The Continued Rise of Artificial Intelligence in Higher Education

Spring 2023 ULEAD Cohort: Team 2

June 2, 2023

Ilana Galex, Dept. of Pathology & Lab Medicine, Div. of Comparative Medicine UNC-Chapel Hill
Darrell Jeter, Division of Institutional Integrity and Risk Management, UNC-Chapel Hill
Diane Littlejohn, Technology Law & Policy Center, NC Central University
Joe Magura, Division of Finance & Operations, Facilities Engineering, UNC-Chapel Hill
Madeline Neal, Office of Interprofessional Education & Practice, UNC-Chapel Hill
INTRODUCTION & BACKGROUND

It was only a few decades ago when use of printed maps was the norm while travelling. Today, we use Google Maps, Apple Maps or some other way finding app on our smartphones to get us to our destinations, with options to adjust the route along the way to avoid delays like accidents or construction. How is this possible? It’s possible because of Artificial Intelligence (AI) and it seems to be growing exponentially. When AI chatbot, ChatGPT launched in November 2022, it garnered over 1 million users in 5 days. Other apps like Instagram and Facebook took months to build that large user base (Tech desk).

While researching this topic for our group project, we found examples of AI use within schools and operational units on our campuses. However, we did not find central policies or standards at the institution level to guide its use in the classroom, research, and operations. This lack of or lagging strategic direction, compared to the astounding growing use of AI, presents a likely vulnerability for University of North Carolina (UNC) System Schools. This research paper addresses the rapid rise of AI and how universities, particularly those within the UNC System can optimize use of the technology to ensure relevance in the future. Focal topics of the paper are current uses of AI in higher education and the UNC System, opportunities for future use, risks and challenges of using AI, and strategies for mitigating known risks.

As an overview, AI is the simulation of human intelligence in machines that are programmed to perform tasks that would typically require human intelligence. AI is not automation. Both AI and automation rely on data and have a goal of streamlining. Beyond that, they are different. AI systems are independently adaptive once they have data to process. (Glidden) The following list provides examples of AI's capabilities:

- Speech recognition which allows machines to recognize and understand human speech. Phones, computers, and other devices already do this.
- Computer vision which allows machines to interpret and understand visual information (ie. QCP scanners, fingerprint scanners, iRobot vacuum cleaner, self-driving cars).
- Intelligent robots that can perform tasks autonomously (ie. biomedical and healthcare tasks, manufacturing).
- Natural language processing allows machines to understand, interpret and generate human language.
- Machine Learning which uses algorithms to learn from data and improve over time.
- Advanced systems (ie. expert systems, recommender systems, intelligent agents).

The UNC system serves to benefit society. Since AI has both desirable and undesirable impacts on society, it is important to understand what it is and how it is used. These include, but are not limited to automation of jobs, changes in work functionality and productivity, the need to learn new skills, privacy and security, bias and discrimination, improved health outcomes like faster and more accurate diagnoses and personalized treatment plans.

Implementation of AI into higher education institutions is critical for future success. For students, it can greatly enhance educational support and career preparation. AI can support
academic infrastructure to elevate academics, research, innovation and student and employee experiences. Thus, it can help maintain competitiveness amongst peer institutions. As such, publications regarding AI in education have increased drastically since about 2014 (Chen). There are various ways to incorporate AI technologies into higher education. Many different applications and models exist and address critical needs of students and higher education institution administration including but not limited to profiling, assessment and evaluation, personalization and student support systems such as tutoring (Al-haimi).

CURRENT USE OF AI IN HIGHER EDUCATION & UNC SYSTEM

Dr. Abigail Panter, senior associate dean for undergraduate education, is working closely with her team and other UNC administrators to address the need for artificial intelligence infrastructure for undergraduate education. Currently, there is much discussion and gathering of data. Dr. Panter expressed the broad goals of helping students to explore high-impact experiences at UNC and she envisions providing a centralized place of support for students and faculty to reduce information fragmentation. Since the release of Chat GPT a few months ago, university administrators and faculty are trying to understand Chat GPT's implications and acceptable use in the classroom. Additionally, Dr. Panter’s team is researching the best ways for AI to support data analysis for academic tools such as course evaluations. Her team is also working with university coders to compare data supplied by humans vs. Data supplied by machines so that university leaders can address discrepancies between the two. (Panter)

The North Carolina state school system is so broad that we don’t truly know the extent of artificial intelligence use. But we do know that there are some great programs and uses within UNC & NCCU. The Artificial Intelligence Decision-making research (AI-DR) program at NCCU is a multidisciplinary, ethics-focused research training for students interested in law and/or technology careers. This program provides an understanding of ethical issues surrounding AI in various fields, including initiatives to address social problems via the use of AI technology (UNC School of Law). Additionally, NCCU has the Laboratory for Artificial Intelligence and Equity Research (LAIER). LAIER was established in 2020 and works on several projects, including real-time fault diagnosis for self-driving vehicles, a STEM program for adolescent girls and work related to machine learning. NCCU Law Career Services uses VMock, an AI platform, to scan resumes of students to cut down on time of reviewing each student's resume (NC Central University).

The AI Project at UNC is an initiative launched in spring 2023 to make advances on philosophical and foundational question concerning AI and virtual works using a multidisciplinary approach to foster research, collaboration and exchange of ideas across disciplines at UNC (UNC at Chapel Hill). In 2021, UNC received $4.5million of a $20 million grant from the National Science Foundation as a partner in the foundation’s Artificial Intelligence Institute for Engaged Learning. The function of this institute is to help develop advanced educational and analytical AI tools for real-world application (UNC University Communications). UNC's Development office uses Salesforce, a cloud-based suite of products with AI functionality to better connect users within
and outside of the organization. Access controls within UNC operations, specifically facial and fingerprint sensors, AI video cameras (Brooks).

AI is likely to change how students learn and how educators teach. A survey was done by Tyton partners. In February and March 2023, more than 2,000 higher education instructors and administrators were surveyed regarding generative AI tools. The overarching takeaway from the survey was that higher education is beyond the point of no return when it comes to the use of AI tools in education. The top concern in the survey was student cheating, up from the 10th in 2022. Notwithstanding this concern, only three percent of institutions have responded with formal policy changes regarding the use of AI tools. Students are continuing to experiment with AI tools with the survey reporting that 51 percent of college students will continue to use generative AI tools even if banned by their educational institutions or instructors. One in 3 students reported using ChatGPT in the first 100 days of its use. The Tyton survey reported that students have embraced AI and are using these tools to fast-track assignments and brainstorm ideas. (NeJame)

While students continue to experiment with AI tools such as ChatGPT, 71 percent of instructors and administrators have never used generative AI tools, with 32 percent reporting that they were unaware of these tools. The survey showed that first-hand use by instructors and faculty changes beliefs about the potential value of AI tools. Moreover, early adopters report making changes to their courses to integrate AI in their teaching methods. First-hand use also changes the beliefs surrounding the use of generative AI and the need to regulate these tools. (NeJame)

The recent development of ChatGPT put a spotlight on the need to address AI in higher education, and in doing so it opened up discussion about how AI is being used more broadly in the places that the university prepares students to work. Professional schools prepare students for careers in specific fields that often require degrees and licensure to practice. Examples of UNC System professional schools include the health professions (medicine, nursing, pharmacy, dentistry public health) and the schools of law, social work, and education. Other examples include business, journalism, and government. We focused primarily on how AI is being used in a subset of the system’s professional schools: the health professional schools and schools of law, because the usage of AI in these professional settings is steadily on the rise; and because authors of this paper work closely within these schools and have networking capabilities to survey and interview faculty, helping us better understand how AI is currently being used and perceived within these schools.

After surveying UNC faculty and scanning department webpages, it was concluded that AI is primarily being used within the health professions schools in research. The capacity of AI algorithms to aid researchers is expansive. AI can help analyze data and detect patterns at rapid speeds and can help automate time consuming tasks for data entry and literature reviews. In the Gillings School of Global Public Health, researchers are using AI for statistical analysis to uncover biological underpinnings of diseases. This aids researchers in the discovery of new causes of and treatments of disease. Dr. Michael Kosorok in the Department of Biostatistics at the University of North Carolina at Chapel Hill leads the Precision Health and AI Research Lab
where he assists researchers, graduate students, and post docs in the application of AI to advance health in a wide range of settings and populations. Other areas of exploration include the development of wearable devices and point-of-care decision making tools, and researchers in the Eshelman of Pharmacy have partners with QleanAir to explore the use of AI for contamination reduction in compounding pharmacies (Alexander).

While the use of AI in research is being applied broadly across schools, there remains a gap between how AI is being used within the health professions schools and how it is being taught. We surveyed faculty who hold academic leadership roles in each of UNC-CH's about the rise of AI in health professions education. When asked “does your school’s curriculum adequately prepare students with the knowledge, skills, and attitudes to use AI effectively in the workplace?”, all the respondents (n=6) replied no. While this could suggest that AI is an afterthought, anecdotal evidence from semi-structured interviews suggests that faculty have an awareness of how AI is being used in healthcare settings to improve health outcomes and a desire to bring this learning into the classroom. As one faculty member from the school of nursing stated, “AI is virtually nonexistent in healthcare education, and that alone is a big problem. I started squeezing in an intro to it in my undergraduate research class, but it isn't even in the textbook yet”.

Law Schools are cautious about the use of ChatGPT in legal education. The University of California-Berkley law school implemented a new policy concerning ChatGPT in April 2023.(Sloan). The policy allows students to use the platform to check grammar and do research but prohibits its use on assignments and exams. Other law schools may soon follow suit with similar policies. NCCU law is currently working on a policy for student use of ChatGPT, and individual professors have policies for their courses.

Chat GPT and similar generative AI tools are powerful tools that may aid in educating law students. Some best use cases for ChatGPT in legal education include summarizing cases; making flashcards; briefing cases; assistance with legal writing and outlining. While generative AI tools such as Chat GPT may transform legal education, there are myriad of concerns about the use of these tools. Some major concerns include ChatGPT may "hallucinate" and give incorrect information with apparent certainty; the demise of critical thinking of students; and concerns about the replacement of lawyers. The current version of ChatGPT passed the bar exam, scoring within the 90th percentile of test takers. (Cassens Weiss)

**OPPORTUNITIES FOR FUTURE USE**

Artificial intelligence in the realm of academics within higher education is going to skyrocket, so it’s critical for university officials to think about ways to incorporate it now, so that UNC can continue to be a frontrunner in the best education. There are a few different ways to incorporate strategies for AI use into academics, specifically, teaching AI literacy, enhancing individualized learning opportunities and further strengthen student support on campus.
Literacy in artificial intelligence will be critical to students’ career success in almost every field. AI literacy is the ability to understand, evaluate, create and ethically use AI technology. The University of Florida (UF) developed a core curriculum for students that addresses these criteria, including specific learning outcomes associated with each literacy category. To successfully create this program, UF identified a gap in their curriculum, appointed a task force to develop a quality enhancement plan (QEP), which is required for the school’s accreditation.

The task force looked at various models and approaches to develop their foundations and created resources, including faculty hires, to support this program (Southworth). Although there are a few courses that discuss AI basics at UNC, specifically COMP 560 Artificial Intelligence and a few machine learning classes, AI literacy could be expanded upon to reach all students. Elements of the U of FL curriculum could be implemented in UNC’s IDEAs in Action curriculum. Dr. Panter suggested this could be used within a subset of courses within the IDEAS curriculum either within Triple-I: Ideas, Information and Inquiry coursework or data literacy course. In addition, a new required AI-specific core course could be developed. (Panter).

AI is changing the way that learning management systems (LMS) can be used. Learning management systems are adaptable education hubs that provide a system of support for teaching and learning activities. Various AI platforms are being incorporated into learning management systems, such as Canvas and Sakai, specifically to aid in adaptive, or personalized instruction. This includes customized lesson plans, and individualized assessments or practice questions. ALEKS and Watson are two such platforms. ALEKS is used to track students’ progress throughout a course and has accessibility functions enabled. Watson is a tutoring platform that allows communication with instructors, specifically regarding assessments, and also allows students to ask questions in real time. (Hannan)

AI can provide instructional support to students to fill in gaps from instructors or courses themselves. Chatbots are being introduced to fill in the role of teaching assistants. Georgia Institute of Technology collaborated with IBM to create Jill Watson, which served as a teaching assistant. The identity of Jill Watson was initially kept secret from students but has since been revealed. Chatbots and other cognitive engagement software are also being utilized to provide language support for foreign students and individuals with disabilities. Additionally, when it’s just not feasible to have an immersive experience in a class, AI can help. For example, Rensselaer Polytech partnered with IBM to create the Mandarin Project, which immersed foreign language students into Chinese culture without ever leaving the classroom. You can see from the picture that students essentially "travel" to China and engage in the culture within the confines of their classroom. (Hannan)

Career support is instrumental in student success both in school and their careers. Chatbots and AI platforms can provide 27/4 career support, while using machine learning and algorithms to provide personalized information such as degree plans or schedules. Carnegie Mellon developed a program called Stellic, which many institutions have embraced. Taking this technology one step further, AI can be used to create "career GPS" platforms, which collect data from students’ skills, experience and performance to provide feedback on areas needed
for improvement specific to the student's career goals. One such popular platform is MARi. (Hannan)

High rates of recruitment and retention are necessary for academic institutions. Chatbots can provide easy access to information at any time and can be used to promote recruiting events to targeted individuals. Georgia State University implemented AI chatbot Pounce in 2016. In its first three months of use, Pounce fielded over 200,000 student questions. The majority of these questions came from first generation, Pell Grant and minority students. Georgia State also saw a 30% increase in career fair attendance in 2018 when Pounce was used. AI-based automation during the application review process can reduce bias, as can the use of cognitive AI platforms during the interview process. Once such platform to consider is Salesforce Education, a product from Salesforce, which UNC already uses in certain applications. Although these tools could be extremely useful, Dr. Panter believes that losing the human interface could potentially be a deterrent to prospective students. Career GPS platforms can aid in higher student retention and success rates because predicting failure before it happens can lead to better retention. (Hannan, Panter).

In the healthcare setting, AI is being used for medical imaging analysis to help detect and diagnose disease; for predictive medicine to address issues before they arise; in drug discovery; and administrative tasks such as scheduling appointments (HazariKa). AI chatbots and virtual assistants can even help answer medical questions - recently, ChatGPT has been “wowing” doctors with medical advice, producing the same diagnosis and treatment plans that physicians would recommend. The application of AI in healthcare has broad appeal from the c-suit to the provider level. On the system-level, AI can help organizations meet the quadruple aim of healthcare: improving health, saving costs, enhancing the patient experience and improving provider wellbeing. Industry reactions to the potential of AI can be seen in financial markets estimates. Currently, the healthcare industry spends around $14 billion on AI. This estimate is expected to increase by an additional $89 billion in the next 5 years for an estimated $103 billion (Research and Markets). Knowing that the healthcare industry is rapidly adopting and expanding AI usage should trigger the system to look for opportunities to lead in this space and train a new generation of professionals with the knowledge, skills and attitudes to utilize these tools effectively and ethically within their careers, starting on the first day of work.

An expert survey about AI education for the health workforce was conducted by Gray et al. Findings can be used to garner institutional support for the adoption of AI education (Gray). The authors concluded that preparing current and future healthcare workers to use AI effectively and ethically is a growing concern for employers. This concern was echoed by UNC faculty who said, HP (health professions) students need to understand how to critique AI that is being used in healthcare, b/c poorly "trained" models can perpetuate bad decision making, even certain biases. Responses to the Gray survey placed an importance on ethical implications, principles of machine learning, and specific diagnosis and treatment applications of AI. Additionally, barriers to implementation, such as lack of governance structures and processes, resource constraints, and cultural adjustment were presented. Survey findings like these and an exploration of other university’s that have existing AI education within their curriculum, like UCLA, Harvard, and
Stanford, can be used to create a path forward for the adoption of AI in health professions education, securing the university’s reputation as a leader the field.

If we strive to prepare leaders for the future today, the way we teach and train our students needs to reflect the explosive growth of AI in the healthcare setting. To remain a leading University who attracts the best talent, we must recognize that the realities of educating and training a skilled and competent health workforce are evolving and seek opportunities to us AI education to bridge the gap between didactic learning and actual patient care. In doing so, UNC alums will be highly desired and sought after candidates for the workforce. Additionally, the UNC system schools will be an attractive learning environment for the nation’s top talent who expect exposure to the tools of tomorrow.

AI is expected to revolutionize the legal industry. AI can be used to draft contracts and legal documents for court filings, including complaints and motions. Lex Machina, an AI platform uses machine learning and predictive analytics to draw insights on individual judges and lawyers and how they rule on cases. AI is also expected to automate the more mundane tasks of practicing law, including the automation of legal tasks such as client intake and brief or memo writing.

Online research tools assisted by AI are coming to the forefront. Lexis Nexis, an online legal research platform recently announced a new conversational chatbot within its legal research platform currently in development. AI will also accelerate the e-discovery process and may eliminate the need for human review. The proliferation of legal tech start-ups is expected and new jobs such as a generative AI prompt engineer may arise. However, there are concerns about the rise of AI in the legal profession. A research report conducted by Goldman Sachs estimated that 44 percent of legal work could be automated by AI tools. A Princeton University study released in March 2023 concluded that the industry most exposed to new AI tools was legal services (Hatzius).

RISKS AND CHALLENGES
In 2016, Stanford University hosted a study to provide guidance on the ethical development of smart software, sensors, and machines. As a result, the AI100 project was initiated and promises to release a report every five years for 100 years. The first report was released in September 2016. Professor Barbara Grosz, the project committee’s 1st chair, then said, "Now is the time to consider the design, ethical, and policy challenges that AI technologies raise. If we tackle these issues now and take them seriously, we will have systems that are better designed in the future and more appropriate policies to guide their use." (Burrows) Perhaps Professor Grosz foreshadowed some of the risks and challenges currently being faced with the use of AI.

Let’s consider some risks and challenges of using AI. One is transparency. Without disclosure of the data and algorithms behind AI content, end users won’t know how the automated decisions they’re relying on are being made. Validity of information is another risk and challenge. AI systems are used by some for purposes of spreading disinformation on the
internet. Deep fake videos and internet bots are examples. There is also the commercialization of intellectual property. The commercial sector leads in AI investment, research and applications, outpacing academia and gov’t spending combined. Access to such technology has created new incentives for university researchers to create startups or seek other mechanisms to commercialize their intellectual property. So, there’s considerable debate regarding the appropriate roles and relationship of academia and industry in the development and deployment of AI applications. Finally, degradation of learning is a concern. Relying on AI writing or content instead of investing in human content writing has potential consequences. (Littman et al)

The question of whether AI content creation is ethical is still being argued. Here are a few ethical concerns: 1) Plagiarism: If an AI tool creates original content using machine learning, that is said to not technically be plagiarism. Does the AI tool generate content from scratch or paraphrase? It can be challenging to know the answer without additional research. It’s worth noting that AI technology can generate content that passes plagiarism detectors. Use of AI copywriting tools for college essays can occur among students rather than submitting their original work. 2) Privacy and security: Legislative and international groups are realizing how challenging it is to regulate AI effectively. There are laws related to the use of data, but specific regulations on AI are lagging. There needs to be a balanced approach to regulation and oversight to help ensure privacy protections. 3) Bias and discrimination: When given the choice between humans and algorithms, some view algorithms as always being the less-biased choice. However, technology is the product of biased systems. As an example, a recruiting tool used by Amazon in 2018 was discarded because the historical data it was trained on generated results that were systematically biased against women. It is quoted that "A potential danger is when the public accepts AI-derived conclusions as certainties." (Dastin, Quetext) Awareness of these and other risks and challenges associated with the use of AI is necessary.

RISK MITIGATION STRATEGIES
As discussed above, the use of artificial intelligence in the UNC System will present great opportunities and equivalent risks. The Universities within the UNC System should prepare for “risks dramatically exceeding prevailing norms”. Some of the more severe risks include leaks of private and sensitive data, compliance violations, unintentional discrimination, intentional tampering with AI systems, unstable and inaccurate AI systems, loss of public trust, reputational damage, revenue loss, and infrastructure reliability. To avoid these significant outcomes, the development and employment of risk mitigation strategies should be on the fast-track and a very high priority. (Cheatham)

In developing a coordinated and successful risk mitigation strategy, a multidisciplinary approach should be applied. “Making real progress demands a multidisciplinary approach involving leaders” … and will require “experts in the fields of legal, risk, IT, security, computer science, analytics”, and more. It will take professionals in many fields to identify and respond appropriately to the many risks presented by AI. (Cheatham)
As pointed previously, the current application and use of AI is already widespread in many areas of our lives and will continue to grow rapidly. Based on limited interviews of university faculty and staff and a search of the UNC-CH website, the development and implementation of a coordinated risk mitigation strategy is lagging far behind the rate of development and implementation of AI. Due to the potential risks involved, the fast-track development and implementation of broad risk mitigation strategies is critical. Additionally, to keep pace with the rapid development and usage of AI at the universities, AI risk mitigation will be an ongoing and perpetual effort. The University will need to prepare for new positions related to Risk mitigation and oversite of AI.

Because Risk Mitigation for AI is a large subject matter, this section will only focus on four broad risk mitigation strategies: 1) policies and guidelines; 2) general and specialized training; 3) human oversite, and 4) infrastructure and tools.

Starting with the establishment of policies and guidelines, the policies will define how AI can and can’t be used, define the consequences for violating the policies, and define administrative requirements related to the policies. The policies will highlight the risks of using AI, discuss the risks and provide mitigation strategies. The policies will define administration requirements related to how the policies are established, adopted, and modified; requirements for training; oversite and enforcement of the policies, etc. The policies will go into significant detail regarding numerous related subjects such as data collection, storage, access, and sharing, etc. Many of the policies will be general in nature but given the wide variety of AI technologies and applications, there will also be policies specific to individual AI technologies and applications. For example, medical AI applications will have substantial “compliance” requirements regarding data privacy which will not be required for a customer service chatbot. It is not yet determined if policies will be developed at the University System, University, College, Department, Division, or other levels. Leadership should coordinate direction on this. It is likely that there will be numerous policy and guideline documents related to the use of AI.

The second risk mitigation strategy in this discussion is training. Broad based training is recommended for faculty, staff, and students to cover the policies with emphasis on the risks and risk mitigation strategies and the responsible use of AI. The training might be required on a specific frequency, such as biennially, and offered through a web training platform. There will also be a need for specialized training for those involved with the oversite of AI use and those involved with the collection, storage, and sharing of data. Specialized training would be important for subjects such as data quality (accuracy, diversity, bias), data security and privacy, use of specialized software applications, risk assessment skills, etc. As AI tools continue to develop, there will be a need to develop and provide training on the effective use and incorporation of AI to augment student and employee performance. As mentioned above, there is also a need to add AI education and training to the student curriculum to prepare students for the impact of AI on future careers.

Thirdly, human oversite will be necessary. Human oversite will ensure that AI systems are developed and operated as intended and within policy requirements. The need for human
oversite will require new positions to be created. The following human oversite strategies will be discussed:

- Impact assessments
- System audits
- Review boards and committees
- Organizational awareness

Early in the development or implementation of AI tools, impact assessments will be performed to identify potential risks and relevant mitigation strategies. The assessment will identify ethical, bias and other risks. The potential impact upon faculty, staff, students, marginalized groups, the broader community, and the environment should be evaluated. Separate impact assessments will be required for each AI application in proportion to the risks involved.

AI system audits will be performed prior to AI system launch, on a periodic basis, and in real-time. There are numerous software tools for assisting with AI audits and real-time monitoring. Human oversite is required to program and creatively operate software, to interpret results, and to take appropriate actions. There will be initial audits for AI model testing and validation. Data can be audited to determine data accuracy, diversity, and bias. The transparency and understandability of AI systems should be verified. Transparency requires that the body of data used for AI training is clearly stated. Understandable AI requires that the algorithms are known and understandable. Data privacy and cybersecurity audits will be necessary for testing access controls, firewalls, encryption, etc. Humans will be required to creatively test AI systems to identify issues that software may overlook.

There will also be a need for review boards and committees. Review boards can address policy violations. Committees will be established to develop and maintain policies and guidelines and adopt standards, and to respond to rapidly evolving risks. Lastly, leadership will be involved to maintain organizational awareness and stakeholder engagement throughout the organization.

Lastly, there is a need for adequate infrastructure and software tools. Sufficient and properly configured hardware is required to provide the necessary processing power, storage capacity, and network speeds while maintaining robust security. There is a large variety of software tools available for testing AI systems and data. Substantial software is available for plagiarism detection, bias detection and mitigation, AI model testing and monitoring, compliance and risk assessment, explainable AI tools, and data privacy tools. (ChatGPT)

**SUMMARY & FRAMEWORK**

To remain relevant, innovative, and forward thinking, UNC System schools have an opportunity to demonstrate our dedication to "all useful learning" by connecting the possibilities of AI to the needs of today’s society. Based on our research, institutional level policies that inform how AI should be used in academics, research, and operations are needed.
How do UNC System Schools get there? We recommend University leadership, including Chancellors, Provosts and other select cabinet level leaders implement a framework for institutional level policies to inform AI's use at each institution. Universities need to: create awareness among educators and students about the benefits and challenges of AI, invest in the infrastructure and resources required to support the integration of AI in education, review and redesign their curricula to include AI-related courses so students have the necessary skills and knowledge to work with AI tools and applications, explore new pedagogies that can effectively teach AI-related courses, consider the ethical implications of using AI in education, collaborate with other institutions and organizations to share best practices, research, and resources related to AI in education, and provide professional development opportunities for educators to enhance their skills and knowledge in AI-related areas. (OpenAI) Implementation of our recommended framework has no substantial cost to institutions but would require an investment of time to develop effective policies.

By understanding what AI is, how it is currently being used, and implications for future use, UNC System schools can begin to envision a strategic direction that will harness the power of AI to benefit students, faculty, and staff while putting reasonable guardrails in place to mitigate risk.
References


