ARTIFICIAL INTELLIGENCE

The UNIVERSITY *of* OKLAHOMA

AI ROADMAPS

Office of the Chief Artificial Intelligence Officer

THE UNIVERSITY OF OKLAHOMA

Executive Summary

The University of Oklahoma (OU) is advancing a comprehensive, university-wide strategy to lead in artificial intelligence (AI) innovation, research, education, and implementation. Under the direction of the Interim Chief AI Officer, and through the coordinated efforts of five interdisciplinary working groups, OU has developed a unified roadmap that aligns emerging AI capabilities with the university's mission, strategic vision, and societal commitments.

The five working groups are:

1. **AI Research**
2. **Healthcare Implementation**
3. **AI Education: Training and Teaching**
4. **AI Infrastructure and Resources**
5. **Governance and Policy**

This strategic initiative addresses the rapid and transformative impact of AI across all sectors of society. From enhancing clinical care and streamlining university operations to reimagining curriculum and accelerating research, the roadmap reflects OU's proactive, ethical, and inclusive approach to AI adoption. It positions the university not merely as a participant in the AI era, but as a thought leader shaping how higher education responsibly embraces these technologies.

More than 100 faculty, clinicians, researchers, students, and staff from the Norman, Health Sciences, and Tulsa campuses contributed to this effort, representing one of the most collaborative and cross-functional planning processes in recent institutional history. Their work identifies critical short-term actions and long-term strategic priorities that collectively build a strong foundation for sustainable impact.

In the short term, the roadmap outlines concrete steps to accelerate institutional momentum and readiness. These include launching pilot projects in research and healthcare, establishing AI sandboxes and consulting services, conducting university-wide assessments of AI capacity and interest, and developing initial policy frameworks, training modules, and ethical guidelines. These efforts are designed to both catalyze innovation and provide safeguards for responsible use.

Looking ahead, OU aims to establish a centralized AI Core to provide secure infrastructure, technical expertise, and support for interdisciplinary collaboration across the university. Additional priorities include expanding research computing capabilities, developing curated AI toolkits, and integrating AI ethics and literacy across academic and professional curricula. Robust governance structures are also being developed to ensure data privacy, regulatory compliance, equity, and long-term oversight.

This roadmap represents a foundational capability for OU's future. As peer institutions invest heavily in AI and the field advances at a rapid pace, OU must remain competitive and future ready. Our interdisciplinary strengths, strong partnerships with tribal nations, nationally recognized programs in meteorology and biomedicine, and long-standing commitment to ethical research give OU a distinct advantage. Through this roadmap, the university has the opportunity to shape an AI-enabled future that reflects its values, serves its communities, and elevates its impact on a national and global scale.

AI Roadmap Objectives by Working Group

Short-Term Objectives (3–6 Months)	Long-Term Objectives (1–3 Years)
Education & Training • Launch AI 101 modules for students, faculty, and staff. • Integrate AI into First Year Experience courses. • Develop AI-related library guides and workshops. • Create AI syllabus policy videos and quizzes. • Implement centralized training calendar & surveys.	• Build AI credentialing and badging systems. • Develop AI foundation courses across colleges. • Recruit robust AI-integrated assignments and syllabi. • Employ dedicated AI instructional designers and teaching specialists. • Institutionalize AI literacy into general education and staff/faculty development.
Governance & Policy • Publish draft AI principles and open them for comment. • Develop student, faculty, and staff AI guidelines. • Propose a governance council structure. • Assess governance training needs and enforcement mechanisms.	• Finalize and institutionalize AI policy documents. • Create ongoing oversight via the Governance Council. • Embed training on trustworthy AI into university-wide onboarding and development programs. • Establish policy review and revision systems.
Infrastructure & Resources • Inventory existing computing tools and user needs. • Prototype open-source AI tools (LibreChat, JupyterHub, LiteLLM). • Evaluate NAIRR and national compute platforms. • Launch forums for campus-wide AI sharing and usage stories.	• Create unified access to paid LLMs and cloud tools. • Scale infrastructure to meet diverse AI use needs. • Establish a self-service AI platform with cloud/on-premise integration. • Build long-term support for regulated data, benchmarking, and tool deployment.
Research • Design a faculty-wide AI research survey and host cross-disciplinary matchups. • Develop draft consulting service plans for AI research support. • Outline collaborative team-building mechanisms and AI workshop plans.	• Launch internal pilot funding competitions. • Formalize an AI research consulting service. • Expand research infrastructure in partnership with Infrastructure WG. • Promote interdisciplinary research using AI with strong governance and shared ethics.
Healthcare Implementation • Conduct campus-wide audit of AI tools and datasets. • Launch 3–5 clinical AI pilot projects. • Draft GenAI training framework for clinicians and researchers. • Begin development of HIPAA-compliant AI environments. • Host summer sessions and forum planning.	• Formalize AI Core for healthcare. • Embed GenAI ethics into clinical curriculum and governance. • Build platform-based secure AI infrastructure. • Establish fairness metrics and long-term evaluation cycles. • Pursue external partnerships and national funding.

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Working Group: Research
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Working Group Membership

Core Members

- Claudette Grinnell-Davis, Associate Professor, Social Work
- Hunter Heyck, Professor, History of Science
- Sam Huskey, Professor, Classics & Letters
- Sharukh Khajotia, Associate Dean, College of Dentistry
- Amy McGovern, Professor, Meteorology and Computer Science
- Chongle Pan, Professor, Computer Science

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- Jessica Davila, Associate Dean of Digital Strategies & Innovation, University Libraries
- Ashley Davis, Assistant Professor, Accounting
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- James Hung, Assistant Professor, Oklahoma Biological Survey
- Mark Laufersweiler, Research Data Specialist, University Libraries
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- Tiantian Yang, Associate Professor, Civil Engineering and Environmental Sciences
- Xiangming Xiao, Professor and Chair, Biological Sciences

I. Introduction

Purpose and Goals

As part of the Chief AI Officer Plan at the University of Oklahoma, the mission of the Research Working Group is to explore the transformative potential and complex challenges of

artificial intelligence (AI) in academic research and other creative activities. Our scope encompasses an expansive definition of AI, including machine learning, deep learning, generative AI, computer vision, and autonomous systems. We also take a broad view of the scope of AI research, encompassing areas such as: (1) the development of novel AI methods and technologies; (2) the application of AI across diverse academic disciplines, including STEM, social sciences, humanities, and creative arts; and (3) the study of AI's societal implications, including its influences on equity, labor, knowledge production, public trust, and data and model sovereignty. Given the rapidly evolving nature of AI and the speed at which it is transforming multiple aspects of society, it will be essential for OU to position ourselves at the forefront of AI and AI-enabled research and creative activities. Achieving this aim will require incisive strategies that build our capacity to explore the underlying technologies and their transformative potential, both positive and negative. The goal of this report is to define a set of actionable short- and long-term priorities for AI and AI-enabled research and creative activities at OU, along with plans for implementation.

Organization and Approach

The research working group consists of a core team with six members, as well as a larger advisory team with 22 members. These individuals span a wide range of disciplines and include representatives from the Norman, Health Sciences, and Tulsa Campuses. We have held weekly meetings beginning on March 28. The work of the group consisted of (1) background investigation of AI research plans at peer institutions, (2) discussion of the challenges and opportunities presented by the emergence of generative AI and other advanced technologies, (3) identifying critical resource and knowledge gaps, and (4) brainstorming ideas for catalyzing AI research throughout the University, and (5) drafting the final report to the Interim Chief AI Officer (CAIO). The initial outcomes of these activities were synthesized into a draft report, which was reviewed by the CIAO and discussed by the working group. Subsequent work focused on identifying the most important priorities, refining their description, and developing specific plans for implementation.

II. Priorities

Short-Term Priorities (3–6 months)

Short-term priorities are focused on gathering information and building an enabling environment that will provide the groundwork for future transdisciplinary research efforts centered on AI.

Develop a set of principles for the use of data and AI in research at OU. The use of AI in the research enterprise is rarely neutral. The data that we use to train/evaluate our models are rooted in the real world, including with individual people(s). The use of models to produce artifacts, perform work, make decisions, and create policies can have substantial impacts in the world and on individuals. AI, and particularly generative AI, can have dramatic effects on the types of labor that individuals engage in, as well as the quality and meaning of that labor. To guide AI research at OU, it will be essential to document these issues and outline a set of shared principles upon which to base our work.

The guiding principles should encompass a unifying vision, while also providing flexibility for discipline-specific interpretations and implementation. Key themes would include reproducibility and rigor, privacy, public impact, societal good, needs for institutional leadership and policy, and the need to support transdisciplinary collaborations. Because of OU's connection to many of the native nations within Oklahoma, we also have unique

opportunities and responsibilities to examine and address issues of data/model/knowledge governance and sovereignty. We expect these efforts will be undertaken with the AI governance working group. Given the rapidly changing nature of AI, these guidelines will need to be dynamic so that they can be updated as technologies and their applications evolve.

Implement a university-wide initiative to build and empower collaborative teams to engage in new convergent research efforts with AI as an enabler or topic of study. The applications and impacts of AI span multiple disciplines, and thus much of AI research will require transdisciplinary teams of scholars. To develop these teams, OU must connect scholars from a range of disciplines and provide access to computational "sandboxes" and other resources necessary to incubate novel research efforts. Emphasis will be placed on connecting AI experts in computer science and engineering with disciplinary experts in a variety of fields, and to providing sandboxes and other computational resources where these teams can rapidly conduct preliminary research. Achieving this aim will require focused long-term efforts that should be initiated over the Summer and Fall semesters in 2025.

This initiative should include (1) workshops on the capabilities and challenges of AI, (2) efforts to facilitate team building and ideation, and (3) opportunities to compete for internal funding to support pilot studies that will provide a foundation for pursuing external funding. We propose implementing these activities by creating a space for regular events and gatherings that will bring together a diverse set of scholars. This will take the form of a biweekly lunchtime gathering where food will be provided, several types of presentations and events will occur, and socializing and scientific discussion will be encouraged. To be successful, it will be important to identify a leader responsible for facilitating these events and fostering connections.

Establish a framework for AI consulting that would provide access to technical expertise for faculty wishing to incorporate AI into their research and other creative activities. Although some key consulting services are currently provided by University Libraries, OSCER, and the Data Institute for Societal Challenges, we envision a more comprehensive and coordinated set of services that are analogous to traditional statistical consulting services, but with an emphasis on AI and machine learning techniques. Consulting activities could range from aiding researchers in identifying the appropriate models and evaluation methods, to providing partial or even full software implementations. Short-term efforts would focus on defining the program processes and the needed personnel, including existing and future staff, faculty fellows, and students with expertise in AI.

Design and conduct a survey of faculty to assess the relevant expertise in various aspects of AI, interest in collaborative AI and AI-enabled research, opinions about the challenges and opportunities for AI research, current tools in use, and future resource needs. Although some information gathering related to AI across the OU campuses has already been done, the Research Working Group strongly feels that additional efforts are needed to gather more specific information about faculty expertise, interests, and needs related to AI research. The survey could be combined with other types of information gathering activities such as focus groups.

An important outcome would be to obtain more detailed information relevant to research that can inform implementation plans for the longer-term priorities. The survey would also support the team-building efforts described in the previous section by cataloging faculty expertise and interests and identifying barriers to collaborative research. We recommend that efforts during Summer 2025 be devoted to planning the content of the survey and the approach for focus

groups, and that these should then be implemented in Fall 2025 when faculty are on campus and more accessible.

Plan for Research Computing Needs. Needs for computing, storage, and software support will vary dramatically depending on the specific research project, and on the phase of work that the research project is in (e.g., training a model and interactively evaluating the same model often require distinct types of interfaces and tools). We will identify the range and magnitude of these needs, and work with the Infrastructure Working Group to identify how our existing internal infrastructure and external resources should grow into an interoperable ecosystem that meets our current and near-future needs. This research ecosystem will include supercomputers (OU and federal resources), cloud-based resources (both inside and outside of OU), a research AI sandbox, and support for computing and storage of regulated data. Major priorities include: (1) a GPU infrastructure for interactive model inference to support the use of custom-trained Large Language Models, and (2) low-barrier solutions to designing, training, and using machine learned models.

Vital to the research computing infrastructure are the personnel who enable the use of this infrastructure, including: (1) staff who install and maintain the hardware and software systems, (2) staff who are experts in using these systems, and (3) staff and faculty fellows with expertise in AI who can advise and consult on applying AI methods to new research domains. An evaluation of staffing needs to maintain and support the use of hardware and software resources will be part of this assessment.

Long-Term Priorities (6 months–3 years):
Implement a campus-wide strategic faculty and staff hiring plan that will position OU to take advantage of developments in AI to enhance teaching and research across the university. This initiative should encompass all aspects of AI, including basic research into AI technologies, applications of AI and machine learning across the full range of academic disciplines, and research into the ethical and societal implications of AI. A strategic hiring program would help to ensure that sufficient AI expertise is available in different disciplines across campus and would also help to attract top candidates by highlighting the interest in AI at OU and resources available to support new faculty.

A straightforward approach to this program would be to encourage departments to incorporate an AI component into at least one position as they prepare their position descriptions for open lines. The positions could then be catalogued into a central list, and the breadth of new AI positions could be highlighted to serve as an attractor that would help to enhance the pool of applications across all departments. Alternatively, if funding is available, a suite of new faculty positions could be crafted to recruit specific combinations of AI research expertise. Information to help define these positions could be gleaned from the short-term efforts described earlier, including information gathering through surveys and focus groups and feedback from the collaborative team building activities.

Implement a campus-wide strategic postdoctoral program aimed at rapidly scaling up research on AI across the university. Because AI technology and applications are cutting-edge, one of the most critical sources of knowledge is newly trained Ph.Ds. who have specialized in these areas. We propose a campus-wide program based on a postdoctoral fellowship model, in which prospective postdocs would identify a mentor, propose a research project, and compete for a pool of university funding. The rationale is that postdocs with recent training in AI research are the best positioned to rapidly conduct and publish new

research, and to help catalyze new campus-wide teams. In addition to competitive salaries, postdoctoral fellows and their mentors would be provided with some funding to support travel to conferences and other professional development activities. Although a significant investment would be required, it would cost less than new strategic faculty hires. Postdoc hires would also be for shorter terms (2-3 years), so the costs would be incurred over a limited time. In addition to conducting research, the postdocs could also contribute to other aspects of the strategic plan, such as AI consulting or teaching workshops and classes.

Implement a "faculty fellows" program for tenured faculty to retool and connect their research programs with AI. To accomplish this retraining, faculty in various disciplines would partner with a faculty member with AI expertise and propose a collaborative research project. These proposals would be evaluated by a panel; selected faculty would be offered a teaching release along with some supplementary funding to complete the project. The faculty fellows would also meet regularly as a group to present, discuss their work, and receive additional instruction in various AI topics. Participation in this program should be recognized by departments as a valuable contribution and factored into annual evaluations. Such a program would be complementary to the postdoctoral fellowship program and would likely be a relatively cost-effective way for interested faculty to learn new technical skills and engage in AI-related research topics.

Implement the AI Consulting Plan. Facilitating AI adoption in research and other creative activities requires growth in the number of AI experts. We envision augmenting the currently available resources to better meet these needs. With sufficient funding from the university, we expect that many of these resources can be made available at no direct cost to researchers. However, we imagine that some consulting time will also be available for hire to directly support grant and contract work.

Plan for Evolving Research Computing Needs. As more researchers engage AI in their workflows, compute and storage requirements will change. We will develop a process to assess these changes with respect to the available resources and make plans for future resource acquisitions. Such solutions would range from capital investment by OU to strategic infrastructure grant applications. This initiative could take the form of an annual institutional self-evaluation in which changes in AI technology are reviewed and the availability of resources and expertise at OU are assessed to ensure that they are still sufficient to support AI research efforts going forward.

Data/Model Archival, Curation and Management. Vital to developing AI models that are trustworthy, reproducible, and expandable is our ability to track (1) the data that are used to train and evaluate our models, (2) the details of the model architectures, and (3) the contexts in which the models are trained and evaluated. We will develop plans with OU Libraries and OSCER to further expand the existing ecosystem of solutions available at OU to track and share these details. In addition, we will develop and curate a set of "AI recipes," which are examples containing instructions, data, and software for a variety of prototypical AI applications. Researchers could use these as learning exercises and then adapt the processes to fit their own needs.

III. Implementation Plan

Our proposed implementation plan focuses on the short-term priorities outlined above, based on the assumption that the outcomes of these short-term activities will help to further shape the characteristics and scheduling of the long-term priorities. For the long-term priorities, we provide a more general overview of the expected activities.

Summer 2025 Activities

The goals of these activities are to continue the momentum of the Spring planning activities, and to inform the implementation of longer-term priorities.

- Data collection for the use of AI in research and other creative activities on campus:
  - Collate existing surveys and other feedback that we have already received, and identify missing categories of information (Fagg, Grinnell Davis)
  - In collaboration with the other AI Working Groups, develop a next survey (to be launched early Fall) (Fagg, Grinnell Davis)
  - Separate effort: quick data collection survey to assess challenges in receiving /executing research grants / proposals that stem from delays from OUIT (trying to launch before end of Spring) (Fagg)
- Build and Empower Collaborative Teams
  - Hold biweekly brown bag meetings to maintain momentum and continue building connections among diverse researchers.
  - Use these gatherings as a venue to connect researchers with summer workshops and other activities.
  - These team-building efforts will be connected with the summer workshop series described below.

- Summer Workshops
  - Workshop on human-centered AI, addressing a range of issues, possibly including: ethical data collection and decision making with learned models; data and model sovereignty; future of and implications for human work; connect to Education and Governance Working Groups(Grinnell Davis)
    - One outcome: Develop a set of principles for the use of data, AI, and modeling in research and other creative activities on the OU campuses
  - Workshop on AI in creative production
  - Workshop on AI-based modeling and sensing in hydrology (Fagg facilitating)
  - Workshops on AI-driven research in other topical or discipline-specific areas (examples might include: AI and the Future of Work; AI and the Future of Education; AI as an Emerging Technology—Lessons from History; Global Governance of AI; AI for Geospatial Sciences)
  - Workshop on use of computing resources for AI/ML, including OU supercomputer, National-level supercomputers, the National Research Platform, and others (Fagg)

- Prototypes
  - "Research bazaar:" interactive web-based interface for proposing project ideas, finding potential collaborators and resources (Cheng)
    - Connection to DISC web site: https://researchhub.disc.ourcloud.ou.edu/projects
  - No/low code deep learning for the OU supercomputer (Fagg)
  - AI Studio: Work with Infrastructure WG
  - Develop web-based interfaces to tailor LLMs and ML tools (Cheng)

    - Engaging students as potential staff (Cheng)
    - AI consulting by staff and faculty fellows, which would provide access to technical expertise for faculty wishing to incorporate AI into their creative work. This should include expertise in ethical and security concerns

- Planning
    - Develop a university-wide initiative to build and empower new collaborative teams to engage in new convergent research efforts with AI as a primary tool or focus of study
    - Develop long-term plan for AI consulting
    - With Infrastructure WG: Plan for Evolving Research Computing Needs
    - Data/Model Archival, Curation and Management

<u>Fall 2025 Activities</u>:

- Finalize document that describes our principles for AI and data use in research at OU
- Expand tools for collaborative team identification and formation. Continue activities for team formation
- Begin to execute plan for AI consulting that augments existing resources with additional staff, as well as faculty fellows, postdocs, and graduate students.
- Finalize plans and procedures for the strategic postdoc program
- With other AI Working Groups, deploy new data gathering instruments (surveys and/or focus groups) to assess (1) how AI is being used in research and other areas, (2) continuing training and technical needs, and (3) AI-centered progress from summer activities
- Begin longer-term planning for targeted faculty hires
- In collaboration with the AI Infrastructure Working Group, implement a plan for targeted purchasing of additional computing and supporting resources. Develop plan for continued assessment of needs
- Begin faculty fellows program
- Hold town hall meeting on Data/Model Archival, Curation and Management

Working Group: Healthcare Implementation and AI

Co-leads: David Bard (Professor, Pediatrics)
Jun Li (Professor, Molecular Genetics & Genome Sciences)

Working Group Membership

Core Members

- David Bard, Professor, Pediatrics
- Jun Li, Professor, Molecular Genetics & Genome Sciences
- Chongle Pan, Professor, Computer Science
- Gopi Danala, Research Scientist, DISC
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Advisory Members

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- Michael Anderson, Professor, OUHSC Biostatistics & Epidemiology
- Sharukh Khajotia, Professor, OUHSC College of Dentistry

I. Introduction

Purpose and Goals:

The Healthcare Implementation and AI Working Group is focused on exploring how artificial intelligence (AI), including generative AI (GenAI), can be thoughtfully and effectively applied to improve patient care, healthcare operations, research, and clinical education at the University of Oklahoma. The group brings together faculty, researchers, clinicians, and technologists from across disciplines to assess institutional readiness, identify high-impact opportunities, and promote responsible AI adoption in health settings. Our mission is to develop actionable recommendations, support pilot studies, and contribute to a university-wide roadmap that ensures AI advances are ethical, inclusive, and aligned with OU's broader strategic goals.

Organization and Approach

The Healthcare Implementation Working Group includes 5 core members and 18 advisory members representing a broad spectrum of expertise across clinical care, biomedical research,

education, legal, environmental design, informatics, and AI development. Members span the Health Sciences, the Norman campus, and affiliated healthcare systems. The group held its introductory meeting in early April, where co-leads outlined the working group's objectives, deliverables, and timeline in alignment with the university-wide AI initiative.

To inform the roadmap, the group conducted a structured needs assessment survey focused on four key areas: (1) current and planned uses of AI and GenAI in healthcare contexts, (2) opportunities for integration across clinical, research, and educational settings, (3) perceived barriers and infrastructure gaps, and (4) proposed pilot projects and institutional priorities. Survey findings helped shape the first draft of this roadmap (shared on 4/14), and follow-up discussions (via email and weekly virtual meetings) guided the refinement of its content.

Current Efforts and Opportunities

Current engagement in healthcare AI varies widely across members of the working group. Most members report using AI tools as assistants for tasks such as clinical documentation, teaching preparation, and literature summarization, while a smaller subset are actively collaborating on or developing AI technologies, including natural language processing tools and predictive modeling systems. We identified emerging opportunities, including AI-enabled chart summarization, grant and manuscript drafting, patient education material development, bias assessments in large language models, EHR-integrated decision support tools, and imaging segmentation.

While these activities reflect broad interest and early experimentation, most efforts remain in exploratory or pilot stages, with inconsistent access to platforms, tools, and institutional infrastructure. A major focus of recent working group discussions has been on defining short-term goals that can accelerate momentum, including the identification of shelf-ready pilot projects that reflect cross-cutting interests. These projects, along with a phased implementation plan, are detailed below.

Guiding Principles

In developing this roadmap, the Healthcare Implementation Working Group grounded its recommendations in a shared set of guiding principles while also reflecting on key institutional challenges. These considerations helped shape the group's priorities and are intended to guide the university's broader efforts to integrate AI into healthcare settings responsibly and effectively.

The group emphasized that AI initiatives must be rooted in strong frameworks for data governance, privacy protection, and bias mitigation. Ensuring ethical and secure use of AI is foundational to building trust and achieving meaningful impact. Equally important is a user-centered approach to implementation. Tools should be designed with diverse end-users in mind (including clinicians, educators, and researchers) and must integrate smoothly into their existing workflows to be truly effective. Further, the group underscored that all AI applications should align with OU's institutional values. Rather than replacing human decision-making, AI tools should enhance professional judgment, improve quality of care, and support the university's educational and research missions. As such, we anticipate close interactions with the Governess Working Group.

Interdisciplinary collaboration was also identified as essential. The development and application of healthcare AI must involve input from a broad range of stakeholders spanning clinical, technical, educational, and administrative roles. For these reasons, we anticipate the need to closely engage with the Research and Education Working Groups.

Challenges
In parallel with identifying guiding principles, the working group discussed several challenges that could impede progress. Among these are the absence of institutionally supported, HIPAA-compliant platforms for AI development and deployment, as well as limited faculty familiarity with AI and GenAI methods. Many current efforts are siloed, which reduces opportunities for collaboration and shared learning. In addition, ethical, legal, and compliance concerns remain difficult to navigate in the absence of clear internal guidance. These risks, if not addressed, may lead to lost opportunities while our peer institutions aggressively exploit the power of AI technologies. They highlight the need for a coordinated, principle-driven strategy that anticipates barriers and fosters sustainable, responsible innovation.

Incorporating AI into Clinical Practice: Partnership with OU Health

As OU and OU Health move to adopt AI in a responsible and scalable manner, a foundational step will be to integrate vetted AI tools into clinical practice. OU Health, a nonprofit academic health system and the University's primary clinical affiliate, is a key partner in advancing this goal. With shared missions in education, clinical research, and high-quality patient care, OU and OU Health are well-positioned to collaborate on the development and implementation of AI solutions that benefit the communities they serve.

To support this integration, the working group recommends establishing a standardized process for requesting, approving, and validating AI tools, particularly those intended for use within clinical environments. These pipelines should support both commercially available offerings (such as those embedded in Epic, OU Health's electronic health record platform) and internally developed models that emerge from academic research. Developing these processes transparently and collaboratively will ensure that tools are ethically sound, technically appropriate, and aligned with institutional priorities.

Clinician and researcher access to AI tools is critical for meaningful innovation. OU Health leadership has signaled a willingness to collaborate on responsible testing and validation of new tools, recognizing the value of structured experimentation as part of advancing care quality, research, and education. To enable such efforts, it will also be essential for OU Health to permit, expedite, and facilitate secure data sharing for purposes such as AI model training, labeling, and validation. Fostering this kind of culture, one that empowers clinicians and staff to engage with AI tools and clinical data directly, will be essential to realizing their full potential.

In the coming year, OU and OU Health intend to examine more closely what financial and operational investments may be needed to accelerate responsible AI adoption. This includes evaluating the use of Epic's expanding suite of AI capabilities (https://www.epic.com/software/ai/), exploring travel support for AI implementation leads to learn from national exemplars, and identifying opportunities for local pilot funding. These investments could pave the way for externally funded implementation studies, evaluating usability, performance, and best practices, and positioning OU as a leader in the dissemination and implementation science of healthcare AI.

Together, OU and OU Health can demonstrate how academic health systems can leverage AI to enhance clinical decision-making, improve operational efficiency, and expand the reach and impact of applied research.

II. Priorities

Over the next 3–6 months, the Healthcare Implementation Working Group recommends focusing on a set of catalytic, feasible priorities that reflect both strong member interest and foundational needs identified through the group's survey and pilot ideation process.

Short-Term Priorities (3–6 months):

Initiate High-Value Pilot Projects
Launch 3-5 small-scale pilot projects that demonstrate the value of applied AI in healthcare settings. Areas of early alignment include generative AI-assisted clinical documentation, AI-driven capacity forecasting (e.g., bed availability and clinic no-show rates), and clinical simulation tools enhanced by AI to surface and mitigate cognitive biases in medical decision-making. These projects offer early opportunities to evaluate real-world use cases, foster cross-disciplinary collaboration – including with other Working Groups, and begin building a shared evidence base for responsible AI integration at OU.

Establish Interim Access to HIPAA-Compliant AI Environments
Many proposed pilots require access to secure, HIPAA-compliant computing infrastructure for model training and deployment. In the absence of a permanent solution, OU should explore interim options such as cloud-based sandboxes used by peer institutions (e.g., through the National Center for Supercomputing Applications). These environments will enable hands-on experimentation while informing the design of a longer-term institutional platform. This priority will involve close interactions with the Resources and Governance Working Groups.

Assess Tool Access and Infrastructure Gaps
Conduct a system-wide assessment of faculty and staff access to AI tools, computing resources, and structured datasets. This review should identify unmet needs and opportunities for consolidation and include consultations with peer institutions that have advanced healthcare AI initiatives. Findings will inform both infrastructure planning and prioritization of shared resources. Details regarding the timing and content of the assessment remain to be worked out, and we recommend a joint effort with other Working Groups to reduce respondent burden.

Develop a Draft Governance and Training Framework.
Begin outlining institutional guardrails and educational support to guide the responsible use of GenAI in healthcare. This includes defining ethical guidelines, documenting key use cases and risks, and proposing role-specific training content for clinicians, educators, researchers, and administrative staff. While full-scale governance and training programs are listed among the group’s long-term priorities, early scaffolding will ensure that pilot projects are conducted responsibly and transparently.

Lay Groundwork for a Centralized AI Core
Although a fully operational AI Core may be a longer-term goal, initial steps—such as identifying technical leads, defining service functions, and exploring funding models—can begin now. The AI Core is envisioned as a shared resource to support faculty and staff with

modeling expertise, access to infrastructure, compliance guidance, and collaboration matchmaking. We expect that the Resources Working Group will lead the early effort, to be continued by a more stable leadership structure, akin to a university-wide AI Governing Council. We also expect that the support model needs to distinguish between research use and clinical implementation.

Begin Integrating AI Literacy and Ethics into Curricula.
In response to strong interest from educators and accrediting pressures (e.g., LCME, ACGME), OU should begin incorporating foundational AI literacy and ethics content into medical and allied health curricula. This may include faculty workshops, curated modules, or pilot programs focused on responsible AI use in clinical decision-making and communication skills training.

Foster Cross-Working Group Collaboration and Team Formation.
Partner with the AI Research Working Group to identify shared interests and facilitate researcher matchmaking across clinical, educational, and computational domains. Early activities include a joint collaboration interest survey, informal summer networking sessions, and the development of a shared directory of AI-related skills and project ideas.

Long-Term Priorities (2–3 years):
To support the sustainable adoption and scaling of AI across healthcare, research, and education, the Healthcare Implementation Working Group recommends a set of long-term institutional priorities. These priorities aim to transition OU from experimentation to a platform-ready environment capable of supporting secure, ethical, and effective AI deployment at scale.

Establish a Sustainable AI Toolkit for Healthcare.
Maintain a curated library of institution-approved AI tools that support documentation, diagnostics, teaching, patient communication, simulation, and other functions. Each tool must meet institutional standards for security, compliance, and interoperability.

Develop Scalable Training and Governance Programs.
Create comprehensive governance structures and training pathways that support ethical, effective AI use across the institution. This includes formalizing AI literacy and ethics content within medical and graduate education, integrating GenAI principles into clinical training, and developing role-specific onboarding tools for clinicians, educators, and researchers. In parallel, OU should build upon its existing data governance bodies, such as those that currently review research data use requests, to incorporate oversight of AI-specific issues, including model validation, transparency, human oversight, and risk mitigation. Embedding AI policy into established governance workflows will help ensure consistency, reduce duplication of effort, and promote responsible innovation across departments and campuses.

Invest in Resources for Data Curation and Model Readiness.
Build the data infrastructure needed to support internal development and testing of AI tools, including de-identified datasets, secure annotation workflows, and model benchmarking environments.

Build a Platform-Based AI Infrastructure.
Advance toward an institutional digital health platform that supports secure model development and deployment across domains. This infrastructure should enable scalable interaction among healthcare providers, learners, and developers, and serve as the technical foundation for future-ready AI initiatives.

Establish a Centralized AI Core for Healthcare.
Stand up a core unit that offers technical support, secure computing environments, compliance assistance, and cross-disciplinary collaboration opportunities. This core will be essential to scaling and sustaining pilot programs.

Pursue Strategic Partnerships and External Funding.
Align with health systems, industry, and federal agencies to advance OU's position in the national healthcare AI ecosystem. Prioritize competitive funding for infrastructure, training, and translational AI science.

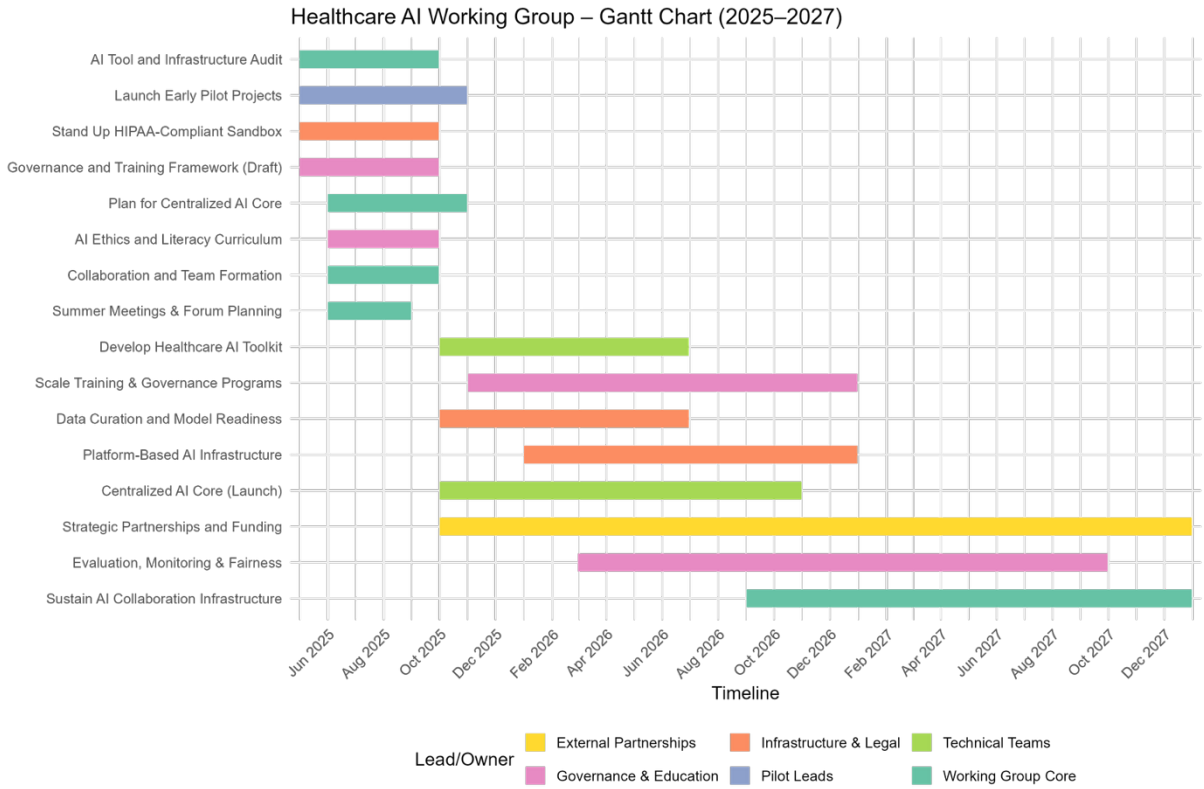
Advance Evaluation, Monitoring, and Fairness Strategies.
Develop mechanisms to monitor model performance, identify biases, and assess educational and clinical outcomes over time. This includes evaluating whether LLM-based assessments align with expert ratings and how AI tools impact communication and decision-making across populations.

Establish Institutional Infrastructure for Health-Related AI Team Science.
Develop a sustained model for interdisciplinary collaboration and project matchmaking across OU and OU Health. Potential mechanisms include a searchable collaboration registry, integrated seed funding calls, and embedded support for team science within the centralized AI Core.

III. Implementation Plan

Gantt Chart Overview

The chart below provides a high-level visualization of the Healthcare Implementation Working Group's proposed timeline for executing short- and long-term priorities outlined in this roadmap. Tasks are organized chronologically and grouped by responsible team or lead entity to reflect the collaborative, cross-functional nature of the work ahead. While individual activities are labeled concisely in the chart for readability, each is described in greater detail in the implementation plan that follows. Together, these activities represent a phased approach to building institutional capacity, launching early pilots, and laying the foundation for sustained, responsible adoption of AI in healthcare across the University of Oklahoma ecosystem.



Phase 1: Short-Term Implementation Plan (Summer–Fall 2025)
To execute the group's short-term priorities, the Healthcare Implementation Working Group will undertake a structured, yet highly collaborative implementation process spanning Summer through early Fall 2025. This period will focus on building foundational infrastructure, launching initial pilot activities, and fostering internal capacity and cross-disciplinary connection.

<u>Conduct an AI Tool and Infrastructure Audit</u>
Method: A system-wide review will assess faculty and staff access to AI tools, computing environments, and structured datasets. The Working Group will coordinate with the Resources and Governance Working Groups to design a shared audit instrument and reduce redundancy with other surveys.
Timeline: May–September 2025
Key Milestones: Final survey instrument (July); fielding of instrument (August); summary brief (September)
Responsible Parties: WG core members and campus liaisons, in collaboration with OU IT, OU Health IT, and the AI Initiative leadership

<u>Launch Early Pilot Projects</u>
Method: Pilot project leads will be confirmed by May 2025, with project charters and resource needs scoped by June. To foster shared learning, each pilot team will present progress during WG summer meetings, and final presentations will feed into the planned Fall/Winter AI in Healthcare Forum. Pilots may include:
GenAI for clinical documentation and chart summarization (David Bard)
Simulation-based training for cognitive bias recognition in surgery (Dee Wu)
LLM-driven clinical communication evaluation in medical simulation (Gregory MacDonald)
Data annotation and standardization for AI/ML cancer research (Doris Benbrook)

Evaluate potential bias in AI-driven forecast models for capacity and scheduling optimization (Anthony Alleman)

Timeline: May–October 2025
Key Milestones: Pilot team onboarding (May-June); midpoint review presentations (August); reporting and forum prep (October)
Responsible Parties: Identified pilot leads, supported by core WG members and partner units (e.g., clinical departments, OU IT, OU Health IT, IRB)

Stand Up Interim HIPAA-Compliant AI Sandbox
Method: The WG will continue engagement with the National Center for Supercomputing Applications (NCSA) to identify short-term sandbox options for HIPAA-compliant AI experimentation. In parallel, OU and OU Health Legal and IT Departments will be engaged to vet example BAAs and facilitate data access agreements.
Timeline: May–September 2025
Key Milestones: Sandbox configuration scoped (July); BAA templates drafted and circulated (June); sandbox access granted to initial pilot teams (July)
Responsible Parties: WG members (David Bard, Wolfgang Jentner), with OU and OU Health IT, OU, and OU Health Legal, and Governance WG coordination.

Develop a Draft Governance and Training Framework
Method: WG members will draft OU-specific GenAI guardrails, use case templates, and role-specific training concepts based on examples from peer institutions and pilot experiences. Drafts will be reviewed iteratively during WG meetings and refined in collaboration with the Governance and Training Working Groups.
Timeline: May–September 2025
Key Milestones: Outline of framework elements (June); draft circulation (August); cross-WG consultation (September)
Responsible Parties: Ethics and Education leads from WG, with input from pilot teams and governance partners

Initiate Planning for a Centralized AI Core
Method: The WG will draft a proposal outlining potential services, technical roles, funding models, and operational structure for a university-wide AI Core. This draft will distinguish between research, clinical, and training/educational implementation needs and recommend a transitional governance structure for oversight.
Timeline: June–October 2025
Key Milestones: Core concept draft (July); funding options reviewed (August); summary proposal for inclusion in final Roadmap (October)
Responsible Parties: WG core members in coordination with the Resources WG and campus leadership

Begin Curriculum Development for AI Ethics and Literacy
Method: Faculty working on AI in medical education will hold summer roundtables with academic deans and curriculum leads to identify entry points for pilot modules. Early content will focus on ethical risks, bias mitigation, and human-AI collaboration in clinical care.
Timeline: June–September 2025
Key Milestones: Initial roundtables complete (July); sample modules outlined (August); review with Education WG and curricular stakeholders (September)
Responsible Parties: Dee Wu, Gregory MacDonald, and WG members with curriculum ties to OUHSC Colleges

Foster Collaboration and Team Formation Across Working Groups

Method: In partnership with the AI Research Working Group, the Healthcare Implementation WG will support a coordinated effort to identify shared interests and facilitate team science connections across clinical, educational, and computational domains. This may include joint surveys to surface potential collaborators, informal matchmaking sessions during summer meetings, and a shared database of AI project interests and skills.

Timeline: June–September 2025

Key Milestones: Joint collaboration interest survey launched (June); matchmaking session during WG summer series (August); shared collaboration directory published (September)

Responsible Parties: WG liaisons to the Research WG, AI Initiative coordination staff, and faculty champions from both groups

Facilitate Summer Engagement and Forum Planning

Method: The WG will host a series of informal summer gatherings to deepen engagement and promote idea sharing. Each meeting will highlight one or two member-led pilots or emerging concepts. These sessions will also serve as planning touchpoints for a university-wide AI in Healthcare Forum, tentatively scheduled for Fall or Winter 2025.

Timeline: June–August 2025

Key Milestones: First meeting convened (June); forum agenda drafted (July); external speaker invitations initiated (August)

Responsible Parties: WG core members with support from AI Initiative staff; institutional funding will be sought to support off-site gatherings and speaker costs

Phase 2: Long-Term Implementation Plan (Fall 2025–2027)

The second phase of the Working Group's roadmap focuses on scaling foundational work completed in Year 1, transitioning OU from early experimentation toward a robust, institution-wide AI ecosystem in healthcare. The following plan outlines methods and milestones for translating the group's long-term priorities into action over the next two years.

Build and Maintain an OU Healthcare AI Toolkit

Method: A dedicated technical sub-team will curate and evaluate candidate AI tools aligned with clinical, educational, and research workflows. This includes identifying tools already in use (e.g., Epic-integrated models), open-source options, and internally developed algorithms. Each tool will be reviewed for compliance, security, and interoperability, with formal mechanisms established for feedback and periodic review.

Timeline: October 2025–June 2026

Key Milestones: Tool review framework finalized (December 2025); Initial AI Toolkit published and disseminated internally (March 2026); Toolkit refresh schedule and submission pipeline launched (June 2026)

Responsible Parties: Technical leads from WG in collaboration with OU IT, OU Health IT, and the AI Governance WG

Scale Training and Governance Programs

Method: Building on early training prototypes and governance drafts from Phase 1, this activity will formalize scalable training content (e.g., onboarding modules, continuing

education workshops) and create standing governance structures to vet new AI tools and assess implementation risks. Integration with existing data governance bodies will streamline workflows and avoid duplication.
Timeline: November 2025–December 2026
Key Milestones: Standing AI governance committee launched (January 2026); Curriculum modules deployed across at least three OUHSC colleges (August 2026); Workshop series established with CME/CNE alignment (Summer 2027)
Responsible Parties: Faculty development team (TBD), Ethics and Training leads from WG, AI Governance and Education WGs

Develop Resources for Data Curation and Model Readiness
Method: A cross-functional team will design and implement secure pipelines for assembling high-quality, datasets to support AI development and testing. This includes annotation workflows, staffing models (e.g., data stewards and annotators), and access controls. Coordination with OU Health, IRB, and legal counsels will be required to define governance and documentation standards.
Timeline: October 2025–June 2026
Key Milestones: Data use policy and curation workflow drafted (January 2026); Pilot multimodal dataset prepared and shared for internal projects (April 2026); Staffing and infrastructure plan completed (June 2026)
Responsible Parties: Data stewardship leads from WG, in collaboration with AI Resources WG, OU IT, OU Health IT, and OUHSC and OU Health Compliance

Advance a Platform-Based AI Infrastructure
Method: Transition from project-by-project access to a cohesive AI infrastructure platform supporting model development, validation, and deployment across use cases. The platform will include self-service components for researchers and clinicians (e.g., secure sandboxes, APIs for tool deployment) and be integrated with OU's clinical and academic data environments.
Timeline: January 2026–December 2026
Key Milestones: Platform design finalized (April 2026); Procurement or internal build strategy selected (July 2026); Beta launch with defined use cases (October 2026)
Responsible Parties: IT leadership across OUHSC and OU Health, with guidance from the AI Core and Infrastructure Planning Teams

Stand Up a Centralized AI Core for Healthcare
Method: Institutional leadership will formalize the AI Core's structure, including service lines (e.g., computing access, model review, regulatory consultation), technical staffing, and funding model. The Core will become the go-to resource for scaling and sustaining AI innovation across health education, delivery, and research.
Timeline: Planning begins Fall 2025, Operational by Fall 2026
Key Milestones: Operational plan submitted to senior leadership (January 2026); Core launched with dedicated staff and budget (August 2026); First service use case completed (October 2026)

Responsible Parties: Interim AI Core Steering Committee (appointed by AI Governance Council), supported by WG leadership and campus research administration

Pursue Strategic Partnerships and External Funding

Method: The WG will work with OU and OUHSC Office of Research, external relations, and the VPRP office to identify funding and partnership opportunities. This includes NIH instrumentation (e.g., S10), NSF AI initiatives, and collaborations with health systems, vendors (e.g., Epic), and peer academic centers.
Timeline: Ongoing (Fall 2025–2027)
Key Milestones: Strategic funding plan finalized (December 2025); First partnership MOU signed (Spring 2026); External grant submissions from AI WG-affiliated faculty demonstrate measurable growth and diversification in funding sources (End of 2026)
Responsible Parties: WG faculty investigators, with grant development support from the OU and OUHSC Office of Research, the Data Institute for Societal Challenges, and external affairs leadership

Build Systems for Evaluation, Monitoring, and Fairness Assurance

Method: Develop frameworks for post-deployment monitoring of AI tools used in care delivery, training, or research. These systems will assess accuracy, usability, and fairness, particularly in LLM-based evaluations or predictive modeling. Metrics will be aligned with national frameworks (e.g., NIST AI RMF, NIH Bridge2AI) and tied to institutional improvement goals.
Timeline: Spring 2026–Fall 2027
Key Milestones: Evaluation framework approved by AI Governance Council (April 2026); Fairness indicators incorporated into clinical and research pilots (Fall 2026); Annual audit and reporting cycle launched (Spring 2027)
Responsible Parties: Evaluation and Fairness sub-team (TBD), with support from the OU Division of Access and Opportunity, clinical analytics teams, and OU and OU Health IT

Establish Ongoing Infrastructure for AI Collaboration and Team Science

Method: Building on short-term collaboration activities, the AI Governance Council should consider sustaining a formal matchmaking and collaboration support structure for AI researchers, educators, and implementers across OU and OU Health. This could take the form of a searchable internal registry, coordinated seed funding calls, or embedded project matchmaking in the AI Core.
Timeline: Fall 2026–2027
Key Milestones: Infrastructure design proposal completed (Fall 2026); pilot launched within AI Core or Research Offices (Spring 2027); evaluation of reach and effectiveness (Fall 2027)
Responsible Parties: AI Core leadership (once operational), Offices of Research, and representatives from the Healthcare and Research Working Groups

Working Group: Resources & Infrastructure
Co-leads: Chongle Pan (Professor, Computer Science)
Wolfgang Jentner (Research Scientist, DISC)

Working Group Membership

Core Members

- Richard Veras, Assistant Professor, Computer Science
- Sam Billerbeck, System Administrator, Computer Science
- Henry Neeman, Executive Director, Research Computing, OSCER
- Chris Jones, Senior Director, Digital Strategy, OU Information Technology
- Wolfgang Jentner, Research Scientist, Data Institute for Societal Challenges
- Andrew H. Fagg, Associate Professor, Computer Science
- Chongle Pan, Professor, Computer Science
- Matt Beattie, Adjunct Engineering Dean, GCoE
- Glenn Hansen, Data Scientist, OU IT

Advisory Members

- Sam Huskey, Professor, Classics & Letters
- John Hassel, Associate Professor, OUPI
- Amanda Kis, Lecturer, School of Meteorology
- Daniel Zhao, Professor, Biostatistics & Epidemiology
- Dakotah Martinez, Lecturer, Department of Mathematics
- Tim Levine, Academic Chair, Communication
- Tyler Pearson, Director of Digital Scholarship and Data Services, Library Systems
- Varun Sayapaneni, Research Informatics Specialist, Library Systems

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I. Introduction

This working group (WG) aims to explore resources and infrastructure for innovative artificial intelligence (AI) tasks serving faculty, staff, and students for their various needs. We define AI as an inclusive term, including deep learning, generative AI, machine learning, computer vision, and potential future applications within that scope. Infrastructure defines hardware to run computationally intensive tasks that can be hosted on-premise at OU datacenters and hosted in external datacenters (often referred to as cloud). It also encompasses the support infrastructure, such as power, cooling, and personnel, to operate this computing infrastructure. Resources expand on this as they include licensed and open-source software, tools, services, and technologies for AI.

The WG comprises nine core members and eight advisory members from diverse backgrounds with expertise in providing computing and AI infrastructure and resources to OU and persons with extensive research experience in this domain.

This working group summarized existing resources and infrastructure available to OU faculty, staff, and students, which are outlined in this document. Furthermore, the WG defined user groups and assessed their immediate needs and existing gaps. Finally, the group recommends viable infrastructure and resource needs most suitable for the defined user groups.

As short-term goals, the group will prototype and assess different technologies and tools, experimenting with several factors to determine their advantages, disadvantages, and

suitability for OU's AI strategy. The long-term goals build upon this experience to implement more resource-intensive tasks sustainably.

II. Priorities

Short-Term Priorities (3–6 months):

Assessing ethical and trustworthy AI software and tools
Preferably open source, that can be used with a streamlined approval process. The result will be a document with guidance for potential users.

AI Sandboxes hosted on the National Research Platform (https://nrp.ai)

- Open Source – Global Resource
- Jupyter Hub – a digital notebook environment for coding
- LiteLLM – API access to hosted open-source language models
- LibreChat – GUI chatbot interface to hosted open-source language models

Assess the suitability of the National Artificial Intelligence Research Resource (NAIRR) Initiative for OU's computational needs. Review computational resources and standard models (including LLMs). Review training resources and available datasets

Evaluate leading LLM providers
e.g., OpenAI, Google, Perplexity and make their paid service widely accessible to faculty, staff, and potentially students. Encourage OU leadership to adopt an AI-first approach to relevant tasks. Establish a forum for users to share how AI improves their work—whether through efficiency, creativity, or impact. This initiative aims to elevate the University's overall AI proficiency, recognizing that skill comes through consistent use. This priority applies to all five groups - Individual – No Code, Individual – Some Code, Individual – Power User, Small Team (2–10), Large Team (>10)

Various possible collaborations with infrastructure providers
Federal infrastructure and industry must be explored. Evaluate the GPU VM offerings from leading cloud providers (e.g., AWS, Google, and Lambda Labs). Assess their software stacks for ease of use and scalability. Provide some funding to test these cloud platforms using real-world projects at OU.

Survey model registries (similar to HuggingFace) on demand (model-as-a-service)

Prototyping no-code & low-code solutions for supercomputer-based training of Deep Neural Networks.
Our goal is to substantially lower the barriers to designing, training, and evaluating DNNs on the OU (and other) supercomputers by providing easily configurable software tools that do not require explicit programming. We are developing a modular software architecture that (1) enables the specification of the details of standard DNN model architectures, (2) allows for the efficient loading and manipulation of data starting from a range of file formats, and (3) provides a standard infrastructure for training and evaluating models. The model training/evaluation engine will be usable in the standard batch execution process on the OU supercomputer, as well as in Jupyter Notebooks.

Long-Term Priorities (2–3 years):

Hardware for Research AI and on-premise Everyday AI
It can be flexibly spent over multiple years or in bulk, but it is vital for developing AI infrastructure at OU. Additional hardware must be accompanied by the required personnel.

Additional personnel, such as AI consultants
These are crucial in providing faculty and other employees with the best tools for their various use cases.

AI Consultants
To support campus-wide AI efforts and provide AI sandboxes for faculty and staff.

Everyday AI resources
In the form of a combination of licensed, scalable software, as well as on-premise AI, such as a RAG modeled "SoonerGPT."

II. Implementation Plan

The implementation plan lists existing resources and infrastructure, defines potential user groups, their needs, and existing gaps, and finishes with recommendations to further strengthen and broaden OU's AI capabilities.

Existing and Planned Infrastructure

Hardware can be hosted on premises and bought using a one-time purchase cost. Continued costs are needed for maintaining the data center, power, cooling, and personnel who service the infrastructure. Another possibility is cloud-based hosting with external providers such as Google Cloud, Amazon AWS, Microsoft Azure, Oracle, etc. Public clouds can scale easily for large numbers of users or computationally intensive tasks but come at a cost as these services typically require a pay-by-usage model, requiring a recurring (monthly) payment. Studies conducted by the OSCER team showed that cloud-based hosting increases AI costs by at least 5 times compared to on-premise hosting. A compromise here can be dedicated premises for research, such as the National Research Platform (NRP), National Center for Supercomputing Applications (NCSA), or the National AI Research Resource (NAIRR) Pilot Project. These can reduce costs but may impose other constraints, such as limited hardware availability. Finally, specific services such as ChatGPT can be licensed directly, making the need for dedicated hardware obsolete, but also strictly limiting flexibility and transparency while further increasing the costs compared to cloud-based hosting.

Hardware

OU's hardware has increased significantly with a 4000% increase over the last 4 years. Roughly half of the computing hardware is condominium, meaning it is owned by specific researchers and institutes. Compared to other AAU institutions with comparable research expenditures, OU's AI offering is moderately above the median level of GPU compute capacity. Soon, fast storage with 40 TB for the burst buffer will be available in combination with a slower 1 PB storage for substantial amounts of data.

Resource Matrix

The goal is to create a resource matrix available to OU employees and students that lists compliances (e.g., HIPAA) and recommendations on ethical use and data privacy. The University of Texas has created a similar resource: https://security.utexas.edu/iso-policies/cloud-services/decision-matrix.

This effort will be coordinated with the Governance Working Group.
The OU Libraries JupyterHub server utilizes the National Research Platform's Kubernetes environment for hosting. The National Research Platform has no storage suitable for HIPAA, PID, FISMA, FERPA, or protected data.

Gaps and Immediate Needs

User Needs
The table below identifies the needs of the following types of users:

- **Individual – No Code**: These users are curious about AI and want to explore it through user-friendly tools. They may be faculty, staff, or students with no coding background. Their interest often lies in using AI for writing assistance, presentations, or educational content creation.
- **Individual – Some Code**: These users have some familiarity with coding—perhaps through coursework or self-learning—and want to experiment with AI APIs, tools like Google Colab, or light-weight local models. Often, students or early-career researchers work on small-scale projects.
- **Individual – Power User**: These users regularly engage in programming and model experimentation. They may be training custom models, running large datasets, or using GPUs locally. Typically, graduate students, postdocs, or advanced staff members working on research-intensive tasks.
- **Small Team (2–10 people)**: This group collaborates on AI-based research projects. They need shared resources, version control, and infrastructure that supports reproducibility. Members might span departments and include faculty, postdocs, and students.
- **Large Team (>10 people)**: These teams work on institutional-scale AI efforts. They may run multi-year grants, manage complex data pipelines, and require scalable compute and centralized project management tools. AI-specific classroom environments that require standard compute and software environments at scale. Needs include high-performance computing and formal governance.
- **Team with Extramural Members**: These collaborations involve researchers or stakeholders from outside the university. Secure access, shared cloud infrastructure, and data agreements are key. Projects may be cross-institutional or international in scope.

User Type	**Hardware**	**Software**	**Services**	**Infrastructure**	**People**	**Compliance / Security**
Individual – No Code	• Personal computer • Optional: tablet or smartphone	• Office suite (MS Office, Google Docs) • Browser-based tools (ChatGPT, Gemini, Perplexity, NotebookLM) • Educational AI tools (e.g., Teachable Machine, Scratch w/ AI)	• GitHub Copilot • OpenAI platform tools • Canva, Adobe Firefly • No-code chatbot tools (Sendbird, etc.)	• Cloud storage (Google Drive, OneDrive, Dropbox) • University-wide licenses for AI tools	• Orientation workshops • Learning center support	• Ethical AI use training • Awareness of FERPA, copyright, etc.
Individual – Some Code	• Personal computer (ideally with strong RAM/GPU) • Optional: lab desktop or Chromebook for remote work	• Integrated Development Environments (VS Code, PyCharm Edu, Cursor, Windsurf) • Jupyter Notebooks • Anaconda/Miniconda • Ollama • GitHub CLI/Desktop	• API access (OpenAI, Cohere, Hugging Face) • Google Colab (free or Pro) • Kaggle Notebooks • LM Studio • NotebookLM	• Cloud drives • GitHub/Google Drive integration • Optional: JupyterHub hosted by University	• Data science support hours • Peer learning / study groups	• Secure API key handling • Data sharing best practices
Individual – Power User	• High-spec workstation or laptop w/ GPU • Optional local server	• IDEs (VS Code, JupyterLab, Cursor, Windsurf) • PyTorch/TensorFlow • Docker/Podman • GitHub Copilot • Local LLMs (Ollama) • UV	• API credits (OpenAI, Claude) • Hugging Face Hub • Shared model repo • Slurm access • National Research Platform (NRP)	• HPC (Slurm) • Networked storage • Remote access (SSH/VPN)	• Consultations with IT/data science staff	• Data usage review • IRB if using sensitive data

Small Team (2–10)	• Shared GPU workstation or cloud credits	• GitHub/Bitbucket • Docker Compose • JupyterHub • Conda environments	• Shared API keys • Cloud file sharing • Shared documentation channels	• Shared server • Private Git repos • Remote JupyterHub	• Research IT support • Stats/AI collaborators	• Group onboarding • Access control
Large Team (>10)	• Dedicated servers or cloud budget	• Centralized codebase • Project management tools (Asana, Jira) • CI/CD • ML Ops tools (MLflow) • Low-Code/No-Code agent authoring tools	• Model tracking (e.g., Weights & Biases) • Usage dashboards • Slack/MS Teams	• Institutional HPC • Scalable storage • Identity management • Spark as a Service	• Project managers • Assigned IT liaisons	• Risk assessment • Security audits • Logs for access • Data governance for sensitive data tagging • Active Directory based authorization
Team w/ Extramural Members	• Cloud-hosted environments	• Shared GitHub repos • Cloud notebooks (Colab, Paperspace)	• Shared datasets • Communication platforms (Slack, Zoom, Teams) • National Research Platform (NRP)	• Federated identity access • VPN or SSO • Shared cloud buckets	• Legal/compliance liaison • External stakeholder coordination	• DTAs/NDAs • Export control • Inter-institutional policies

Recommendations
The infrastructure and resources working group recommends investing in various efforts and resources, combining hardware, personnel, and resources such as software (open source & licensed) and cloud infrastructure.

Hardware
Computer Hardware
A mix of 8-way and 4-way GPU servers, supporting multiple makes and models of high-end and **midrange GPU cards.**

Storage Hardware
One or more large, robust flash SSD storage resources accessible on all the compute hardware at high IOPS and high bandwidth.

Data Center Power & Cooling
Rapid growth in power draw and heat generation per GPU card, combined with significant growth in demand for GPU cards – OU has had a ~4000% increase in GPU card capacity for AI calculations between 2021 and 2025 – mean that extant data center power and cooling capacity is at risk of not keeping up with this burgeoning demand. Thus, significant data center power system and cooling upgrades are needed. More information and preliminary cost estimates are detailed in the appendix.

Interactive GPU Access
We continue to see requests for GPU resources that can be used for on-demand inference. The common use case is interaction with a custom-trained LLM via stream sockets. There are ongoing experiments by OUIT and OSCER evaluating how to accommodate this need, but specifically, LLMs require dedicated hardware for inference compared to training the models, i.e., large GPU memory to fit the models.

Support for Campus Wide Data Science, Artificial Intelligence, and Machine Learning Courses
Browser-based code execution and editing (e.g., Jupyter lab). There are several solutions for this; one we have experience with is the National Research Platform. While we do not technically need to contribute hardware to this, it would be good to do so if we are making heavy use of the system (alternatively, we could work on NSF proposals). If we go this route, we should think about personnel handling class-specific system configurations (OU Libraries is already doing some of this).

Personnel
AI & Cloud Administrators
Further to the comparison between OU and aspirational research peers (see Existing and Planned Infrastructure & Resources, above), OU's primary insufficiency is in the number of research computing personnel (OU OSCER has 59% of the median number of personnel for that aspirational peer group). This impacts OSCER's ability to produce new required capabilities and capacity advancements. OU IT is currently in discussions with various institutional leaders about addressing this issue.

AI Consultants

AI expertise across campus exists in pockets, with local specialists in ethics, applications, research methodologies, and theoretical foundations. Some computational and (limited) AI expertise are available through OU Libraries, OSCER, and DISC. However, there are persistent challenges in (1) having enough deep AI expertise to meet the needs on campus, (2) connecting the experts that we do have with individuals or units seeking consultation, and (3) creating incentives for faculty and staff to provide such services.

One suggestion is to provide a small number of staff primarily responsible for training and supporting a cadre of specially trained students (cross-reference to *experiential learning* goals of the Lead On Strategic Plan) who provide the bulk of the direct user development and support activities. Funding can be centrally supported through fee-for-service models and/or external (grants, contracts, fundraising) sources, or, most likely, a combination of all. Staffing size is unknown, but a minimum of 3-5 FTE would seem necessary to establish the required scale to provide immediate value.

There is also a clear need to develop a "train-the-trainer" model to cultivate the skill sets necessary for effective AI consultation. This approach would allow a cohort of professionals, potentially including librarians, instructional designers, and faculty development staff, to be trained in foundational AI knowledge and consultation practices. These trainers could support a broader community of faculty, researchers, students, and staff.

Resources

AI Innovation Hub

Variously described as a "sandbox" or "playground," the AI Innovation Hub concept is a flexible, secure, and supported environment that empowers OU faculty, staff, and students to explore, prototype, and operationalize AI solutions in support of academic, research, and administrative goals. Acting as both a sandbox and a launchpad, the Hub could offer a structured but open space for experimentation with a wide range of AI technologies, from language models to custom machine learning pipelines, without requiring users to navigate the complexity of setting up secure infrastructure from scratch.

The Hub could be realized through a combination of cloud-based and on-premise resources. One potential model involves user-specific, cloud-hosted technical environments provisioned through a centralized OU platform. These environments would inherit university-wide security, identity management, and networking standards, offering a consistent baseline for safety, compliance, and interoperability. In parallel, an on-premise solution could provide rapid access to virtual environments that support a range of LLMs or other AI tools, enabling low-latency access for sensitive data use cases or more specialized compute needs.

"SoonerGPT"

Idea: High-level concept describing a range of AI-enabled solutions specifically serving the OU community. Examples may include:

- OU functional unit knowledge bots (e.g., an HR bot that knows all our policies and public information; an IT bot that incorporates web content, knowledge bases, vendor-provided support content, and other sources into a 'virtual IT support' agent).

- OU digital experience agents (e.g., intelligent AI overlaying operational and workflow challenges such as requesting action from facilities, room scheduling, IT, or other service units; integration with key administrative systems for personalized transactions, such as reserving a study space, paying a bursar bill, or executing changes to class schedules).

Research AI

OU IT, via OSCER, provides a broad variety of existing, planned, and desired research computing capabilities (see Existing and Planned Infrastructure & Resources, above, and https://www.ou.edu/oscer/resources, for an overview of current capabilities). OSCER continues to deploy increased capacity and new capabilities year by year.

The University of Florida (UF) has the largest institutional AI computer resource of any academic institution in the US, currently 1140 A100 GPUs. Normalized for annual research expenditure, UF's AI resources are double OU's. Further, UF is planning an upgrade that will substantially increase their AI capacity, and this is in the context of transformational change to UF's culture around AI. To remain competitive, OU requires a significant increase in investment in AI, both in hardware and in education and research programs.

Everyday AI

Services and tools, typically powered by generative AI, enhance productivity, streamline decision-making, and improve user experiences for OU employees and students without requiring advanced technical skills. These accessible solutions are available to university users through familiar applications and platforms. Examples include writing assistants, smart email features, meeting transcription, chatbots, scheduling tools, language translation, and image generation, often embedded within major industry partners' tools.

Federal Supercomputing Infrastructure

The federal government sponsors national research computing resources, including GPUs for AI/ML, at a modest number of academic institutions (especially the National Science Foundation), at a modest number of national laboratories (especially the Departments of Energy and Defense), and at a modest number of standalone supercomputing centers (especially NASA and NSF's National Center for Atmospheric Research).

The National AI Research Resource (NAIRR) Pilot Project provides access to some of these resources for AI/ML-based research. However, these national centers provide insufficient capacity for the national research community as a whole. Instead, they're substantially optimized for "huge, wee, and weird:" projects that are too big to be able to be run on institutional computing resources, projects from institutions that are too small and under-resourced to have their own local resources, and projects that require resources that are too idiosyncratic to be available at the institutional level because of insufficient local demand to justify the expense (but significant national demand).

National Research Platform (https://nrp.ai/): a large number of moderate-scale resources (compute and storage). NAIRR offerings include systems built on top of the NRP. Also, OU Libraries has supported a JupyterHub setup that handles a range of different language environments for several years. These JupyterHubs can be configured with shared storage (ideal for classes). Several faculty have followed this model to set up their own class-specific Jupyter

Hubs. NRP also hosts open source LLMs available through their managed infrastructure. These models include Gemma3 27B, Llama3 90B, DeepSeek R1 Distill Qwen 32B, Mistral 7B, as well as others.

OSCER staff and other research groups at OU can help researchers who are new to using these national resources get access to them, but historically, demand for that service has been low.

Industry Collaborations

Note: As we explore the role of industry partnerships in advancing our AI initiatives, I propose a coordinated and collaborative approach for your consideration. I believe a shared framework will serve the university better than a series of isolated engagements. Many vendors are eager to position themselves as long-term partners, often promising expansive capabilities or rapid solutions tailored to our needs. While their enthusiasm can be valuable, it also risks leading to fragmented efforts or hard-to-unwind dependencies, particularly when pursued simultaneously from multiple directions. An aligned and intentionally connected strategy can support a diversity of explorations while remaining mindful of long-term implications, including institutional, financial, and architectural coherence. This approach is more likely to gain sustained support across the university.

Potential "hyperscale" partners:

*Note: The following is framed regarding the known engagements with these potential partners within OU IT. There may be several other contacts and collaborations outside of our view (see **Industry Collaboration** note, above).*

Google

OU's engagement with Google Cloud has been exploratory and focused on pilot use cases. A recent machine learning and AI proof of concept (POC) led by Dr. Matt Beattie from the OU Polytechnic Institute utilized Google Cloud Workstations. The POC showed some limitations of that solution, resulting in a pivot to Google Compute VMs. The POC also developed a means for cost control at the student-to-class level BigQuery was used during the POC for datalake infrastructure, which allowed access to centralized data via API and data visualization with Tableau. These initial activities reflect OU's interest in Google's AI and data capabilities and are being expanded in the Summer and Fall 2025 semesters to larger classes.

Amazon Web Services (AWS)

OU has the most mature cloud presence in Amazon Web Services, with widespread adoption across departments for traditional compute and storage workloads. The OU Library currently represents one of the largest AWS footprints, and Controlled Unclassified Information (CUI) workloads are maintained in AWS GovCloud. The university is re-aligning its AWS service delivery with best practice models, including transitioning to more automated and standardized account provisioning. In addition, OU is actively exploring AWS's suite of AI and machine learning tools—such as Bedrock, SageMaker, and Amazon Q—as part of broader experimentation with intelligent technologies. A data lake architecture leveraging AWS tools is also under consideration to further integrate scalable AI capabilities into the cloud environment.

Microsoft Azure

OU has a broad and growing presence in Microsoft Azure, primarily managed through a subscription-based model overseen by the university's Operations team. Azure services are tightly integrated with institutional identity systems via Entra ID (formerly Active Directory), supporting various academic and administrative functions. CUI workloads are securely hosted in the Azure GCC High environment, ensuring compliance with federal requirements. The university is also experimenting with Power Apps and other low-code development tools to evaluate Azure's broader capabilities. Many Azure AI and cloud services show promise, and OU is in the preliminary stages of assessing how to strategically expand its use.

Oracle Cloud Infrastructure (OCI)

OU's current use of Oracle Cloud Infrastructure is limited but active, with GoldenGate serving as the primary tool for synchronizing data across institutional databases. The Data Services team maintains this workload. Additionally, the university has initiated discussions with Oracle to explore its broader data ecosystem, with a meeting planned to evaluate the full range of offerings. This engagement represents an early-stage exploration into how OCI might support OU's evolving data and AI strategies and whether the platform has potential for greater institutional alignment.

Potential Everyday AI partners:

Microsoft

- OU has taken a measured approach to Microsoft's AI offerings, focusing on data privacy, value, and fit for the university environment. In mid-2024, OU piloted Microsoft 365 CoPilot—AI integrated into Word, Excel, PowerPoint, and Teams—but found it did not offer enough value to justify the $30/user/month cost and chose not to pursue broader adoption. CoPilot Chat, which maintains user privacy and does not train the model on institutional data, is now available to all OU account holders, though it has not been widely promoted to students. More recently, Microsoft has moved toward a consumption-based pricing model, introducing free CoPilot Chat in Edge and Outlook and new tools like CoPilot Studio. OU is continuing to monitor these developments, including evolving enterprise integrations and use-based pricing models, to inform future decisions.

OpenAI

- OU's engagement with OpenAI has grown steadily as interest in generative AI tools has accelerated across campus. In 2024, the university explored OpenAI's EDU GPT offering, which includes access to GPT-4o, advanced capabilities like data analytics and browsing, and the ability to build and share custom GPTs in secure group environments. EDU licenses are priced at $20/user/month with a 300-seat minimum, though costs could drop to as low as $12/user with full university adoption. As of July 2024, more than 2,000 OU-affiliated accounts (using ou.edu or ouhsc.edu emails) had been created, with only 309 of those tied to paid plans—representing approximately $60,000 in total annual spend. In addition to student-facing tools like study guides and AI tutors, OU IT's data science team is also using the OpenAI API for proof-of-concept projects and custom integrations.

Grammarly

- OU's relationship with Grammarly centers on supporting student and staff writing across campus, with early interest in expanding institutional use. As of late 2024, more than 2,000 paid accounts were tied to ou.edu and ouhsc.edu emails, alongside over 8,700 free users. University College currently leads the most formal engagement, purchasing 2,000 Grammarly EDU seats annually at a discounted rate of $4 per user—totaling $8,000. The remainder of the paid accounts are departmental purchases using pCards. Grammarly's individual licenses are priced at $144/year, though enterprise and volume discounts can drop the cost to $12–$15/user depending on license levels. The tool is widely used through browser extensions, desktop apps, and mobile platforms, and integrates with Canvas, where a writing score API is in development. With a proprietary language model, in-house linguists, and a focus on learning, Grammarly is seen as especially helpful for first-generation students and those in academic support programs.

Top Hat

Top Hat is a cloud-based courseware platform with interactive features designed to boost student engagement and learning. In Spring 2024, OU signed a multi-year enterprise licensing agreement to offer the platform at no-cost to students and for an unlimited number of courses. This made Top Hat OU's centrally supported student engagement platform across all three campuses. Top Hat functions as a classroom response system, offering a variety of graded and ungraded question types as well as discussion prompts that faculty can present live to their in-person, online, and hybrid courses. Faculty also can create and enhance course materials such as slides, assessments including timed and monitored tests, and digital textbooks to present to students during class or assign for completion outside of class.

In Fall 2023, Top Hat launched Ace, a generative AI assistant powered by OpenAI's GPT-4. Ace has access to a course's materials and offers support to students and faculty based on the course context.

Ace serves as a study chatbot for students. They can prompt Ace for explanations, clarifications, and summaries and have it generate practice questions in the context of their course materials. Faculty can access summaries of what percentage of their students have interacted with Ace and what topics they asked for help with the most.

Faculty can use Ace to generate editable multiple-choice questions with hints and explanations as well as discussion prompts to insert into their course materials. This aspect of Ace can be used on-the-fly during class or outside of class.

Possibly of interest: Top Hat's AI Guiding Principles

Working Group: AI Education: Teaching and Training
Co-leads: M. Geneva Murray, Sr. Associate Director, Center for Faculty Excellence
Jessica Davila, Associate Dean for Digital Strategies and Innovation, University Libraries

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Working Group Membership

Core Members

- M. Geneva Murray, Senior Associate Director, Center for Faculty Excellence
- Jessica Davila, Associate Dean, Digital Strategies & Innovation, University Libraries
- John Hassel, Associate Professor, OUPI
- Andy Fagg, Associate Professor of Computer Science and Bioengineering, Computer Science
- Chris Jones, Senior IT Director, IT Administration
- Gopi Danala, Research Scientist, DISC
- Wolfgang Jentner, Research Scientist, DISC
- Naveen Kumar, Associate Professor, Management Information Systems, Price College of Business
- Geoff Koch, Instructor, Marketing & Supply Chain
- Sean Harrington, Director of Technology Innovation, College of Law
- Dollaya Hirunysiri, Instructional Designer, Center for Public Management
- Ashton Foley-Schramm, Academic Associate Director / Assistant Professor, Writing Center

Advisory Members

- Melissa Wilson Reyes, Project manager, AI2ES
- June Bood, Instructor, Marketing & Supply Chain Management
- Mary Beth Humphrey, Professor, Rheumatology/Immunology
- Amanda Kis, Lecturer, School of Meteorology
- Rebecca Huskey, Associate Professor, Classics
- Lucia Colombari, Assistant Professor, Fine Arts
- Darren Purcell, Associate Professor, Geography & Environmental Sustainability
- Suchismita Bhattacharjee, Associate Dean, Gibbs College of Architecture
- Laura Janneck, Assistant Professor, SCM-Tulsa, Emergency Medicine
- Hayden Vedra, Representative, Undergraduate Student Congress
- Kevin Buck, Assistant Director, IT Learning Spaces
- Ashley Davis, Assistant Professor, Accounting
- Ganisher Davlyatov, Assistant Professor/ Program Director, CoPH Health Administration and Policy
- Pandora Hancock, PEAK Staff, Grad Student (IoPPN)
- Kofi Asare, Assistant Professor, Construction Innovation and Analytics
- Kristin Foulks, Simulation Director, COM-Tulsa, Office of the Dean
- Anne Pate, Director, Public and Community Health Programs
- Brandt Wiskur, Associate Professor, Family Medicine
- Franklin Hays, Assistant Professor, Nutritional Sciences
- Jeremy Hessman, Technology Strategist, DFCAS
- Tarren Shaw, Lecturer, School of Biological Sciences

- Keiana Cross, Director of Instructional Design, K20 Center
- Teri Reed, Director, OUPI
- Ahmed Butt, Assistant Professor, Polytechnic
- Blake Lesselroth, Vice-Chair & Associate Professor; COM-Tulsa; Internal Medicine, Medical Informatics
- Josephine Kim, Director, Student Learning Center

I. Introduction

Purpose and Goal:
The AI Education: Teaching and Training Working Group is focused on equipping the University of Oklahoma community with the knowledge, skills, and support systems needed to engage meaningfully with artificial intelligence. Through cross-campus collaboration, the group is developing a suite of learning resources and training programs for faculty, staff, and students—identifying the specific resources required both to deliver high-quality AI trainings and to help faculty translate their AI understanding into course design, whether that means integrating AI tools or adapting teaching strategies in response to AI. These efforts aim to foster ethical AI literacy, support pedagogical innovation, and ensure that AI is implemented in ways that reflect OU's values of integrity, inclusivity, and academic excellence.

II. Priorities

Short-Term Priorities (3–6 months):

Technology Resource Recommendations

Identify, assess, and propose technology systems, Generative AI chatbots, and LLM needs and infrastructure to support the AI Education Working Group's identified learning objectives, trainings and modules.

Training:

Establish general learning objectives that will inform introductory training (AI 101) that addresses AI usage liability, ethics, and integrity concerns for faculty, staff, and students. Learning objectives will inform each training referenced hereafter.

Student training:

Use existing OU trainings on AI from various offices to create an AI 101 for students and propose the training be incorporated in FYE Canvas courses as an assignment with an associated grade. Explore avenues to deliver the training to transfer and Graduate Students.

Create short video quizzes reflective of five different AI syllabus policy options that faculty can embed in their Canvas course as is, or modify, to assess student understanding of specific courses' AI policies.

OU Libraries to create library research guides that guide students through using AI in Academic Research effectively and ethically, Introduction to Generative AI, and additional support as identified.

OU Libraries to identify supplemental, hands-on learning needs and create AI Workshop offerings open to all (students, faculty, and staff) for the Fall and Spring semesters.

Secure a budget line for students as testers for AI modules.

Identify free or low-cost credentialing opportunities for students to document their professional development in AI usage.

Faculty training:

Update the faculty-focused Generative AI module offered within CFE, which is available to all three campuses.

Investigate badging for faculty who complete the module.

OU Libraries to identify supplemental learning needs and create AI Workshop offerings open to all (students, faculty, and staff) for the Fall and Spring semesters.

Staff training:

Identify appropriate external trainings that can be recommended to staff, including free or low-cost credentialing opportunities for staff to document their professional development in AI usage.

Create a modified version of the AI 101 training for students that addresses specific staff needs, addressing the learning objectives identified by the group.

OU Libraries to identify supplemental learning needs and create AI Workshop offerings open to all (students, faculty, and staff) for Fall and Spring semester.

Improve marketing of currently available trainings by requesting an AI "tag" be added to OU Events Calendar and establish an RSS feed on the central AI website.

Centralize survey findings from various offices so that responses can inform new and revised trainings, including SERU AI (student survey), ECAR Faculty Technology Survey (faculty survey).

Investigate possibilities of incorporating a readiness survey into the AI 101 modules to assess attitudes towards AI.

Education:

Work with the Provost's Office, and other required stakeholders, to add a Generative AI syllabus statement as a required element to the OU syllabus template. A policy will be required for each class, but what the policy is will be determined by the instructor.

Work with PACGEO to evaluate the five-page and ten-page paper requirements for general education courses and propose empowering faculty by giving them the choice of modality in how students would demonstrate meeting an equivalent competency.

Recruit robust model examples of assignments, syllabi statements, and lesson plans for an educational repository housed within CFE's faculty resources and secure a new budget line to pay instructors $300 per robust example.

Long-Term Priorities (1–3 years):

Training:

Ensure required generalized AI training reaches as many OU staff, faculty, and students as possible by working with HR, undergraduate courses, and Graduate student training. Identify additional deep dive training for all stakeholders, contingent upon new technologies that OU secures access to. Secure a new budget line for an AI literacy specialist to join OU Libraries in creating campus-wide resources to support AI literacy. Secure a new budget line for a centralized instructional designer to maintain and update the AI 101 modules. Add an AI showcase to demonstrate novel use cases of AI among faculty, staff, and students on each campus to the annual Tech Expo, and provide an additional $10,000 to support implementation.

Faculty training:

Create a modified version of the AI 101 training for faculty that addresses specific faculty needs and is a simplified version of the deep dive faculty training offered through CFE. Implement a Curriculum Development Program focused on AI, offering either summer salary (ranging from $5,000 to $6,000 per faculty) or a course release option ($7,000 per course) for participants. Secure a new budget line for an AI specialist to join the CFE's teaching team to scale educational development support for faculty, who would provide AI specific consultations with faculty (re)designing their courses, oversee AI specific learning communities, and update the Generative AI module(s) at greater frequency. Partner with ECAR Faculty Technology Survey to incorporate additional questions about faculty and AI beginning in 2026, which will inform the working group's next steps. Secure seed money for faculty attendance at professional training to learn about ethical and effective AI usage in their fields ($50,000/annually). Create clear lines of communication between IT, CFE, Academic Integrity, instructors, and other stakeholders, to assess claims from AI powered platforms that they can assess qualitative work, detect Generative AI usage, etc.

Staff training:

Secure seed money for staff attendance at professional training to learn about ethical and effective AI usage in their work ($50,000/annually). Incentivize staff participation in training by creating AI Awards as part of Staff Awards, for staff who identify and create efficiencies (in compliance with university policies) in a workflow using AI (secure a new budget line of up to $15,000 to distribute across multiple awards).

Student training:

Work with UReCA, SURP, and other undergraduate and graduate student research supports, to provide training on ethical AI usage in projects. Secure seed money for students to present at conferences on their effective and ethical AI usage (budget line of up to $50,000/annually). Partner with appropriate offices to support AI training for GTAs and identify additional resources that may be needed to accomplish training goals. Revisit AI 101 modules every semester to ensure they remain up to date. Continue to assess external training that can be provided as deep dives for all parties on campus.

Education:

Incorporate Generative AI digital literacy within the Technology and Information Literacy SLOs in General Education Develop AI foundation courses and/or curricula for all colleges.

Secure a budget line for multi-year funding for Gradescope to support faculty delivering in-person, technology free exams aiming to minimize Generative AI misuse. Support instructors in confidently delivering discipline specific lessons as a follow up to the AI 101 module for students Incentivize instructors to establish a clear AI policy and plan for implementation (through course design), whether incorporating AI or minimizing AI misuse, by addressing this within tenure and promotion, as well as in annual evaluations. Identify additional staffing needs across campus to support training and education.

Short Term (3-6 months)

Task/Subtask	Start Date	End Date	Duration (in days)	Responsible Party
Identify general learning objectives for an AI 101 type training	**4/2/2025**	**5/30/2025**		**AI Education Working Group**
Develop AI 101 training for students	**5/12/2025**	**8/1/2025**		**Dollaya, Keiana, SMEs**
Create AI video quizzes reflective of five different AI syllabus policies	**5/12/2025**	**8/1/2025**		**Dollaya, Keiana, SMEs, Geneva**
Identify, assess and propose technology systems, Generative AI chatbots, and LLM needs and infrastructure to support the AI Education Working Group's identified learning objectives, trainings and modules.	**5/12/2025**	**5/30/2025**		**AI Education Working Group**
OU Libraries to create library research guides	**5/12/2025**	**8/15/2025**		**Jessica (OU Libraries)**
OU Libraries to identify supplemental learning needs and create AI workshops to be held throughout Fall and Spring semester	**5/12/2025**	**ongoing**		**Jessica (OU Libraries)**
Secure a budget line for students as testers for AI 101 modules	**5/12/2025**	**6/16/2025**		**Jessica, Yessenia**
Review external trainings, including free and low-cost AI credentials, for student, staff, and faculty	**5/15/2025**	**8/1/2025**		**AI Education Summer Working Group**
AI Syllabus language (required language, to be modified by individual faculty)	**4/2/2025**	**6/30/2025**		**Geneva (CFE) will approach the Provost's Office to coordinate with other approvers**
"AI" tag added to OU Events Calendar	**4/11/2025**	**6/30/2025**		**MarComm service request**

				(Karen Horne in CFE is submitting on our behalf)
RSS feed for events added to AI calendar		**(depends on website launch)**		**Chief AI Officer or admin who manages new AI website**
Propose centralizing survey findings about AI and teaching and learning, including SERU (students) and Faculty & Tech Report	**4/2/2025**	**12/1/2025**		**AI Education Working Group will reach out to Chief AI Officer (website), Office of Academic Assessment, IT Learning Spaces**
Secure new funding line: AI teaching specialist for CFE	**4/22/2025**	**8/1/2025**		**Chief AI Officer & the Provost's Office**
Secure new funding line: course (re)design grants & robust examples	**4/22/2025**	**10/1/2025**		**Chief AI Office & the Provost's Office**
Secure new funding line: University-wide AI showcase	**4/14/2025**	**10/1/2025**		**Chief AI Officer & the Provost's Office**
Identify any additional staffing needs across campus	**4/14/2025**	**10/1/2025**		**AI Education Working Group**
Update generative ai module for faculty (which is available to all three campuses) within CFE and explore badging	**5/13/2025**	**8/1/2025**		**Geneva (CFE)**
Recruit model examples of syllabi, assignments, lesson plans for CFE repository	**4/11/2025**	**10/14/2025**		**AI Education Working Group & CFE**
Identify and recruit representatives from staff and students to expand stakeholder engagement.	**5/12/2025**	**12/1/2025**		**AI Education Working Group, CFE, Writing Center, and OU Libraries**
Incentivize workflow efficiency for staffs				**Chief AI Officer & HR**
Propose changes to the writing requirement under PACGEO	**5/12/2025**	**10/1/2025**		**Rebecca Huskey, Geneva and Jessica**

Create a Staff AI 101 training	**8/30/2025**	**12/30/2025**		**Dollaya, Keiana (& K20 staff as available), SMEs**
Identify any additional surveys that need to be conducted (such as a readiness survey)	**8/15/2025**	**12/30/2025**		**AI Education Working Group and department stakeholders**

Long Term (1-3 years)

Task/Subtask	Start Date	End Date	Duration (in days)	Responsible Party
Investigate if generative AI digital literacy can be specified within the Technology and Information Literacy SLOs in general education	**1/2/2026**	**5/30/2026**		**Working group talks with Mark Morvant/Felix Wao**
Implement required AI 101 training campus wide	**8/25/2025**	**8/25/2026**		**AI Office with HR, OU IT, departments**
Provide a repository of deep dive trainings	**8/25/2025**	**8/25/2026**		**Chief AI Officer on the AI website**
Launch University-wide AI showcase	**9/2025**	**1/2026**		**Tech Expo Committee**
Incorporate additional questions into the ECAR Faculty Technology Survey for distribution in 2026	**4/11/2025**	**8/1/2025**		**AI Education Working Group/IT Learning spaces (Kevin Buck)**
Work with curriculum committees and faculty to develop AI foundation courses for all colleges	**5/12/2025**	**8/1/2026**		**AI Education Working Group with committees**
Develop a sustainability plan, identifying long-term funding, ongoing support and planned evolution to stay relevant.	**5/12/2025**	**8/1/2026**		**AI Education Working Group & Chief AI Officer**
Secure a new budget line for an AI literacy specialist to join OU Libraries	**08/1/2025**	**7/1/2026**		**Chief AI Officer, OU Libraries &**

				the Provost's Office
Secure new funding line to further implement, maintain, and scale training for AI 101 (staff, students, and faculty)	**8/1/2025**	**12/1/2025**		**Chief AI Officer & the Provost's Office**
Implement an ongoing Curriculum Development Program focused on AI	**8/1/2025**	**ongoing**		**Geneva (CFE)**
Secure seed money for students, faculty, and staff to attend professional trainings about AI usage in their fields	**5/7/2025**	**12/1/2025**		**Chief AI Officer, OU Libraries & the Provost's Office**
Have consistent communication among stakeholders regarding AI companies claims on assessing qualitative work, detecting Gen AI usage, etc.	**8/1/2025**	**ongoing**		**Chief AI Officer, OU Libraries, AI Working Groups, CFE, OU IT, OU Libraries**
Create AI awards for Staff	**8/1/2025**	**8/1/2026**		**Chief AI Officer, OU Libraries & the Provost's Office**
Work with undergrad and grad student research programs to provide training on ethical AI usage in projects, and seed money for presentations	**8/1/2025**	**8/1/2026**		**Chief AI Officer, OU Libraries & the Provost's Office**
Secure a budget line for multi-year funding for Gradescope	**8/1/2025**	**8/1/2026**		**Chief AI Officer, OU Libraries & the Provost's Office**
Support lesson planning development on AI for instructors	**8/1/2025**	**ongoing**		**Geneva (CFE)**

Working Group: Governance and Policy
Co-leads: April Dickson (IT Administration)
Erin Maher (Professor, Sociology)

Working Group Membership

Core Members

- Chris Jones, Senior IT Director, IT Administration
- Kenton Brice, Director, Law Center Library
- Tammy McCuen, Professor, Construction Science
- Michael Szajewski, Associate Dean, Academic Affairs
- Gopi Danala, Research Scientist, DISC

Advisory Members

- Naveen Kumar, Associate Professor, Management Information Systems, Price College of Business
- Tracy Pearl, Professor, Law
- Adam Green, Associate Professor, Philosophy
- Jacob Pleasants, Associate Professor, Education
- Raina Heaton, Associate Professor, Native American Studies
- Jeremy Hessman, Technology Strategist, IT Engineering Lab
- Sharukh Khajotia, Associate Dean, College of Dentistry
- Jane Brideau, Senior Auditor, Internal Audit
- Hayden Vedra, OU Undergraduate Student Congress

I. Overarching Goal

The mission of the AI Governance and Policy working group is to develop principles, guidelines, and policies for the ethical and trustworthy use of AI at OU. The working group hopes to establish a permanent structure for ongoing oversight, monitoring, and policy development in this ever-changing landscape.

II. Priorities

Short-Term Priorities (3–6 months):

Publish Draft Principles and Guidelines on new AI Website
Process for Review and Public Comment
Analyze and respond to public comments and make revisions accordingly.
Establish Recommendations for the Structure and Roles for a Governance Council or Advisory Committee and Recruit Members
Modify ORS info sheet (used in Norman) to indicate AI project and a similar process at OKC and Tulsa
Identify governance training needs:
For onboarding Governance Council Members
For working with community partners and shared data

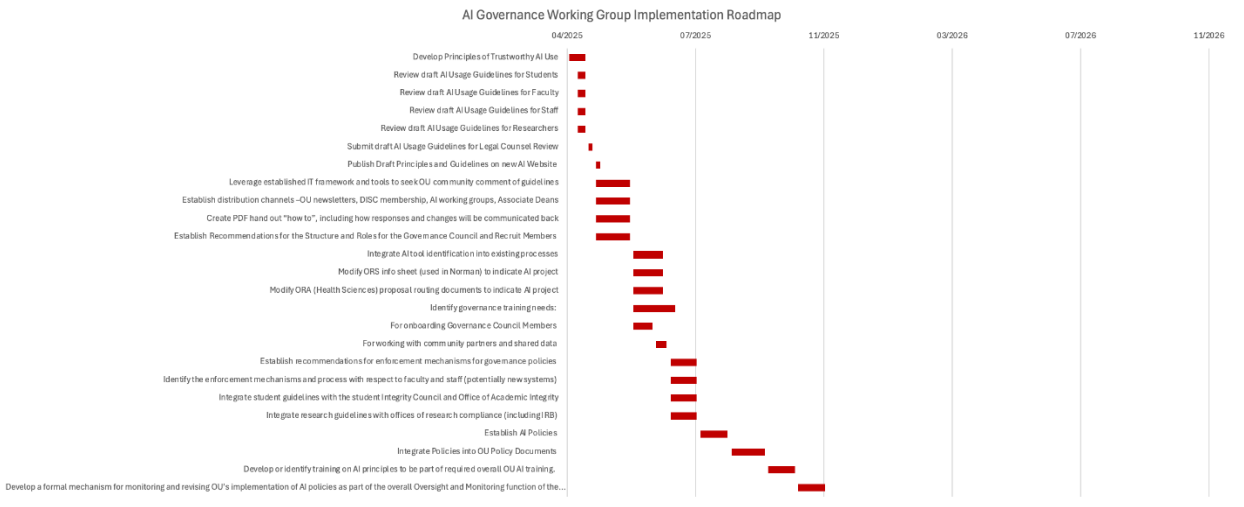
Establish recommendations for enforcement mechanisms for governance policies
Identify the enforcement mechanisms and process with respect to faculty and staff (potentially new systems)
Integrate student guidelines with the student Integrity Council and Office of Academic Integrity
Integrate research guidelines with offices of research compliance (including IRB)

Long-Term Priorities (1–3 years):

Establish AI Policies
Integrate Policies into OU Policy Documents
Ongoing Governance Council Activities*
Develop or identify training on AI principles to be part of required overall OU AI training.
Develop a formal mechanism for monitoring and revising OU's implementation of AI policies as part of the overall Oversight and Monitoring function of the Governance Council

*Governance Council will be the HUB for ongoing governance work and policy recommendations.

II. Implementation Plan



Task/Subtask	Start Date	End Date	Duration (in days)	Responsible Party
Short-Term (3-6 Months)				
Develop Principles of Trustworthy AI Use	04/2025	04/2025	15	Kenton Brice
Review draft AI Usage Guidelines for Students	04/2025	04/2025	07	Gopi Danala
Review draft AI Usage Guidelines for Faculty	04/2025	04/2025	07	Tammy McCuen
Review draft AI Usage Guidelines for Staff	04/2025	04/2025	07	

Review draft AI Usage Guidelines for Researchers	04/2025	04/2025	07	Michael Szajewski
Submit draft AI Usage Guidelines for Legal Counsel Review	04/2025	04/2025	04	AI Governance Working Group
Publish Draft Principles and Guidelines on new AI Website	04/2025	05/2025	04	AI Leadership
Leverage established IT framework and tools to seek OU community comment of guidelines	04/2025	05/2025	01	April Dickson
Establish distribution channels –OU newsletters, DISC membership, AI working groups, Associate Deans	04/2025	05/2025	01	AI Governance Working Group
Create PDF hand out "how to", including how responses and changes will be communicated back	04/2025	05/2025	01	April Dickson
Establish Recommendations for the Structure and Roles for the Governance Council and Recruit Members	04/2025	05/2025	01	AI Governance Working Group
Integrate AI tool identification into existing processes	06/2025	06/2025	28	AI Governance Working Group
Modify ORS info sheet (used in Norman) to indicate AI project	06/2025	06/2025	28	AI Governance Working Group
Modify ORA (Health Sciences) proposal routing documents to indicate AI project	06/2025	06/2025	28	Dr Sharukh Khajotia
Identify governance training needs:	06/2025	07/2025	08	AI Governance Working Group
For onboarding Governance Council Members	06/2025	06/2025	18	AI Governance Working Group
For working with community partners and shared data	06/2025	07/2025	10	AI Governance Working Group
Establish recommendations for enforcement mechanisms for governance policies	07/2025	07/2025	24	AI Governance Working Group
Identify the enforcement mechanisms and process with respect to faculty and staff (potentially new systems)	07/2025	07/2025	24	AI Governance Working Group
Integrate student guidelines with the student Integrity Council and Office of Academic Integrity	07/2025	07/2025	24	AI Governance Working Group
Integrate research guidelines with offices of research compliance (including IRB)	07/2025	07/2025	24	AI Governance Working Group
Long-Term (1-3 years)				
Establish AI Policies	08/2025	08/2025	25	AI Governance Working Group
Integrate Policies into OU Policy Documents	09/2025	10/2025	31	April Dickson
Develop or identify training on AI principles to be part of required overall OU AI training.	10/2025	10/2025	25	AI Governance Working Group
Develop a formal mechanism for monitoring and revising OU's implementation of AI policies as part of the overall Oversight and Monitoring function of the Governance Council	11/2025	11/2025	25	AI Governance Council
Ongoing Governance Council Activities*				AI Governance Council

Appendix A. Detailed Existing and Planned Infrastructure

Research Working Group

Detailed Existing and Planned Infrastructure

Hardware

List of extant AI resources maintained by the OU Supercomputing Center for Education & Research (OSCER):
(1) GPU cards: 135 GPU cards totaling ~106 H100 equivalents (either already in production or soon to be), as of Apr 2025
GPU card models:
-- NVIDIA V100 (32 GB PCIe)
-- NVIDIA RTX 6000 Ada (48 GB PCIe)
-- NVIDIA L40S (48 GB PCIe)
-- NVIDIA A100 (40 GB PCIe, 80 GB PCIe, 40 GB SXM, 80 GB SXM)
-- NVIDIA H100 (80 GB PCIe, NVL 94 GB PCIe, 80 GB SXM)

Roughly half are "condominiums" (owned by specific researchers or by the Data Institute for Societal Challenges).

Note that, in Oct 2021, OU had just 10 GPU cards, equivalent to less than 3 H100 GPU cards.

So, we have had a 1000%+ increase in number of GPU cards and a 4000%+ increase in GPU compute capacity for AI/ML, over a period of ~4½ years.

Compared to our aspirational research peer group (AAU institutions whose annual research expenditure in federal fiscal year 2019 was between OU's and double OU's), we are modestly above the median for GPU compute capacity for AI/ML.
(2) Flash storage
(2a) Burst buffer server: 16 x 3.2 TB NVMe SSDs, deployed but not yet tested.
(2b) OSCER is slated to inherit ~1 PB of SAS SSD servers from the enterprise side of OU IT, expected this calendar year.
(3) OSCER staff
(3a) System administrators: 5
(3b) Research computing facilitators: 2 (1 ongoing, 1 being hired)
(3c) Student system administrators: 3 (2 ongoing, 1 bring hired)
(3d) Director: 1

Detailed Recommendations

Data Center Cooling

For example, in the Four Partners Place (4PP) data center, battery strings for the second (idle) Uninterruptible Power Supply (UPS) system will enable us to double the power capacity of the data center (estimated ~$800K). Not long after, another upgrade will be needed, to increase the number of Power Distribution Unit panels/transformers by 50% (estimated ~$400K).

Data Center Cooling

In the 4PP data center, a liquid cooling capability enables the data center to support high-end GPU systems (for example, NVIDIA Blackwell and its successors), which are expected to have substantially higher power draw and heat dissipation than the current generation of GPUs. For example, Lenovo sells a liquid cooling system that can attach to the building's chilled water system, consumes a few racks' worth of floor space (at ~$100K per instance, according to Lenovo), and can attach via hoses to individual servers (at ~$100 per server, according to Lenovo).

Dynamic Backplanes

Backplane hardware on the market now allows for the dynamic reconfiguration of a "virtual" computer system (e.g., one could request via SLURM a machine that has n GPUs, m GB of memory, k CPUs, etc.). There is no performance hit because virtualization happens at the backplane level. This capability would allow us to experiment with different machine configurations in an application-dependent manner, which could inform future purchases.