded in **core commitments** that shape how we **teach, learn, govern, and grow** together in an AI-augmented world where everyone not just survives, but thrives with AI's capabilities. These philosophy statements are not just a list but a *commitment* to shared values, educational excellence, intentional practice, and collective voices. By aligning technological advancement with human values, it is encouraged to shape what's next with AI uplifting every member of our learning ecosystem.

UNC Charlotte Philosophies and Core Commitments to Teach, Learn, Govern, and Grow with AI



TEACH: Promoting Success in Teaching and Learning with AI

We commit to thoughtful, responsible, and ethical AI integration that supports teaching and learning in meaningful ways to enhance instruction, personalize learning, and support student achievement, keeping educational goals at the forefront.

LEARN: Balancing Human-AI Collaboration, Critical Thinking, and Creativity

We commit to leveraging AI as a learning partner, not a replacement, amplifying human and interdisciplinary collaboration, critical thinking, and creativity.

GOVERN: Advocating Ethical AI Governance for Openness, Transparency, and Accountability

We commit to maintaining openness, transparency, and accountability of AI use, ensuring responsible governance and ethical practices.

GROW: Intentional Growth in Resources for AI Adoption

We commit to systematically and intentionally growing resources that support thoughtful and effective AI adoption in support of teaching and learning.

TEACH: Promoting Success in Teaching and Learning with AI

We commit to thoughtful, responsible, and ethical AI integration that supports teaching and learning in meaningful ways to enhance instruction, personalize learning, and support student achievement, keeping educational goals at the forefront.

The proliferation of AI invites urgency and shared opportunity to act on a shared vision towards how AI is used in teaching and learning. AI tools have the potential to be some of the most impactful technologies for the future of higher education. As a university that takes pride in innovation and excellence, **we're not merely responding to AI, we're called to shape it.** We aim to be a university that is AI-enabled and AI-driven in the next decade where we're not just surviving the wave of AI innovation, but thriving.

UNC Charlotte is committed to leveraging AI as a transformative tool for teaching and learning. The university advocates for and aims to accelerate AI adoption across curricula, supports faculty in innovative and evidence-based teaching practices, ensures ethical and responsible use of AI, and prepares students with skills and competencies aligned with workforce needs.

Supporting Strategies:

- **Advocate and Accelerate AI Adoption in Curriculum:** Promote AI integration in courses and programs to enhance learning outcomes.
- **Enhance Learning Outcomes:** Leverage AI for personalized feedback, adaptive learning, and intelligent tutoring to support student success.
- **Empower Faculty Productivity:** Automate administrative tasks to allow educators to focus on active, engaged teaching, interactive discussions, personalization, and innovative strategies.
- **Foster Positive, Responsible, Ethical AI Use:** Develop clear campus-wide definitions and frameworks for responsible AI integration.
- **Prepare Students:** Equip students with AI skills aligned with workforce needs, ensuring they are ready for future careers in the AI-enabled workforce.
- **Foster a Culture of Innovation:** Empower faculty and students to explore emerging AI tools, develop creative solutions, and lead innovative AI-enhanced projects.
- **Encourage Cross-Disciplinary Collaboration:** Facilitate partnerships among faculty, students, and departments to explore AI applications from multiple perspectives.
- **Showcase AI Success Stories:** Highlight and celebrate innovative AI use cases by faculty and students, promoting a culture of experimentation and recognition.

LEARN: Balancing Human-AI Collaboration, Critical Thinking, and Creativity

We commit to leveraging AI as a learning partner, not a replacement, amplifying human and interdisciplinary collaboration, critical thinking, and creativity.

UNC Charlotte embraces AI as a collaborative tool designed to extend AI as a **learning partner** to enhance human capabilities, not replace them. UNC Charlotte emphasizes a balanced Human-AI approach to AI integration in teaching and learning. This approach ensures that AI is used as a tool for meaningful enhancement of both general education and disciplinary specific learning outcomes, without undermining essential human elements of education.

Supporting Strategies:

- **Amplify Human Creativity:** Use AI for brainstorming, refining ideas, and exploring diverse perspectives in various disciplines.
- **Enhance Critical Thinking:** Students and faculty are trained to question, analyze, and validate AI-generated content, ensuring that it becomes a tool for inquiry rather than passive consumption.
- **Adapt AI Use to Context:** Develop college or course-specific guidelines for responsible AI use, highlighting the importance of original thought alongside AI assistance.
- **Encourage Safe Experimentation:** Allow faculty and students to use AI to explore complex problems, simulate real-world scenarios, and develop projects, while faculty maintain clear assessment criteria to uphold academic integrity.
- **Foster Self-Directed Learning:** Students and faculty use AI to become "smarter" and "power-users" of AI tools, enhancing their ability to ideate, create productive work products, and achieve positive learning outcomes.

GOVERN: Advocating Ethical AI Governance for Openness, Transparency, and Accountability

We commit to maintaining openness, transparency, and accountability of AI use, ensuring responsible governance and ethical practices.

AI must be governed with **care, clarity, and accountability**. The ethical use of AI is indispensable in maintaining trust within our academic community. As AI becomes increasingly integrated into teaching, learning, and administrative functions, it is essential to establish clear, transparent, and accountable practices. UNC Charlotte is dedicated to creating an AI governance framework that prioritizes ethical standards, data privacy, and fairness with AI. The commitment to openness and responsible governance fosters a culture where faculty, students, and staff feel confident in the university's AI practices.

The University will establish clear guidelines to safeguard data privacy, address intellectual property, and recognize biases. We will also adopt transparent review processes—such as audits, disclosures, and reporting structures—to confirm that AI outputs respect fairness and equity for all.

Supporting Strategies:

- **Establish Clear AI Governance Guidelines:** Develop university-wide standards that outline responsible AI use, emphasizing openness, transparency, and accountability.
- **Protect Data Privacy:** Implement robust data stewardship protocols to safeguard student and faculty information, ensuring compliance with academic integrity, intellectual property, and copyright policies.
- **Maintain Transparency in AI Practices:** Clearly communicate how AI tools are used in academic and administrative contexts, including the purpose and scope of AI applications.
- **Strengthen Accountability Mechanisms:** Implement accountability mechanisms when appropriate to ensure AI practices are fair and responsible.
- **Educate the Campus Community:** Provide training and resources to faculty, students, and staff on responsible data handling, ethical AI practices, and maintaining academic integrity.

- **Model Ethical AI Use:** Demonstrate best practices by integrating ethical AI use into teaching and learning while encouraging critical reflection on AI's role in education.
- **Regularly Review AI Policies:** Continuously update AI policies with input from all stakeholders. Maintain shared governance with university-wide and college-level AI advisory committees.
- **Empower AI Leaders:** Create opportunities for students to become "AI Champions," leading peer workshops, sharing best practices, and designing AI-enhanced projects.

GROW: Intentional Growth in Resources for AI Adoption

We commit to systematically and intentionally growing resources that support thoughtful and effective AI adoption in support of teaching and learning.

UNC Charlotte recognizes that the successful integration of AI in higher education is not a one-time achievement but an ongoing, iterative effort. To realize the full potential of AI, the university is dedicated to building a proactive foundation through continuous training, scalable infrastructure, and comprehensive capacity-building initiatives. This approach ensures that AI adoption remains sustainable, equitable, and responsive to the evolving needs of faculty, students, and staff.

At the heart of this commitment is the principle of an **iterative and adaptive mindset**. Rather than viewing AI adoption as a static process, UNC Charlotte embraces a dynamic approach where policies, tools, and training evolve alongside technological advancements. The inclusion of structured input from multiple stakeholders is often overlooked and is a strong asset. Faculty, students, and staff should engage in continuous dialogue, sharing strategies, voicing concerns, and co-designing solutions. This ensures that policies and programs resonate across disciplines.

Supporting Strategies:

- **Adopt an Iterative and Adaptive Approach:** Regularly review and refine AI strategies, training, and resources to align with evolving technologies and educational needs.
- **Build Sustainable AI Infrastructure:** Develop and maintain secure, scalable systems that support long-term AI integration across campus.
- **Continuous Professional Development:** Provide ongoing training for faculty, staff, and students on AI literacy, ethical use, and advanced skills, ensuring they remain adaptable.
- **Foster Capacity-Building:** Enhance the digital skills of faculty, staff, and students, ensuring they are prepared to leverage AI effectively in teaching and learning.
- **Expand Access to AI Tools:** Support all members of the campus community with access to AI tools and cloud services, tailored to various disciplines.
- **Establish Cross-Campus Forums:** Foster a culture of transparency and inclusion by inviting input from students, faculty, and staff. Host town halls, focus groups, and workshops to gather broad perspectives on AI.
- **Empower Student Voices:** Provide structured opportunities for students to contribute as AI innovators.
- **Foster Interdisciplinary Collaboration:** Promote partnerships across departments and colleges to co-design AI-enhanced educational experiences. Advocate for cross-campus collaboration as a practice rather than an aspiration.

AI Benefits, Opportunities, Challenges, and Risks

During monthly discussions held from Fall 2024 to Spring 2025, the AI faculty task force at UNC Charlotte identified a shared understanding among faculty regarding the rapid advancement of AI capabilities. Faculty members acknowledged the importance of being proactive in addressing both the benefits and opportunities presented by AI, as well as the associated challenges. The general consensus among faculty was that while AI can significantly enhance teaching and learning, its increasing impact also brings notable risks.

AI has transformed education, unlocking unprecedented efficiencies and enhancing the learning experience in ways once considered impossible. At its best, AI serves as a catalyst for creativity, a tutor, a guide, and a versatile tool with limitless potential. It accelerates the creation of educational content, enabling instructors to develop high-quality materials swiftly, including study guides, quizzes, videos, and interactive tutorials. It also facilitates hyper-personalized learning by adapting to individual student needs and supporting self-directed study through intelligent tutoring systems.

AI assists with automating administrative tasks that would otherwise occupy educators' valuable time. AI-based tutoring and automated grading tools free faculty to devote more time to high-impact tasks such as tutoring, mentorship, interactive discussions, and one-on-one guidance. Carefully designed AI applications can enrich classroom experiences, helping students develop foundational knowledge while receiving timely, personalized feedback.

Students (and faculty) benefit from this personalized, dynamic support, with AI offering real-time coaching and feedback. However, centering on student needs, a struggling student can ask AI to explain complex concepts in various ways until they understand. Job-seeking students use AI to craft tailored resumes, polish their cover letters, and even prepare for interviews by simulating questions. For some, AI is a creative partner for brainstorming marketing strategies, enhancing visuals for presentations, or even generating new project ideas. In the hands of faculty, it becomes a tool of professional growth, enabling innovative teaching methods, and generating content for courses at rapid speed, as well as expanding support for new content that would be tedious, or impossible to write before.

AI also has its challenges and risks. Key considerations include access to AI tools, accuracy and interpretation of AI outputs, algorithmic and social bias, data privacy and security, intellectual property, academic integrity, and societal and environmental impacts. The ease with which AI generates content raises questions about academic integrity, with some students using it to complete assignments without genuine understanding. Plagiarism risks are magnified when AI-produced work is difficult to distinguish from student- or faculty- generated content. Privacy and data security become critical concerns as AI systems collect, store, and process vast amounts of data. Errors and misinformation, so-called AI "hallucinations," can mislead students and faculty, while algorithmic biases can perpetuate stereotypes and inequities. For educators, the rapid evolution of AI can be intimidating, with many feeling unprepared to integrate these tools responsibly and effectively.

Moreover, the convenience of AI risks creating a culture of cognitive offloading, where students or faculty rely on it not as a learning aid but as a substitute for critical thinking. In some cases, this dependency can hinder skill development, stifling creativity and problem-solving abilities. The digital divide further complicates the picture, with unequal access to AI tools creating new inequities among students and faculty.

While AI holds enormous promise, it can also disrupt long standing assumptions about instruction, assessment, and access to technology. By anticipating and addressing these areas of concern, it is necessary to ensure that AI enhances learning outcomes without compromising core values, philosophies, commitments,.

Section 3: Building an AI Ecosystem for Teaching and Learning

At the intersection of rapid AI advancements and evolving educational practices, it is crucial to approach next steps for AI in teaching and learning with a strategic and proactive mindset of an interconnected ecosystem of progress rather than isolated initiatives.

An “AI ecosystems building” approach is necessary to support, sustain, and scale large-scale academic transformation of AI in higher education and offer a framework to accelerate AI adoption and institutionalize AI for enhancing teaching and learning across the curriculum.

Why an Ecosystem Approach?

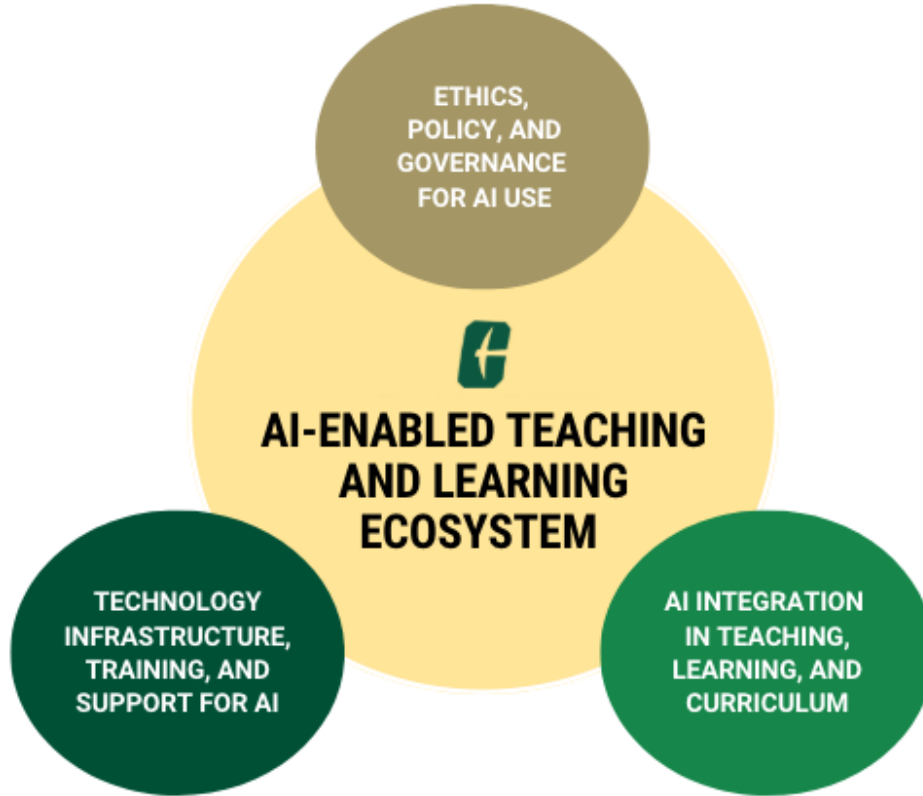
An **AI-enabled teaching and learning ecosystem** is a complex, dynamic, and diverse network of interconnected components, each contributing to a unified yet adaptive strategy for AI integration. This approach is grounded in several key strengths:

- **Interconnected Components:** The ecosystem approach emphasizes that all components (policies, people, curriculum, technology, training, and support) are interdependent, ensuring a holistic and coherent AI strategy. By recognizing interdependencies, an AI ecosystem framework is better prepared to adapt to new challenges and opportunities.
- **Continuous Evolution:** AI integration in teaching and learning is presented as a living, evolving, agile ecosystem rather than a one-time project, allowing for adaptability and growth as AI continues to evolve. AI adoption and integration must be a continuous improvement process rather than a static deployment.

We need an **interconnected and evolving ecosystem of initiatives** rather than a series of isolated efforts. Initiatives should center on **three themes (Figure 1)** that collectively address the ethical, instructional, and technological dimensions of AI adoption, further defined by **8 areas of need** and **34 actionable recommendations**.

Theme	Areas of Need
A. Ethics, Policy, and Governance for AI Use in Teaching and Learning	1 - AI Policies and Guidelines for Responsible Use 2 - AI Governance Structures
B. AI Integration in Teaching, Learning, and Curriculum	3 - AI Curriculum Adoption and Reviews 4 - Preparation for the AI Workforce 5 - Assessment of AI Adoption in Teaching and Learning
C. Technology Infrastructure, Training, and Support for AI	6 - Training and Support for AI Awareness, Education, and Literacy 7 - Training and Support for AI in Teaching and Curriculum 8 - Expansion of AI Tools and Services

Figure 1. An AI-enabled teaching and learning ecosystem



Recommendations on Ethics, Policy, and Governance of AI Use

This theme establishes the foundation for responsible AI integration in teaching and learning by defining clear ethical guidelines, policies, and governance structures. It addresses the need for campus-wide policies on ethical and responsible use of AI, including data privacy, academic integrity, and intellectual property. Recommendations focus on developing tailored guidelines for both faculty and students, ensuring accountability and transparency. Governance structures are strengthened through the creation of a university-wide AI governance body, supported by interdisciplinary college-level advisory committees. This theme promotes that AI is deployed with accountability, safeguarding ethical standards and maintaining institutional trust.

For this theme, the task force identified 2 areas of need and 11 recommended action items:

Areas of Need	Recommended Action Items		Priority
1 - AI Policies and Guidelines for Responsible Use	1.1	Update syllabus policies to reflect accountability and transparency of AI use for both students and faculty	HIGH
	1.2	Develop a campus definition and framework for ethical and responsible use of AI	HIGH
	1.3	Develop university guidelines for student and faculty use of AI on	HIGH

		accountability, transparency, trustworthiness	
	1.4	Define clearer institutional ethical & legal policies on data privacy, academic integrity, IP, and copyright	HIGH
	1.5	Develop tailored (i.e., not-one-size-fits-all) definitions, guidelines, and policies for contextual adoption of AI in teaching, learning, and curriculum across colleges	HIGH
	1.6	Improve uniformity in messaging on AI policy and use to students	HIGH
	1.7	Establish clear guidelines on faculty autonomy, flexibility, and agency on AI use	MED
	1.8	Review and update AI usage clauses in library databases	MED
2 - AI Governance Structures	2.1	Establish a university-wide AI governance body with defined roles	MED
	2.2	Engage in regular review and feedback on AI guidelines and policies	MED
	2.3	Form interdisciplinary, college-level AI advisory committees for continuous oversight	MED

Recommendations on AI Integration in Teaching, Learning, and Curriculum

This theme focuses on accelerating AI adoption in educational programs with ongoing review and curriculum development to incorporate AI knowledge, skills, and competencies, ensuring that students are well-prepared for an AI-driven workforce. Recommendations include increasing adoption of AI across courses and programs, alignment of learning outcomes with AI competencies, and continuous faculty engagement through working groups with faculty fellows. Additionally, it emphasizes the importance of university-industry collaboration to bridge workforce skill gaps and calls for systematic assessment of AI's impact on teaching and learning through scholarship of teaching and learning (SOTL) grants for experimentation and dissemination of failures and successes.

For this theme, the task force identified 3 areas of need and 10 recommended action items:

Areas of Need	Recommended Action Items		Priority
3 - AI Curriculum Adoption and Reviews	3.1	Identify general education-specific (GenEd) learning outcomes in alignment to AI knowledge, skills, and competency areas (i.e., creativity, originality, critical thinking, numerical accuracy and analytical reasoning)	MED
	3.2	Engage in regular curriculum review and feedback on AI integrated programs and courses	MED
	3.3	Increase AI adoption with on-going curriculum review and inclusion of AI in topics, course outcomes, and assessments where applicable	MED
	3.4	Identify program- or course- specific learning outcomes in alignment to AI knowledge, skills, and competency areas	MED
	3.5	Establish faculty working groups (i.e., faculty fellows) for curriculum review and continuous development to meet AI needs	MED
	3.6	Review workload needs among all faculty and academic staff to facilitate increased and sustainable AI adoption	LOW

4 - Preparation for the AI Workforce	4.1	Strengthen university-industry collaboration to close the industry gap on AI workforce skills	HIGH
	4.2	Assess AI knowledge, skills, and competency areas essential to graduates and career goals	HIGH
5 - Assessment of AI Adoption in Teaching and Learning	5.1	Increase funding for AI SOTL research grants, experimentation, and tool integration	HIGH
	5.2	Conduct assessment and evaluation of AI in teaching and learning (academic performance, cognitive abilities, ethical decision-making, and risk assessment)	MED

Recommendations on Technology Infrastructure, Training, and Support for AI

This theme addresses the critical need for AI technology and infrastructure, comprehensive training, and continuous support systems to ensure effective AI adoption in teaching and learning. Recommendations include establishing support resources to keep faculty and students informed about rapidly evolving AI technologies and best practices. This theme promotes the creation of collaborative spaces for interdisciplinary conversations, project collaborations, learning communities, and mentoring focused on AI-enhanced teaching. It also highlights the importance of increasing awareness of available AI resources, encouraging their use among students and faculty, and providing ongoing training and professional development opportunities. These initiatives ensure that the institution remains adaptive, resilient, and capable of leveraging AI to enhance learning experiences.

For this theme, the task force identified 3 areas of need and 13 recommended action items:

Areas of Need		Recommended Action Items	Priority
6 - Training and Support for AI Awareness, Education, and Literacy	6.1	Develop educational awareness and literacy on use of AI tools, critical ethical and responsible use, and social and environmental impacts	HIGH
	6.2	Cultivate “AI literacy for all” by developing AI awareness, literacy, competency across all academic levels	HIGH
	6.3	Conduct regular AI needs analysis, evaluation, and feedback among students, faculty, and academic staff	MED
	6.4	Increase awareness and offer ongoing campus-wide AI training, workshops, and professional development	MED
7 - Training and Support for AI in Teaching and Curriculum	7.1	Support faculty in designing AI-enhanced courses, lessons, and learning materials	HIGH
	7.2	Provide resources and support for program and/or curriculum review	HIGH
	7.3	Implement discipline-specific strategic programs for instructional design, curriculum review, and course development work	MED
	7.4	Provide resources and support for new modes of assessments, grading, and feedback	MED
	7.5	Develop a curated repository of AI use cases across disciplines	MED

Responsible Units

The table below presents the responsible units recommended to lead and support each area of institutional need.

Area of Need	University-Led	College-Led	Department-Led
1 - AI Policies and Guidelines for Responsible Use	✓	✓	
2 - AI Governance Structures	✓	✓	
3 - AI Curriculum Adoption and Reviews		✓	✓
4 - Preparation for the AI Workforce	✓	✓	✓
5 - Assessment of AI Adoption in Teaching and Learning	✓	✓	
6 - Training and Support for AI Awareness, Education, and Literacy	✓	✓	
7 - Training and Support for AI in Teaching and Curriculum	✓	✓	✓
8 - Expansion of AI Tools and Services	✓	✓	

Concluding Next Steps and Considerations

The work is not over. As the AI faculty task force concludes this report, it is essential to recognize that this is just the beginning foundation toward effective AI integration in the teaching and learning ecosystem at UNC Charlotte.

The following next steps are recommended for Academic Affairs and the Office of the Provost to continue this critical work:

1. **Establish an AI Roadmap and Implementation Plan for Teaching and Learning:** Develop a comprehensive implementation roadmap, clearly outlining actionable items, timelines, and responsible parties. This roadmap will guide the university's efforts in a phased and organized manner.
2. **Establish Additional Task Forces or Committees:** Form three specialized teams to lead the next phase of implementation with clear actionable items, timelines, and responsible parties:
 - Team 1: Ethics, Policy, and Governance for AI
 - Team 2: AI Integration in Teaching, Learning, and Curriculum
 - Team 3: Technology, Training, and Support for AI

3. **Promote Dual-Transformation Efforts in AI (i.e., Ongoing Work and New Work):** Dual transformation recognizes incremental improvements (refining current educational models) and disruptive innovations (creating new paradigms of learning). Recognize and identify on-going work across the campus but also lead new initiatives with interdisciplinary collaboration across departments, colleges, academic units and stakeholder groups. The work must evolve, iterate, and be agile with emerging AI technologies.
4. **Engage Additional Stakeholders for Feedback:** Continue to solicit feedback from academic leaders, faculty, students, and academic staff to ensure that the university's AI strategy reflects diverse perspectives. This feedback will be essential in refining the university's priorities and identifying areas requiring further attention.
5. **Coordinate Centralized Planning and Reporting:** Establish a central planning and reporting structure within the Provost's office to coordinate AI-related efforts in teaching and learning, ensuring transparency, accountability, and organization.
6. **Launch a Communication Plan for AY 2025-26:** Establish a communication plan for dissemination and publication of reports, use-cases, and other artifacts from current and future AI task forces, working groups, or committees.

Section 4: College-Level Recommendations

This section includes individual reports from each college and the library:

- Belk College of Business (BCOB)
- Cato College of Education (COED)
- College of Arts + Architecture (COAA)
- College of Computing and Informatics (CCI)
- College of Health and Human Services (CHHS)
- College of Humanities & Earth and Social Science (CHESS)
- J. Murrey Atkins Library (LIB)
- Klein College of Science (KCOS)
- William States Lee College Of Engineering (COE)

Belk College of Business

Shaping the Use of AI in Business Education: AI Integration Report from College of Business Faculty

By Lina Zhou, Business Information Systems and Operations Management

Executive Summary

AI is integrated into virtually every aspect of modern business. It has become an integral part of every business domain. Belk College of Business faculty discussed the integration of AI into their respective fields, with a focus on its potential benefits and challenges in education and learning. The discussion took the forms of focus groups, surveys, and interviews.

The faculty generally embraces the use of AI to enhance teaching and learning while acknowledging its increasing impact. AI will be ubiquitously woven into the fabric of our lives and academia won't be an exception. The faculty draws an analogy of using AI in the business fields today to using computers in traditional business. Students are likely already ahead in using AI tools, urging faculty to be knowledgeable about AI capabilities and challenges to guide students in their proper use of these technologies. To actively shape and excel within the evolving AI landscape, Belk College faculty has identified opportunities and threats it presents and explored innovative ways to leverage the technology. The faculty highlighted the use of AI in enhancing teaching effectiveness and efficiency, facilitating course instruction tasks and improving student engagement, and grading consistency, and its role in improving student learning experience and effectiveness, facilitating self-tutoring, writing assistance, and task planning. However, the faculty also raised concerns about academic integrity and data privacy, and more importantly, there is a need for setting boundaries on AI usage to prevent the misuse of AI for plagiarism while encouraging original and creative thinking. Beyond understanding AI's applications and implications for faculty and students, the faculty stresses its impact on future workforce and the critical need for university resources to facilitate AI adoption, including exemplar use cases, real-time support, AI literacy training, personalized guidance, grading support, and policy guidance.

Roadmap

SWOT (Strengths, Weaknesses, Opportunities, and Threats) is a strategic planning tool used to identify and analyze these four aspects of a project, business, or situation. It provides a framework for assessing the current situation and identifying potential future challenges and opportunities. It enables organizations to leverage their strengths, address their weaknesses, capitalize on opportunities, and mitigate threats. We employed SWOT analyses to organize faculty discussion results on integrating AI into teaching and learning.

The remainder of this report is structured as follows. First, it provides a detailed exploration of each of the four aspects, incorporating thematic analysis and faculty quotations. Second, it makes recommendations for addressing weaknesses and mitigating threats. Third, this report synthesizes faculty-provided use cases demonstrating effective AI integration in teaching and learning. Lastly, it derives themes and use cases from student survey data to create a holistic understanding of AI's impact on education.

Source	Positive	Negative
Internal	<i>Strengths</i> characteristics that give teaching and learning an advantage	<i>Weaknesses</i> characteristics that place teaching and learning at a disadvantage
External	<i>Opportunities</i> external situations that could benefit teaching and learning.	<i>Threats</i> external situations that could benefit teaching and learning.

Findings

The following findings, categorized by the four perspectives outlined above, are based on faculty responses.

Strengths

These are internal factors that are positive, or the characteristics that give the initiative an advantage. Our analysis of strengths is mainly focused on AI technology.

- Generation of summary with high readability
- Agentive AI (i.e., Conductor) will allow for a wide ranging set of activities to be coordinated and completed passively.
- Interactive AI bots create highly interactive learning, studying, and communication tools.
- Applying multiple and complementary AI systems can further enhance human capabilities.
- Automating processes and decision-making
- Already woven into students' life
- AI integration into web browsers is making it inevitable for students to interact with AI, whether intentionally or not.

Weaknesses

These are also internal factors, but they are negative. They are the characteristics that place our teaching and learning at a disadvantage.

- low accuracy or reliability
 - Inaccuracy
 - incorrect answers and hallucinations
 - Information can be inaccurate
 - Students are not aware that AI can be incorrect.
 - I am concerned about the correctness of AI
 - students may not fully understand the limitations of the tools
- Lack of real human emotion
 - Heartless and soulless content generations
- False information
 - I have to fact check especially when summarizing data/metrics
- Lack of integration
- Tool availability
 - Not enough AI tools available from the University
 - would good to have a subscription to AI/LLM with privacy for python coding and another for research papers
- Underutilization

- o Students fail to utilize the power of AI. They use the tool only to easily complete their assignments and exams.

Opportunities

These are external factors that are positive. They are the external situations that could benefit your business or project.

- Personalized learning/personal assistant
 - o The use of AI in accommodating different learning styles
 - o I think that AI can personalize learning plans for the user.
 - o personalized learning and skill development
 - o Interactive AI bots (I.e., NotebookLM) create highly interactive learning, studying, and communication tools for learners of different types and styles.
 - o providing personalized insights, automating data analysis, improving decision-making, and offering tailored skill development resources
 - o I see AI as a personal assistant and in many ways will remove business waste between higher and lower ranks of business
- Simplification
 - o Explaining concepts/models
 - o condensing complex information into something more manageable
 - o AI could help simplify complex subjects and enable more practical applications
- Efficiency enhancement
 - o Efficiency in creating unique content
 - o Read my emails and shorten them to where it will just tell me the important stuff
 - o I believe AI will help make business analytics a much quicker process to understanding the fundamentals of a company, as well as any potential opportunities based off AI generated calculations.
 - o It would make work more efficient and potentially a lot more accurate.
- Subject knowledge enhancement
 - o Subject knowledge enhanced by AI
 - o Bring human's unique contribution to beyond starting point
- Real time coach
 - o keep people updated on technology
- Error prevention
 - o Students can avoid simple mistakes.
- (multimedia) Content creation
 - o Maybe AI is a powerful tool to generate videos for those complicated processes and concepts
 - o Image, a graph creation
 - o turn textual information into a visual format
 - o the use of AI tools to generate self-recorded videos for introductions
 - o AI helped in creating visuals for presentations and improving slide design suggestions
- Creativity augment
 - o AI tools can be useful for brainstorming and expanding the level of understanding
 - o may help with a pathway to develop some projects and it is a good tool for brainstorm
 - o Creatively generating new ideas for marketing innovations
 - o The ability to use AI for idea generalization.

- o I've been able to use AI to explore different ideas.
 - o Brainstorm on business ideas
- Improved productivity
 - o Give students basic code, data-specific; Give them more work, be more productive
- Industry demand
 - o Most business professionals now use AI, so we should be teaching our students how to use it.
 - o I think that AI-driven analytic tools will be largely incorporated with my career field.
 - o high demand for AI talents, across industries, companies be more attractive to AI talents, transition to AI skills
- Class engagement
 - o making teaching more engaging for students and more fun to deliver for professors
 - o the potential benefits of virtual reality and augmented reality in enhancing learning outcomes and engagement, particularly in job-related simulations
- Job interview preparation
 - o helping students write professional emails, tailor their resume/cover letter for specific positions.
 - o using AI to prepare students for job interviews.
 - o help students understand the automated job application system and its impact on their chances of securing a job.
 - o the increasing use of AI in job seeking and its potential impact on the job market
 - o AI could help identify suitable career paths and roles for individuals, and how it could facilitate career transitions
 - o Compare job descriptions and resume to generate interview questions
- New job opportunities
 - o AI streamlining and potentially getting rid of some jobs but also creating a lot more jobs in turn.
 - o I see it provides many jobs
 - o Legal and policies regarding the use of AI
 - o AI will be in every field with time
 - o AI can be used to prepare students for job interviews
 - o AI can be a valuable tool for students to enhance their career opportunities, but also emphasize the importance of critical thinking and not solely relying on AI for answers.
- Lifelong learning
 - o it could help people excel in their careers by learning new information constantly.
- Automating reporting tasks
 - o without requiring extensive programming knowledge
 - o which significantly reduced the time and effort required
- Writing assistance/proofreader
 - o help with grammar and repetition in writing assignments
 - o Grammar check, recommendation of phraseology
 - o Creating and writing marketing plans
 - o AI could be used as a proofreader, improve articulation
 - o Language assistance
 - o Students got to come up with your own ideas/content/strategies/basics. But how they're expressed could be another thing.
- Coding analysis

- o How AI tools helped his students in real estate finance by allowing them to execute Python code for data analysis
- Grading objectivity
 - o AI can make grading more objective. Use AI to assess student work based on clear rubric, ensuring consistency in grading.
- Summarization
 - o summarize responses to questions
 - o summarize research articles
- Feedback
 - o AI-based feedback

Threats

These are external factors that are negative. They are the external situations that could harm teaching and learning.

- Fear and uncertainty
 - o Some faculty face fear, intimidation, and uncertainty about academic integrity in adopting AI technology.
- Limiting critical thinking
 - o Rob students of learning opportunities
 - o These answers really all just depend on exactly how it's being done so the students are learning and not turning their brains off.
 - o Concerns about using AI for answers and not as a resource
 - o How to get them come up with their own original ideas?
- Lack of verification/fact check
 - o Do not fact check or learn the content presented
 - o need to verify the accuracy of the information
 - o Students simply adopt the AI coding suggestions without verifying whether they work or not.
 - o Librarian help students find references that AI recommended
- Academic integrity like plagiarism
 - o Unless otherwise specified, the use of AI tools such as ChatGPT for course assignments is considered equivalent to receiving assistance from another person. This raises concerns regarding Academic Integrity
 - o AI tools can produce highly personalized and accurate content, making it difficult to distinguish between AI-generated work and genuine student effort.
 - o My biggest worry is that students use AI tools to complete assignments w/o understanding the content / material. It's about plagiarism and the authenticity of their work.
 - o If you give regular online tests, they will use AI to get the answers.
 - o using AI to write papers
 - o When used as a substitute for original thought, ideas, or response. Also, when used to simply source answers (quizzes, exams).
 - o personalize nowadays like you can really start to assume the identity or personality of some people to produce very identical text; Hard to tell if using matching persona
- Improper use

- o Students don't fully understand them, and the repercussions that using them and not properly citing them can have.
 - o Lack of knowledge around how, when, why, where to use which tools
 - o Overuse and improper use
- Over reliance
 - o Overreliance and limiting critical thinking
 - o over reliance on AI without learning is my other concern
- Existing teaching/grading methods
 - o change my methods so that assessments incorporate using AI to get to the answer but not something students can just copy and paste from. They have to take the results and make it their own.
 - o requires a different approach to grading
- Training focus
 - o Students need to understand the basics and be trained in creativity skills to be successful. Was it a dumber party time? When I'm genotype
- Data privacy and security in the AI space
 - o the importance of not sharing personal information in AI-generated reports
- Tension/resistance
 - o the potential tension between new AI-savvy employees and more experienced, less AI-literate professionals
- Student engagement
 - o Students appreciate faculty review more than AI-generated comments
 - o Students prefer personalized comments

Suggestions

Faculty discussion provided suggestions for addressing the identified weaknesses and mitigating related risks.

- AI literacy
 - o Enough education to create/contribute to useful applications
 - o every course across all disciplines should have an AI element,
 - o understanding the tools, implications and applications of AI, and how it affects the future workforce
 - o the importance of understanding technology for executives and how AI can significantly impact business models.
 - o the importance of AI literacy for graduates to contribute to AI efforts in their future careers
 - o create workshops to facilitate communication and transition between these groups
 - o Need to verify resources are correct, legitimate
- Real-time support
 - o universities need a real-time resource to educate and support faculty on rapidly changing AI technologies.
- Prompt engineering
 - o prompts must be excruciating detailed
 - o Prompting challenges and other approach shortcomings
 - o human creativity and interpretation will remain essential

- o AI-human team to act more like engineers in working with AI tools to get the desired results
- Resources availability
 - o increase awareness about the available AI resources and encourage students to leverage them responsibly to facilitate learning.
- Proper citation and attribution
 - o I have started calling out the importance of citing the use of AI.
 - o I have a policy in my syllabi that you have to cite all use of AI regardless of the program.
 - o As outlined by UNCC, allowing the use of AI as long as properly cited.
 - o teachers should set clear boundaries on its use
 - o verify sources and references when students use AI-generated content in assignments
 - o verify the sources of their information
 - o Justify sources of information
 - o Restrict the sources/references, find exact sentences
- Instructions on proper use
 - o the need for clear guidelines on what students can and cannot use in their work
 - o Delineate the use
 - o Explicit about when is permitted or forbidden
 - o Make is clear in syllabus
 - o Align with academic integrity policy
 - o instructions to help understand how to use technology in a better way
 - o Can't use AI in the exams.
 - o I am explicit as to when it can and cannot be used and then clear about how it can and cannot be used.
 - o Teach correct use AI via case studies
- Developing critical thinking
 - o the need for students to think critically and add their own unique analysis to the problems, not replace the need for students to think deeply and creatively
 - o AI tools should be used as a starting point, not the finished product
- Training on effective use
 - o Access to AI training resources and personalized guidance on how to effectively use AI tools in coursework would be most helpful.
- Adapting teaching method
 - o how to incorporate AI into assignments for her classes while ensuring students' original contributions
 - o adapting teaching methods and assignments to effectively integrate AI tools while maintaining critical thinking requirements
 - o they need to adapt their teaching methods to prevent cheating and ensure students are learning and applying their knowledge
 - o more project-based work could help students develop their ideas and skills, and that the use of AI tools should be limited to the initial stages of a project
 - o You have to ask small medium questions for them to think deeply about each step or intermediate steps they're doing and how they could do it differently and ask them to think outside of the box, which was not necessary earlier.
 - o Challenge students to apply their knowledge
 - o Gamification to encourage comments or interaction
- Balancing AI with traditional methods

- o emphasized the importance of balancing the use of AI with traditional learning methods
- Updating test banks
 - o updating test banks and assessment methods to account for easy access to information via AI tools
- AI usage detection
 - o through pattern recognition, such as grammar, vocabulary, and citations.
 - o The use of "salting" questions to indicate AI usage.
 - o Live in-class exams as a way to prevent AI usage.
 - o Show your work.
 - o Need to check whether their work involves AI generation
- Context dependent
 - o AI's effectiveness depends on the instructor's guidance and the type of learning involved
 - o The use of AI tools in teaching is course-specific and depends on the level of the course and the type of course: qualitative and quantitative.
- Grading support
 - o Summarization to support grading
- Policy guidance
 - o Expect related laws and regulations will soon follow

Use Cases for AI Integration into Teaching

- Built an AI chatbot for the course
- Used AI tool to generate pictures/videos with contents that fit course materials
- Helping create assessment questions, lesson planning, content creation.
- Enhance the clarity of assignment/project descriptions
- Support administrative tasks within advising
- Brainstorm on class activities correlate with a concept in teaching
- Help assess students' performance trend in real time
- Share a syllabus via NotebookLM that allowed students to 'have a conversation' with the content, parse the document for specifics, and generally better understand the course expectations in a clear summarized fashion
- Python code generation in Google CoLab
- Assessments based on verifying students understanding of a complicated concept
- Change assessment methods by incorporating using AI to get to the answer but not something students can just copy and paste from
- Use AI to demonstrate a use case in a marketing class
- The use of AI in creating a conversational syllabus to encourage students to read and review the syllabus carefully.
- The use of AI to accommodate different learning styles
- Students in MKTG 3110 have to use invidia.ai to develop a 30 second commercial. They are required to use the free version where it has watermarks across pictures as well as other guidelines required for it to be free.
- I have a policy in my syllabi that you have to cite all use of AI regardless of the program.
- AI to create new assignments and case studies
- Students should come up with the basic ideas and strategies themselves, while AI could assist in formatting and expressing their ideas.
- AI helped in creating visuals for presentations and improving slide design suggestions

- understand key aspects of a company
- AI to teach journal publications, allowing students to query and find answers within the articles
- have students use AI for peer feedback, with the AI providing initial feedback and students summarizing and expanding on it
- Create assignments and exams, ask questions to motivate students to think deeply and outside of box. context-specific
- Class activities that have students compete with AI
- AI tool to generate pictures with contents that fit course materials
- Helping create assessment questions, lesson planning, content creation. Having students use AI and then taking results and critically answering questions or create their own content.

Strategies for AI Integration into Learning

- Augment learning
 - o coding assistance
 - o I have used it to create comprehensive study guides.
 - o Generating self-assessment material
 - o If I'm struggling to learn something I'll have it explain it in various ways.
 - o Assist on problems that I am struggling to understand.
 - o I've been able to get ahead with learning information due to the in depth answers you can generate from AI.
 - o I think supports like study enhancement would be good for learning.
- Self-tutoring
 - o ..., instead of learning from them with interactive Q&A sessions
 - o Generate practice problems or examples, explore different approaches to understanding a concept
 - o I use it to study and it helps a lot. It's like having a personal tutor.
 - o By helping me to study by asking question
 - o integrating AI as a compliment to your regular studying routine can be helpful
 - o I think it is a great "manager" or "professor" since they aren't always available you can instead use the AI to quickly get an answer to a question you have about a particular topic or issue you can't resolve
- Information organization
 - o organizing information
 - o I have used it to generate project ideas or help organize info into more digestible parts.
- Study planning
 - o time management, making a study plan
 - o making a to do list and schedule is also really helpful
 - o It helps me efficiently manage my time and is a very useful tool for planning.
 - o I have entered in my notes or PowerPoints to help me prepare for exams by asking it to make me a study guide or practice quizzes and tests.
- Writing assistance
 - o anytime I have to submit a written response I always run it through an ai software to detect any mistakes.
 - o In the writing class before we used an AI tool that helped find articles that pertained to our topics

- o sometimes if I'm trying to write out a sentence and for some reason I'm not conveying a topic correctly I'll ask AI to help me write it out properly.
 - o I've used chatgpt to help with grammar on writing assignments
 - o I have used it to help create outlines for papers I am writing or to find sources to research.
 - o The ability to use AI for fixing grammar errors.
 - o Writing Support is something I use AI for a lot of the time
 - o using AI to edit their ad copy
- Research assistance
 - o I regularly use AI to help me come up with information related to stocks and financial research.
- Coding assistance
 - o Auto code-generation
 - o Studying and finding different answers, especially for python
 - o I use chatgpt when I am stuck with coding mainly.
 - o I use chatGPT to help me figure out what mistakes I make when I'm writing code and something that does not work.
 - o Python code analysis feedback on how to write the code
- Fact-checking/troubleshooting
 - o confirm information I may have been uncertain about
 - o we all use AI to help better troubleshoot
- Learn about responsible use
 - o Use it responsibly but not to do the work for you.
 - o I believe that we need to learn how to use it responsibly for learning purposes so that we are able to adjust and use it in our careers.
- Business applications
 - o Edit ad copy keywords, products, target channel
 - o Help identify target audience or customers

Final Thoughts

Despite the collection of use cases and SWOT analysis results, the faculty suggested that instead of waiting for a complete inventory of AI solutions, it's more practical to explore and apply AI in various functions of a business or business areas. The transformative effects of AI, particularly generative AI, compel us to consider how to best prepare the future workforce and to investigate processes that add value to the experience and outcomes of teaching and learning.

Cato College of Education

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Daniel Maxwell, Middle, Secondary, and K-12 Education

In collaboration with Beth Oyarzun, Ji Yae Bong, Anne Cash, Heather Coffey, Kyle Cox, Kristin Davin, Hilary Dack, Thomas Fisher, Tina Heafner, Ann Jolly, LuAnn Jordan, Scott Kissau, Victor Mack, Adriana Medina, Debra Morris, John Nance, Tisha Perkins Greene, Brad Smith, Bruce Taylor, Shawnee Wakeman, and Greg Wiggan

Introduction

The emergence of artificial intelligence (AI) and its recent proliferation in education spaces presents both opportunities and challenges for the field of education, necessitating thoughtful engagement from education professionals. The Cato College of Education is committed to preparing education professionals equipped with the knowledge and skills to navigate a rapidly evolving technological landscape where AI plays an increasingly significant role in teaching and learning.

To prepare faculty for navigating the complex issues surrounding AI's utility in teaching and learning, Cato College of Education Professor and Dean Malcolm B. Butler convened a series of faculty development workshops for Cato College of Education faculty and staff. Beginning during the Fall 2023 semester, these workshops sought to address and further investigate the questions surrounding AI's integration into education. This four-part faculty development series concluded with a listening session and faculty survey conducted on December 5, 2024, as faculty and staff discussed the considerations and implications of AI for teaching and learning.

The following report was generated in response to the Provost's call for the AI in Teaching and Learning Task Force to provide recommendations in the areas of philosophical approach to AI in teaching and learning, policy review, and faculty capacity building. This report contains a summary of the reflections and recommendations of 22 members of the Cato College of Education faculty, staff, and administration, gathered through participation in the four-part faculty development series conducted in December 2023, February 2024, October 2024, and December 2024.

Opportunities and Challenges

Artificial intelligence presents the field of education with a range of possibilities and notable challenges. Within the Cato College of Education, faculty, staff, and students must proactively consider complex questions surrounding academic integrity, data security, and responsible AI use to effectively prepare education professionals for environments that feature varying and rapidly evolving levels of AI integration. Some graduates will enter school districts or school environments where AI is actively used for planning, assessment, data analysis, or student support, while others may find themselves in environments where AI use is discouraged or restricted.

Navigating the evolving role of AI in education necessitates a balanced and adaptive approach. The Cato College of Education is committed to ensuring faculty and students critically engage with AI, recognizing

its potential benefits while remaining mindful of its limitations. This balance is essential to maintaining academic rigor, fostering ethical digital citizenship, and preparing educators for an increasingly AI-integrated future.

We recognize that AI has the potential to improve aspects of teaching and learning. AI-powered tools can assist educators with improving efficiency in administrative tasks, assisting with the development of instructional materials, and streamlining feedback processes. Students can also leverage these tools to generate timely, individualized feedback, enhance personalized learning experiences, and provide adaptive resources to support student preferences. AI tools can also facilitate exposure to unique perspectives, assisting students in analyzing a broad range of ideas and perspectives.

AI tools may also be leveraged to support individual student needs in many ways. For example, in educational research and evaluation, AI can support students in the coding processes required for advanced data analytics, making these skills more accessible to students. AI also enables educators and students to engage in activities that might otherwise be prohibitively time-consuming, such as analyzing large datasets, conducting simulations, generating case study resources, or synthesizing and summarizing extensive textual content.

We also acknowledge that, despite its advantages, AI integration in education also presents significant challenges. Data security remains a primary concern, as AI relies on large, often user-provided datasets that must be carefully managed to protect student privacy and institutional integrity. Additionally, biases and inaccuracies in AI-generated content require ongoing scrutiny to ensure educational resources produced through interaction with AI tools are accurate and reliable.

Academic integrity is another area of concern as AI-generated work complicates traditional understandings of academic principles like authorship and originality. At present, AI detection tools have limitations and may disproportionately impact specific groups of students, like multilingual learners.

We also acknowledge that, as AI tools may become increasingly adopted in administrative and policy-making capacities, risks are inherently present, and we must equip faculty and students with the knowledge and skills to address these risks. Given the aforementioned concerns of data security, student privacy, biases, and inaccuracies, the prospect of AI-driven decision-making in areas like student support, discipline, and instructional planning raises ethical concerns. Additional risks arise as these tools are considered for use in critical education processes—i.e., the creation of Individualized Education Programs (IEPs), teacher evaluations, or student assessments. Meticulous human oversight and the knowledge and skills to carry out that oversight are necessary to ensure AI tools are not used in ways that undermine the human-centered foundation of education.

Further, the long-term impacts of AI on cognitive development remain uncertain, and as students increasingly leverage AI for learning and problem-solving, educators must critically consider its potential influence on the development of critical thinking skills, creativity, and intellectual agency. Additionally, unresolved questions about content ownership and copyright add complexity to concerns about AI's integration in education.

Supports Needed

To ensure the effective integration of AI for teaching and learning, we recognize strategic steps that must be taken in support of faculty, staff, and students. Ongoing professional learning experiences are essential to ensure faculty remain informed about AI advancements and best practices. Clear communication regarding available AI tools, campus-wide enterprise agreements, and security protocols further ensures alignment with ethical and legal responsibilities. Additionally, frequently and consistently gathering input from key stakeholders—faculty, staff, students, district, and community partners—will be critical in shaping AI policies and institutional practices in effective, responsive ways.

Systematic evaluation of AI's impact on teaching and learning over time must also be prioritized. For example, regular surveys of students and faculty can be leveraged to monitor AI's integration and effectiveness while identifying emerging challenges. Further, ensuring that AI integration is aligned across the curriculum will provide students with consistent expectations and clear guidance. However, faculty and student agency must be maintained when considering curriculum alignment and integration, allowing educators the flexibility to personally determine whether and how they integrate AI into their teaching and learning while remaining responsive to an institutional culture of encouraging AI literacy and ethical engagement.

Policy Considerations

Institutional policies related to AI must balance considerations of accessibility, security, and ethical responsibility. Transparent communication about AI tools available to campus users through institutional agreements will help faculty, staff, and students make informed decisions regarding AI integration for teaching and learning. Course syllabi should also include guidance on AI use, including ethical considerations, security measures, and appropriate citation practices. Furthermore, policies must accommodate a range of AI adoption preferences, preserving faculty agency to choose whether and to what extent to incorporate AI in their courses.

Given AI's increasing role in both teaching and learning, standardized citation guidelines should also be developed and clearly communicated to ensure proper attribution and transparency. Aligning these institutional policies with recognized publication standards will support academic integrity and consistency across disciplines.

Philosophical Approach

We advocate for a thoughtful approach to integrating AI in teaching and learning, recognizing it as a tool that can support, but not replace, human judgment. Teaching and learning are fundamentally human endeavors built on relationships, emotional intelligence, and professional expertise that artificial intelligence cannot replicate. AI should, therefore, be positioned as an aid to education, supplementing creativity and critical thinking while reinforcing rather than replacing the essential value of human insight. This philosophical approach calls for the continuous evaluation and identification of the human elements of teaching and learning we most value so we can preserve these human values while leveraging AI tools as a support for teaching and learning.

Furthermore, we call for an active research agenda that explores AI's impact on education and student learning outcomes over time. As the Cato College of Education is responsible for preparing education

professionals with the knowledge and skills necessary to navigate an ever-changing landscape of education technology, our faculty must remain informed with research-driven insights into the benefits, concerns, and impacts of AI tools, especially as these tools evolve in education spaces over time. Implementing procedures to gauge AI use amongst students and faculty can help ensure institutional policies and pedagogical strategies remain informed by and responsive to the evolving knowledge of these tools and their utility in teaching and learning. As AI continues to develop and proliferate in education spaces, education professionals must remain open to learning about its capabilities while critically evaluating its impacts and limitations.

Building Faculty Capacity

Faculty development initiatives should aim to ensure all instructors have a foundational knowledge of AI and its educational applications and implications. Training opportunities should be designed to meet varying levels of AI familiarity and adoption amongst faculty. While some faculty may choose not to integrate AI into their teaching, these faculty should still have access to information about its potential benefits and challenges to continue to make informed decisions.

Engaging faculty who are reticent to use AI for teaching and learning practices is also essential to fostering an informed approach to AI literacy across campus. To that end, faculty development efforts should prioritize critical reflection, not simply the promotion of increased adoption. One faculty member articulated this concern by sharing, “I believe the push is for greater use, not critical reflection on its use.” This perspective underscores the necessity of creating learning environments where faculty feel encouraged to explore AI with skepticism, curiosity, and critical consideration of pedagogical integrity rather than mere technological integration. Incorporation of structured discussions, workshops, and interdisciplinary collaborations can support faculty knowledge of AI and its potential utility for teaching and learning while ensuring AI integration remains a reflective, intentional process rather than an expectation.

Concluding Thoughts

AI introduces both opportunities and challenges for education, and as AI becomes increasingly present in the lives of those served by the Cato College of Education, two questions consistently arise:

- How can we leverage AI’s capabilities while maintaining responsible and ethical use in education?
- How do we equip students with the knowledge and skills to navigate an increasingly AI-driven future while respecting faculty agency in AI adoption for teaching and learning?

In consideration of these questions and how responses to these questions will continue to evolve over time, we advocate for a thoughtful approach to AI integration for teaching and learning, seeking to balance innovation with critical consideration. Through informed policy development, professional learning opportunities, and ongoing evaluation of AI integration efforts, we can prepare faculty and students to navigate an AI-integrated educational landscape while upholding the integrity of education. By fostering a commitment to reflective practice, the Cato College of Education and UNC Charlotte can serve as a model for the responsible and ethical integration of AI for teaching and learning.

College of Arts and Architecture

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By: Mona Azarbayjani, Architecture

Introduction

As computing continues to shape the future of education, creativity, and civic life, artificial intelligence (AI) is rapidly transforming how we generate, interpret, and interact with knowledge. Across higher education, AI is not only altering tools and workflows—it is also challenging the fundamental values, pedagogies, and epistemologies that define entire disciplines. Within the College of Arts + Architecture (CoA+A) at UNC Charlotte, this moment invites both urgency and opportunity.

CoA+A—comprising five distinct academic units: the School of Architecture and the Departments of Art & Art History, Music, Theatre, and Dance—is uniquely positioned at the intersection of design, performance, critical humanities, and the built environment. The College embodies a culture of making, thinking, and performing that bridges tradition and innovation, theory and practice, individual expression and collective impact. In this context, AI presents complex questions: How do we prepare students for creative futures shaped by machine intelligence? How do we preserve and evolve the embodied, experiential, and material knowledge that defines our disciplines? And how do we ensure that emerging technologies reflect human values, cultural nuance, and inclusive design?

AI is not merely a set of tools to be adopted, but a new cultural and technical paradigm that demands critical and intentional engagement. While some applications may enhance efficiency or extend creative practice, others may pose risks to authorship, authenticity, equity, and access. CoA+A faculty and students are already engaging with these tensions through experimentation, skepticism, and curiosity—exploring AI in generative design, spatial computing, music and movement analysis, visual storytelling, and performance-based installations.

In response to the charge from the Provost and the University AI Task Force, this report offers a snapshot of the current state, aspirations, and concerns around AI across the College. Drawing from faculty feedback, student perspectives, pilot initiatives, and national models, the report proposes a strategic framework for ethical, innovative, and discipline-specific integration of AI into CoA+A's teaching, research, and creative practices. It also reflects the College's commitment to leading with imagination and integrity as we navigate the changing technological landscape together.

Understanding the Landscape

To inform this report, the CoA+A AI Task Force conducted a comprehensive survey of faculty across all five units between November 2024 and February 2025. The survey aimed to gather qualitative and quantitative insights into current AI use, perceived challenges, opportunities, and future needs.

A total of 85 faculty were invited via a standardized email message, with 48 responses received, representing all departments: Architecture (12), Art & Art History (11), Dance (7), Music (10), and Theatre (8).

The survey included a mix of Likert-scale, multiple choice, and open-ended questions across six key areas:

- Current use of AI in teaching, creative practice, or research
- Perceived benefits and risks of AI integration
- Institutional and ethical concerns (e.g., authorship, data privacy)
- Professional development and training needs
- Student preparedness and engagement with AI tools
- Infrastructure, access, and interdisciplinary collaboration

Responses were analyzed for recurring themes and variations across disciplines. The findings provided a foundation for the challenges, unit-specific summaries, and recommendations detailed in this report. The Task Force also consulted existing AI reports from peer colleges at UNC Charlotte and reviewed national models, including Yale's School of Architecture and Art reports, to inform our interdisciplinary framing.

The Convergent + Divergent Framework

In the College of Arts + Architecture (CoA+A), we recognize that creative practice thrives at the intersection of convergent and divergent thinking. Our disciplines—ranging from architecture and urban design to visual art, music, dance, and theater—demand both precision and imagination, logic and spontaneity.

Convergent approaches involve applying analytical methods, structured tools, and technical workflows to solve complex problems. In this domain, AI can assist in areas such as:

- Environmental and performance simulations
- Spatial and structural optimization
- Music composition and notation support
- Script formatting and documentation
- Data-driven urban analysis

Divergent approaches emphasize experimentation, ambiguity, and open-ended exploration. Here, AI serves as a creative partner for:

- Generative design and choreography
- Sonic manipulation and experimental composition
- Digital image-making and multimedia storytelling
- Improvisational practices and speculative narratives

Our goal is not to replace the embodied intelligence, material knowledge, or cultural insight that define our work—but to critically examine how AI can augment, challenge, and reframe our creative processes. By doing so, we position CoA+A as a leader in shaping inclusive, ethical, and artistically rigorous uses of artificial intelligence.

Unit Snapshots

School of Architecture

Architecture has long been a laboratory for computational experimentation, from CAD to generative design. AI's emerging role includes:

- Generative tools for massing studies, code parsing, and environmental simulations.
- Faculty-led coursework on machine intelligence and spatial design.
- Student-led experimentation with tools like ComfyUI, Midjourney, and RunwayML.
- A need for domain-specific platforms, as general-purpose AIs lack the precision required for professional application.

Department of Art & Art History

The Art Department is witnessing early, experimental use of AI in visual studies, with emphasis on:

- Ethical authorship and appropriation debates in generative image-making.
- Creative coding and AI art workshops.
- Student projects using Stable Diffusion and custom datasets.
- A growing interest in community dialogue around machine learning and aesthetics.

Department of Dance

Dance faculty and students are exploring AI through embodied technologies:

- Motion capture analysis and machine choreography.
- Discussions on body data, surveillance, and expressive autonomy.
- Collaboration opportunities with computing and engineering for movement-based interfaces.

Department of Music

Music is integrating AI in both compositional and theoretical domains:

- AI-assisted composition using tools like AIVA and Google Magenta.
- AI-aided analysis for counterpoint, theory instruction, and improvisation.
- Ethical discussions about the limits of machine-generated sound in live performance.

Department of Theatre

Theatre raises unique questions about narrative, performance, and liveness:

- AI-generated scripts and dialogue tools are being tested in playwriting.
- Virtual actors and avatars raise pedagogical questions about embodiment and empathy.
- Faculty interest in cross-disciplinary AI storytelling and dramatic theory.

Findings

AI's Emergence in the Arts + Design Ecosystem

AI is steadily finding its place within CoA+A, driven by a mix of curiosity and creative ambition. In the School of Architecture, faculty leverage AI for parametric design and energy modeling, optimizing building performance, while students push boundaries with generative visualizations of dystopian cities. The Department of Art & Art History sees artists training neural networks on personal archives, producing works that interrogate surveillance, agency, and identity with conceptual depth and technical complexity. Music faculty use AI to compose polyphonic sketches or sonify climate data, creating sound installations that resonate across disciplines. Theatre tests virtual characters in devised performances and explores AI for script generation, while Dance reimagines choreography as a dialogue between human movement and machine analysis.

Though the scope and intensity of these efforts differ across units, they signal a growing momentum. Faculty and students alike are eager to explore AI's possibilities, but they also recognize the need for a critical framework to guide this work. A common language for collaboration and clear ethical boundaries are essential to ensure that AI enhances rather than overshadows our creative practices.

Case Studies of AI in Practice

To illustrate AI's impact, consider a graduate architecture studio that used Midjourney to generate speculative urban forms, later refining them with Rhino and Grasshopper for structural feasibility. The project showcased AI's ability to inspire novel ideas, but it also revealed limitations in meeting building codes, highlighting the gap between creative exploration and professional application. In Art & Art History, a senior seminar trained a neural network on historical portraits, producing distorted outputs that students analyzed through a postcolonial lens, blending technical skill with cultural critique. In Dance, a faculty-student collaboration paired motion capture with AI to generate choreography, performed alongside human dancers. Audience reactions underscored the tension between machine precision and human nuance, sparking rich dialogue about embodiment. Music took a different approach, with a composition course using AI to sonify climate data, resulting in an immersive installation that drew interest from environmental science colleagues. Theatre explored AI as a playwright, feeding classic scripts into a model to generate new scenes, which students then edited—positioning AI as a collaborator rather than a sole creator.

Challenges and Concerns

Faculty across CoA+A voiced significant concerns about AI's integration. Many fear it could erode the slow, iterative, and embodied learning processes foundational to our disciplines—studio critiques, rehearsals, and material exploration that demand time and human refinement. There's unease about originality and authenticity, particularly as AI-generated content complicates grading, critique, and academic integrity. Faculty worry that students might bypass genuine learning by relying on AI outputs, undermining the development of critical skills.

Equity is another pressing issue. Not all students have access to high-end devices or subscription-based AI tools, creating disparities in engagement and opportunity. Faculty also see a cultural responsibility to critique the technologies we adopt, resisting tools that might reinforce biases—racial, gender, or otherwise—or infringe on privacy and commodify creative labor. These tensions reflect a broader anxiety about losing the human essence of our work to automation.

Opportunities

Despite these challenges, AI offers transformative potential. It enables rapid iteration, allowing students to explore dozens of design or performance variations in hours rather than weeks, accelerating creative discovery. In the hands of artists and performers, generative models inspire hybrid forms—AI-augmented dance, glitch-art operas, or speculative theatre—that challenge convention and expand aesthetic horizons. Perhaps most exciting is AI's ability to foster interdisciplinary dialogue, bridging CoA+A with fields like computing, history, and engineering. Projects like smart architecture or interactive installations could thrive in this space, preparing students for emerging creative industries such as game design and virtual production.

Recommendations

A Strategic Framework for Integration

1. Create an AI Literacy Program
2. Establish an Ethical Use Framework
3. Support Faculty Pilot Projects
4. Develop an AI Studio Lab

To harness AI's potential while addressing its challenges, CoA+A must adopt a proactive and principled approach. First, we should create an AI literacy program to equip faculty and students with the knowledge to use AI critically and creatively. This initiative could offer workshops on tools like Midjourney, RunwayML, and TensorFlow, tailored to our disciplines, with modules on ethics, bias detection, and environmental impact. Partnering with UNC Charlotte's Data Science Initiative could provide technical expertise, ensuring participants understand both AI's possibilities and its limitations through hands-on learning.

Equally important is establishing an ethical use framework to guide AI's integration. Discipline-specific guidelines on authorship, attribution, and acceptable student use would emphasize transparency and academic integrity while allowing for creative experimentation. A CoA+A AI Ethics Committee could review these policies annually, and student-led forums could help shape them collaboratively, ensuring they reflect our community's values and needs.

Supporting faculty innovation is another key step. Offering seed funding or microgrants—say, \$5,000 for 5-10 projects annually—could spark projects like an AI-driven soundscape for a theatre production or a generative art installation critiquing surveillance. Sharing these pilots through an internal symposium would create a feedback loop, fostering collective advancement and building a repository of best practices.

A dedicated AI Studio Lab would further this work by providing a physical and digital space for interdisciplinary exploration. Equipped with GPUs, motion capture systems, and software like Unity and Max/MSP, this lab could lower barriers to experimentation. A digital platform for sharing datasets, code, and tutorials, staffed by a part-time AI specialist from CoA+A or the College of Computing and Informatics, would enhance accessibility and collaboration across units.

Subsidizing software licenses and providing loaner laptops with AI capabilities through CoA+A funds, in partnership with IT, would ensure all students and faculty can participate. Assessing AI's carbon footprint and prioritizing sustainable tools would align with our commitment to ethical practice, mitigating environmental risks alongside social ones.

Fostering interdisciplinary partnerships could amplify AI's impact. Joint projects with CCI—such as AI for interactive installations—or with Geography for urban data visualization could enrich our work. Inviting guest lecturers from industry leaders like Epic Games or Autodesk would inspire cross-pollination, and proposing a university-wide AI + Arts minor could formalize these connections, preparing students for hybrid careers.

Finally, integrating AI into our curriculum would embed it as a core competency. Adding AI modules to courses like "Digital Tools" in Architecture or "New Media" in Art, developing a new elective like "AI in

Creative Practice” open to all majors, and requiring a capstone project with an AI component for seniors by 2027 would ensure graduates are both AI-literate and market-ready.

Implementation Roadmap

To bring this vision to life, we propose a three-year roadmap. In Year 1 (2025-2026), the fall semester would focus on launching the AI Literacy Program with initial workshops and forming the Ethics Committee. In Spring semester, we could announce pilot project grants and begin planning the AI Studio Lab, culminating in the final half of the spring semester going to summer with the first AI Symposium and finalized ethical use guidelines.

Year 2 (2026-2027) would build on this foundation. The fall semester would see the AI Studio Lab open and equity initiatives rolled out, ensuring broad access. The spring semester would expand interdisciplinary partnerships and pilot AI curriculum modules, while the end of spring semester would involve evaluating progress through faculty and student surveys, refining strategies based on feedback.

In Year 3 (2027-2028), the focus would shift to scaling and sustainability. The fall semester would scale successful pilots college-wide and propose the AI + Arts minor to the university. The spring semester would assess long-term impacts on teaching, research, and creative output, setting the stage for ongoing innovation.

Conclusion

AI is not a monolith—it is a dynamic force that CoA+A can shape to reflect our values of creativity, critical inquiry, and community. By embracing its convergent strengths for precision and its divergent potential for experimentation, we can redefine how arts and architecture intersect with technology. This report lays the groundwork for a proactive, ethical, and innovative approach, ensuring that CoA+A remains a beacon of imagination in an AI-driven world. As we move forward, our commitment to leading with integrity will guide us, balancing the promise of machine intelligence with the enduring power of human creativity.

College of Computing and Informatics

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Mohsen Dorodchi, Computer Science

Overview

The College of Computing and Informatics (CCI) of UNC Charlotte considers the advancement in AI technologies and particularly Generative AI (genAI) as a great opportunity to help our learning community.

Predictive AI through machine learning and visualization has been taught and researched at CCI for a long time. Built on foundations of computer science, AI technologies have been revolutionized since the invention of Deep Learning followed by transformers and the Generative AI and it has been of the central point of attention at CCI as well. CCI has set up teaching and research high performance computing which provides the bed to process huge amounts of data in a short amount of time using deep learning.

Such advancement has been adopted by all leading AI industries. Since the data is abundantly available through all sources of the internet, through the process of self-supervised learning the models are generated (pre-trained) using the self-attention mechanism on vast amounts of available data by companies like OpenAI or Google. This mechanism helps the model understand context and relationships between words and eventually the language structure and semantics to be able to further generate words and sentences. During the training, since large datasets may contain inaccuracies or biases, the model may encounter ambiguous or conflicting information. This may result in generating incorrect responses which is usually referred to as “hallucination”. The hallucination can be reduced significantly through improving training data, enhanced fine-tuning (e.g., reinforcement learning), and post-processing to validate the generated information. Considering the above circumstances, CCI has been working on development of customized models and fine-tuning techniques above traditional utilization of the large language models through web interfaces.

Therefore, while genAI tools are providing enormous benefits to reduce certain amount of labor work in project development and learning, proper utilization of them requires a solid foundation and education.

In general, the overall consensus at CCI is to pay attention to these foundations and provide AI literacy to our students through covering all the foundational knowledge in computational thinking and reinforce proper utilization of AI in different courses through diverse forms of assessments such as oral presentation, code explanation, and classic paper and pencil tests.

Furthermore, students coming with a strong background of computational thinking and exposure to AI literacy and AI models, will need advanced teaching and learning methods demanding for professional development, continuous dialogue amongst the faculty presenting best practices and challenges.

The college instructors have been applying different forms of AI in their teachings including creating on the fly quizzes based on lectures and/or materials students need additional help with, creating different examples of wrong and right results when using AI improperly.

Furthermore, CCI is in the process of creating new undergraduate and graduate (masters) degrees in AI offering additional advanced courses in AI preparing our graduates for the future workforce.

The following themes are extracted from the focus group discussions as well as survey questions. Moreover, a panel discussion by industry experts confirms the themes. Appendices A and B include more details on the extracted themes. In particular, the extracted themes from the industry panel underscore the transformative impact of AI across different industries, the need for robust governance, and the essential skills required to navigate this evolving landscape.

Extracted Themes

1. **Defining responsible AI use:** Participants in the discussions emphasized the importance of defining responsible AI use within their disciplines. The definition of responsible AI use should consider privacy and fair use of tools. It was also noted that a responsible AI framework should be flexible and fluid because of the shifting nature of emerging technology.
 - The "we" (CCI's administration, faculty, students, professionals), the specific course, the learning objectives, and the stage of the student's development. A one-size-fits-all policy is deemed inappropriate.
 - Therefore a Responsible AI Framework should consider individual faculty autonomy and flexibility at the course level, with guidance from our discipline specific professional and ethical guidelines, and university privacy and protection guidelines.
 - AI tools continue to rapidly advance, so currency and adaptability are essential to any policy making group.
 - Need for Clear Guidelines and Expectations: Both faculty and students need clear guidelines on appropriate AI use. This includes specific examples, prompts, and contexts for different learning scenarios.
2. **Impact on student learning:** A central theme revolves around how AI impacts student learning. Some worry that over-reliance on AI, particularly at the introductory level, could hinder the acquisition of essential skills. The overuse of AI might prevent students from acquiring certain skills. Participants also discussed how to leverage AI to amplify and deepen students' knowledge.
3. **AI as a tool vs. impediment to learning:** The core concern is distinguishing between AI as an assistive technology that enhances learning and AI as an impediment that prevents students from acquiring essential core skills.
4. **Learning the basics of AI for all:** Participants agreed on students needing to learn the basics, but they also acknowledged the challenge of agreeing on what those basics are. For CCI, the basics include logic and algorithms, programming constructs and syntax, and synthesizing and implementing algorithms using programming languages.
5. **Emphasis on critical thinking and problem-solving:** The discussion highlights the importance of critical thinking and problem-solving skills, which are crucial for evaluating AI outputs and applying them effectively in real-world scenarios. The faculty noted that students can easily use AI for summarization but struggle to add value or derive actionable steps from the AI-generated information.

6. **Concerns and opportunities for bridging the gap between academia and industry:** Given the evolving expectations of industry regarding AI skills, CCI needs to understand how to prepare students for foundational learning and the industry priority of efficiency and the use of available tools.
 - The new questions: what value does a CCI degree offer to entry level job seekers, how will career paths shift and how can education keep pace?
 - Core learning objectives still center on critical thinking and problem solving.
7. **Preparing students for the workforce:** The discussions also covered how to prepare students to use AI as a tool in their future careers. Employers expect graduates to be able to leverage AI. There was also a suggestion to have ongoing feedback from industry partners to align learning with workforce needs.
8. **Need for contextual consideration:** The sources emphasize the necessity for contextual consideration when using AI tools in the classroom. The use of AI tools needs to align with the teaching objectives. Whether to allow or prevent the use of AI should depend on what students need to know and be able to do.
9. **Transparency:** Transparency regarding the use of AI is another key theme. Students should be aware of how AI contributions stop and their own novel contributions begin.
10. **Faculty training and support:** Some sources highlight the need for faculty training and support in using AI tools effectively. Faculty members need training to teach students how to frame their expectations and what the correct answer is.
11. **Curriculum adaptation:** Discussions included the need to adapt curricula to incorporate AI, and to re-evaluate what skills and knowledge are essential for graduates. Integrating AI and digital literacy into every class, regardless of the subject, was suggested as part of a university framework. There is a question of whether graduates need to know how to code as much.
12. **Reinforcement strategies:** The groups discussed various strategies to reinforce responsible AI use, including:
 - Code reviews and analysis, potentially aided by AI tools.
 - Oral explanations of code.
 - Demonstrating how AI can generate overly complex solutions for simple problems.
 - Providing examples of effective prompts for different learning objectives.
 - Teaching students how to critique AI outputs.
13. **New assessment methods:** The focus groups also discussed how AI necessitates new methods of assessment. Suggestions included oral exams and problem-solving tasks. It was noted that assessments should promote problem-solving skills related to real-world problems.
14. **Ethical considerations:** Ethical considerations, such as privacy and misinformation, were also recurring themes.

CCI Appendices

Appendix 1: Direct Findings and Recommendations

Through faculty surveys and focus groups (also participated by a few staff members), the following direct recommendation were identified as well:

1. **What needs to be considered, promoted, and taught to students using AI in their learning, in general and specifically as a computer science student?**

Many respondents emphasize the need for critical thinking, problem-solving, and responsible AI use, suggesting that students be taught to use AI as a tool to enhance these skills. Several respondents advocate for incorporating AI into all courses, using it for tasks like writing and checking code, creating reports, and enhancing communication skills.

Specific recommendations for computer science students include responsible coding with AI, debugging, testing, and ethical system design. There is also a strong emphasis on understanding how AI works, its limitations, and the potential for bias. Many respondents believe that students should learn to solve problems without AI before using AI to solve the same problems.

2. **How have you used genAI in your teaching, and how may you want to use it in the future?**

Faculty are using genAI in various ways, including:

- Debugging and code completion
- Generating content for presentations and assignments
- Improving communication
- Creating summaries and visual aids
- Facilitating student discussions and debates about AI
- Providing feedback on programming assignments
- Automating workflows
- Analyzing biological datasets
- Exploring genomic patterns
- Creating personalized learning paths

Future uses include incorporating AI into adaptive assignments, exploring domain-specific applications, and teaching students how to use AI to improve their coding skills.

3. **What opportunities do you think there are to facilitate teaching and learning emphasizing AI as a partner in learning rather than a replacement?**

Respondents see opportunities in:

- Fostering collaboration between students and AI, where AI handles tasks like coding or data analysis, freeing students for higher-level thinking and interpretation.
- Using AI-powered feedback to provide personalized insights to students.
- Encouraging students to critique and improve AI-generated outputs.
- Creating assignments that require students to use AI in conjunction with their own knowledge and skills.

- Bringing in experts and employers to demonstrate real-world AI applications.
- Providing faculty with professional development opportunities to learn how to effectively integrate AI into their teaching.
- Considering responsible and ethical AI across the curriculum, can you make recommendations for students that align to UNC Charlotte's mission and commitment?

Recommendations for students are to focus on the following items:

- Using AI responsibly and ethically.
- Critically evaluating AI outputs.
- Ensuring accuracy, bias mitigation, and proper attribution.
- Promoting transparency in AI use.
- Respecting privacy and intellectual property.
- Adhering to ethical standards across disciplines.

4. What considerations do we need to pay attention to as educators related to utilizing genAI in teaching and learning?

Considerations include:

- Developing guidelines for ethical AI use.
- Addressing data privacy concerns.
- Maintaining academic integrity.
- Encouraging critical thinking and evaluation of AI outputs.
- Adapting assessments to address the use of AI.
- Providing professional development for faculty.
- Warning students about the real-life consequences of unethical or illegal AI applications.

5. What specific types of support, including AI professional development and training, would be most helpful to you for your teaching, research, and committee services?

Faculty request support in:

- Understanding AI capabilities.
- Developing assignments that utilize AI.
- Integrating AI into teaching and research.
- Accessing AI tools and resources.
- Sharing best practices and experiences.

6. What areas of collaboration should we consider as a college?

Suggestions for collaboration include:

- Creating resources for instructors and students on ethical and responsible AI use.
- Providing guidelines and examples for using AI in coding and writing assignments.
- Developing strategies to check the originality of student work.
- Collaborating with other colleges and industry partners to address real-world challenges using AI.
- Using AI to create digital assets for games and UI development.

Additional thoughts include:

- The need for a systematic approach to integrating AI into the curriculum.
- The importance of building a culture of responsible AI use among faculty, staff, and students.
- The need for ongoing discussion and adaptation as AI technology evolves.

7. To summarize, what should be the goals for our college?

Overarching goals include:

- Integrating AI into education.
- Educating educators and students on the responsible use of AI.
- Building AI literacy.
- Preparing students for the ethical use of AI in their future careers.
- Proposed strategies for achieving these goals include:
- Creating a college task force or leveraging existing learning communities to facilitate collaboration.
- Developing core curriculum AI orientation modules.
- Requiring responsible AI adoption as a learning partner.
- Sharing successes and failures with AI integration through workshops and presentations.
- Focusing on student learning outcomes related to AI knowledge, application, and responsible use.

Appendix 2: Summary of Industry Panel Notes on March 25, 2025

Panelists:

- Kate Forbes [CIO at CAI], Jamie Robles [Global Technology Executive]
- Vamsi Tirnati [CIO/CTO at Armstrong Transportation Group]
- Chris Gerblich [CIO at Kaplan Early Learning Company]
- Moderator: Sharon Jones, Founder The Dot Consulting and the Dottie Rose Foundation

1. Accelerated Analysis and Efficiency when using AI in different business sectors:

- The acceleration of analysis, providing more time for critical and creative business thinking.
- AI's role in healthcare, improving nurse efficiency and reducing doctors' "pajama time" (after hours chart updates) through sentiment analysis and ambient AI (via note taking during patient visits).
- Enterprise solutions in the logistics/transportation industry, in its current state of low automation, in need of trustworthy AI tools behind a secure wall, for shipment tracking on a large scale that the competitors cannot see.
- Increased personal productivity with AI tools in call centers, enhancing efficiency without reducing customer service headcount.

2. AI Integration in Various Sectors:

- AI's application in healthcare for sentiment analysis and note creation.
- Logistics, where AI is catching up in shipment tracking and relationship management.
- AI's role in call centers, transcribing conversations and crafting email responses.

3. AI Governance and Ethical Considerations:

- The panel discussed the importance of AI governance, regulation, and education.
- Concerns about IP issues and model drift were raised.

4. Workforce Skills Needed:

- The intersection of creativity and knowledge was discussed, along with the skills needed for effective AI integration, such as curiosity, adaptability, and critical thinking.
- Agility: Employees need to explore solutions and need to be able to cycle through trial and error more quickly than in the past.
- Training in AI prompting and applying a critical lens to what is produced is needed.
- Consider who you are designing solutions for to address specific needs- don't simply throw solutions over the fence.
- Best quote: Don't cede your intelligence to the machine.

College of Health and Human Services

Survey Results on Faculty Perspectives on AI Use in CHHS

By Lufei Young, Nursing

Background

Introduction

Artificial Intelligence (AI) refers to computer systems that mimic human intelligence by learning from data, recognizing patterns, and making decisions. It plays a growing role in society, shaping industries, education, and daily life by powering technologies like chatbots, self-driving cars, and medical diagnostics. In universities, AI raises concerns about academic integrity, as students may misuse it for plagiarism or over-rely on it, diminishing critical thinking. Faculty face challenges in AI literacy and integration, with inconsistent policies creating confusion about responsible use. Additionally, AI poses privacy risks with sensitive data exposure and may widen inequalities, as some students have greater access to advanced AI tools than others.

As AI evolves, universities must navigate regulatory compliance and remain proactive in adapting policies to emerging technologies. In the Fall of 2024, Provost Jennifer Troyer convened a task force to explore AI use and concerns among faculty. The University of North Carolina Charlotte established an Artificial Intelligence (AI) Faculty Task Force to ensure AI's responsible and effective integration in teaching and learning.

The Provost tasked Deans and faculty members with forming a multidisciplinary AI task force to explore opportunities and challenges, ultimately shaping policies that promote fairness, transparency, and inclusion. Recognizing AI's broad impact, the task force fostered cross-departmental collaboration, bringing together expertise from computer science, healthcare, business, and the humanities. The insights gained will guide the development of clear policies and research initiatives, positioning UNC Charlotte as a leader in AI education and innovation. The university is enhancing its reputation as a hub for technological advancement and academic excellence by championing ethical AI use, academic integrity, and responsible adoption.

Gaps in Current AI Use

The integration of Artificial Intelligence (AI) in higher education for health professionals is rapidly expanding, offering new opportunities to enhance teaching, learning, and research. AI applications in this domain include personalized learning, automated grading, simulation-based education, clinical decision support, and administrative efficiencies. Despite these advancements, the adoption of AI in health education is not without challenges. Concerns about data privacy, academic integrity, faculty preparedness, and the potential for AI to replace human judgment remain critical considerations.

Purpose Statement

The purpose of the individual interviews was to explore faculty perceptions, experiences, and challenges regarding AI integration in College of Health and Human Services (CHHS). Through qualitative interviews with faculty members, the project seeks to identify key themes surrounding AI use, concerns, and

opportunities. Ultimately, the findings will inform policy recommendations and the development of a framework to support AI literacy and responsible AI implementation in health service education.

Methods

The interview process was conducted between November 2024 and March 2025, engaging faculty members from each unit within the College of Health and Human Services (CHHS). The sampling method employed a two-block randomization approach, using computer-generated numbers to ensure a balanced and representative selection. A total of 93 faculty members were invited via a standardized email script (CHHS Section, Appendix 1), with 46 agreeing to participate and 45 completing the interviews. These participants represented a diverse range of departments, including Applied Physiology, Health and Clinical Sciences (7), Epidemiology and Community Health (7), Health Management and Policy (5), the School of Nursing (11), the School of Social Work (13), and Alumni Engagement (2).

Each interview ranged from 15 to 75 minutes and followed a standardized interview guide (CHHS Section, Appendix 2) to ensure consistency and depth in discussions. The guide focused on six key topics:

- 1) Defining responsible AI use in health professional education.
- 2) Personal experiences with AI integration.
- 3) Challenges and barriers to AI adoption.
- 4) Faculty development needs for AI literacy.
- 5) Student learning outcomes associated with AI.
- 6) Faculty needs and institutional resources for responsible AI use.

The project process was extensive, encompassing 45 individual interview sessions, generating more than 500,000 words of session notes, and requiring 100+ hours dedicated to planning, interviewing, synthesizing findings, drafting, revising, and finalizing the report. Multiple rounds of revision and refinement were conducted to ensure clarity and accuracy. Additionally, collaboration with other colleges helped shape overarching general guidelines to align AI integration strategies across disciplines.

Findings

Overall Faculty AI Adoption Spectrum

CHHS faculty exhibit varying levels of AI adoption, literacy, proficiency, and resistance. Approximately 15% are classified as “Innovators”, who are highly enthusiastic, proactive in exploring AI tools, and frequently participate in pilot programs. Another 15% fall into the “Early Adopters” category, showing openness to AI integration after recognizing its potential benefits and often influencing their peers. Around 15% belong to the “Early Majority”, who are more cautious and require evidence of AI’s effectiveness before adoption, relying on clear guidelines and peer experiences.

The “Late Majority”, making up 22%, seek best practices based on existing evidence, expect institutional policies, and require substantial support and training before adopting AI. Meanwhile, about 33% are classified as “Cautious Adopters”, who avoid AI unless mandated due to significant concerns about its long-term impact on healthcare professional education. They prioritize ethical considerations and environmental safety above all. Some are actively opposing AI adoption due to ethical concerns, fears of job displacement, negative personal experiences, or the belief that the potential harms of AI outweigh its benefits.

While there is notable enthusiasm among Innovators and Early Adopters, a significant portion of faculty remains hesitant or resistant. This highlights the need for targeted training, policy development, and structured support to facilitate responsible and effective AI integration in health service professional education.

Themes Identified

Faculty members shared concerns about AI's ethical use, data privacy, academic integrity, faculty training, and its impact on student learning outcomes. The primary focus areas include establishing institutional policies, enhancing AI literacy among faculty and students, and ensuring AI serves as a tool to enrich education rather than diminish critical thinking and creativity. Based on thematic analysis of the interview transcripts, the following key themes emerged (CHHS Section, Appendix 3):

1. Define AI Responsible Use

1.a. Subcategories: Ethical Considerations

The responsible use of AI is a significant concern, particularly in healthcare and social services. Faculty members are worried about students entering sensitive patient information into AI tools for drug recommendations, which raises ethical and legal concerns (APHCS02). There is also a broader fear that biased health data input into AI will lead to perpetuating systemic racism and inequities (HMP02).

To address these challenges, the task force is working on establishing a common ethical framework for AI use, ensuring that its application aligns with professional codes of ethics such as those from the National Association of Social Workers (SSW01). Another concern is that students and faculty should not be required to create AI accounts (such as ChatGPT) if they are uncomfortable using them (SSW01). For example, Gemini is integrated into Google Suite, raising serious concerns about FERPA compliance (ECH06).

1.b. Subcategories: Data Privacy and Security

Privacy concerns are a major issue when using AI in education. Faculty members have highlighted the risk of breaching FERPA and HIPAA regulations when using AI tools that handle student or patient data (HMP02). Additionally, students need to be aware that any data they submit to AI tools may no longer be private (SON01).

There are concerns regarding academic integrity and intellectual property, where students and faculty members' research and written work might be at risk of unauthorized use or plagiarism once entered into AI systems. AI tools are also being used in everyday life without users realizing, including in HR screening, banking, personal data tracking, the entire Google Office suite, and Zoom (SON04 and ECH06). Faculty members emphasize the need for training on privacy risks to ensure that AI tools do not compromise sensitive information.

1.c. Subcategories: Accountability

A recurring theme in AI discussions is proper attribution when AI tools are used. Faculty believe that students should credit AI-generated work in academic settings (HMP04) and that there should be clear guidelines on how to cite AI as a source (ECH02). This highlights the need for AI-specific citation rules in research and academic writing.

1.d. Subcategories: Transparency

There is an ongoing debate over whether professors should disclose their own AI use in coursework (HMP01). While students are expected not to use AI to cheat, some faculty feel they should also be transparent when using AI for curriculum development or grading. A faculty member stated that just as students are required to disclose their AI use, instructors should be clear about their own use of AI when it influences learning outcomes (SSW03).

1.e. Subcategories: Regulatory Compliance

There is a recognized need for collective governance to establish AI policies that align with professional values and pedagogical outcomes (HMP02). The task force aims to develop university-wide AI policies that provide clarity on acceptable use, academic integrity, and ethical concerns.

1.f. Subcategories: Validating and Credibility

Faculty members recognize that AI is often inaccurate, and machine learning models do not always produce reliable information (APHCS02). There are also concerns about AI-detection tools, which can mistakenly flag legitimate student work as AI-generated due to poor sensitivity and specificity (HMP02)

1.g. Purposeful and Intentional Use

AI should be used to refine, develop, and generate ideas rather than replace human engagement and critical thinking. Faculty emphasize the importance of intentional AI integration to support learning while ensuring students still engage in reading, writing, and analytical processes. AI can assist with quick searches, brainstorming, and breaking down complex concepts, but it should not serve as a shortcut that eliminates deeper learning.

Some faculty feel uncertain about proper AI use, acknowledging that responsible AI integration is still evolving. AI should be leveraged to enhance education without replacing human interaction, ensuring that students develop their own expertise before relying on AI tools. Concerns exist about rushing AI adoption without adequate discussion of its long-term impact, leading to the need for balanced faculty development that addresses both AI's benefits and risks.

There is also an emphasis on ensuring that AI use remains intentional and transparent—faculty encourage students to disclose AI use while emphasizing that AI should support critical thinking and problem-solving, not replace them.

2. Impact on Faculty Development

2.a. Subcategories: Teaching Load, Workflow, Proficiency, And Productivity

Faculty are exploring AI's role in curriculum development. Some instructors are using AI to generate case studies, develop course materials, and refine learning objectives (SON04). AI has also been used in assignments where students engage with AI-generated patient simulations or create AI-driven business strategies (SON01). While AI can help with lesson planning, some faculty worry that over-reliance on AI will make education "cookie-cutter" and reduce creativity (APHCS04).

2.b. Subcategories: Professional Writing

Faculty recognize that AI can assist in professional writing tasks, including drafting CVs, recommendation letters, course syllabi, research abstracts, and grant proposals. Many faculty use AI to refine writing,

generate structured content, and improve clarity and conciseness in professional documents. However, there is concern that AI-generated writing may lack originality and depth, potentially leading to impersonal, cookie-cutter outputs that do not fully capture individual perspectives or institutional values. Some faculty express reservations about over-reliance on AI for academic writing, emphasizing the need for human oversight to ensure accuracy, ethical considerations, and alignment with professional standards.

While AI can streamline workflows by assisting with drafting, summarizing, and editing, faculty stress the importance of maintaining academic integrity—ensuring that AI-generated content is properly cited and does not replace critical writing and thinking skills. Additionally, some faculty acknowledge that AI can be useful for email correspondence and administrative communication, but they remain cautious about overusing AI in a way that diminishes professional engagement and personalized interactions. Overall, faculty believe that AI should be used as a support tool for professional writing rather than as a replacement for critical thinking, originality, and scholarly contribution.

3. Impact on Student Learning

3.a. Subcategories: Plagiarism, Cheating, and AI Literacy

There is widespread concern that students are using AI to write papers without verifying sources, leading to a decline in critical thinking and research skills (SSW01). Faculty members also note that there are currently no established metrics for evaluating how AI impacts student learning outcomes (APHCS05). Some propose AI proficiency assignments to ensure students understand responsible AI use and develop effective prompting skills (HMP01).

3.b. Subcategories: Skill Development

AI can enhance student learning by helping them break down complex topics and find alternative explanations for difficult concepts (APHCS04). Faculty believe AI should be used as a refinement and brainstorming tool rather than a learning replacement. Some professors encourage students to use AI to practice critical thinking by analyzing AI-generated responses for errors or biases.

3.c. Subcategories: Critical thinking

Faculty express concerns that over-reliance on AI erodes students' ability to think critically, analyze information, and synthesize knowledge. AI-generated content often appears polished and well-structured, but it lacks original thought, depth, and the ability to reflect personal experiences or nuanced reasoning. Some faculty worry that students are using AI as a shortcut rather than a thinking partner, bypassing the process of engaging with material, evaluating sources, and developing their own arguments. If students become dependent on AI-generated content, they risk losing essential problem-solving and decision-making skills, which are critical in healthcare and other professional fields. There is also a concern that AI-generated assignments do not accurately reflect student comprehension or learning progress, making it difficult for educators to assess student growth. Some faculty note that AI detection tools are flawed, making it harder to determine whether a student's work is truly their own or AI-assisted. To foster critical thinking, faculty suggest that AI should be used as a tool to enhance, rather than replace intellectual engagement. Encouraging students to critically analyze AI-generated outputs—fact-checking, assessing biases, and integrating their own perspectives—can help mitigate the risk of cognitive disengagement and passive learning.

4. Concerns, risk, challenges, gaps and barriers

4.a. Subcategories: AI as a Disruptive Innovation

Some faculty view AI as a disruptive force that could have negative consequences. They compare AI's rapid integration to previous technological shifts that eliminated jobs, widened economic inequality, and reduced human skill development (HMP04). There are concerns that AI-driven automation could replace human expertise in critical areas such as teaching, medical decision-making, and creative fields. Faculty members worry that students submitting AI-generated work may lose originality and creativity (HMP04). Some prefer to work with poorly developed but original student work rather than polished AI-generated assignments. Additionally, there are challenges in identifying AI-generated content, making academic integrity violations difficult to prove (APHCS04).

4.b. Subcategories: Heterogeneity

There is a wide disparity in faculty AI competency and acceptance. Some instructors actively integrate AI into their coursework, while others prohibit its use entirely (APHCS05). This leads to inconsistencies in student exposure to AI, depending on which classes they take. Additionally, there is debate over whether faculty should have full autonomy in AI usage or follow a standardized institutional approach (HMP02).

4.c. Subcategories: Fragmented

AI use across CHHS is inconsistent, with some courses and faculty fully integrating AI while others prohibit its use. There is no standard policy, leading to confusion among students and faculty. Faculty competency levels vary widely, contributing to the inconsistency in AI exposure across programs. Some faculty use AI reluctantly due to external pressure rather than personal belief in its effectiveness. Departments lack a cohesive approach to AI integration, resulting in a fragmented implementation that fails to support a structured learning environment.

4.d. Subcategories: Limitations of AI

AI-generated content often lacks nuance, critical thinking, and depth, making it unsuitable for certain academic and professional applications. AI is trained on biased data, raising concerns about its reinforcement of inequalities and misinformation. AI hallucinations—fabricated or inaccurate outputs—pose risks when students and faculty rely on AI without verification. While AI can assist in generating ideas and summaries, it cannot replace human analysis, creativity, or professional judgment. The effort required to fact-check and refine AI-generated content sometimes outweighs its benefits.

4.e. Subcategories: Environmental Concerns

AI systems consume vast amounts of energy and water for cooling, raising concerns about sustainability and environmental impact. Socially, AI use influences faculty attitudes, with some hesitating to openly express concerns due to fear of being labeled anti-technology. Psychologically, rapid AI adoption has led to stress and uncertainty among faculty and students, especially those who feel unprepared to engage with AI. Additionally, the broad, rushed implementation of AI in education has led to unintended consequences, such as undermining traditional learning processes.

4.f. Subcategories: Authenticity and Originality

Faculty struggle to differentiate between student-generated and AI-generated work, making it difficult to assess true learning outcomes. Over-reliance on AI diminishes creativity, critical thinking, and student individuality. AI-generated responses often sound generic and lack personal engagement, leading to concerns about the loss of authentic student work. In faculty teaching and administration, the overuse of AI for assignments, syllabi, and communications can create a robotic, impersonal academic

environment. Faculty also express concerns about how AI-generated writing affects the ability to compare students' work across institutions.

4.g. Subcategories: Lack of Preparation and Readiness

Many faculty and students lack the necessary AI literacy to use it effectively and responsibly. Faculty express ethical concerns about encouraging students to use AI when they themselves do not fully understand its implications. The rapid integration of AI into higher education has outpaced the development of training programs, leaving many without the foundational knowledge required for responsible use. Without structured AI education, students risk becoming overly dependent on AI for complex tasks, such as research proposals and medical documentation, without understanding the processes behind them.

4.h. Subcategories: Misuse

AI misuse includes unauthorized recording and transcription of faculty meetings, which could distort discussions and infringe on free speech. Students use AI to generate entire papers and assignments without verification, undermining academic integrity. Faculty express concerns about AI's ability to scan confidential documents, such as medical records or HR reviews, raising ethical and privacy risks. Without critical evaluation, students may accept AI-generated content at face value, failing to recognize inaccuracies or biases. Over-reliance on AI-generated case notes in professional settings could lead to serious consequences, including misinterpretation of data and potential litigation.

4.i. Subcategories: Replacement

Concerns exist about AI replacing faculty roles, particularly in content creation, grading, and administrative tasks. Some faculty worry that AI may eventually diminish the role of human educators, reducing them to mere facilitators rather than experts. This, in turn, could create a post-apocalyptic feedback loop, where AI-generated assignments are graded by AI, leading to AI-earned and AI-awarded degrees, completing the cycle of academic automation. Students who rely too heavily on AI for assignments and problem-solving risk losing essential critical thinking and decision-making skills. In healthcare education, AI-generated medical notes and diagnostic tools raise serious concerns about future professionals losing the ability to make independent clinical judgments, a challenge that predates AI. Employers are increasingly hesitant to hire recent graduates, viewing U.S. higher education as significantly less effective at producing highly skilled workers than it was 20 years ago. AI is accelerating an already worsening trend, exacerbated by No Child Left Behind, COVID-related learning disruptions, grade inflation, and growing demands for academic leniency (SSW08 and ECH06). The shift in student learning preferences—from reading and traditional study methods to AI-generated content—further complicates faculty roles in education.

5. Needs

5.a. Subcategories: Training and Best Practice

The CHHS task force is working on recommending AI tools and best practices for faculty use (HMP03). Faculty training has been identified as a weakness, particularly in writing effective prompts and integrating AI into coursework responsibly (APHCS02). There is an increasing need for faculty education on AI tools to ensure they can teach students how to use AI effectively and ethically.

5.b. Subcategories: Policies, Standards, and Guidelines

Faculty emphasize the need for clear, enforceable AI policies at the university, college, and department levels to ensure responsible AI use. Currently, AI policies vary widely, with some faculty allowing AI use, others banning it outright, and many unsure how to regulate it effectively. This inconsistency leads to confusion among both faculty and students.

There is a call for shared governance in policy development, where AI guidelines align with academic integrity, ethical principles, and faculty autonomy. Faculty believe AI policies should include:

- Ethical use guidelines that prevent plagiarism and misuse.
- Faculty autonomy in deciding AI use in their courses.
- Department-level enforcement to ensure consistency across programs.
- Continuous review and adaptation to keep pace with AI advancements.

Without structured policies, AI adoption risks fragmentation, ethical concerns, and academic integrity violations. Faculty suggest the formation of an AI task force or committee to develop best practices and ensure policies are clear, dynamic, and applicable across disciplines.

5.c. Subcategories: Tailored Training Sessions

Faculty express the need for structured, discipline-specific AI training rather than generic workshops. Training should be practical, hands-on, and tailored to faculty roles, ensuring relevance to different academic disciplines. Key preferences include:

- Short, focused workshops (e.g., lunch-and-learn sessions, 45-minute tutorials).
- Interactive, case-based training that demonstrates real-world AI applications.
- Scenario-based learning to help faculty apply AI in teaching, research, and administrative tasks.
- Faculty learning communities to foster discussion and skill development.
- AI “101” introductory courses for those unfamiliar with AI’s capabilities.

Faculty believe training should focus not only on how to use AI tools but also on their limitations, ethical implications, and potential risks. They also advocate for student AI literacy training, as many students use AI without understanding its impact on their learning.

5.d. Subcategories: Data and AI Literacy

Many faculty feel that AI literacy should be an institutional priority, ensuring that both students and faculty understand AI’s strengths, limitations, and ethical implications. Concerns include:

- Lack of AI knowledge among faculty, leading to inconsistent teaching approaches.
- Students using AI without critically evaluating its output, risking misinformation.
- Faculty needing guidance on evaluating AI-generated content for accuracy and bias.

Faculty suggest integrating AI literacy education into faculty development programs and student coursework. AI literacy training should address:

- How AI processes data and its potential for bias.
- How to critically evaluate AI-generated content for validity.
- AI’s impact on academic and professional integrity.

Additionally, faculty support small discussion groups or AI book clubs to create peer-led learning opportunities around AI literacy.

5.e. Subcategories: Ethical Governance

Faculty emphasize the importance of establishing ethical standards for AI use, similar to research ethics training (e.g., CITI certification for responsible research conduct). Concerns include:

- Unregulated AI use leading to breaches of privacy, confidentiality, and fairness.
- The need for institutional oversight to ensure AI tools are used responsibly.
- Ensuring AI integration aligns with professional codes of ethics (e.g., National Association of Social Workers Code of Ethics).

Faculty propose an AI ethics board or review committee to evaluate AI-related concerns and potential misconduct. Ethical AI training should also be required, focusing on:

- Bias detection in AI-generated outputs.
- Avoiding overreliance on AI for decision-making.
- The role of human oversight in AI-driven processes.

Faculty believe AI must complement human judgment, not replace it, and institutions should provide ongoing ethical training to ensure responsible AI adoption.

5.f. Subcategories: CHHS Level Resources

Faculty note the lack of AI-specific resources at the college level, leaving them without guidance on best practices, tools, and policies. Some departments are proactive in AI adoption, while others ignore AI entirely, creating disparities in faculty preparedness.

Key resource needs include:

- An AI resource webpage specific to CHHS, with guidelines, tools, and best practices.
- College-wide AI training programs tailored to healthcare education.
- Funding opportunities for AI-related initiatives and technology adoption.
- Dedicated AI support personnel to assist faculty with AI implementation.

Some faculty express willingness to use AI if proper guidelines and resources were available, emphasizing that structured support would encourage ethical and effective AI integration.

AI Literacy Framework

Based on these themes, a conceptual framework for AI integration in health professional education was developed (Figure 1). In the context of AI adoption in higher education for health professionals, we conceptualize two overlapping circles: one representing disruptive innovation and the other sustaining innovation. These two forces coexist and interact, shaping how AI is integrated into teaching, learning, and faculty workflows. The overlapping area represents the tension and synergy between these approaches, where institutions must navigate both risks and opportunities. Disruptive innovation introduces new technologies and approaches that challenge and place stress on existing operational models in higher education. For example, generative AI, when introduced without clear frameworks or policies, can create instability, uncertainty, and resistance among faculty and students. In contrast, sustaining innovation involves gradual, structured improvements that enhance current educational models without fundamentally disrupting them. Here, AI is strategically and ethically leveraged to improve learning outcomes, increase faculty efficiency, and enhance student engagement.

Key concepts and elements in the disruptive circle include: 1) AI automation, where AI automates teaching and learning tasks, altering faculty and student roles; 2) unregulated AI use, where faculty and students use AI without oversight, leading to academic disintegrated, plagiarism, and loss of foundational skills; 3) ethical concerns related to the overreliance on AI, which may jeopardize data

security and lead to confidentiality breaches; 4) faculty resistance and perceived job displacement; and 5) fragmented implementation that lacks institutional policies, resulting in inconsistent AI use across courses and disciplines. (Quote: AI is changing how we work, but we still don't know its long-term effects [ssw08]).

Key concepts and elements in the sustaining circle include: 1) AI as a pedagogical tool used to enhance learning, not replace cognitive processes; 2) guided AI literacy, where faculty and students receive structured training to understand AI's capabilities and limitations; 3) institutional policies and guidelines that align with academic integrity and ethical principles while also respecting faculty autonomy; 4) shared governance in AI integration, where administrators and faculty governance bodies collaboratively implement AI technologies across colleges and disciplines to ensure best practices; and 5) ongoing evaluation with an immediate feedback loop to update AI policies and applications as needed (Quote: The faculty or anyone who is AI illiterate encouraging others to use AI is unethical [SSW10]).

The overlapping section of the two circles represents the critical decision-making zone where AI integration can result in success or risks (i.e. the critical target area for interventional, proactive, tailored, forward thinking strategies and approaches). The key elements in the overlapping area include 1) AI-augmented faculty workflows, AI-specific tasks (e.g., administrative tasks) while ensuring university oversight; 2) ethical training for AI use in all employees and students; 3) develop adaptive, targeted AI policies to balance innovation vs. ethical responsibility, university standards vs. autonomy of employees and service users (e.g., students and community stakeholders); 4) Interdisciplinary AI collaboration (Quote: we need structured AI literacy training—without it, faculty will either misuse it or avoid it altogether [ssw07]).

The framework further illustrates two potential pathways, depending on the effectiveness of interventions targeting the overlapping area. If interventions are missing or ineffective, the institution may encounter three major risks (3Ds): 1) Dependence, referring to the overreliance on AI without discernment; 2) De- capacity, caused by AI dependence, leading to reduced critical thinking and problem-solving skills among students and faculty; and 3) Disengagement, where faculty and students become increasingly disengaged due to inconsistent policies, unclear expectations, lack of support, or fears of job displacement (Quote: if AI replaces too much student work, what are they actually learning? [son05]).

If AI integration strategies effectively address all key elements in the overlapping area (e.g., clear governance, training, and institutional alignment), the institution may achieve three major successes (3Ss): 1) System success, by establishing institutional AI policies that ensure ethical use, transparency, and consistency; 2) Faculty success, by making faculty and student training readily accessible, integrating AI as a pedagogical tool, and embedding AI in RPT and FAR evaluations; and 3) Student success, by preparing future task forces with AI competency to meet the ever-changing world demands, ensuring long-lasting career opportunities and growth potential. As a result, the institution's sustainability is secured by maximizing the long-term educational and professional benefits of responsible AI use (Quote: if AI is going to be part of education, we need to train students to think critically about its outputs." [SSW08]).

In sum, the disruptive vs. sustaining innovation circles illustrate the complexities of AI adoption in higher education. Institutions must carefully navigate their overlap, leveraging AI's transformative potential while preserving essential academic values. By enhancing the 3Ss and mitigating the 3Ds risks, UNC Charlotte can position itself as a future-ready institution through strategic AI integration that enhances learning, improves faculty efficiency, and upholds ethical responsibility (Quote: AI literacy should be a university-wide initiative, not just an individual effort [SSW04]).

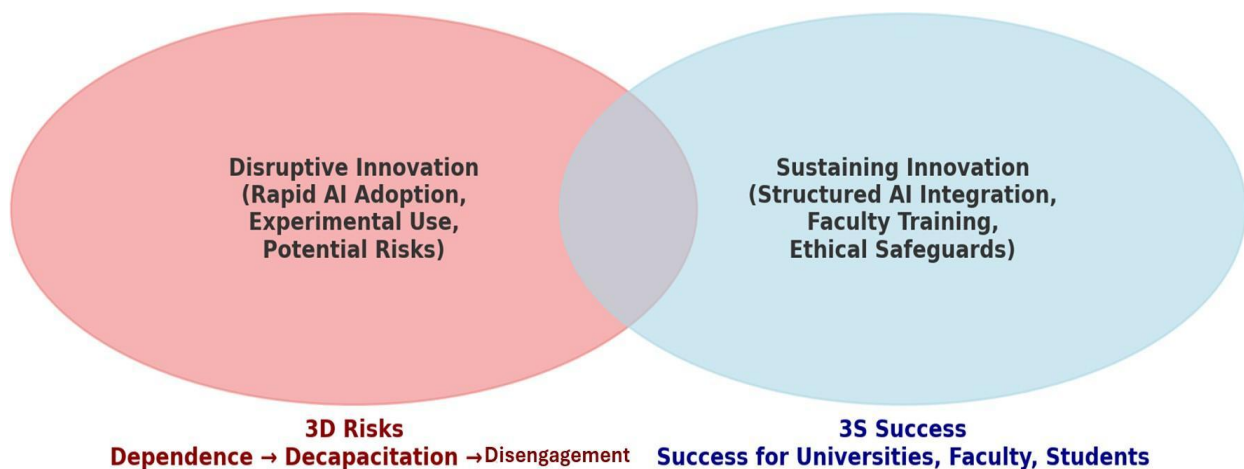


Figure 1. Disruptive vs. Sustaining Innovation in AI with 3D/3S Framework

Discussion

Although AI holds promise in transforming healthcare education, significant gaps persist. Many faculty members lack sufficient training in AI applications, leading to hesitation in integrating AI-driven tools into their teaching. Additionally, institutions often lack clear policies and frameworks for responsible AI use, which raises concerns about ethical implementation. Another key gap is the limited research on the effectiveness of AI in improving student learning outcomes and faculty productivity in health education settings. Addressing these gaps is crucial to ensuring AI's responsible and effective use in academia.

Disruptive vs. Sustaining Innovation in AI: Implications for Universities

Disruptive innovation occurs when a new technology is introduced before institutions, policies, and individuals are adequately prepared to engage with it responsibly. In the case of AI, universities face disruption because faculty, students, administrators, and staff often lack exposure to AI literature, rules, regulations, and a clear understanding of its impact. Fundamental questions—when, what, why, how, which, and where to use AI—remain undefined in many colleges and disciplines.

A key issue is the absence of standardized AI literacy programs. Many universities have not systematically or regularly implemented basic AI training before expanding AI use across campuses. Without required foundational education, institutions risk premature AI adoption without safeguards for oversight, ethical governance, or monitoring mechanisms to prevent misuse and abuse. The severity of AI misuse and irresponsible deployment has yet to be fully assessed, and governance structures to address potential negative consequences remain underdeveloped.

This premature implementation of AI—without structured evaluation and testing—creates a disruptive innovation cycle. The gap between AI development and its practical implementation has collapsed, leading to unintended consequences for students, faculty, universities, and society at large. One emerging concern is over-reliance on AI, which can foster dependency on technology. Just as excessive reliance on mobile phones and the internet has led to cognitive shifts (e.g., "nomophobia"—fear of being without a mobile phone, "nowiphobia"—fear of being without WiFi, and "nolaphobia"—fear of lacking a laptop), the same pattern is emerging with AI. The phenomenon of "3D"—**Dependence leading to Decapacitation leading to Disengagement**—raises concerns that excessive AI use could replace essential human cognitive abilities such as critical reasoning, logic, and creative problem-solving.

Without conscious intervention, the long-term impact of AI dependency could lead to intellectual stagnation and cognitive decline.

Impact of AI-Reliance

Over-reliance on AI poses significant risks. People naturally gravitate toward shortcuts; the more they depending on AI, the less they engage in critical thinking, ultimately diminishing their ability to apply it in the future. Additionally, generative AI is designed to present information as seemingly accurate, using a professional tone, structured formatting, and clear organization, even when its output contains errors or logical fallacies. As a result, faculty and students may increasingly rely on AI to bypass complex problem- solving, often accepting generated responses without thorough evaluation, despite their expertise. As AI becomes more integrated into academic research, healthcare, and professional decision-making, the risk of uncritical acceptance of AI-generated content will only increase. This shift has profound implications for intellectual rigor, professional judgment, and the reliability of information in critical fields.

AI as a Sustaining Innovation

On the other hand, AI can serve as a sustaining innovation when users approach it with a mature, informed perspective. Instead of viewing AI as a replacement for human intelligence, responsible users treat it as a tool that enhances productivity while maintaining intellectual and ethical accountability. This group does not blindly rely on AI but instead integrates it into their workflows to amplify creativity, reasoning, and efficiency.

Sustaining innovation through AI requires comprehensive AI literacy, ethical awareness, and a proactive approach to identifying risks and hazards. University that desires to successfully implement AI as a sustaining innovation may focus on the following:

- Structured AI Education – Implement mandatory AI literacy programs for all students, faculty, and staff before expanding AI use campus-wide.
- Ethical AI Governance – Establish policies and monitoring mechanisms to prevent AI misuse and ensure ethical implementation.
- Balanced AI Integration – Encourage AI as a complementary tool rather than a replacement for human cognition.
- Research and Risk Assessment – Conduct thorough beta testing before widespread AI adoption to evaluate its potential negative impacts.
- AI Mentorship & Community Learning – Promote a culture of responsible AI use, where experienced users mentor others in best practices, reducing dependency and fostering digital resilience.

By adopting a structured, ethical, and education-first approach to AI, universities can harness AI's sustaining potential while mitigating its disruptive risks, ensuring long-term benefits for faculty, students, and the broader academic community.

Final Comments

The task force is charged with informing the provost on how the university can develop strategies to empower faculty, students, and administrators to maximize their success and academic productivity while reducing or preventing potential risks of AI misuse, abuse, and irresponsible application. To achieve this, the university must focus on fostering the 3S—Institutional success, faculty success, and student success—while preventing the 3D —Dependence, Decapacitation, and Disengagement.

However, how to address this issue remains a black box, and further conversation and investigation are needed to understand and identify effective strategies for higher education.

One of the first steps may be developing AI literacy and competency across all academic levels. AI education should not be an optional skill but an essential component of academic training. Faculty, students, and administrators must be equipped with a foundational understanding of AI, its applications, ethical considerations, and its limitations. Implementing structured and specific AI literacy programs, integrated within existing curricula and professional development workshops in each college, will ensure that AI is used as a tool for augmentation rather than a crutch that replaces intellectual effort. By establishing tiered AI competency programs, individuals at different levels of AI familiarity can progressively deepen their understanding, ensuring that the technology is applied appropriately and ethically within academic and administrative settings.

In addition to AI education, ethical governance and supervision must be prioritized to prevent over-reliance and irresponsible AI use. The university should establish clear institutional policies that define responsible AI usage in teaching, learning, and research. These policies should be regularly reviewed to align with emerging AI developments and evolving ethical considerations. An AI oversight committee or ethics board can serve as an advisory body to monitor AI-driven academic work and ensure accountability. Furthermore, mechanisms for tracking AI usage, particularly in research and student assessments, should be implemented to maintain academic integrity and discourage dependency on automated solutions.

Promoting a culture of human-AI collaboration and digital resilience is equally crucial. AI should be positioned as a complementary tool, enhancing human capabilities rather than replacing them. Encouraging reflective practices on AI usage can help individuals assess the role AI plays in their learning and decision-making processes. Faculty and students should be challenged to think critically about when and why they use AI, ensuring that its integration strengthens rather than weakens their intellectual skills. Open, interdisciplinary conversations about AI's impact across different fields will provide opportunities to assess emerging risks and benefits, fostering a more informed and responsible academic community.

Given AI's rapid evolution and the uncertainties surrounding its long-term cognitive and societal effects, further investigation is necessary. Empirical studies assessing AI's impact on academic performance, cognitive abilities, and ethical decision-making should be conducted. The university should also engage in cross-institutional collaborations with other higher education institutions and AI research centers to exchange knowledge, strategies, and best practices. An adaptive policy framework that evolves based on new evidence will ensure that the institution remains proactive rather than reactive to AI's growing influence.

By cultivating AI literacy, strengthening ethical oversight, and encouraging human-AI collaboration, universities can create an environment where AI enhances academic productivity without eroding essential cognitive skills. However, given AI's complexity and the ongoing risks of over-reliance, continued dialogue and research are essential to developing sustainable and effective AI strategies for higher education.

CHHS Appendices

Appendix 1: Invitation Email Subject: Request for a Brief 1:1 Zoom Meeting on AI Use in Education Dear

I hope this email finds you well. I am one of the members of [the task force](#) appointed by the Provost to support the ethical and responsible use of AI in teaching and learning. As part of this role, I am gathering insights to assess our school's perspectives on AI use specific to their disciplines, administrative responsibilities, or leadership roles in academia.

Would you be willing to meet with me for a brief 15–30 minute Zoom conversation at your convenience? The discussion would focus on your thoughts about AI's potential, opportunities, and challenges in your area of expertise.

Please let me know if this is possible and a time that works for you. I would be happy to accommodate your schedule.

Thank you for considering this request, and I look forward to the opportunity to learn from your experiences and ideas.

Best regards, Lufei

Appendix 2: Zoom Interview Outline

1. Introduction

2. Interview Process

- Structure:
 - Open-ended questions to encourage discussion.
 - Follow-up probes for clarification or elaboration.
- Duration: Approximately 15-30 minutes.

3. Interview Thematic Questions

- Definition of responsible AI use in health professional education;
- Personal experiences with AI.
- Challenges and barriers to AI adoption.
- Faculty development needs for AI literacy.
- Student learning outcomes associated with AI.
- Faculty needs and resources for responsible AI use

4. Closing (5 minutes)

- Summarize key points shared during the discussion.
- Invite any final comments or thoughts.
- Thank participants for their valuable input and explain next steps by sending out “thank you emails”

Appendix 3: Thank You Email

Subject Line: thank you for participating in the ai responsible use in higher education interview

Dear

On behalf of the AI Task Force charged by Provost, I want to sincerely thank you for participating in the Zoom interview regarding the responsible use of AI in higher education. Your insights and perspectives are invaluable as we work towards understanding and shaping best practices for integrating AI into CHHS and UNC Charlotte. As part of this initiative, I would like to clarify how the data collected during our conversation will be handled:

Data Collection: The information shared during the interview will be submitted anonymously to the task force. All data will be aggregated to ensure a comprehensive understanding of CHHS faculty's views without focusing on any single individual.

Confidentiality: No personal or identifying information will be included in the analysis or the final submission. All contributions will remain confidential, ensuring that nothing can be traced back to individual participants.

Data Usage: All assessment data collected from each college will be analyzed to identify key themes and patterns relevant to AI's role in higher education. Central themes and aggregated findings will inform the task force provide final recommendation report to Provost regarding AI's responsible and effective use in higher education.

Your willingness to share your thoughts and experiences plays a crucial role in developing policies and practices that uphold responsibility, equity, and innovation in the use of AI in education.

If you have any questions or would like further clarification, please feel free to contact me. Thank you once again for your valuable time and input.

Warm regards,

Appendix 4: Feedback Request Email

Subject: request for review & feedback on CHHS-AI report

Dear

Thank you for taking the time to interview with me. Your insights were invaluable, and I could not have completed this first draft without your input.

At this stage, I am only sharing this report with those who participated in the interviews to protect your right and privilege to have the first review before it is shared with others (task force members, chairs, provosts, etc.).

I am requesting your review and feedback on the draft. While you cannot edit the document directly, you may add comments for suggestions or clarifications. If you prefer to keep your feedback private and not have your name visible to other participants, please feel free to email me directly.

Additionally, I have been asked to submit a list of contributors for this work. I will not include your name on the submission spreadsheet, [contributor link](#), unless you explicitly tell me to do so. Please also let me know how you would like to be acknowledged—whether anonymously as part of a general acknowledgment (e.g., “45 faculty from CHHS”) or by including your name.

The final CHHS report is due on March 15, 2025, by 5:00 PM. Please try to review the draft and provide your feedback before this deadline. If I do not hear from you by then, I will assume you consent to the final version as it stands.

I truly appreciate your time and support—thank you so much!

Best,

Appendix 5: Interview Themes and Subcategories

Theme	Subcategories	Interview Comments
Define AI responsible use	Ethical consideration	Concern about students entering patient profiles in AI for things like drug recommendations based on the profile (APHCS02) AI for medical decision-making process (APHCS02) So much of the health data going in is biased, the AI is going to reinforce and perpetuate biases of structural and systemic racism [HMP02] Task force to work on creating a common language around ethics in using AI tools. (HMP03) We need to use it in alignment with our code of ethics. National Association of Social Workers. Code of ethics. Also must be in alignment with the research policies in our work. (SSW01) Ethically we can't make anyone open up a chat GPT account. And I think their faculty and other units the art faculty in general that might disagree and say, well, if it's a requirement for the class, but that's how I look at AI. I think that we can't make people get on board. (SSW01) So that goes back to the grading, like where I'm not utilizing and grading not only to protect student information, but to make sure I'm really being ethical about like. (SSW02) The faculty or anyone who is AI illiterate encouraging others to use AI is unethical (SSW 10). AI for medical decision-making is risky—if students rely on it without verification, we are setting them up for failure. (APHCS06) I have a hard time seeing AI as useful because the only way I can really see responsible use is if you are already an expert. (ECH06) AI in the clinical setting raises concerns about HIPAA compliance—students using unauthorized AI tools could be breaching patient confidentiality. (SON07) Using AI responsibly means not letting it replace our own critical thinking. It should supplement, clarify, or generate ideas, not do the work for us. (SON06) Unethical use... I think that answer will be evolving, right? I don't think we've landed on where AI is going to end and how integrated it is into society. (SSW10) I think responsible use of AI is using it as a tool to help you accomplish certain tasks while maintaining human oversight to ensure accuracy and ethics. (SSW09, ECH03) If faculty encourage students to use AI without understanding it themselves, that's not ethical. (SSW09) Using AI responsibly means ensuring it enhances learning rather than replacing essential skills. (ECH03)
	Data Privacy and Security	Concern about FERPA and HIPAA privacy breach, as well as academic proprietary information [HMP02] Students need to know if they submit their data in AI, it is no longer safe. This also part of responsible use. concerns as far as protecting their work if they're doing some research or writing, protecting their work, ensuring that it's accurate. (SON01) AI has been used in every aspect of your life without you knowing. It has been used in the world HR screening. AI has been in your bank account. Tracking your personal life (SON04) I use it in various ways but I make sure to protect student information and not putting in in ChatGPT. I am not using it for certain things like grading. (SSW02) There is a major risk of breaching FERPA and HIPAA regulations when using AI tools. (HMP02, APHCS06) AI raises concerns about data security and the loss of a personal touch in engagement. (AB01) Forcing AI use on people before they're ready is a mistake. We need to let people develop skills before pushing technology on them. (ECH05) I won't use AI for grading, but I see why others might. It saves time, but I question its fairness. (ECH05) AI-generated case notes in social work could pose confidentiality risks if not managed correctly. (SSW09)

		We need to be cautious about how much student data AI tools collect. (SSW06)
	Accountability	Give credit to AI if you use it (HMP04) Cite AI if you used AI (ECH02) Graduate students have to learn how to leverage AI... but they have to proof it and make sure that it's accurate. (SON07) I think it needs to be cited. I think it needs to be credited. That's the top of the food chain in terms of unethical use—not attributing AI. (SSW10) AI must be credited in assignments—it can't be used to generate the final product without proper attribution. (SSW09) Students should disclose when they use AI in their work—just like citing sources. (SSW07)
	Transparency	Should professors disclose their use of AI on coursework? (HMP01) We expect students not to use it to cheat (SON02) Just like I asked students to do if they are using it as a tool that I am letting people know when I'm using it as a tool when that's appropriate. (SSW03) Professors should disclose their own AI use just as students are expected to. (SSW01, APHCS06) AI should be credited, just like any other tool used in research or writing. (ECH03)
	Regulatory compliance	A need for collective governance to talk through these issues and come up with a policy for the program that's grounded in professional values and norms, linked to pedagogic outcomes. Shared governance. [HMP02]
	Validating and credibility	Accuracy check combining machine learning with artificial intelligence but it doesn't always get it right. (APHCS02) The amount of effort it takes to fix the mistakes that AI makes seems to be greater than if you were to just produce the work yourself. (ECH06) I worry that there will be a point where we can't detect whether it's student work or AI-generated work. (SON06) AI can generate structured literature reviews, but faculty must still assess their quality. (ECH03) I use AI to refine my research workflow, but I verify all results before drawing conclusions. (ECH03) I've used AI to generate discussion prompts, but I always revise them. (SSW08) AI can help summarize research papers, but I still double-check all outputs. (SSW07) If AI can save me time on grading, I'd consider using it—but only if it's fair. (SSW06)
	Reproducibility	AI that detects AI used by students is flawed and flags things they shouldn't due to poor sensitivity and specificity.[HMP02]
	Accessibility to AI tools	Task force to develop recommendations for best AI tools and practices for faculty use. (HMP03) Training can be awareness training just so you know what is out there (SON02)
	Purposeful and intentional use	Refinement, development, creating/generating ideas not replacement (APHCS04) Quick search for information, brainstorming, breakdown complex concepts (APHCS04) I don't know what is proper use (APHCS03, SON05) I'm still learning what responsible use is (SSW02) AI should refine and enhance education, not replace human interaction. (APHCS04, APHCS06) Forcing students to use AI too early in their education prevents them from developing real expertise. (ECH06) We need an outside perspective to prevent becoming too delusional and losing sight of the bigger picture. This outside perspective is crucial for making informed decisions and avoiding overproduction. (AB01) Are we trying to stop the calculator, or are we trying to advance student skills? (SSW10) We don't talk enough about AI's long-term effects—most faculty development is focused on just training. I don't prohibit AI in my classes, but I also don't encourage it. I require students to disclose if they use it. (ECH05, SSW08) AI should help students develop ideas, but not replace their engagement in the learning process. (SSW09) If AI can help students organize their thoughts but still require them to write, I think it's okay. (SSW06)

	Personal vs. Organizational	Definitions of AI responsible use can be different from personal vs. organizational view (APHCS05)
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		Faculty governance and collective governance of a program vs the individual faculty's autonomy (use of AI) [HMP02]
	Sustainability	I just don't think the students understand how to use it effectively. (APHCS01) the faculty aren't necessarily prepared and versed enough to understand the nuances and to teach them. [HMP02]
Impact on faculty development	Scholarship	AI should be used to contribute to one's own development and scholarship, rather than as a shortcut for convenience. (HMP03)
	Promotion	AI literacy needs to be recognized in faculty RPT (Review, Promotion, Tenure) policies, or else no one will take it seriously. (SSW10) AI could help with faculty workload, but if it's not recognized in tenure and promotion, why would we prioritize it? (ECH05) If AI can reduce my workload, that's great—but I need to understand how to use it first.(SON05)
	Course and curriculum development, workflow, proficiency, and productivity	I might go in and type in, can you provide a few ideas centered around a certain topic? And then it will spit out some ideas. And then I can kind of take those main points and then go create something off of those main points. I can skip the phase of trial and error. [APHCS04] I actually had one of my classes dedicated to AI where I asked them to use the AI tools to create a visualization So I tried to integrate it that way in terms of education, like purposely say I'd like for you to use AI.I also asked them to create like a prompt algorithm. What is a type of prompt engineering that you would use as a data scientist and you know how would you apply it [HMP01] You can ask ChatGPT to be a patient (24yo diabetic male) and complete a health assessment (SON01) Sometimes I'll use AI to help me get ideas for like case studies and patient scenarios and stuff if I have trouble thinking of like vitals or assessment data. Claire in ATI (SON03). I use it a lot to create case studies or topic ideas on a lesson or an active learning strategy to use for (SON04) I am using to create case studies. I had students do was I wanted them to imagine we were developing a new organization and we had to come up with a mission statement and a value statement. So I had them use AI to generate examples of them. I also use it for refining my module objectives. (SSW02) Use in Course & Content Development, I use AI to refine my syllabus, generate case studies, and brainstorm lesson ideas. (APHCS01, SON04) I've used AI to develop case scenarios and test questions—it's helpful for brainstorming. (SON07) Required proficiency level per discipline (HMP05) Some faculty embrace AI fully, while others are skeptical. There's a clear gap in confidence and knowledge. (SON07) If AI can save me time on admin work, I'll use it—but it shouldn't replace real faculty engagement. (SON07) AI can help simplify communication, especially for neurodivergent students or those struggling with academic writing. (SSW10) I use AI to generate rubrics and syllabus components—it's a time-saver for routine tasks. (SSW09) Faculty who use AI in administrative work say it saves time, but the quality of outputs still needs human review. (SSW09)
	Collaboration	I developed games for my class, but I don't know much about how to advance my teaching with AI, I would like to connect with faculty sharing same interest like gamification in teaching (SON03)
	Professional writing	Develop CV, resume (SON04) Develop recommendation letter (SON04) Develop a course syllabus (APHCS01) I use it to write objectives (APHCS02) Refine my writing on a syllabus, a paragraph that I've written, or PowerPoints [APHCS04] I practiced over the weekend using it to respond to emails like creating a workflow to create drafts for emails. [HMP01] I used it to develop a couple of lectures (Legal and Ethical Considerations in Nursing) (SON01)

		It helps me to write things up in that more professional way (SON04) AI makes CVs, recommendation letters, and course syllabi easier to draft. (SON04, APHCS01) Faculty already use AI to help draft letters, refine research abstracts, and generate teaching materials. (SON07) Faculty need guidance on how AI can support but not replace our professional writing. (SON06) AI-generated peer review is more impartial than human review—it focuses only on the work, not the person. (SSW10) I've used AI to help generate specific aims for a grant proposal, but it required significant revision. (SSW09)
	Lack of measure	I don't know, there are no established metrics (APHCS05) Find the right parameters to put around it and help them (students) use AI in a beneficial way (APHCS02) Training faculty to use AI is not rewarded and counted toward promotion or tenure. (APHCS06)
	Desired Use	I could see it being very helpful for those difficult conversations either with a parent, coach or athlete because those are difficult to simulate (APHCS03) Have students complete an assignment on AI proficiency and look at skills like prompting [HMP01]
Impact on student learning	Plagiarism and cheating	It's going to come back to bite them at some point in time (APHCS01) We're all we're worried about them cheating, plagiarism and cheating (APHCS02) Students rely on AI to write papers without checking sources, reducing their research skills. (SSW01, APHCS06) Students believe AI is always right because it sounds convincing, but they don't verify the content. That is dangerous. (ECH06) We need to understand how students are using AI—are they using it to avoid meeting educational standards, or are they using it to close knowledge gaps? (SSW10) If we had AI-checking tools in Canvas, that could help identify AI-generated writing. (SSW10)
	Lack of SLO measure	I don't know, there are no established metrics (APHCS05) There is a lack of definition, particularly on how educators use it and how that should be disclosed [HMP01] We lack established metrics to measure AI's impact on student learning. (APHCS05, APHCS06) When students don't verify AI-generated content, they become dependent on it and lose critical evaluation skills. (ECH06) Students are using AI in ways we don't yet fully understand. Are they using it to supplement learning or to bypass it? (ECH05)
	Skill development	Student project development and advising (ECH01) George to think about how to incorporate AI tools in student learning outcomes, particularly in developing prompts and understanding topics (HMP03) As far as responsible use, and this is focused on students more, and I guess us as well, but ensuring that we are using it in ways where we can still have students do the work of reading and writing and all these things, but use it to broaden and expand their perspective, ideas and things like that. (SON01) Also, just show them on the side you know, if a student asks how you can use it to find peer-reviewed journal articles. Here's an example of a prompt. Teach them how to use ChatGPT to benefit their learning. (SSW01) Over-reliance on AI erodes critical thinking skills. (APHCS05, ECH06) We should not introduce AI in learning until students have developed a foundation in their subject area. (ECH06) AI could maybe help in labs or simulations—creating real-life scenarios might be beneficial. (SON05)
	Critical thinking	Loss critical thinking skills if they primarily rely on AI (APHCS04) Reduce critical thinking training (APHCS05) AI-generated content lacks originality and depth—it discourages students from truly engaging with materials. Students should engage critically (SSW08, ECH06) Students must understand the limitations of AI—it's a tool, not a replacement for critical thinking. (SON07) AI can produce a perfect essay, but does it reflect the student's personal experiences and

		thought process? (SON07)
		The challenge is making sure AI enhances learning, not replaces it. If students don't learn to analyze AI output, we're failing them. (SON07) AI-generated medical notes might be helpful, but what happens when a student relies too much on them and loses their diagnostic ability? (SON07) Students need to understand that AI is a tool, but they must think for themselves. I don't want them using it in place of thinking. (SON06) AI allows students to leapfrog through writing and research, but it still can't do the same synthesis in the classroom. (SSW10) Critical thinking detection—students who use AI to help them think critically are different from those who just copy AI-generated content. (SSW10) It's easy to detect AI-written content—it often sounds generic and overly polished. (SSW07) I don't have a whole lot of experience with AI, and I'm on the fence about whether it will help students learn or just help them get through the program without really learning. (SON05) In research, students need to think critically and synthesize information themselves—AI can't replace that. If AI replaces too much student work, what are they actually learning? (SON05) Students need to learn how to use AI as a thinking partner, not a shortcut. (SSW06)
	AI orientation for students	I encourage students to use AI, but they must understand its role—it should streamline work, not do it for them. (ECH03) I ask students to use AI for literature searches but require them to verify all sources manually. (ECH03) AI helps streamline the research process, but students must still interpret and critically analyze findings. (ECH03) AI-generated summaries can misrepresent studies—it's important that students verify and not blindly trust outputs. (ECH03) AI should be a support tool, not a crutch—it helps refine ideas, but students must engage in the learning process. (ECH03) Using AI responsibly means ensuring it enhances our expertise rather than replacing it. (SSW08) AI should be used to facilitate learning, not to bypass the learning process. (SSW07)
Concerns, risk, challenges, gaps and barriers	Disruptive innovation	Innovation can be disruptive and harmful to society, individual and business (HMP04) Chain retailer store like Walmart, Target, wiped out all local business. Robot technology reduced surgical skills in surgeons. Fast-food restaurants and modernized cooking technologies increased obesity, cardiometabolic risks. We don't know what AI can disrupt, wipe out....(HMP04) Retail chains wiped out small businesses—what will AI wipe out? (HMP04) I'd rather deal with poorly written but original student work than AI-generated content. (HMP04) Retail chains wiped out small businesses—what will AI wipe out? (APHCS06) The AI hype is like the No Child Left Behind era of education reform—rushed and damaging. (ECH06) The rapid adoption of AI reminds me of other rushed education reforms—it's happening whether we're ready or not. (SON07) AI efficiency is why people promote it—it helps get work done faster, but at what cost? (ECH05) AI is moving fast, and I don't know if we're really prepared for its impact on education. (SON05)
	Heterogeneity	Faculty has varied levels of competency and acceptance, makes difficulty for students to get consistent exposure (APHCS05) There are a lot of students who are older and maybe not as experienced with AI. So I don't have any specific assignment to where They have to use it. It's always optional. It is equitable that they will all be able to use it. (SON01) Different paid levels of ChatGPT (SSW01) Faculty AI competency varies widely, leading to inconsistent student exposure. (APHCS05, APHCS06) Many faculty members pretend to embrace AI publicly, but in private, they are hesitant and skeptical. (ECH06) Some faculty embrace AI fully, while others are skeptical. There's a clear gap in confidence and knowledge. (SON07)

		There's resistance to AI because it moves so fast. Some faculty don't want to engage with it at all. (SON07) Many faculty members are hesitant about AI because they don't fully understand its applications. Some faculty allow AI, some prohibit it. There's no consistency across courses. (SON06) I don't think people understand what AI is. If you don't have an understanding of it, I don't think you can offer critical feedback on its impact on student learning. (SSW10) There's a broad range of AI literacy—some faculty are veterans in AI use, while others have no idea what it is. AI policies vary across departments—some faculty openly support it, while others remove all mention of it from syllabi. (ECH05) Some faculty are innovators embracing AI, while others are completely resistant—there's a real divide. (SSW09) Some faculty fully embrace AI, others avoid it due to lack of understanding. (ECH03, SSW07) Many faculty are skeptical about AI and don't feel comfortable integrating it into their teaching yet. (SSW06)
	Fragmented	Some classes allow AI use, some don't, there is no consistency, no continuity (APHCS05) Some students last semester told me they personally used AI to help prepare NCLEX exam (SON03) Mature level of faculty also play key roles in the shared governance in AI. [HMP02] Some classes allow AI, others don't—there's no consistency. (APHCS05) Some classes allow AI, others don't—there's no consistency. (APHCS06) Some faculty use AI because they feel pressured, but they don't actually believe it enhances learning. (ECH06) Faculty use AI in different ways, but there's no standardized approach—it's inconsistent across programs. (SON07) AI policies need to be dynamic, constantly evolving, and not just a static code that no one knows how to apply. Departments don't have consistent AI policies—some faculty ban it outright, others encourage its use. Each department approaches AI differently—there's no consistency in policy or practice. (ECH03, SSW09, SSW10)
	Limitations of AI	AI-generated writing doesn't always align with professional terminology or the way we talk in our field. (SSW10) AI is trained on biased data—how do we ensure it's not reinforcing inequalities? (SSW10) AI-generated work lacks nuance. It's great for brainstorming, but not for original, deep thought. (ECH05) AI-generated writing looks substantial, but once you strip away the big words, there's no depth, lacks real substance. (ECH05, SSW07) AI is useful for generating ideas, but it lacks the ability to truly replace human critical thinking. (ECH05) AI-generated research summaries are helpful, but we need to be mindful of potential bias and misinformation. (ECH03) AI can summarize information efficiently, but it lacks the depth and nuance of human analysis. (ECH03) AI hallucinations—fabricating sources—are a significant problem that students must be aware of. (ECH03, SSW06)
	Environmental (both physical, social, psychological) concerns	AI systems require a large amount of water for cooling, posing a threat to water conservation. The quality of the college experience depends on an individual's maturity and willingness to cooperate. (AB01) A negative experience at a university does not mean it lacks opportunities—it depends on perspective. (AB01) I have very much changed my attitude towards AI—from very enthusiastic to I'm not using it if I can help it. AI is here no matter what, but how we define responsible use is still evolving. (ECH05) Many faculty members don't talk about their AI concerns openly because they fear being seen as anti-technology. (ECH05, SSW09)

	UFO or lack of evidence, uncertainty, hesitation	No one knows how, what, why, where, which, how about AI and its 3 level impacts (society, system, individual), need more assessment and definitions (SSW10) Older students and faculty struggle more with AI adoption. (SON01) We should not reward students for avoiding real thinking by allowing AI to complete their work. (ECH06) Faculty who resist AI often worry about being labeled as anti-technology, even though their concerns are valid. (ECH06) Universities are rushing to implement AI without clear evidence that it benefits student learning. (ECH06)
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	Authenticity and originality	I don't see my students' original work even though they are not sophisticated yet. Giving me stuff generated from AI, I don't know how to work with student and improve SLO. Both student and faculty should be fully aware of the current level and state of student learning needs. I would rather deal with students' poorly developed original work not well-written AI-generated homework (HMP04) I will admit I am not an expert in identifying who has been using it and who hasn't. And I honestly have no idea how I would prove that they used it. I don't know how you would uphold that in like a A violation of integrity case [APHCS04] We won't be able to compare the writing of our students to other universities (SON02) In terms of faculty, if faculty members start using to create too much like assignments, syllabi. Everything becomes very robotic and cookie cutter, not authentic or creative. [APHCS04] I don't tell a student it looks like you've used AI, I'll say the answer that you provided isn't really what I was expecting to see. Can you send me a comment back that this is kind of more on the line of what I was looking for? Can you redo that part? (SSW02) AI-generated responses are just probability-based word generation. It reduces creativity and critical thinking. (ECH06) AI reduces the uniqueness of student thought because it is designed to provide the most common response. (ECH06) We need to ensure that AI doesn't strip students of their individuality and creative problem-solving skills. (SON07) AI-generated emails lack the personal touch and are often ignored or deleted. (AB01) Adding personal signatures and images helps establish a stronger connection with alumni. People tend to unsubscribe from emails, making engagement challenging. (AB01) AI-generated work lacks creativity. We need to train students to think independently. (SON06) I don't know how to determine whether something is original or AI-generated. (SON05)
	Distraction, safety concerns	I am very happy with the tools and technology I am using now. I found AI very distractive and burdensome (HMP04) If it doesn't advance their understanding, it's a distraction (SON04) I wish I knew how to integrate AI in a safe way rather than just banning it outright. (SON06) AI-generated medical documentation might be helpful, but students must not rely on it at the expense of real learning. (SON06) We should be talking about AI's benefits, but also its drawbacks. A balanced perspective is essential. (ECH05)

	Lack of preparation and readiness	Lack of knowledge and experience with using AI properly worries me (SON03) Lack knowledge of AI use makes me vulnerable and susceptible to risk of misuse (ECH01) I think it could decrease the amount of learning that taking place depending on how your course is set up. AI could be doing all the thinking for them [APHCS04] There is a behavior issue, knowledge issue, skill issue [HMP02] An example of a international student with very low scores but wrote an incredible paper (SON02) Neither faculty and students have developed minimal required proficiency level to use AI responsibly, but we can start first step here (HMP05) If we as faculty encourage students to use something we have no clue about, that's not ethical. (SSW10) I feel like it's unethical to proceed without a general understanding of AI. Faculty need training, just like we have building trainings. (SSW10) Are we preparing students for a workforce that no longer exists? (SSW10) We need to make sure students can think critically and adapt, not just use AI as a crutch. (SSW10) Students are using AI to complete hard tasks, like grant proposals, without understanding the process. We're not teaching them how to use AI responsibly. (SSW09) AI is already being used for case note writing in social work, but we're not training students on how to use it correctly. (SSW09)
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		The university's obsession with teaching writing skills makes AI feel like a threat, when in reality, we should be using AI to improve student expression. (SSW09)
	Misuse	Use AI to record and transcript faculty meeting, misuse these recording and transcript against faculty free speech and discussion, or distort the original meaning without checking context (ECH01) Intentionally unethical use (ECH01) AI to scan medical charts or HR reviews. Confidentiality is going to be a problem (APHCS01) A type of misuse is taking credit that AI produced (APHCS03) Use AI without fulling understanding its output, unable to discern its validity and accuracy (ECH04) AI can be misused to distort faculty discussions by recording and misrepresenting meetings. (ECH01) We are training students to depend on AI without understanding how knowledge is built. (ECH06) Some students are using AI to generate entire papers. We need to focus on maintaining their originality and critical thinking. (SON06, SON05) AI-generated assignments don't reflect student knowledge. They are just submitting what AI gives them. (SON06) There will come a time when we can't tell if an application essay or assignment is AI-generated or authentic. (SON06) I can tell when students use AI because it mislabels key terminology—it lacks real understanding. (ECH05) If we don't integrate AI into our writing curriculum, students will continue using it uncritically and submitting whatever it generates. (SSW09) AI should be used to support students in developing their own ideas, not just generating polished writing. (SSW09) Over-reliance on AI-generated case notes without verification could lead to major professional consequences, including litigation. (SSW09) I don't see AI benefiting my research class at all. Students need to engage in the research process themselves. (SON05)

	Replacement	Some jobs have been replaced by AI (ECH02) Is AI going to replace me (APHCS02) You know, we're really there for a lot of intangible things that I don't think AI can replicate in terms of how to explain things face to face, how to feed off of your audience and your students reactions to what you're saying.[APHCS04] Student are coming in learning differently that we did. They are no longer reading chapter after chapter. They are doing video quizzes, screens, etc. Figuring out how students study is a challenge. (SON01) I can get concerned a little AI replacing teachers (SON02) Students lose critical reasoning skills, creativity when relying on AI to do their work (SSW05) If we allow AI to do all the thinking, students won't develop the skills they need in healthcare. (SON06)
	Lack role identity, branding awareness at CHHS	There is a lack of branding and identity within the College of Health and Human Services. (AB01) Faculty and staff struggle to identify their roles clearly, leading to confusion among students and alumni. (AB01) Introducing branded shirts for faculty and staff could improve college awareness. (AB01) We need to rebuild relationships after AI hooks people in—personal engagement still matters. (AB01) Different roles are treated differently by stakeholders, making clear role identification important. (AB01)
Personal experience with AI	No or rare exposure	I don't use AI in my class, AI is prohibited in my courses (HMP04) I don't use AI in my class, I am not confident to do that (APHCS05) I don't use any AI unless it is imbedded in some kind of search engine (ECH01) I don't think I intentionally use AI. I may use it without knowing it. (SON03) AI responses in search engines make it harder to find unbiased, real information. I actively try to filter them out. (ECH05) I don't use AI intentionally, and I don't even know what all it can do. (SON05) Some teachers might find AI useful for pharmacology or pathophysiology, but I don't see much use for it in clinical teaching. I need to do more research before I can say how AI would actually fit into my courses. (SON05)
	Sporadic user	I use ChatGPT to brainstorm ideas, develop case studies (SON03) I use ClairATI to develop questions, I don't like it (SON3) I use AI to search information, identify key terms for search (ECH02) I use AI for mathematical equations. My health insurance used AI to analyze my dental x rays and made errors (APHCS01) I use AI to generate patient scenarios. We always have to fine tune it towards what we are looking for. It maybe saved me a little bit of the front end game.(APHCS03) I have am a new user, I have used it about a year. I used to find research articles in a literature review. (SSW01) I feel a little overwhelmed by how much there is already around AI and that I feel like I'm falling behind a little bit. I just learned about Notebook LM (SSW02) I use AI to simplify instructions for parents of my patients. It helps reduce complex terms into understandable language. (ECH06) AI could help generate test questions, but I wouldn't use them exactly as they are. I see the potential of AI in faculty work, but I'm not yet sure how to use it effectively. (SON06)
	Avid User	I use it alot and I encourage students to use it too. I use Grammarly on all my devices and apply it in emails.(SON01) I have actually attended all the AI conferences that we do that the university has done in May. (SSW03)

Needs	Training and Best Practice	Educate employees and students to acknowledge and be transparent about their AI-adoption (HMP04) There are plenty recourse for faculty, not for students (APHCS05) I need resource webpage for AI, including tools, standard, best practice, etc. (SON03) AI use seminars for students. Log in Should be Zoom on how to use AI properly, writing their papers, things like that.(APHCS01) We should take another perspective on AI and help them learn how to use it. (APHCS02) Leadership AI best practice suggestions, e.g. recording/summarizing meetings, creating a syllabus. Staff efficiency tools like ai meeting helper especially for departments who are sharing administrative support. I would like to hear about grant opportunities for purchasing AI. [HMP01] Just So You Know series on AI and technology (HMP03) AI IRB Task Force (Kim Clark, Micah Doolan, George Shaw, and Emily from Nursing) (HMP03) We need awareness training (SON02) We need more literacy about AI. Prefer one on one training or a smaller group. (SON04) I would like tutorial workshops like on Notebook LM. Short, like 45 mins. (SSW02) Training must start with awareness—many faculty don't even know what AI is capable of. (SON02) Students and faculty need AI awareness training—many don't know how to evaluate AI-generated content. (APHCS05) There's nothing at the college level to support faculty in AI adoption. (APHCS05) Training must start with awareness—many faculty don't even know what AI is capable of. (APHCS06) I tell my students: Once you are an expert, you realize that it takes you less time to do the work yourself than to fix what AI generates. (ECH06) I don't feel comfortable incorporating AI frequently because I don't know enough about it. (SON06) Faculty need training on how to allow students to use AI safely and effectively in the classroom. (SON06) We need faculty training on how to use AI in education—just like we have mandatory training for other technologies. (SSW09) I think interactive, asynchronous AI training with case-based applications would be the most useful format. (SSW09) I don't have much experience with AI, but I do think I need to do more research to understand what it's capable of. Workshops on AI would be helpful, just like the ones we have for Canvas. I need to learn more about AI before I can decide how to use it in teaching. (SON05, SSW08) Faculty need training to understand AI's capabilities—many are unsure how to integrate it effectively. (ECH03)
	Built-in surveillance	Tracking and monitoring are needed to assess AI use among students and all employees (SSW10) The university needs an AI policy, but it has to be reviewed regularly and adapted over time. (SSW10)

	Policies, standards and guidelines	What not to use and lousy case discussions (APHCS04) there probably should be AI committee (APHCS01) It just needs more thought as to policies that can be enforced by the department chairperson (APHCS01) Our academic policy is not use AI companion but we must teach our students responsible use because they're expected and required to use it in the workplace. [HMP02] Faculty should not feel forced to use AI if they believe it does not align with their teaching goals. (ECH06) I think if faculty are comfortable and want their students to use that, I think that's great. If they don't want their students to use AI, I think having that autonomy is a good thing (SON01) General policies at University level, specific requirements at each college and unit levels (HMP05) I need a practical AI workshop—short and focused, not a generic webinar. (APHCS04) Students and faculty need AI awareness training—many don't know how to evaluate AI-generated content. (APHCS06) Students are using AI whether we like it or not. We need AI policies and training at the university level. (SON07) Departments need clear AI policies—faculty shouldn't have to determine rules on their own. Currently, it's up to each faculty member to decide how to handle AI in their courses. (SSW07, ECH03) There is no universal AI policy in our department—each instructor sets their own rules. (SSW08) The university needs to establish AI guidelines that apply across departments. (SSW08)
	Tailored training sessions	So that's an area that's a weakness that I have is how to write good prompts, how to write more specific prompts, and then being able to help students learn how to do that as well. [APHCS02] I also think in teaching in teaching AI responsibility means showing students how to use it ethically to become a stronger social worker. (SSW01) regardless of whether I am prohibited in my class, we are educating students who are going into a world where AI exists. (SSW03) Short, quick series and workshop during summer, in person or virtual with more interactive learning between peers (APHCS04) I need specific learning community and workshop for things relevant to what I do (SON03) Not one size fit all, need to tailor training to meet faculty individual needs (ECH02) more specific policies in place the more helpful it is for us Like, you know, AI, but right now it's a very general policy (APHCS01) Can I get an AI for dummies class? Give me an intro of what it can do or that one do. I just need exposure. I don't have any. And I would like a group class. (APHCS03) I would like to know what other capabilities it has and prefer a lunch and learn (one to two hour workshop) and show me 3 to 5 really unique ways can could help in my role. I will not go out of my way to watch a webinar[APHCS04] We cannot prepare students for a workplace that no longer exists. However, we need to slow down and carefully assess the impact of advancing technology. Before rushing ahead, we must first develop AI and data literacy to ensure a strong foundation for the future (SSW10) I need a practical AI workshop—short and focused, not a generic webinar. (APHCS06) Many faculty members do not see the need for AI literacy training because they believe AI is unnecessary for their work. (ECH06) There needs to be structured AI education for faculty, focusing on both the benefits and risks. (ECH06) We need structured AI education for faculty, not just on how to use it, but also on its consequences. (SON06) Students are using AI no matter what. Faculty need better strategies to address this reality. (SON06) I want to know how students can use AI appropriately rather than just prohibiting it. (SON06)

		AI regulation exists, but it's very broad and doesn't feel specific to our work. AI training should be aligned with faculty incentives—if it's not valued in RPT, faculty won't invest time in it. (SSW10) AI training should be hands-on, scenario-based, and directly applicable to faculty and student needs. (SSW09) I would prefer asynchronous AI training so I can fit it into my schedule. (SON05) Faculty development should focus on AI's practical applications, not just theoretical discussions. (ECH03) AI training should be discipline-specific—we don't need a one-size-fits-all approach. (SSW06)
	Data and AI literacy	Help students and faculty know how to evaluate AI proper use, data validity (APHCS05) AI is best used as a guide, a support system—not something students should rely on exclusively. (SON07) We're already seeing the impact of AI in education—students are submitting AI-generated work without verifying accuracy. (SON07) We need small faculty discussion groups—like a book club but for AI use in education. (SON07) AI literacy should not just be about promoting AI—it should include an impartial discussion of its risks. (ECH05) AI literacy training should be integrated at the university level, not just left up to individual departments. (SSW09)
	Ethical governance	Develop ethical training for AI use like CITI for research conduct (ECH04) Establish ethical board to review AI use misconduct (ECH04) Faculty need shared governance for AI policies, where every team member mutually agrees on decisions. (SSW10) Many faculty avoid AI discussions because there's no clear policy, leaving everything up to personal choice. (ECH05) We need AI education before asking people to use it—understanding comes first. (ECH05)
	AI-Driven Alumni Engagement & Relationship Building	AI can be used to target specific interests of students and alumni, such as research or athletics. (AB01) Using AI to track alumni engagement could help build stronger relationships post-graduation. (AB01) AI has the potential to identify students' and alumni's geographical locations for virtual interactions. (AB01) Constant exposure to alma mater maintains an emotional connection. (AB01) Virtual reality could provide a brief, live review of daily operations at the university to enhance engagement. (AB01) Significant milestones and regular updates help sustain the maternal relationship with students. (AB01) AI could transcribe faculty-alumni interactions and link them to the alumni engagement office. Faculty need to implement AI in their daily work without it being an extra burden. The key is integrating AI without disrupting natural engagement processes. (AB01)
	CHHS level resources	If there is regulation, guideline and policy to promote AI responsible use, I will do it (HMP04) Nothing is available at college level (APHCS05, APHCS06) I prefer college and unit specific AI resource webpage, only for nursing (SON03) We need structured AI training for faculty—mandatory education on its implications and how to use it responsibly. (SON07) AI implementation varies widely—some departments are proactive, others are ignoring it altogether. (SON07) We're behind on how AI is being used in the social work profession—our curriculum needs to catch up. (SSW09)

College of Humanities & Earth and Social Sciences

For the Benefit of All Humankind, Guided by Kind Humans: AI in the Humanities & Earth and Social Sciences

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Justin R. Cary, Writing, Rhetoric and Digital Studies

Introduction: CHESS and AI

Humanists, scientists and social scientists explore some of humanity's greatest questions: what is the nature of consciousness? What does it mean to be human? What does environmental sustainability look like and how do we achieve it? How do societies organize themselves and engage with the world around them? These fundamentally human questions face the world today in a myriad of complex ways and approaching them requires innovative research from engaged scholars, interdisciplinary collaborations, ground-breaking, student-centered teaching methodologies and holistic support in all areas of human development for thinking, learning, teaching and real world application of knowledge.

Artificial Intelligence presents an exciting and challenging new chapter in the story of the Humanities & Earth and Social Sciences, complicating the fundamental questions of these disciplines further and calling students, faculty, administrators and staff to act in new ways to address the ethical, educational, ecological and social challenges this developing technological brings and the possibilities to further the College's vision it offers.

The College of Humanities & Earth and Social Sciences "is a community focused on learning, teaching, research, and engagement guided by an unshakeable commitment to humanistic values and ethical conduct and by a creative and entrepreneurial frame of mind in the global context in which the university exists." How will the rise of generative AI Tools impact these key areas of focus for CHESS? Will learning and teaching be hindered or bolstered by generative AI tools? How will CHESS take an active role in shaping our own AI future to align our vision for learning, teaching, researching and engagement with a world that is continually shaped by AI in order to prepare our students for success in such a world? These questions will be paramount, and indeed fundamentally human ones, in an increasingly AI saturated landscape.

The College of Humanities & Earth and Social Sciences is uniquely positioned to emerge as a leading voice in the successful development of a philosophy of AI in teaching and learning, policy review and in building faculty capacity for AI in collaboration with interdisciplinary partnerships across campus. ¹Dr. Martin Luther King, Jr. accepted the Nobel Peace Prize in 1964 and delivered a lecture at the University of Oslo the day after receiving this prize. In this speech, Dr. King spoke about the technological progress of humanity, noting:

"He has produced machines that think and instruments that peer into the unfathomable ranges of interstellar space. He has built gigantic bridges to span the seas and gargantuan buildings to kiss the skies. His airplanes and spaceships have dwarfed distance, placed

¹ Harding, Verity. "AI Needs You: How We Can Change AI's Future and Save Our Own", Princeton University Press, 2024.

time in chains, and carved highways through the stratosphere... Yet, in spite of these spectacular strides in science and technology, and still unlimited ones to come, something basic is missing. There is a sort of poverty of spirit which stands in glaring contrast to our scientific and technological abundance. The richer we have become materially, the poorer we have become morally and spiritually. We have learned to fly the air like birds and swim the sea like fish, but we have not learned the simple art of living together as brothers.²

Indeed, to underscore the importance of the Humanities, Earth and Social Sciences in the coming (and already here) age of AI is to underscore the need to address the humanity in the technology. Our college, and the experts, practitioners, scholars, students and researchers working together in collaboration with others across all fields, will join a chorus of voices to answer questions raised by Artificial Intelligence in the most ethical, responsible and critical ways possible in order to support the success of our students today for the world they will face tomorrow and attempt to contribute a continuing answer to Dr. King's call to address what must not continue to go missing in the age of AI.

CHESS contains seventeen departments in the humanities, social and behavioral sciences, natural sciences and military sciences, twenty-five applied research centers and interdisciplinary programs, four doctoral degrees, sixteen master's degrees, seventeen graduate certificates, eighteen graduate early-entry programs, forty-six degree options, over forty-five undergraduate minors and fifteen honors program. Presented here are some common findings and themes solicited from faculty surveys, student surveys, faculty discussion panels, and one open faculty in-person event. These findings represent views and voices from across CHESS and offer a spectrum of multi-stakeholder perspectives on how to shape the work of our college as we collaborate around developing a shared vision of AI teaching philosophy, policy and curricular integration of AI technologies.

Key Findings and Main Themes

1. AI as Collaborator and Partner Instead of Replacement

One key, emerging theme in much of the collected feedback focuses on the distinction between AI as a partner and collaborator rather than AI as replacement. Perceptions that AI technology is designed to replace traditional educational paradigms like reading, writing, critical thinking and research methods resound throughout the feedback. Many faculty are open to AI but want support on how to use it ethically and responsibly in order to avoid cognitive offloading and the loss of effective, traditional educational practices. In several conversations with CHESS faculty, specific learning outcomes such as critical thinking and communication arose as potential sites of erosion should AI be used as a replacement tool instead of a collaborative tool, or if used in unethical or irresponsible ways. Interdisciplinary learning and a re-emphasis on often overlooked and undervalued foundational disciplinary skills, often seen as less important than technical skills, emerged in discussions as possible solutions to perceptions of AI as replacement instead of collaborator. Additionally, the value of metacognition, reflection, reading and cognitive skills in general emerged as core values in CHESS which must not only be safeguarded but demonstrated as salient, powerful and just as well developed when taught, practiced and applied appropriately in collaboration with AI.

² Martin Luther King Jr., "Nobel Lecture," The Nobel Prize, December 11, 1964, <https://www.nobelprize.org/prizes/peace/1964/king/lecture>

2. Critical AI Literacy

Many faculty have serious ethical concerns about the use of AI in general and expressed the need for, if anything, a 'critical' approach to AI as the foundation for any work with AI in higher education, citing the need for deeply critical understandings of the ecological impact, ethical implication and harm these tools cause to various communities before considering using these tools for teaching and learning. A challenge faced here is actually defining the terms 'critical' and 'literacy' as these terms shift and change across disciplines, colleges and curricula. Several faculty discussed the need for a general education approach to AI Literacy, addressing the unique challenges of the current generation of students who have grown up immersed in technology while simultaneously addressing the ever changing nature of AI technology. AI Literacy Frameworks, a concept that emerged in conversation with several faculty members, may serve as a useful starting point to begin developing tangible methods, skills and habits for student success in CHESS and beyond. An additional branch of Critical AI Literacy focuses on the ethical implications of AI use. Several faculty from CHESS pointed to the potential harms of systems such as LLMs in how these systems reflect human thought processes and interactions and the importance of considering the broader social implications of LLMs, including potential reinforcement of prejudices, bias and the generation of untrue information. Multiple and varied perspectives emerged from survey responses and from small group discussions around AI Literacy and how, where and when students should develop AI Literacy skills, habits and knowledge. Faculty views on the integration of AI Literacy range from developing learning outcomes in various disciplines across the college to more critical approaches framed in refusal and resistance. Defining AI Literacy is a crucial first step and the College of Humanities & Earth and Social Sciences is positioned to lead with diverse faculty perspectives that "seek to deepen our understanding of complex problems and lead the university in interdisciplinary collaboration."³

3. AI Policy and Governance

There was not much specific mention of policy around AI, but in some discussions, faculty pointed to a desire to avoid sweeping, top-down AI policy; instead wanting more general guidelines so various units can make more nuanced decisions based on discipline specific needs for their outcomes, content and fields of study. As policy and governance agendas are decided, one clear theme has emerged: the need for multi-stakeholder groups of interdisciplinary experts and non-experts willing to work together to adopt flexible and forward-thinking policy that meet the needs of not only right now but of AI futures. Maintaining faculty autonomy while working within college governance structures will be key to building AI policy that serves the teaching, service and research agendas of CHESS faculty while simultaneously supporting the success of CHESS students.

4. Faculty Labor/Faculty Buy-In

Faculty labor emerged as a consistent theme throughout the collected feedback. Faculty want to learn how to effectively use AI tools but are concerned about the time and labor involved in becoming AI experts. Training, support and pedagogical development as related to the already high labor expectations for faculty at various ranks is an important aspect to consider in the faculty capacity building aspect of the Task Force charge. Where should students learn AI Literacy? In General Education? In discipline specific courses? Whatever the outcome, faculty are concerned with what the support around this

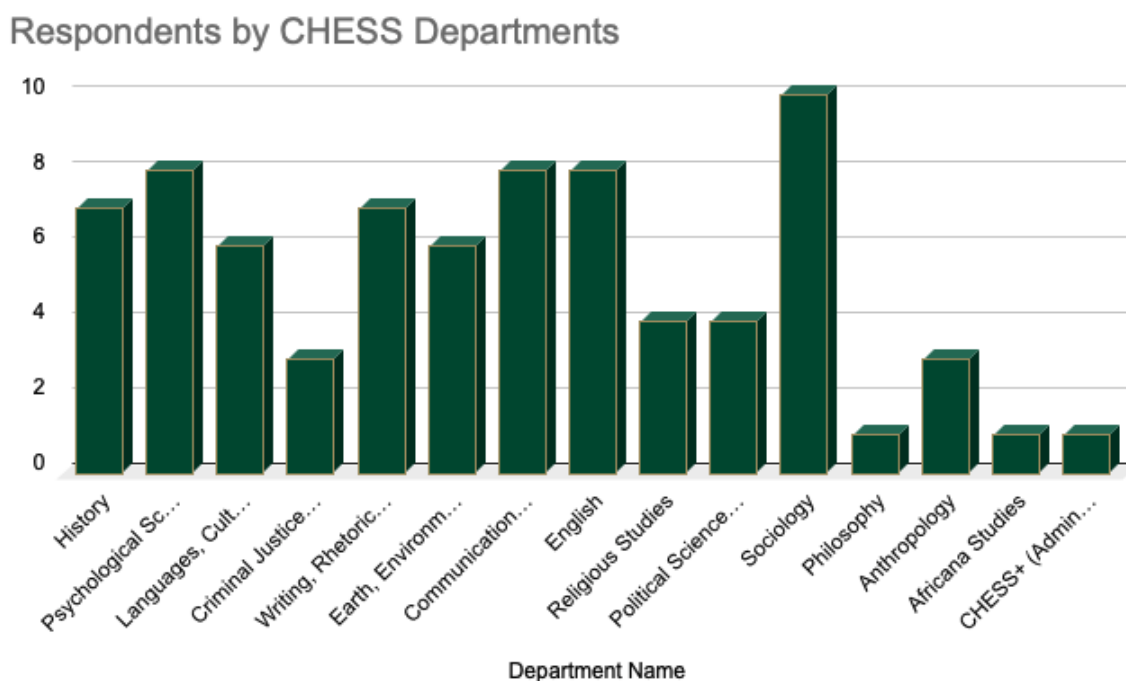
³ College of Humanities & Earth and Social Sciences <https://chess.charlotte.edu/>

investment and integration of AI into teaching best practices and pedagogy will look like. Another emerging theme connected to faculty buy-in speaks to the need to potentially move toward more sustainable models of AI in order to bring more faculty who might be resistant to using AI, due to the high environmental cost, to the table. One way to do this is to focus on creating more in-house solutions instead of relying on 'off the shelf' models; it may be possible to build versatile LLMs that use less training data and require far less energy using existing University groups' expertise and knowledge such as [the Center for Humane AI Studies](#) and the [Center for TAIMING AI](#)

Faculty Perspectives

The College of Humanities & Earth and Social Sciences is home to 350+ faculty across 18 units, 18 interdisciplinary programs and 7 applied centers. Collected here (Figure 1) is feedback from a College wide survey sent to all CHESS faculty, conversations with small group discussions of select CHESS faculty and administrators and feedback received from a CHESS 'open swim' event that welcomed anyone from the College to meet in person to share perspectives on AI in Teaching and Learning Task Force's charge.

Figure 1.



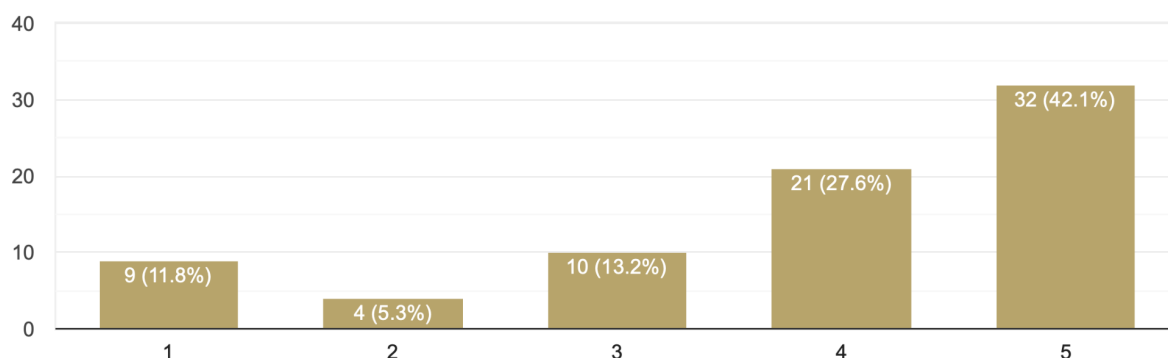
One of the strongest emerging themes from CHESS faculty centered around general optimism regarding developing ethical, responsible, practical, pedagogical and philosophical approaches to teaching and learning with AI and most faculty expressed strong desires for this development to be supported in clear and multiple ways. Many faculty would like to explore the practical, ethical and critical implications of AI in a comprehensive philosophy of teaching and learning but were uncertain how to begin this work in the context of already feeling invigorated by full teaching loads, research, service responsibilities and more. Faculty also expressed strong desires that the core mission of teaching and learning not be lost as we

develop a philosophy around AI in CHESS; specifically the need for critical thinking, communication, avoiding cognitive offloading and the core mission of the humanities and social sciences which states: “The College of Humanities & Earth and Social Sciences focuses on student-centered teaching, innovative research and community collaborations that prepare our graduates to help solve the pressing problems of our world today.” Faculty expressed a desire to discover ways to ethically and responsibly align teaching and learning with the mission of the college while maintaining faculty agency and autonomy. When asked to respond on a Likert Scale with 1 indicating ‘Strong Disagreement’ and 5 indicating “Strong Agreement’ to the statement: “Students need tangible and identifiable disciplinary AI skills in order to use AI software responsibly and ethically in their academic work”, 42% of respondents Strongly Agreed with this statement (Figure 2).

Figure 2.

Students need tangible and identifiable disciplinary AI skills in order to use AI software responsibly and ethically in their academic work.

76 responses

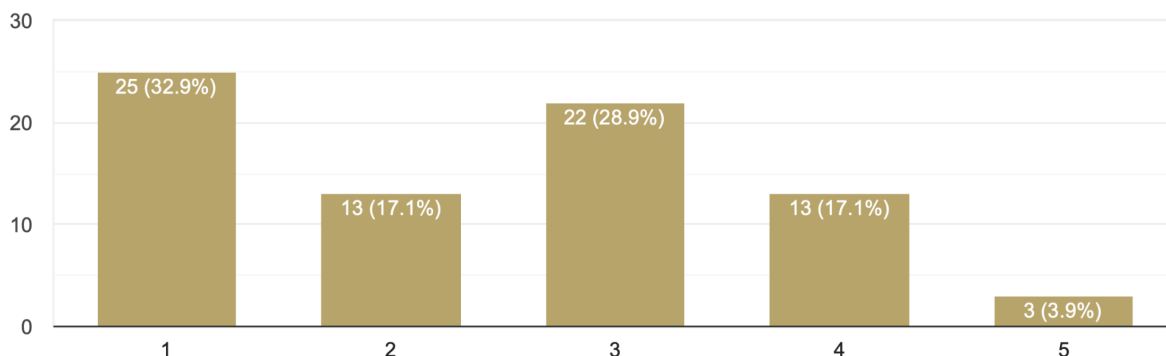


Faculty also expressed deep concerns about the impact of AI in a more holistic way with many survey respondents offering perspectives that CHESS should consider a more hard-line policy stance against the use of AI in general. Many faculty shared opinions that AI tools simply cannot be used ethically and these tools are foundationally built in such a way as to implicitly harm not only those who use them but those groups whose data was taken and used to train LLMs in order to build these systems. These perspectives express that particular groups were harmed in the building, propagation and use of these tools and will continue to be harmed. Faculty feedback demonstrates a wide spectrum of views when it comes to policy around AI and many faculty have identified significant gaps around policy, pointing out that AI policy, while necessary, can be challenging for students when that policy remains inconsistent across classes and disciplines. When presented with the statement “AI software adds positive value to students’ learning outcomes and success’, 32% of survey respondents strongly disagreed with this statement (Figure 3).

Figure 3.

AI software adds positive value to students' learning outcomes and success.

76 responses



Critical AI Literacy, a term with differing definitions, also emerged as a consistent theme among respondents. The third charge of the AI in Teaching and Learning Task Force focuses on Building faculty Capacity for AI Integration in Teaching and Learning and this concept of AI Critical Literacy connects to this charge. Many faculty expressed a need to build and develop core, AI Literacy skills in students as they move through various disciplines and departments of the University but faculty were also unsure where and how this work should be done. Questions emerged around whether this work of building AI Literacy should occur in general education or should be more disciplinary focused; if it should happen outside of disciplines and departments through organizations such as the Center for Teaching and Learning or if individual instructors should have the freedom to teach and develop their own AI Literacy skills on a course to course basis. Overall, faculty expressed a desire to develop AI Literacy for students and faculty but needed support and guidance from the broader college and University to do this.

Student Perspectives

Responsible use around AI tools among students has emerged as a significant theme in the collected data. Students feel a keen sense that these new, generative AI tools present an opportunity for additional pathways to learning and success in academic work while at the same time raising significant questions around how to use them ethically, responsibly and in ways that will not hinder the very reasons students are here at the University in the first place. From the comments students shared in the student survey, the vast majority are very aware of why they are attending a top-tier academic University and many do not wish to use a tool that they perceive as something that will negatively impact the learning they want to acquire at Charlotte. These responses around responsible use, using AI in ways that will support learning, support student success, and address the key moral, ethical and cultural concerns around AI platforms and their use remains a crucial factor for students.

Critical AI Literacy skill building also emerged as a key theme for students. In the survey data, many respondents desired more open discussion, teaching and learning around tangible skills related to AI throughout their academic experience at Charlotte. Open discussion, directly addressing the impact and use of AI and clear policy around its use were some of the themes and suggestions students point to in survey responses. Several respondents specifically mentioned cheating which also falls in this AI Literacy

category and is a theme that has emerged in many other areas of the data as well. Many students wish for a stronger AI Literacy framework to be integrated throughout their academic experience in order to build the skills and competencies they need to better understand what 'cheating' means when dealing with AI, how to use AI responsibly, when not to use AI, etc. These themes of AI literacy resound throughout the student feedback survey.

Another important theme from the student feedback centered around the great benefits of AI for neurodivergent students and the immense boon these tools provide for students who learn in different ways and can leverage the power of AI tools to co-create materials for learning in different modes as needed. Several respondents pointed to the great benefits of AI for planning, ideation, process-based work and outlining and discussed how impactful and useful these tools can be when used as co-constructive agents.

One last theme that appears throughout the survey is also a desire for AI to simply be prohibited. Many students expressed serious concern that AI, holistically, is unethical and there is no clear path to use these tools responsibly. On top of that, many students expressed concerns that no amount of literacy building or policy making would be able to stop those who desire to do so from simply copying and pasting AI output from bots and calling it their work.

These responses are representative of the spectrum that is the AI experience: AI tools present great benefits when used in responsible ways and simultaneously represent great challenges and pose extremely valid concerns to a great many stakeholders.

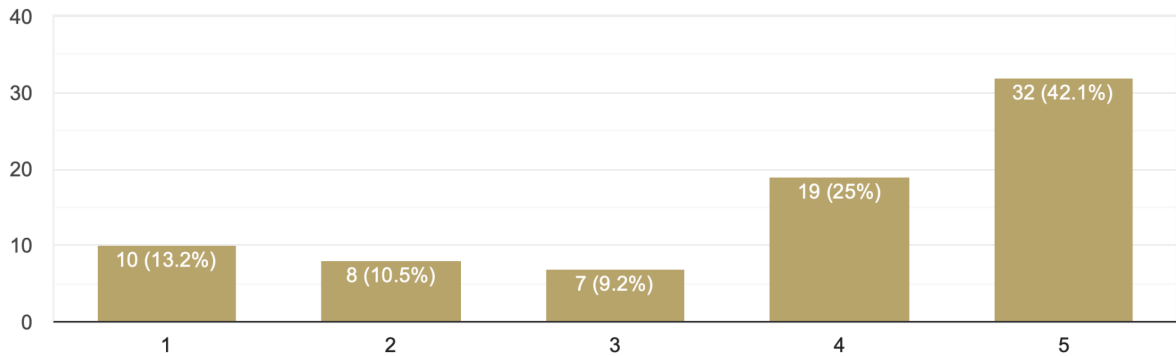
Policy Review Recommendations

A 'one size fits all' policy for AI use will always be a difficult goal. In many of the small group discussions with CHESS Faculty during the work of this Task Force, the concept of creating policy not for the present moment but for a future as yet unshaped entered into the conversation. AI Policy that both addresses the pressing needs of students, faculty and administrators in the current moment but is flexible and open-ended enough to also anticipate an as of yet unshaped AI future will be paramount. As seen in the data collected, the user experience with AI is a spectrum of viewpoints that vary from those who wish to ban this technology outright to those who wish to collaborate with it on everything they do. None of these perspectives are incorrect and all of them hold value which is why policy decisions around AI become so challenging, situationally specific and should remain flexible. To this end, it may be best to develop policy that serves the needs of faculty, students and administrative stakeholders situationally while maintaining a core ethical and responsible use 'compass' to guide decisions. A part of that 'compass' must also be University policy on academic integrity which can become a little mystified because of the nature of AI systems with regard to tokens and how neural networks actually create output. Because of this, it will be important to create a policy that is flexible and disciplinarily broad enough that does not seem confusing to students and faculty. Individual departments may or may not have their own AI policies. The [Office of Legal Affairs](#) general policy on the use of AI language for course syllabi exists to provide language for faculty to use in their syllabi and faculty should remain consistent with the decisions they make around the use of AI in their courses; if AI is permitted, AI use should be supported and used as responsibly as possible. Relying on campus partners such as The Center for Teaching and Learning and disciplinary and departmental leaders is a recommended way for faculty to gauge what responsible use means in their own course and discipline. When presented with the statement "My discipline/department should develop curriculum and discipline based AI policies around the ethical and responsible use of AI software" 42% of survey respondents Strongly Agreed with this statement (Figure 4).

Figure 4.

My discipline/department should develop curriculum and discipline based AI policies around the ethical and responsible use of AI software.

76 responses



Moving forward, it will be useful to establish a body, similar to the Faculty Council, in CHESS, composed of faculty, administrators and perhaps students, who have a stake in AI and wish to help determine a flexible and practical AI policy that can work both universally for the College and individually for departments. This new “AI Advisory Council” would be able to listen to the needs of departments and make recommendations for how to address disciplinary specific needs around AI in flexible ways while adhering to more general, holistic college level AI policy that could be forged at the College level.

Recommendations

1. AI Oversight and Governance

- **Establishment of an Interdisciplinary, Multi-Stakeholder College Level AI Committee:**
 - Functioning similarly to a Faculty Council, this committee will oversee AI-related matters.
 - Membership will include faculty, students, and contingent faculty to ensure diverse perspectives.
 - The committee will provide guidance and recommendations on AI policy and implementation.

2. AI Literacy in CHESS

- **Disciplinary, Pedagogical, and Curricular Support:**
 - Provide widespread and tailored support for individual faculty members across the College of Humanities & Earth and Social Sciences (CHESS).
 - Focus on developing faculty AI literacy specific to their disciplines.
 - Unique and specific support to each department.
 - Continued discussions and engagement around interdisciplinary approaches to AI Literacy to foster student success and engagement.

3. Interdisciplinary Collaboration and Partnerships

- **Cross-College Collaboration:**
 - Foster ongoing collaboration between CHESS and other colleges to promote interdisciplinary perspectives on AI.
 - Build capacity for critical AI literacy through collaborative projects.
- **Campus and Community Partnerships:**
 - Establish and maintain partnerships with campus and community organizations to expand AI literacy initiatives.

4. Departmental Autonomy and Decision-Making

- **Disciplinary Best Practices:**
 - Support departmental autonomy in AI-related decisions, guided by disciplinary best practices.
 - Ensure collaboration with the college-level multi-stakeholder committee for consistency and alignment.

5. Policy Review and Development

- **Interdisciplinary Policy Approaches:**
 - Conduct interdisciplinary reviews of policies related to AI curricular integration, student success outcomes, and faculty capacity building.
 - Focus on teaching and learning implications.

6. College Leadership and Communication

- **Consistent Messaging:**

- Provide clear and consistent messaging from college leadership, aligned with the CHES vision.
- Address student and faculty apprehension and confusion regarding AI.

7. Infrastructure and Resource Development

- **Establishment of AI Literacy Centers and Labs:**
 - Create dedicated physical spaces and locations on campus for students and faculty to develop AI literacy skills.
 - Provide robust funding and support for these centers and labs.
- **Alignment with CHES and University Vision:**
 - Ensure that AI literacy initiatives support the ethical and responsible humanities vision of CHES and the research vision of the university.

Note: A special thank you to everyone from The College of Humanities & Earth and Social Sciences who dedicated their time, energy, thinking and insights to this process. The only path forward with artificial intelligence is one we forge together; not just unified as a College but as a University and as a people dedicated to ensuring a future in which the best of humankind is reflected in the technology humanity has created. As educators, we all share a singular vision: to foster a life-long love of learning in our students and ensure they move through the world with a curious and keen mind, an enkindled spirit, a willing heart and a grounded foundation of skills for success in the pursuits of their lives. Artificial Intelligence has the potential to benefit all humankind if approached, built, criticized, analyzed, demythologized, used, applied and embraced by kind humans. Thank you to all the kind humans who helped shape this report and may we travel this road together.

J. Murrey Atkins Library

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Beth Caruso, Digital Pedagogy & Emerging Technologies Librarian

Participants

- Christin Lampkowski - Emerging Technologies Librarian, Area 49
- Thomas Crocker - Technology & Multimedia Production Coordinator, Area 49
- Marc Bess - First Year & Online Learning Librarian, Instruction & Curriculum Engagement
- Kim Looby - Instruction & Information Literacy Librarian, Instruction & Curriculum Engagement
- Jenn Brosek - Collection Strategist, Collection Services

Introduction

The nature of teaching and learning in the library is quite different than within the academic colleges. Library instruction occurs at the instructor's request and can be facilitated by subject librarians for the disciplines, Area 49 librarians and staff, and/or the Special Collections instruction librarian, depending on the focus. These sessions often occur for a single class session, though some occur over multiple sessions to cover a number of skills and engagement types. Unless a librarian has been working with a class long-term on a specific project, however, librarians seldom see students' finished projects.

The library serves the entire campus community in a number of ways. However, in order for the library to be best positioned to continue this work and also support upcoming initiatives in teaching and learning, and more, we recommend that colleges and instructors let the library know what is happening in assignments and research, regardless of library course requests. This way, the library can be aware of needs and also advise accordingly, based on the capabilities and availability of library resources (both holdings and personnel).

This report represents the perspectives found throughout Atkins Library, as remarked upon by the participants above, through one-on-one interviews, and group discussions, and written insights, as well as the perspective of the writer of this report, all of whom are stakeholders in teaching and learning in Atkins Library.

Current AI Activities in Atkins Library

The library has already been a source of AI knowledge and insight, teaching transferable skills and creative methods of incorporating AI into student, researcher, and faculty work in classes, consultations, and workshops. Some key instances of AI instruction in Atkins Library include, but are not limited to:

- Business Marketing course - Using generative AI tools in media creation software
- Media Literacy course - AI tools in video manipulation
- WRDS course - How AI can be used well in the writing process and to supplement it
- Workshop for CGLL - Creativity & Artificial Intelligence: Approaches for Transforming Graduate Research

Library Instruction

Including AI does not seem to be changing the learning outcomes of library classes much, if at all, since library instruction has always focused on teaching toward transferable skills and how they apply to the particular course, but also how students can use those skills in other courses and additional contexts. Just as library research instruction moved from using the card catalog to understanding long-form Boolean search to using library databases, and ebooks and electronic sources were not allowed in research, the skills are similar, but the tools, methods, and materials change over time. The library understands that there is an urge to use AI, but with environmental concerns, as well as the overabundance of other skills students need to learn, we recognize that using AI just for the sake of using it is unproductive, and that strategically aligning AI activities with course activities and goals is much more conducive to both learning and ethical consumption.

However, there are a number of logistical questions about how we will handle AI within classes, when requests will increasingly involve not only the content that we have typically included, but now also AI skills, literacy, and critical thinking. In library instruction sessions, time is a big obstacle. Instruction sessions are typically once per semester and are tied close to assignments and course goals. Incorporating AI into a course session already focused on other content will be a challenge, particularly when students have not had AI experience before attending the session. Here, the librarian would be responsible, not only for the main content, but also for the crash course in AI, which will likely be insufficient for shorter classes and more complex activities. Ultimately, this could result in planning additional course sessions and a larger workload for librarians. Librarians may find it helpful to pre-determine possibilities for incorporating AI efficiently into a variety of typical scenarios to save vital instruction time and maximize information sharing and active learning opportunities.

We have found that some instructors are hesitant about the use of AI in the classroom, but still want students to learn AI skills. In this case, one strategy that has been both used and encouraged by librarians is to shift the use of AI based on the skill the students are learning. Instead of using AI as a substitute for all skills, work, and tools, use it to speed along a skill that is less of a focus of that lesson. This is also reflective of authentic work, as students will use AI in varying contexts for a wide array of reasons.

Atkins Library has always been a point of assistance, support, and education for the campus community and will continue this role in the context of AI, including through consultations, instruction facilitation, research and ideation assistance, pairing AI with library tools and technology, and any creative and innovative approaches to using information resources and technologies and applying critical thinking.

Availability of Tools

The library, particularly Area 49, often receives requests for activities facilitating the use of popular tools. While the library may use a specific tool to teach a skill, the goal is to teach skills that are transferable, rather than simply teach tools themselves, particularly since tools can change so quickly. However, instructors do come with specific requests for tools, skills, and activities, requiring finding and accessing particular tools. However, many programs are not free, and often, there is no funding available for the program or approval would take unavailable time. In other cases, payment or license structures do not match use cases. For example, a class license is available, but our one-shot classes have different students each time, and there is no workstation-only license.

The library can be a point of access for these tools in teaching and learning, as well as for housing programs for students to access them in a central location, though license agreements would need to be such that it is feasible to do so. Additionally, purchasing every program for each student would not be appropriate, as there are a vast array of programs being used in different disciplines, even in the general education courses. However, a rotating availability of programs, based on their popularity, may be appropriate. Not all programs are going to be as critical, as other programs take the lead as time goes on, and instructors will shift the programs they require use of for their classes, as industry and course projects change. Although the library can be of some assistance in suggesting and acquiring software, such as those that pair with library spaces and services, we will continue to rely on the current OneIT structure for software acquisition. However, the library is a prime space to provide access to these programs, once acquired.

Library Online Resources & AI

The library acquires access to online resources (databases, journals, ebooks, streaming media, data) for our user community. We have to sign licenses with the vendor or publisher for these resources. In these licenses there are sections for approved and restricted uses. Previous licenses did not mention AI, but we are seeing that current licenses are starting to put in restrictions. While we try to negotiate the most liberal possible terms related to using AI with licensed resources, we have only been able to get approved license clauses for Large Language Model (LLM) AI use for research specific AI use cases. This includes cases involving being hosted on local servers, only accessible to our user community, not creating derivatives, or competing commercial products - all aspects that are included in 'Restricted Use' sections in vendor licenses pre-AI. By focusing the wording in the license on what our users cannot do, it allows us the most freedom for our users to use AI as it evolves.

AI is often considered as a tool that can be used in reading preparation, literature reviews, and other course projects. However, activities such as these would go against our licenses with vendors and publishers which would result in access being suspended until the activity is stopped. Otherwise, our access could be terminated causing us to lose access for the entire campus community. We are trying to work with vendors and publishers to explain that non-research use for generating an output (Generative AI) is not enforceable or always detectable. However the library community thus far has only been successful in the LLM language related to scoped research projects as worded in the paragraph above.

We reached out to the Office of Legal Affairs in October 2024 to request assistance with wording on the licensing checklist that will give us university backing for negotiating AI licenses with vendors and publishers. We reiterate that request here and ask that these issues and license constraints be considered by the Committee and the University as AI work continues.

Moving Forward for Library Faculty & Staff

Ultimately, in order to continue serving as a hub for campus assistance, support, and education, the library must remain up-to-date on AI information and skills in order to feel comfortable handling a wide variety of requests. Continued professional development and shared-knowledge initiatives for those involved in this work will be necessary, as AI will continue to evolve. Additionally, since campus groups will have differing relationships with and fluctuating goals relative to AI, Atkins faculty and staff will need to determine how to articulate the variety of ways in which the library can approach AI and what we can offer the campus. Atkins may also find the need to determine alternative suggestions for instructors and

researchers who are using AI in ways that are at odds with library online resource license agreements and also possibilities for incorporating AI efficiently into instruction for a variety of scenarios.

Themes

Philosophy of Teaching & Learning with AI

- Logistical Challenges of AI Integration in Library courses:
 - Finding: Incorporating AI into classes involves addressing logistical issues such as limited time, content coverage, and access to programs.
 - Recommendation: Library instructors will need to determine best practices in incorporating AI into content-based instruction to use instruction time efficiently.
- Strategic Alignment of AI Activities within Instruction:
 - Finding: There is a need for AI instruction, but it can easily veer off-course from intended content goals.
 - Recommendation: AI activities should be strategically aligned with course activities and goals to enhance learning.

Policy Review

- Centralized Access to AI Programs:
 - Finding: There is a need for access to AI programs, but not app programs provide ideal access models.
 - Recommendation: The library can provide centralized access to AI programs, reducing the need for individual licenses.
- License Restrictions on AI Use:
 - Finding: AI use can conflict with existing library online resource licenses, requiring careful negotiation and adherence to terms.
 - Recommendation: The Library seeks guidance from the Office of Legal Affairs in best practices for handling these issues and drafting recommended language for use in contracts with vendors.

Capacity Building for Faculty

- Communication between Library and Colleges/Instructors:
 - Finding: Instructors often determine projects and activities, assuming the library is able to support in the desired ways, but this is not always the case, due to workload, and access and availability of resources.
 - Recommendation: Colleges and instructors should inform the library about ongoing assignments and research projects to ensure access and availability of resources and support.
- Varied AI Relationships on Campus:
 - Finding: Different campus groups have unique relationships with AI, requiring tailored approaches from the library.
 - Recommendation:
- Professional Development for Library Faculty & Staff:
 - Finding: Many librarians are seeking AI professional development on their own due to their own interests or because of the requests they are receiving.
 - Recommendation: Continued professional development and shared-knowledge initiatives are necessary for library staff to stay updated on AI information and skills.

- Library as a Support Hub for AI Initiatives:
 - Finding: The library continues to serve as a hub for AI-related assistance, support, and education for the campus community.
 - Recommendation: University constituents should continue to consider the library as a hub for AI-related assistance, support, and education for the campus community, but should also inform the library of their own college's trends and intentions, so the library can reinforce this work.

Key Points

Instruction occurs in multiple places throughout the library – in courses, workshops, and consultations – and can be facilitated by subject librarians for the disciplines, Area 49 librarians and staff, and/or the Special Collections instruction librarian, depending on the focus.

1. The library has already been a source of AI knowledge and insight, teaching transferable skills and creative methods of incorporating AI into student, researcher, and faculty work in classes, consultations, and workshops. However, in order for the library to be best positioned to continue this work and also support upcoming initiatives, we recommend that colleges and instructors let the library know what is happening in assignments and research, regardless of library course requests. This way, the library can be aware of needs and also advise accordingly, based on the capabilities and availability of library resources (both holdings and personnel).
2. In library instruction sessions, time is a big obstacle. Instruction sessions are typically once per semester and are tied close to assignments and course goals. There are a number of logistical questions about how we will handle AI within classes, when requests will increasingly involve not only the content that we have typically included, but now also AI skills and literacy.
3. The library can be a point of access for a number of AI programs that can serve the full campus, providing workstation access without needing to provide individual access for each user at all times. Though not all programs will offer this option, those that do can be available for users in the library.
4. Since campus groups will have differing relationships with and fluctuating goals relative to AI, we will need to determine how we articulate the variety of ways in which the library can approach AI and what we can offer the campus.

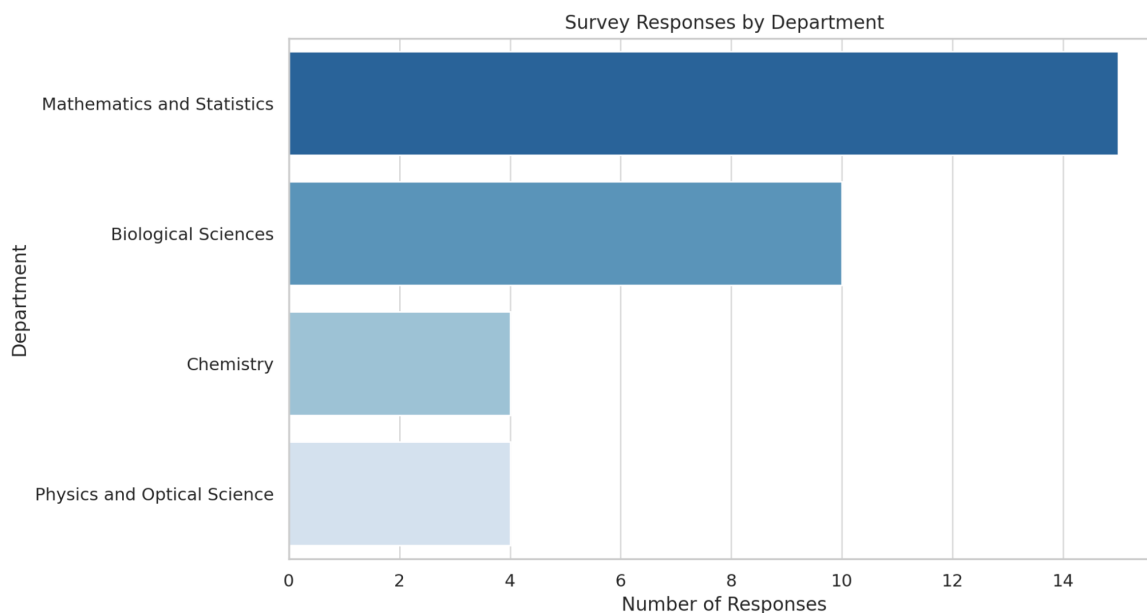
Klein College of Science

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Samantha Suptela, Biological Sciences

Introduction

The KCOS AI Task Force Faculty gathered input through a college-wide survey (33 respondents) and focus group meeting (6 participants), along with informal conversations and correspondences. The survey consisted of 22 questions related to AI in teaching and learning. The numbers of survey respondents by department are shown below.



The Klein College of Science at Charlotte is uniquely positioned to leverage AI to enhance research, teaching, and learning across our diverse scientific disciplines. It is appreciated that AI is transforming the landscape of scientific inquiry by enabling more efficient data analysis, accelerating discoveries, and providing innovative approaches to solving complex problems. Additionally, AI's integration into education is reshaping pedagogy, creating opportunities for personalized learning, and revolutionizing assessment methods.

As AI rapidly evolves, our faculty and students must adapt to its applications while also considering the ethical, technical, and pedagogical impacts on teaching and learning. The pace of AI development presents challenges in ensuring that its use remains responsible, equitable, and aligned with academic integrity principles. Our faculty members have expressed both enthusiasm and apprehension regarding AI's role in higher education, highlighting the need for structured guidance, policy development, and professional training to maximize its benefits while mitigating potential risks.

This report presents an overview of AI's current and potential uses in KCOS, along with faculty perspectives on its integration into teaching and learning. Based on the survey responses and faculty conversations, several faculty members have reported using AI in their teaching and research. For instance, one respondent from the Biological Sciences department mentioned utilizing AI tools like AlphaFold, which is an AI system developed by DeepMind to predict protein structures. Another faculty member highlighted the use of AI to generate practice problems for classes, enhancing the learning experience for students. Additionally, some educators have observed students effectively employing AI in coursework, such as using AI to assist in summarization of notes or to create exam reviews. These examples illustrate the diverse applications of AI within the institution, ranging from research tools to educational aids, reflecting a growing integration of AI technologies in higher education. However, many faculty have not used AI in their teaching and research at all, reporting no direct experience or structured policies related to AI. Of those faculty that see AI's potential in teaching and research, many remain hesitant due to ethical, technical, or pedagogical concerns. Some faculty are uncertain about a potential role for AI in their courses, while others who may be on the fence end up avoiding it due to lack of guidance and unclear policies.

This suggests a gap in AI awareness and structured AI training, which hinders adoption in teaching and does not increase faculty confidence in AI usage. Faculty may need more exposure, training, or guidance on AI integration to move beyond this uncertainty. Workshops, presentations by other faculty currently using AI, and structured guidance could be provided to help faculty explore AI tools and their applications. This would be beneficial to all faculty, regardless of their AI adoption and usage status. Additionally, the diverse perspectives across disciplines suggest the need for flexible policies that accommodate different levels of AI adoption based on discipline-specific needs, with the possibility of addressing concerns through faculty discussions and workshops. AI literacy programs could also be considered. AI guidelines tailored to different disciplines could encourage informed adoption, assuage the cautious skepticism, and increase ethical usage of AI within KCOS.

The insights gathered here illustrate how AI can be effectively integrated into scientific disciplines while addressing concerns related to its ethical and technical implications. By fostering a culture of informed and conscientious AI adoption, KCOS can prepare students and researchers to be leaders in an increasingly AI-driven world.

Overview: Current Thoughts and Applications of AI in Klein College of Science

KCOS faculty are already incorporating AI into teaching and research in various ways. Based on survey responses and faculty conversations, the following are examples of applications that have been noted and/or used:

AI in Teaching: AI is being used to generate practice problems, enhance student engagement, and create personalized learning experiences. Some instructors integrate AI tools for note summarization and exam review, helping students optimize study strategies. Faculty report increased interest in AI-based laboratory applications, such as automated data analysis and computational biology exercises.

AI in Research: Computational tools such as AlphaFold are used to predict protein structures, advancing molecular biology research. AI-powered modeling and simulations support physics and chemistry research, particularly in drug discovery and materials science. Machine learning algorithms analyze large datasets

However, despite these advancements, many faculty members remain hesitant to adopt AI due to concerns over ethical implications, technical barriers, and a lack of clear policies.

Insights: Current Thoughts and Applications of AI in Klein College of Science

Disclaimer: This is not exhaustive and is based on the survey responses, focus group, and conversations of faculty who participated.

AI in Teaching

1. Within the basic sciences, there is a need to enhance conceptual understanding for students and provide more opportunities for experiential learning and experimentation.

In KCOS (and basic science majors in general), the need for our students to gain a thorough conceptual understanding of the scientific process and learn through experimentation via hands-on research is paramount, but unfortunately not feasible given the number of undergraduate students we have and the constraints on space, time and funding of our research faculty. It is appreciated that the addition of more Course-Based Undergraduate Research Experiences (CUREs) at Charlotte have increased student participation in research. However, the use of AI-powered virtual labs and simulations in the classroom setting can also further help students visualize/practice complex scientific concepts by replicating complex/costly experiments that these students may otherwise not be exposed to if they did not join a research lab. Depending on the discipline, AI integration in the classroom could provide specific benefits. AI programs that are related to biology could be used to simulate biological processes like CRISPR, explore cell structures, conduct virtual dissections, or model signaling pathways. AI tools in chemistry could help students visualize molecules and structures, predict chemical reactions, and conduct virtual experiments. AI-based physics simulations could allow students to experiment with forces, motion, and quantum mechanics. AI tools in mathematics could assist with graphing, statistical analysis, and equation solving.

Example Tools:

Tool Name	Description
Labster	AI-powered virtual labs with experiments in genetics, microbiology, physiology, and ecology. AI simulations for organic, inorganic, and analytical chemistry. Virtual labs covering waves, electromagnetism, and mechanics.
BioDigital Human	AI-driven 3D anatomy simulation for medical and biological sciences.
Visible Body	AI-enhanced human anatomy and physiology learning tool.
Virtual Heart Lab (Stanford University)	AI-powered cardiovascular simulation.
TissueScope AI	AI-based microscopy simulation for histology and pathology education.
MolView	AI-powered molecular modeling and visualization.

ChemCollective Virtual Lab	AI-driven chemistry lab simulator for performing experiments.
IBM RXN for Chemistry	AI-based reaction prediction and retrosynthesis analysis.
MarvinSketch	AI-driven chemical drawing and molecule prediction tool.
PhET Interactive Simulations (University of Colorado Boulder)	AI-powered physics simulations for mechanics, electricity, optics, and quantum physics.
QuEra Quantum Lab	AI-driven quantum physics simulation.
Physion	AI-powered 2D physics simulator for real-world applications.
GeoGebra AI	AI-powered math visualization for algebra, calculus, and geometry.
Desmos AI Calculator	AI-enhanced graphing calculator with interactive functions.
Wolfram Alpha	AI-driven symbolic computation and calculus solver.
Microsoft Math Solver	AI-powered step-by-step problem-solving tool.

2. AI can help faculty with feedback, assessment, and automated grading.

AI has the ability to efficiently provide instant feedback on assignments, quizzes, and lab reports. The benefits of this include saving faculty time, providing instant feedback to students, and detecting plagiarism. For our students, getting immediate, detailed, and formative feedback promotes active learning and self-assessment. However, it is important that the teaching team also maintains communication with students, encourages questions/conversations about grades and feedback, and continues to provide their own feedback when applicable. These tools should not replace the instructor.

Example Tools:

Tool Name	Description
Gradescope	Uses AI to assist with grading essays, programming assignments, and multiple-choice exams. Used by several faculty with positive experiences.
Turnitin	Analyzes student writing for originality and proper citation. Many faculty have experience with this.
LightSide Lab	Uses natural language processing (NLP) to provide feedback on writing.

3. AI can help faculty with course content creation, student engagement, and classroom participation.

AI can help generate teaching materials, presentations, and interactive content for students that encourage interactive learning and engagement. Using these tools can help make learning more interactive and engaging, enable real-time feedback during lectures, and increase active participation-

especially in large classes. Most of our introductory courses and some upper-level courses in KCOS are large courses.

Example Tools:

Tool Name	Description
ChatGPT & Claude AI	Generate lesson plans, quizzes, and summaries.
Synthesia & HeyGen	Create AI-powered video lectures with virtual avatars.
Perusall	Uses AI to facilitate collaborative reading and discussion in online courses.
Mentimeter	Uses AI to generate real-time polls, quizzes, and discussion prompts.
Kahoot! AI	Assists in creating gamified quizzes for classroom engagement.
EdPuzzle	AI-enhanced video-based learning platform with built-in assessments.
InScribe	AI-powered online student community that promotes engagement, peer-to-peer interactions, and learning efficacy.

4. AI can be beneficial for students by providing adaptive learning and personalized learning paths in biology, chemistry, math, and physics.

Adaptive learning systems powered by AI can tailor content to individual learning paces and styles in basic sciences. They can adjust the difficulty of content based on individual student performance, identify knowledge gaps and provide targeted support, and increase student engagement. This ultimately can improve mastery of foundational scientific concepts. Adaptive learning also supports the diverse learning needs and backgrounds of students in the basic sciences.

Example Tools:

Tool Name	Uses
ALEKS	(McGraw Hill) Math and chemistry courses
Knewton Alta	Mathematics, physics, and chemistry courses
Smart Sparrow	Biology, chemistry, and physics courses. Provides personalized digital tutoring in science and medical education. Also provides interactive STEM simulations.
Coursera & edX (AI-Enhanced STEM Courses)	Math, physics, and biology courses.
Thinkster Math	Math courses.

5. AI can help students gain problem solving skills.

AI can simulate real-world scientific scenarios, promoting problem-based learning. Specifically, AI tutors can be used to scaffold complex problem-solving processes, especially in physics and chemistry. They can provide step-by-step problem-solving support. They answer routine student questions 24/7. We don't want students to rely on AI to solve problems or hinder development of critical thinking, but this could be a supplement to their learning if used correctly as a teaching tool.

Example Tools:

Tool Name	Uses
Jill Watson (Georgia Tech)	An AI teaching assistant that answers student questions in online discussion forums.
Socratic by Google	An AI tutor for problem-solving in math, science, and writing.
Querium	Provides AI-powered tutoring in STEM subjects.

AI in Research

6. AI can assist with hypothesis generation, experimental design, and data analysis.

AI tools can be used as a supplement for data interpretation and analysis, which is critical for scientific research. In the context of data analysis, AI is a powerful tool that can process massive datasets faster and more accurately than humans, helping researchers identify patterns and insights. Additionally, AI can assist researchers in generating new research questions and optimizing experimental setups.

Examples:

- AI models can analyze genomics data to find gene mutations associated with diseases.
- **DeepMind's AlphaFold** – Predicts protein structures.
- **DeepChem** – Machine learning for quantum chemistry and molecular modeling.
- **BenevolentAI** – AI-powered program used for drug discovery in pharmaceutical research.
- **CellProfiler** – AI-powered image analysis for microscopy and cell biology research.
- **DeepVariant (Google AI)** – Uses AI to analyze DNA sequencing data for genomics research.

7. AI provides predictive modeling and simulations.

AI can be used to predict the outcomes of experiments and model physical, chemical, and biological systems.

Examples:

- AI-driven models forecast ecological changes.
- Computational physics and molecular dynamics simulations.

8. AI can be used for literature reviews, scientific writing and grant proposals.

Researchers must stay updated on advances in their field by regularly scanning and summarizing vast amounts of academic literature. AI can be used for literature reviews, extracting key insights from

thousands of research papers, helping researchers find relevant studies quickly, and providing AI-generated summaries. These AI tools can also help researchers draft papers or proposals, manage citations, and improve overall readability.

Note: It is important for the researcher to pay attention to the guidance provided by the organization and/or funding body as to whether AI can be used in writing proposals or papers. For example, the NIH warns researchers: *“You may be thinking of using artificial intelligence (AI) tools such as ChatGPT to help write your next grant application. If you choose to do so, be aware: AI tools may plagiarize, falsify, or fabricate information. You, as an applicant, share responsibility for ensuring integrity in the scientific review process, and we will hold you accountable even if AI technology is the source of noncompliance.”* Further, they do prohibit peer reviewers from using natural language processors, large language models, or other generative AI technologies for analyzing and formulating peer review critiques for grant applications and contract proposals. Therefore, we caution you to use generative AI tools at your own risk- perhaps as a support for your own original writing, making sure to independently validate information.

Examples:

- **Elicit (AI Research Assistant)** – Summarizes academic papers and finds relevant studies.
- **Scite** – Uses AI-powered citation analysis to show how research is cited.
- **Grammarly** – Offer AI-assisted writing and editing for academic papers.
- **SciSpace Copilot** – Offer AI-assisted writing and editing for academic papers.
- **ChatGPT**

9. There are several AI-powered robotics & automation tools available for use in research labs.

AI-powered robotic systems and AI programs exist that can assist in experiment automation and day-to-day lab operations.

Examples:

- **Opentrons** – AI-driven lab automation robot for pipetting and assays.
- **LabTwin** – AI voice-activated digital lab assistant for researchers.
- **RoboRXN (IBM AI)** – AI-powered chemical reaction automation.
- **AI Lab Notebook (Benchling)** – AI-powered research data management.

Overview: Challenges and Barriers to AI Integration

While enthusiasm for AI is growing, several challenges hinder its broader integration in teaching and learning:

- **AI Literacy Gap:** Many faculty members lack formal training in AI, limiting its adoption in coursework and research methodologies.
- **Ethical Concerns:** Faculty express concerns about AI's role in academic integrity, bias in AI-generated content, and the ethical use of AI tools in assessments.
- **Infrastructure and Resources:** Knowledge of and/or access to computational resources, such as high-performance computing clusters and AI software licenses, remains limited.
- **Discipline-Specific Needs:** AI applications vary significantly across scientific fields, requiring tailored support and policies to ensure meaningful adoption.

Insights: Challenges and Barriers to AI Integration

1. Ethical, pedagogical, and technical considerations for AI use in KCOS remain.

- Understanding AI ethics is crucial for responsible scientific practices.
- Ethical implications of AI, particularly in data privacy, bias, and scientific research ethics, are crucial considerations.
- Critical thinking and original work still must be prioritized for both students and faculty.
- Educate students and faculty on ethical AI practices and data privacy.
 - Incorporate AI modules into curriculum for students and training for faculty.
 - For students, this could be included in the new KCOS Prospect for Success course.

2. Best practices for responsible AI use need to be defined.

- What is AI literacy? What is ethical use? What are best practices? Should we use one definition as a University?
 - Individual colleges/courses/disciplines should have their own policies, but the overall definition should be the same to avoid confusion when they are taking courses in multiple disciplines at once.
- Faculty should be transparent about AI-generated content with students.
- Need to define appropriate applications in coursework for students.
- Faculty want to ensure ethical AI usage.
- A guide that outlines best practices for different academic contexts could be created, along with an AI citation framework for students and faculty.
- The use of AI is dependent on what you're doing with it, the context of teaching vs. research.
- Ethical AI discussions should be had with students in courses that utilize it.
- What are consequences for AI misuse, and how is that defined/"proven" by the instructor? This can be further complicated by limitations of AI detection programs, which often result in false positives or negatives.

3. There is a need for faculty development and training in KCOS.

- Need for faculty training to effectively integrate AI tools into the classroom and/or lab.
- There is currently training available, but not everyone is aware of options and it is currently voluntary (example: CTL workshops, AI Summit).
- Faculty expertise impacts the successful implementation of AI in the classroom, which largely depends on faculty readiness and digital pedagogy skills.
- Provide targeted professional development opportunities.
- Provide professional development and training workshops for effective AI adoption.
- Make faculty aware of current University-sanctioned AI platforms.

4. There is a need for institutional support and AI policy development.

- Institutional policies are needed to guide the ethical and effective use of AI in teaching and research.
- Flexibility needs to be allowed, by colleges and maybe even disciplines.
- Clear guidelines to ensure consistent and responsible AI use for both students and faculty.
- Regular evaluation to measure the effectiveness and impact of AI tools on student learning outcomes/student success?

- There are many initiatives going on currently. Do these groups communicate with each other or are they all islands? Are we reinventing the wheel?

Strategic Recommendations for AI Adoption:

To enhance the responsible and effective use of AI in KCOS, the following recommendations are proposed.

- **AI Training and Professional Development:** Develop AI literacy workshops for faculty and graduate students to increase awareness and competency. Facilitate interdisciplinary collaborations where AI experts can provide mentorship and training.
- **Curriculum Development and Pedagogical Support:** Encourage faculty to design AI-integrated courses, particularly in data-intensive fields. Create AI ethics modules to be embedded in STEM courses to address responsible AI usage. Provide incentives for faculty innovation in AI-based pedagogy, including grant opportunities and course development stipends.
- **Infrastructure and Computational Resources:** Invest in campus-wide AI research computing clusters to ensure faculty and students have equitable access to AI tools. Secure site licenses for key AI software platforms relevant to scientific research and education. If these are already available, increase faculty awareness and training.
- **AI Policy and Ethical Guidelines:** Establish clear policies on AI use in coursework, exams, and research to maintain academic integrity. Develop discipline-specific AI guidelines that reflect the diverse needs of faculty and students in different scientific domains.
- **Interdisciplinary AI Collaborations:** Support partnerships between KCOS and AI-focused research centers, such as computer science and data science departments. Encourage cross-disciplinary AI research projects that address grand scientific challenges.

Summary

As expected, AI presents both opportunities and challenges for the faculty of Klein College of Science. By strategically investing in AI education, infrastructure, and ethical policies, the college can position itself as a leader in AI-enhanced scientific research and education. Faculty and students alike stand to benefit from a structured, well-supported approach that maximizes AI's potential while safeguarding academic integrity and equity in access.

To fully harness the power of AI, ongoing engagement with faculty, students, and industry leaders will be essential. This engagement should include continuous assessment of AI's impact on pedagogy, research methodologies, and professional development. Additionally, interdisciplinary collaborations must be strengthened to ensure AI applications are adapted to the specific needs of various scientific fields.

Moving forward, an institution-wide commitment to AI integration will ensure that KCOS remains at the forefront of scientific discovery and innovation in the AI era. By fostering an environment where AI is used responsibly and ethically, KCOS can empower the next generation of scientists to lead in an increasingly AI-driven world, with our faculty shaping the future of education and research.

William States Lee College of Engineering

Report to the UNC Charlotte Artificial Intelligence in Teaching and Learning Task Force

By Qiang Zhu, Mechanical Engineering and Engineering Science

Participants:

- Focus group discussions: Qiang Zhu, Ran Zhang, Mahmoud Dinar, Yong Zhang,
- Individual interviews: Amir Ghasemi, Artur Wolek, Lin Ma, Youxing Chen, Farah Deeba,
- Harish Cherukuri, Anthony Bombik
- Email responses: Cathy Blat, Maciej Noras

Introduction

The rapid development and growth of Artificial Intelligence (AI) in recent years have significantly impacted many engineering disciplines, reshaping traditional approaches to university education and research. Between December 2024 and March 2025, we engaged with dozens of faculty from different departments within the William States Lee College of Engineering (COE) through focused group discussion and personal interviews. These conversations centered around three key areas, including (1) The integration of AI in university course teaching; (2) Student/Faculty use of AI; (3) Student skill development.

In the following sections, we summarize our key findings from these engagements and present a forward-looking perspective on the future of teaching, learning, and research in the AI era. We also offer strategic recommendations on how faculty, students, and academic institutions can effectively harness the power of AI while maintaining rigorous engineering principles and ethical considerations.

Current Situations in COE

1: Influence of AI in the College, Programs, and Courses

There is a broad consensus within the COE that emerging AI tools should be leveraged to enhance teaching in engineering courses. Recent breakthroughs in AI technologies have led to the development of general-purpose chatbots capable of providing valuable assistance to learners at all levels, from K-12 kids to college and graduate students. These tools offer both instructors and students rapid access to extensive resources that were previously difficult to obtain. If properly utilized, these resources have the potential to significantly enhance the teaching and learning experience in higher education. However, one needs to remain cautious with the AI responses when dealing with domain-specific questions. Many faculty members have reported that AI-generated responses can sometimes be vague or incorrect—a phenomenon known as hallucination. Additionally, most widely used AI chatbots rely on large-scale training data, and their accuracy depends heavily on the quality and scope of these datasets. In many engineering disciplines (e.g., health data, medical imaging, physical modeling, materials failure analysis), data limitations arise due to legal, privacy, and cost-related constraints. Improving AI accuracy in these specialized areas requires significant community effort that may take several years or even longer. As a result, instructors must critically assess AI-generated content and educate students on verifying data sources using their domain expertise.

Due to the popularity of AI tools, there are increasing concerns regarding the grading on assignments and exams. As students can now leverage AI-generated responses to complete their coursework with minimal effort, potentially bypassing the critical thinking process. The true assessment of student understanding, and the development of critical thinking skills become challenging. To address these issues, instructors must rethink assessment strategies to ensure that students engage deeply with course material rather than passively relying on AI assistance. A possible trend is to increase the weight of in-person written-based exams, instead of the project assignments that can be done by AI.

2: Faculty Use of AI and Influence on Learning Outcomes

Multiple COE faculty members have actively integrated AI tools (ChatGPT, Gemini, Claude, Dalle, semantic scholar, MS Copilot, GitHub Copilot) into their research and teachings. These tools have been used for tasks ranging from report writing, lecture note preparation, STEM-related website development to various forms of programming and coding. It is evident that, when used properly, AI can significantly enhance efficiency and productivity in both teaching and research. As a result, there is a growing recognition that AI should be embraced as a valuable asset in academia rather than viewed as a threat.

While the COE faculty are impressed by AI's increasing ability to tackle problems in the discipline, there is a shared understanding that AI, in its current state, cannot provide comprehensive, end-to-end solutions for many engineering challenges. This limitation arises from two key factors: (1) the lack of analytical reasoning and (2) the lack of numerical accuracy. While AI systems continue to improve in logical reasoning and contextual understanding, numerical precision remains a major constraint. The accuracy of AI-generated numerical results varies significantly depending on the specific engineering application, making it unreliable for precise computational tasks.

Given these limitations, faculty members agree that students should be encouraged to use AI tools as a means to develop logical reasoning and problem-solving skills. However, it is crucial to instill in students the importance of critically evaluating AI-generated outputs, particularly in cases where numerical accuracy is essential. Proper guidance should be provided to help students recognize when AI can be a useful aid and when it must be supplemented with rigorous analytical validation and domain expertise.

3: Student Use of AI and Influence on Learning Outcomes

Multiple COE faculty support the development of personalized learning modules integrated into Canvas platform, enabling students to effectively assess their understanding of course materials. Such AI-assisted tools can provide students with immediate feedback, allowing them to identify knowledge gaps and reinforce their learning. To enhance learning efficiency, students should be encouraged to share their experiences and strategies for using AI, particularly in areas such as writing, brainstorming ideas, and problem-solving. Open discussions on effective AI usage can help students develop better prompting techniques and maximize the benefits of AI-powered learning.

In engineering classes, AI has proven to be especially useful for assisting students with technical writing and coding. By generating structured drafts, offering programming suggestions, and debugging code, AI tools have the potential to significantly improve students' efficiency in completing assignments and projects. This can dramatically lower the barrier for students to engage with complex subjects that require extensive prerequisites, allowing them to focus more on high-level conceptual understanding rather than getting lost in the intricacies of syntax or detailed implementation.

However, while AI can be a powerful aid, simply relying on it for quick solutions is not the best approach. Over-reliance on AI-generated responses without critical engagement can hinder problem-solving skills, creativity, and deep understanding—all essential qualities for future engineers. To maximize its benefits, students should be encouraged to interact with AI tools thoughtfully, using them as a means to explore different approaches, verify solutions, and refine their reasoning rather than expecting perfect answers from a single query.

4: AI Influence on Career Success and Job-Seeking

In the AI era, it is crucial to teach students how to critically evaluate AI responses and develop their own logical reasoning skills. Rather than passively accepting these responses, students should be encouraged to assess the quality, accuracy, and relevance of AI-generated information. Furthermore, students should be encouraged to challenge AI's responses with their own logical chain of reasoning.

One possible strategy, particularly recommended in small-sized university courses, is to require students to document the AI tools they used and provide an outline of their AI interactions as part of their homework submissions. Instructors can then review these AI-assisted learning processes and provide feedback to guide students toward more effective and responsible AI usage.

Beyond general-purpose AI chatbots, generative AI has significant applications in engineering fields, such as (1) Image reconstruction and classification, which can enhance medical imaging and material defect detection; (2) Synthetic data generation, which is useful for training machine learning models in cases where real-world data is limited or costly to obtain; (3) Advanced modeling techniques, leveraging tools like GANs (Generative Adversarial Networks), diffusion models, and large language models (LLMs) to solve complex engineering problems. Encouraging students to explore these AI-driven research frontiers will enhance their technical expertise and increase their competitive advantage in the job market.

While generative AI continues to gain prominence, students must also develop a strong foundation in traditional machine learning techniques, such as logistic regression, support vector machines (SVM), clustering, principal component analysis (PCA), and regularization. These methods remain highly relevant in engineering and data-driven fields, providing essential analytical skills for building effective AI models. A well-rounded understanding of both classical and modern AI techniques will ensure that students can adapt to evolving technologies and apply AI effectively in their future careers.

Overall, there is a consensus that we need to prepare students with some necessary skills (e.g. prompt engineering, interactive conversation loop, evaluation of AI output correctness with domain expertise) in terms of how to use AI tools in an efficient manner. Most students are simply using AI as a chatbot to retrieve information or complete the assignment without a critical thinking process. With recent advances in AI chatbots (e.g., GPT-01, Deepseek-R1) that return a chain of thought for given questions, students should be encouraged to actively interact with AI chatbots to improve their reasoning and analytical skills. Instructors can enhance this learning process by sharing their own experiences with AI tools in class, demonstrating how to conduct effective dialogues with AI chatbots for learning domain-specific topics.

Recommendations

Ultimately, AI should be viewed as a learning companion or assistant rather than a shortcut. By fostering critical thinking and structured engagement with AI tools, students can enhance their ability to analyze, synthesize, and apply knowledge effectively in engineering disciplines. Given AI's limitations in solving the

domain-specific questions, it is essential to provide proper guidance to help students distinguish when AI can serve as a valuable aid and when it must be supplemented with rigorous analytical validation and domain expertise.

Moving forward, fostering a balanced approach—where AI is leveraged for efficiency while maintaining a strong emphasis on human expertise—will be key to ensuring that AI positively contributes to both learning outcomes and engineering research. Some key points include:

1. AI Literacy

As AI-generated outputs can sometimes contain inaccuracies, biases, or contextually inappropriate solutions. Whenever possible, the instructor needs to teach students how to critically evaluate AI-generated content and understand the limitations and potential biases of AI models. Students need to develop a habit of using AI as a learning tool rather than a shortcut to answers. Combining domain knowledge and human expertise, students should develop necessary logic skills to refine or correct AI-assisted results.

2. Responsible AI Use

While AI can significantly aid students in writing, coding, data analysis and self-learning, there is a risk that some students may over-rely on AI-generated solutions without fully understanding the underlying concepts. Encouraging responsible AI use includes:

- Documenting AI Interactions: Students should log and reflect on how they use AI in their assignments, highlighting what they learned and where AI needed correction.
- Transparency in AI-Assisted Work: Engineering programs can implement guidelines for citing AI-generated assistance, ensuring that students remain accountable for their work.
- AI Ethics Awareness: Teaching students about the ethical implications of AI, including issues related to plagiarism, over-reliance, and the importance of maintaining intellectual integrity in engineering research.

3. Balanced Integration

AI offers unparalleled efficiency in handling large datasets, automating repetitive computations, and optimizing workflows. However, engineering education must ensure that AI use does not come at the expense of foundational skills. A balanced approach may include the followings:

- Ensuring students develop strong mathematical intuition, coding proficiency, and numerical precision before relying on AI-driven solutions.
- Encouraging the use of AI for conceptual understanding while requiring students to manually verify and implement key engineering principles.
- Designing coursework that integrates AI-assisted methods with traditional problem-solving approaches, ensuring students can work both with and without AI support.

Summary

Overall, a well-structured approach to AI integration will be beneficial to ensure that engineering students harness AI's capabilities without compromising core competencies. Universities must provide clear guidelines and support to help faculty navigate the evolving landscape of AI in education, ensuring that students graduate with both technical expertise and AI literacy. By instilling a culture of responsible AI use, fostering critical engagement, and emphasizing human expertise, college-level engineering education can successfully adapt to the AI era while upholding the integrity of the discipline.

Appendices

Appendix A: Task Force Questionnaire

Facilitator Introduction: Tailor your introduction as needed.

Sample language:

“Hello, and thank you all for joining today’s focus group discussion on AI in teaching and learning for the college of [College Name].

My name is [Facilitator’s Name], and I am here to have a conversation with you on Teaching and Learning with AI. Today’s focus group is an opportunity to explore perspectives on current and future integration of AI within our college programs and courses.

Our goal is to understand your thoughts on how AI can be used as a learning partner, in a positive, responsible, ethical way, aligning with our educational values and the specific needs of each discipline.

Each college may be using or thinking about using AI differently. If your college has not used this, this does not mean that you have to start using it now. Rather this will help us understand the perspective or needs of each discipline.

We’ll go over several open-ended questions designed to encourage thoughtful responses. I may ask follow-up questions to dive deeper into specific topics.

Your participation will be noted in our final report as a contributor unless you ask us not to.

Session Recording: Optional, but mention if you will be recording

This session will be recorded for internal use and we hope your insights will help shape recommendations and guidelines that consider both opportunities and challenges unique to our college.

1: Influence of AI in the College, Programs, and Courses

See suggested questions below. Tailor your questions as needed.

As AI continues to evolve and influence education, our university is committed to the positive, responsible, equitable implementation of AI across the campus, but it is also necessary to determine the appropriate use-cases of each college.

- Define responsible AI your discipline.

- What are the best practices of responsible use of AI based on faculty experience?
- How can each college explore and specify responsible AI use within its programs and courses?
- How might colleges share their models of using AI for a coherent approach across the campus?
- How might we develop a responsible AI framework (RAIF)?

2: Influence on Learning Outcomes

See suggested questions below. Tailor your questions as needed.

- Does your college have articulated outcomes around AI use?
- Does your college currently have AI-related learning outcomes?
- How might the growing influence of AI [impact, change, or influence] goals and/or learning outcomes in your [program, course, college]
- Please identify examples of the ways in which AI could impact your teaching or your program.
- How does AI affect student learning outcomes? What would be the most influential impact or gaps?
- How might AI impact the assessment of learning outcomes in your teaching?
- Can you identify metrics that can help quantify the impact of AI in your course?

3: Influence on Career Success and Job-Seeking

See suggested questions below. Tailor your questions as needed.

- How is AI being used in careers we are preparing our students for?
- Do you know what is the expectation of employers from new college grads about their AI literacy or competency?
- Do you perceive a need to develop skills related to AI to make them more competitive in job-seeking? Talk more about this.
- How might AI integration in courses impact students' [employability, job opportunities, or future career] success?
- How can we better connect course content, AI integration, and conceptual AI training to prepare students for how they will encounter AI in the workforce?

4: Student Use of AI

See suggested questions below. Tailor your questions as needed.

- How do students learn about AI?
- How do students use AI?
- Have you encountered a scenario in which students are effectively using AI in coursework?

- How might AI support student activities for –
 - Reading preparation
 - Homework practice
 - Problem-solving
 - Research projects
 - Literature review
 - Course project
 - Project development
 - Completing assessments
 - Collaborative or group activities
 - Quizzes or exams
 - Peer evaluation
 - Individualized feedback
 - Personalized learning
 - Mock interview
 - Creative/innovative projects / non traditional works
- Have you noticed any perceived misuse of AI in your courses? Describe a scenario where students did not effectively use AI in their coursework.

5: Faculty Use of AI

See suggested questions below. Tailor your questions as needed.

- How do you learn about AI in your discipline?
- How has your discipline/field adopted AI tools to enhance teaching? Have you personally done this?
- What needs to be considered for faculty to use AI in your [program, course, college]?
- How could AI help you enhance your teaching?
- Have you encountered a scenario in which faculty are effectively using AI to enhance teaching (or are you doing this)?
- How might AI support faculty work for –
 - Class preparation
 - Teaching and facilitation
 - Grading and assessment
 - Classroom management
 - Evaluating student success
 - Collecting or processing feedback
 - Podcast or video creation

6: Domain-Specific AI Applications

See suggested questions below. Tailor your questions as needed.

- How have AI tools or applications changed the way students learn and how faculty teach in your discipline?
- What types of AI tools or applications must be considered for teaching and learning your discipline, and why?
- What AI tools or applications have generated the most impact in your discipline?
- Please provide examples of potential impacts or perils of AI in your discipline.
- What is the most used AI tool or application you have heard used in your program or college?

7: Pedagogical Opportunities, Considerations, and Challenges

See suggested questions below. Tailor your questions as needed.

- How do you learn about AI in your discipline?
- Please provide examples of pedagogical methods, approaches, or innovations enabled by integrating AI into courses.
- What challenges or considerations should be addressed when integrating AI into courses? Please provide specific examples.
 - Technical
 - Ethical
 - Logistical
 - Creative

Add other question categories as need

- Add questions as needed

Closing and Thank you: Tailor as needed

- Do you have any other example applications, thoughts, or suggestions regarding the use of AI in fulfilling our teaching and learning mission [or teaching and learning goals] at the college?

Thank you all for your insights and contributions today. Your feedback will play an essential role in shaping how we approach AI in teaching and learning across the university.

We'll compile and analyze the data from all focus groups to identify trends and insights. If you have any additional thoughts after today, please feel free to reach out. Thank you once again for your time and participation.

Appendix B: Stakeholder Feedback Form

PART 1: Rating Areas of Need and Recommendations for AI

Purpose: We want to gather your feedback on the priority levels, alignment, and responsible units for proposed **11 areas of need and 47 recommendations** of the Faculty Task Force on AI. Your input will inform the task force's final report and recommendations. Please select the most appropriate response. Thank you for your feedback!

1 - Ethical AI Framework or “Compass”

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
1.1 Develop a campus definition of ethical and responsible use of AI	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
1.2 Develop a definition of ethical and responsible AI use policies within disciplines	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

2 - Governance, Supervision, Oversight Needs of AI Use

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
2.1 Establish a collective university AI governance body	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
2.2 Establish an interdisciplinary, college-level AI advisory committee	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
2.3 Increase AI adoption across colleges, programs, and academic units	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
2.4 Improve uniformity in messaging on AI policy and use to students	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
2.5 Track AI use in research and student assessments	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

2.6 Review and update AI usage clauses in library databases	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
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3 - Clear Guidelines & Expectations for Faculty and Students

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
3.1 Define levels of accountability and transparency on student and faculty use of AI	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
3.2 Update syllabus policies for accountability and transparency of AI use for both students and faculty	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
3.3 Define clearer institutional ethical & legal policies on data privacy, academic integrity, IP, and copyright	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
3.4 Explore validation strategies for AI output & credibility, accuracy, and trustworthiness	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
3.5 Provide guidance on enterprise tools and data security	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

4 - Adaptive, Flexible, Fluid College-Specific Guidelines and Policies on AI Use

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
4.1 Develop a not-one-size-fits-all policy for contextual adoption of AI across colleges	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
4.2 Develop guidelines on faculty autonomy, flexibility, and agency on AI use	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

4.3 Engage in regular policy review and feedback	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
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5 - AI Integration in Teaching, Learning, and Curriculum

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
5.1 Establish college faculty leads (i.e., faculty fellows) and faculty working groups to review curriculum for AI needs	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.2 Identify appropriate use / use cases of AI-enabled technologies among faculty and academic staff	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.3 Identify program- or course-specific learning outcomes in alignment to AI knowledge, skills, and competency areas	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.4 Identify general education-specific (GenEd) learning outcomes in alignment to AI knowledge, skills, and competency areas (i.e., creativity, originality, critical thinking, numerical accuracy and analytical reasoning)	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.5 Update course syllabi to reflect AI learning outcomes and policies	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.6 Monitor and track courses that integrate AI knowledge, skills, and competency areas	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
5.7 Review workload needs among all faculty and academic staff to facilitate increased and sustainable AI adoption	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

5.8 Engage in regular curriculum review and feedback	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
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6 - Curriculum Enhancements, Course Redesign, or Materials Development to Meet AI Learning Outcomes

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
6.1 Provide resources and support for program and/or curriculum review	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.2 Provide resources and support for identification of course learning outcomes	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.3 Provide resources and support for course design and development	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.4 Provide resources and support for course and/or lesson planning	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.5 Provide resources and support for new modes of assessment, grading, feedback, and rubric creation	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.6 Provide resources and support for course materials development (i.e., lecture notes, practice problems, assignments, exams, written examples, projects)	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
6.7 Provide resources and support for adaptive courseware and personalize learning modules	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

6.8 Provide resources and support for digital, AI-supported tutoring systems	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
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7 - Workforce Needs and Employer Requirements

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
7.1 Assess AI knowledge, skills, and competency areas essential to graduates and career goals	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
7.2 Align curriculum to promote career readiness	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
7.3 Strengthen university-industry collaboration to close the industry gap on AI workforce skills	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

8 - Campus-Wide Structured AI Education and Training

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
8.1 Cultivate "AI literacy for all" by developing AI awareness, literacy, competency across all academic levels	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
8.2 Develop educational awareness and literacy on use of AI tools, critical ethical and responsible use, and social and environmental impacts	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
8.3 Implement structured, tiered, and specific AI literacy programs for all academic levels	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

8.4 Provide discipline-specific training and support for instructional design, curriculum review, and course development work	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
8.5 Engage in regular needs analysis, evaluation, and feedback among faculty and academic staff	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

9 - Interdisciplinary Collaborations, Conversations, and Mentoring on AI

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
9.1 Develop programs and/or events for interdisciplinary critical conversations on AI and its role in teaching and learning	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
9.2 Develop programs and/or events interdisciplinary collaborative projects for cross-college AI initiatives	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
9.3 Develop program and/or events for AI mentorship and feedback from learning communities	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

10 - Research on Effectiveness, Risks, Success of AI in Teaching and Learning

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
10.1 Conduct systematic research and evaluation of AI on academic performance, cognitive abilities, ethical decision-making, and risk assessment	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
10.2 Increase faculty funding for AI research and SOTL grants,	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led	

experimentation, and tool integration			☐ Other: _____	
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11 - Access to AI Tools and Services

Recommendations	Level of Priority (3-high; 1-low)	Alignment to College Needs (3-high; 1-low)	Responsible Unit/s <i>Check all that apply</i>	Comments
11.1 Expand access to campus-supported AI software and cloud services (eg., copilot with tools)	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	
11.2 Expand access to college-specific tools (eg., AI-powered feedback tools, simulations, and digital portfolios, virtual & augmented reality integration)	☐ 3 ☐ 2 ☐ 1	☐ 3 ☐ 2 ☐ 1	☐ University-Led ☐ College-Led ☐ Department-Led ☐ Other: _____	

PART 2: Recommendations on College Leadership, Communication, and Engagement

Questions	Comments / Feedback
12 College Leadership How can we better <i>involve</i> department chairs, program leads, or faculty committees in next steps?	
13 Communication, and Engagement What <i>communication strategies</i> would you suggest for sharing the task force recommendations and engaging faculty meaningfully?	
14 Next Task Force Goals What suggestions do you have for the <i>next round</i> of task force work?	

15 Next Task Force Goals • <i>What supports are needed (e.g., incentives, resources, recognition) to make AI initiatives more appealing or sustainable for faculty?</i>	