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UNMC AI Task Force Report

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UNMC AI Task Force

UNMC AI TASK FORCE REPORT

2023

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PREFACE

In the ever-evolving landscapes of healthcare and higher education, generative artificial intelligence (AI) has emerged as a beacon of innovation, transforming the way we approach education, patient care, research, business functions, and the university's role in combating disinformation, misinformation and bias. Within our academic medical center community, a dynamic task force composed of diverse members from UNMC, Nebraska Medicine, and Children's Nebraska has been diligently at work to help UNMC thrive in an environment becoming increasingly saturated by generative AI.

This report encapsulates the investigations undertaken by the UNMC Artificial Intelligence Task Force during Fall 2023. Their presentations of ideal scenarios, threats, and goals form a timely synthesis of internal and external intersections of AI with an academic medical center. This report inspires our FY23-24 Breakthrough Thinking series events and will contribute to UNMC's strategic planning processes for FY25 and beyond. We look forward to supporting ongoing AI-focused research and learning venues and empowering leaders to champion communities of practice for the five areas of task force focus.

This work will build on UNMC's strong existing machine learning research programs: we will amplify our experts and existing technologies, while also pursuing new opportunities for innovation. For UNMC and with our partners, we seek to develop appropriate AI-related corridors that are safe and creative at the same time.

In closing, we extend our gratitude to the co-chairs of the UNMC AI Task Force, Emily Glenn and Rachel Lookadoo, and to the many dedicated task force members who considered the multidimensional challenges and opportunities that generative AI presents. Their work will become part of UNMC's future and will enable UNMC to continue to be a pioneering leader in education, research and clinical care.

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EXECUTIVE SUMMARY

In July 2023, University of Nebraska Medical Center and Nebraska Medicine leadership charged a task force with investigating facets of artificial intelligence (AI) in an academic health center setting. What must we know, do and plan for regarding generative artificial intelligence in the domains of enhancing education, research, clinical care, business functions and in combating misinformation/disinformation? Task force members were allocated into five subcommittees to investigate key points to inform strategic planning—Enhance Learning, Enhance Research, Enhance Clinical Care, Enhance Business Function and Combat Dis-/Mis-Information and Bias. This work was aligned with the UNMC Strategic Planning process as a "big rock" for 2023. The task force chairs conducted a landscape analysis of AI at UNMC's nine peer institutions. The work of this task force paralleled that of other universities this fall: four of the nine peer institutions had charged AI task forces or committees with investigating similar issues. While the task force chairs conducted this analysis, the five subcommittees began exploring the ideal scenarios, potential risks, needed policies, additional areas of exploration and resultant goals for each of their given subject areas. Many themes were consistent across all five of the subcommittees. Each group noted the need for clear policies and protocols for AI usage, communication around UNMC's goals and efforts relating to AI, education for all university stakeholders who may engage with AI systems and funding to ensure that AI tool adoption is carried out smoothly. In acknowledgment of the robust work that is already being conducted at the various colleges and centers within UNMC, any future AI programs and initiatives should attempt to align with and build upon the current efforts.

BACKGROUND

From late 2022 through fall 2023, generative AI in higher education discussion has dominated higher education publications. Its presence in the news spurred the delivery of instructor learning about prompts and creative uses efficiencies in course development. Universities looked at examinations and reconsidered the essay as the gold standard for "less cheatable" tests. There seemed to be no higher education institution that was ready for generative AI this fall—not for its faculty to engage with students, for its libraries to support education research or for its ethics and conduct messages.

The main role of generative AI in supporting higher education institutions has been in improving the efficiency of business processes. Examples of use include responding to queries from applicants, enrollment, sending reminders, and navigating websites and information (Sabzalieva & Valentini, 2023). In the academic support setting, AI can generate branding and logo derivatives and automate repetitive tasks. AI tools can stimulate content creation and provoke imagination. On the constituent engagement side, chat bots do the work of providing matching answers to common questions.

As an academic medical center, UNMC's interest in AI must extend beyond the classroom and into clinical care settings. AI algorithms and machine learning mechanisms can streamline many of the logistical processes that underpin the provision of care. While AI has been effectively used for clinical decision support, imaging and diagnostics, and patient safety improvement, its use also raises complex legal, ethical, and technical concerns (American Hospital Association, 2023; Novak et al., 2023). As this technology is rapidly evolving, it can be difficult for the corresponding ethical and legal frameworks to keep apace.

An issue that has often come up in AI usage is the risk of bias in AI algorithms, as well as the potential for AI to be used to spread mis- or dis-information. Bias in AI learning models is often a result of a twofold problem – bias in the underlying data sets and bias from the human developers who may not even realize they are injecting their bias into the algorithm (Bousquette, 2023). In addition to the potential for bias, AI has been utilized to create deepfakes (altered footage in which the depicted individual's appearance has been digitally modified to appear as someone else) and other disinformation tools to purposefully and strategically spread

false and or deliberately misleading information (Helmus, 2022). These risks must be considered in conjunction with the many benefits inherent to using AI technology.

The “Making AI Generative for Higher Education” project team, organized by ITHAKA S+R, worked with 19 higher education institutions to identify three key insights that were expected to drive conversations about generative AI during the 2023-24 academic year:

1. Institutions are moving away from framing AI primarily as an academic integrity problem in favor of assessing its appropriate pedagogical uses,
2. Universities will need to focus increasing attention on the place of generative AI in the research enterprise: AI methods and ethics are too important to the mission and reputation of institutions to be left to publishers, and
3. Responding to AI requires coordination across the university and across universities (Ruediger et al., 2023).

RELEVANT EXAMPLES FROM UNMC

Significant work surrounding AI and its usage in a higher education and/or clinical setting has already been occurring at UNMC (and NU) and Nebraska Medicine within each of the noted subcommittee domains. Relevant examples for each area are listed below.

LEARNING

- Victor Winter spoke on Generative AI at the InnovatED symposium in September 2023.
- McGoogan Health Sciences Library promoted a research guide containing several teaching, educational research and technology tools to support exploration of (https://unmc.libguides.com/AIresources).
- At the UNMC Tech Boot Camp, attendees experimented with AI tools to learn about syllabi, objectives and presentations using generative AI tools.
- UNMC researchers are studying immersive reality combinations with AI for medical education. (Suh et al., 2023)

- UNMC Faculty Development promoted several sharing sessions this fall to stoke conversations about AI in education and learning. “Brains, Bots & Beyond: Exploring AI’s Impact on Medical Education” was hosted live in the Faculty Commons International Association of Medical Science Educators. UNMC Faculty Development’s “AI Resources for Educators” contains a selection of works from speakers in this series plus complementary materials (https://connected.unmc.edu/ilearn/2023/10/05/ai-resources-for-educators/).

RESEARCH

- The Center for Intelligent Healthcare (CHIC) at UNMC provides AI functions via the DGX A100, a supercomputer built for a variety of complex medical problems including novel drug development, genomics, proteomics, microscopy, computational chemistry clinical imaging and natural language processing. This resource is available to UNMC partners for a fee. Several CHIC projects have been completed or in progress such as cardiac stent simulation, hypertension causal interference, heart failure gene identification and cardiac MRI imaging.
- UNL researchers are investigating AI-powered solutions to drought, harmful environmental emissions, and infectious diseases.

CARE

- Creation of the Biomedical Informatics, Bioinformatics, Clinical Research and Innovation Hub under the direction of Dr. Howard Fox and Dr. Matthew Rizzo. This research hub/think tank environment provides space for data experts and researchers to elevate clinical research, model diseases, inform novel health interventions and form new preventative approaches toward people's health.
- Nebraska Medicine has partnered with Laudio, an AI startup, to automate healthcare workflows with AI. This program is expected to reach 15,000 employees (Sohail, 2023).

BUSINESS FUNCTIONS

- UNeMed has presented messaging about AI software systems potentially complicating rights or creating infringement liability.
- The new IT virtual agent, ServiceNow, directs users to common IT solutions information.
- The Nebraska Medicine Office of Health Professions Education is exploring how AI can be leveraged in optimizing training and development.

- UNeMed investigated programs to compare our template contract positions to the positions in an opposing party's contract position for the same provision type (e.g. interpret the meaning of the language of an indemnity section to see if they meant the same just with different wording).

COMBAT DISINFORMATION, MISINFORMATION AND BIAS

- Center for Global Health Security shared several news stories on disinformation, pre-bunking vs. debunking, COVID-19 and other health-related misinformation.
- McGoogan Health Sciences Library's UNMC Health Information Service provides a direct line for patients and families to get accurate health information from reliable online resources.
- Grand rounds and other guest speakers have addressed responding to medical disinformation.
- NU campus conversations in 2021 focused on digital information literacy.
- Curriculum-based courses include sessions on appraising information resources.

LANDSCAPE ANALYSIS AND COMPARISON OF PEER INSTITUTIONS

In order to assess the current state of AI policies and practices at similarly situated universities, the task force chairs conducted a landscape analysis of AI at UNMC's nine peer institutions. We observed that the work of this task force paralleled that of other universities this fall. Four of the nine had charged AI task forces or committees with investigating similar issues. Of available information online as of October 2023, we discovered:

- Teaching and instruction guidance for faculty was embedded in faculty development and similar centers in about half of peer institutions. For peers with multiple campuses, the non-health sciences campuses centralized guidance.
- Three peers (University of Minnesota Twin Cities, University of Iowa, and The Ohio State University) describe funded research projects or provide pilot funds for researchers to use AI tools. Among these and others, there is a blend of health sciences and "main" campus collaborations with robotics, engineering and computer sciences.
- University of Tennessee, Knoxville is the only institution to offer generative AI tools for research. The UT system provides two AI services for faculty: Bing chat enterprise for all faculty and UT Verse, limited to Knoxville. Additionally, UT appears to be the only peer institution to have a university-leader dedicated to shepherding AI initiatives (The University of Tennessee, Knoxville, n.d.).
- Only one institution provides a public-facing letter to students about using AI in the classroom.
- Affinity groups are established at the University of Oklahoma but were not evident at other institutions. University of Oklahoma groups include medical imaging, reliability (IT security, brain behavior, genomics data/unstructured data). Proposed affinity groups: misinformation, fairness/privacy/security, explainable AI, HPC and AI/ML.
- As of late September, University of Michigan, Harvard, and UT Knoxville released customized platforms for their communities (Baytas & Cooper, 2023).
- Finally, considering the institutional website and potential prominence of news stories or navigation cues about AI, we found that education, research and patient care topics were well covered, but there was little to no information about business process or disinformation and AI at peer institutions. Of all peers, The Ohio State University provided the most prominent presentation of AI news and authority. There was evidence of symposia and other focused AI-related work to create affinity groups from 2020 to present.

SUBCOMMITTEE FINDINGS

From August to October 2023, subcommittee groups worked together to fulfill their charges. Subcommittee chairs guided their members with the following prompts:

- List three SMART goals for UNMC related to this subcommittee area. Consider FY25 through FY28.
- If we had a fully functioning AI system in this area, what would it look like? List up to three scenarios.
- What are the top three biggest threats you see with AI in this area?
- What are the top three areas that need to be explored by this group or others after December 2023?
- What are the top five most relevant policies or guidance items needed in this area?
- Who are the top five thought leaders (individuals or organizations) in this area?

Subcommittees synthesized their findings into goals. During the work period, the task force chairs noticed a steady exchange of references to articles, comments about events, nominations of experts and even guest speaker consultations. Detailed goals and goal timelines are included in the Appendix.

SUBCOMMITTEE 1 – ENHANCE LEARNING

IDEAL SCENARIOS

- Provide a **learning environment that is supportive of innovation and exploration.** Non-punitive approaches and transparency around the use of AI tools is the norm.
- **Recognize AI as a teaching tool:** capitalize on the opportunity to guide people to use it the right way while recognizing negatives such as bias and need for human oversight.
- With AI as part of the learning environment, we will be **seen as using interactive, adaptive and dynamic strategies.** Our educators are nimble.

THREATS

- AI can create a **learning skills gap** and people do not recognize the seriousness of what may be coming, such as loss of critical thinking skills, diminished writing skills and other areas.
- The **ability of education workers to keep up with changes in technology**—this is already in the workforce and educational arena. We must keep up or we will fall behind.
- Not fully recognizing and appreciating **the shortcomings of AI tools.**

GOALS OVERVIEW

- Prepare employees and students for the integration of AI technologies to enhance learning.
- Develop a shared philosophy for AI and its application to education.
- Develop a set of guidelines for employees and students to support compliance and effective application of AI.
- The Enhance Education subcommittee SMART goals are included in the Appendix.

AREAS FOR FURTHER EXPLORATION

- How do we measure and track the adoption of AI—especially as new things come along and as related to teaching and learning? How do we remain relevant in this area?
- How do we train people to use it—teachers and learners?
- What infrastructure is needed and how to we build and fund it?

SUBCOMMITTEE 2 – ENHANCE RESEARCH

IDEAL SCENARIOS

- **Provide training and enhance researcher networks.** A researcher arrives as a new faculty member at UNMC. They receive a calendar of workshops implemented to help researchers integrate the appropriate use of AI in improving the logistics of their work. They then receive a personalized dossier that uses AI analysis of their CV, publication record and funding history to summarize their research foci, identifies relevant collaborators and resources across UNMC/NU/region and provides a list of relevant grant opportunities (internal and external, which could be refreshed periodically).
- **Streamlining funding.** Using large language models and submitted data, a researcher creates a comprehensive knowledge base for related prior research, including scientific publications and funded grants in their area (e.g. overlapping work in the genetic determinants of pancreatic cancer), thus avoiding submissions for projects that are redundant and reducing time for generating bibliographies and reference/works cited pages for impactful and significant manuscripts and grants.
- **Boosting patient enrollment.** A patient comes into the clinic and picks up a tablet to check in for their appointment. While waiting for their doctor to enter the room they interact with an AI chatbot that enables them to learn about and select potential research opportunities in which they could participate.
- **Research data and image tracking.** A research lab has several members, each generating data and figures for publication. The principal investigator tracks the data and images that are generated (provenance) and has access to the latest tools and resources to prevent potential research integrity and standards issues. (See organizations such as Coalition for Content Provenance and Authenticity [c2pa] and contentauthenticity.org)

THREATS

- **Imbalanced governance of AI policies** that restrict innovation or provide too little support
- **Lack of funding and staff support** for compliance office resourcing, organization and visibility
- **Biases and high error rates** present in tools selected to detect research misconduct or support research systems

GOALS OVERVIEW

- Develop a comprehensive inventory of research teams across UNMC who are using AI approaches in their research.
- Create master data use and transfer agreements for UNMC and clinical affiliates and across the Nebraska University System, an established data platform/infrastructure and processes in place to access/utilize the data for AI projects.

- Develop research conduct policies that reflect federal and state regulations on the use of AI in research, encourage best practices and judicious use of AI for detecting research misconduct.

The Enhance Research subcommittee SMART goals are included in the Appendix.

AREAS FOR FURTHER EXPLORATION

- Large language models and participant/patient interactions in research or preparatory to research activities. (e.g. How can AI be used to enhance participation and enrollment in research?)
- Using AI data analysis and/or generative tools to expand researcher use of high-quality basic data analytics approaches and facilitate efficient partnerships between biostatistical researchers and subject matter researchers (e.g. bench scientists, clinical researchers/trialists, etc.). (e.g. How can AI be used to facilitate interactions between “wet lab” researchers and data scientists?)
- AI approaches for identifying potential research/academic integrity issues. What products are being used/evaluated and what policies are being developed/implemented? What organizations should the University contact to better access/connect to policies/programs to promote/ensure authentic content (e.g., AAMC, Coalition for Content Provenance and Authenticity, Content Authenticity Initiative, etc.)? (e.g. How can AI help prevent research integrity issues?)

SUBCOMMITTEE 3 – ENHANCE CARE

IDEAL SCENARIOS

- Epic integration in documentation, summaries, reports, results, and in-basket
- Fully integrated **virtual assistants/diagnostic copilots**
- Generate appropriate **patient guidance,** including assistance with forms, medication lists, appointments and documentation

THREATS

- **Safeguarding privacy/security** in medical records and other protected health information that may be utilized in AI systems
- Monitoring potential for **lower accuracy** in AI clinical care-related systems, thus impacting **user trust** in those systems
- Being aware of the **risk of bias** built into AI systems
- Providing **sufficient education to ensure effective adoption** of AI clinical care systems
- Ensuring that there is **adequate funding** for the consistent usage and implementation of AI systems

GOALS OVERVIEW

- AI/Machine Learning (ML)/Language Learning Models (LLMs) use is widely adopted for clinical documentation, chart review, in-basket, reports, medical inquiry, patient interactions and follow-ups.
- AI/ML/LLMs use is widely adopted in imaging for triage, diagnostic review, accuracy, explain-ability, workflow enhancement and efficiencies.
- Staff are fully trained to support AI/ML/LLM initiatives, applications and workflows.
- Develop appropriate collaboration/crossover with research; approach as an imperative for clinical care.

The Enhance Care subcommittee SMART goals are included in the Appendix.

AREAS FOR FURTHER EXPLORATION

- Virtual assistants/care efficiency
- Imaging co-pilots
- Epic integration in documentation, summaries, reports and in-basket

SUBCOMMITTEE 4 – ENHANCE BUSINESS FUNCTIONS

IDEAL SCENARIOS

- Utilize AI to **automate the completion of text-heavy written pieces** like job descriptions and position postings.
- Include AI in routine **contract review process** to find key terms, identify potential problems and identify further compliance review requirements.
- Utilize AI to review **physical security technology,** such as camera footage, for suspicious behavior and alert CSO's to intervene prior to conflict.

THREATS

- **Potential mistrust** by users due to inherent biases generated through machine learning, lack of accuracy caused by insufficient human review and perceived threats by data entry personnel of competition by AI for these types of roles.
- **Legal risk** based on reliance on imperfect AI outcomes that potentially cause harm when there are no checks and balances.
- **Maintaining our competitive advantage.** Our peers will likely adopt AI, so how do we keep up? What is the skills gap that exists within the existing workforce and their level of understanding or use of AI?

GOALS OVERVIEW

- Reduce repetitive data entry and manual processes
- Identify bottlenecks and pain points that lead to significant delays in processes
- Leverage AI to address difficulties in managing workforce needs

AREAS FOR FURTHER EXPLORATION

- Create documentation of our current systems through process mapping and record keeping. Sufficient documentation is critical in determining which aspects of our business processes can be improved with AI.
- Begin educating our workforce to understand AI capabilities and train them in basic AI skills.
- AI's ability to forecast future research opportunities based on federal research agencies' award trends and existing faculty research interests to drive future recruitment priorities.
- With all of this being so new, who are the REAL experts and authorities? What is fact and what is speculation?

SUBCOMMITTEE 5 – COMBAT DISINFORMATION, MISINFORMATION AND BIAS

IDEAL SCENARIOS

- Vigilant AI engines would monitor internet and social media traffic to **quickly identify harmful health misinformation and disinformation** (including deepfakes) providing specific alerting for information consumers and health authorities
- AI engines would **actively develop and disseminate tailored counteractive health education** to "inoculate" susceptible segments of the population against emerging or anticipated disinformation and immediately refute active trending dis/misinformation
- **Academic researchers would work with industry partners** to exploit the cutting edge of AI and information technology to remain on pace (and ideally ahead of) bad actors in the dis/misinformation space

THREATS

- **Deepfake audio and video content** sowing health disinformation
- **Large language model manipulation** to bias AI-assisted health information queries
- **Generative AI amplification of dis/misinformation** "flooding the zone"

GOALS OVERVIEW

- Engage in current scholarship to determine the most pressing harms posed by AI in dis/misinformation and bias to individuals, communities and health systems
- Develop curriculum on machine learning/generative AI that can be integrated into required courses as well as training for faculty and staff—particularly focused on vulnerabilities to misinformation, disinformation, bias and health inequity
- Implement a sustained outreach campaign to inform Nebraskans about the harms to individuals, communities and health systems of health dis/misinformation

The Combat Disinformation, Misinformation and Bias subcommittee SMART goals are included in the Appendix.

AREAS FOR FURTHER EXPLORATION

- Identifying current best practices and building new educational curricula
- Standing up a health information public outreach team with AI expertise
- Identifying academic, industry and funding partners in health literacy/counter disinformation

OVERALL SYNTHESIS AND CONCLUSIONS

Understanding, anticipating and responding to AI in the context of teaching and learning, requires significant contributions from a large and diverse group of collaborators and stakeholders committed to excellence in teaching and student success in higher education. As UNMC moves forward within this space, there are certain needs that must be considered in any future work relating to the usage of AI. Those needs, derived from the findings of each of the subcommittees, are outlined below:

- Clear policies that can be adapted to the ever-changing AI landscape;
- Robust communication with all stakeholders about AI training, practices, and policies;
- Consistent education on how educators, researchers, clinicians, students and staff can utilize AI within their prospective roles;
- Sustained funding to use AI-driven technologies in education, research, clinical and business settings;
- Ongoing AI workgroup to stay abreast of advances in the field, as well as to oversee coordination of subgroups leading policy work;
- Coordination across all UNMC colleges and centers to highlight the various interdisciplinary programs relating to AI; and
- Diverse teams with the ability to navigate AI practices across UNMC, as well as across universities.

UNMC is known both locally and globally for embracing and advancing innovation—and is already demonstrating this commitment to innovation by carrying out a diverse range of AI-related programs and projects. As the University continues to build upon these efforts to establish more policies and best practices, it would be well-served to align the many ongoing efforts and the existing, strong in-house talent base to allow UNMC to be a leader in the realm of AI in higher education.

APPENDIX 1. SUBCOMMITTEE RECOMMENDATIONS FOR POLICIES

ENHANCE LEARNING

- Discover and clarify accreditation-related concerns
- Promote ethical use of AI
- Accessibility and equity varies for users. Acknowledge this and mitigate it in our responses and plans to support learning.
- Provide clear policy and guardrails for student privacy, including FERPA, and permissions for use of student work post-graduation
- General usage policies for student use—really clear outline of acceptable use, including how to detect and prove unacceptable use

ENHANCE RESEARCH

- Student and faculty appointment/access policies for individuals within the NU system and outside UNMC/NM.
- NU System Executive Memoranda 16, 26, and other IT Security policies for using computing resources and data transfers.
- Cloud-based vs. local resource usage guidance and different policies for storage of distinct types of data (e.g., model organism vs. human subject).
- IRB/ORA/SPA/UNeHealth policies governing human subjects research.
- Organizational chart for administrative review/governance of AI research and related operations and resources.

ENHANCE CARE

- Data Governance/Privacy/Security/Compliance
- Training/Education/Support
- Performance/Quality/Monitoring/Transparency/Validity
- Government Oversight
- Interoperability/Integration

ENHANCE BUSINESS FUNCTIONS

- On-going review of federal and state policies and regulations for possible AI implications.
- Intellectual Property policy review—who owns these systems after AI integration? Who can access and who has authority to update?

- Guidance on utilization of AI in current workflows. What activities are allowable now versus those that need further review before implementing?
- Identifying the necessary skills and abilities of the future workforce and develop training for our existing employees.

COMBAT DISINFORMATION, MISINFORMATION AND BIAS

- IT, communications and legal policies relevant to AI and mis/disinformation
- UNMC guidance for faculty, staff, and students to support a sufficiently clear understanding of the advantages and limitations of various AI technologies.
- UNMC guidance for assessing the maturity of AI systems and the level of evidence supporting specific claims to utility.

APPENDIX 2. SUBCOMMITTEE SMART GOALS

ENHANCE LEARNING

- Prepare employees and students for the integration of AI technologies to enhance learning. Complete by FY25.
    - Identify marketing and recruitment strategies that showcase AI integration in the curriculum at UNMC (or value placed by UNMC)
    - Identify admissions strategies that place value on technology adaptation/ability to discern quality of information and willingness to leverage technology tools and implement tools to safeguard the authenticity of submissions.
    - Identify where and how AI can be integrated into the health professions curricula.
    - Identify UNMC approved AI tools that provide assisted support to optimize learning.
    - Identify existing and available AI tools/features that sync with UNMC supported software systems.
    - Facilitate employee preparedness and aptitude for integration of AI in didactic and clinical learning settings.
- Develop a shared philosophy for AI and its application to education. Complete by FY24.
    - Develop a philosophy for AI to enhance learning. Identify interest in expanding the philosophy to all pillars (education, practice, and research). Identify alignment of philosophy with ITEACH values.
- Develop a set of guidelines for employees and students to support compliance and effective application of AI. Complete by FY25.
    - Develop a set of guidelines for employees to support compliance and effective application of AI.
    - Develop a set of guidelines for students to support compliance and effective application of AI.

- All Enhance Learning goals include:
    - Identify stakeholders (from Student Success, E-Learning, Distance Education, Accessibility Services Center, Academic Technologies, Ed Counci, IPE, Office of Academic Affairs, Human Resources, Faculty Senate, Student Senate, Deans & Directors).
    - Collaborate with the library to search for exemplars.
    - Narrow down examples and draft a set of guidelines.
    - Propose guidelines to stakeholders.
    - Determine how guidelines interface with Academic Integrity Committees, Code of Conduct, Syllabus Templates.
    - Roll out and promotion after approval.
    - Develop an assessment plan to monitor SMART goal effectiveness and improve outcomes.

ENHANCE RESEARCH

- By July 1, 2024, we will have a comprehensive inventory of research teams across UNMC who are using AI approaches in their research.
- By September 30, 2024, UNMC will have research conduct policies that reflect federal and state regulations on the use of AI in research, encourage best practices and judicious use of AI for detecting research misconduct, all held within living documents that have a cadence for regular review/updates at least quarterly.
- By December 31, 2024, UNMC will have master data use and transfer agreements for each of its clinical affiliates and across the Nebraska University System, an established data platform/infrastructure and processes in place to access/utilize the data for AI projects.

ENHANCE CARE

- Use and adoption of AI/ML/LLMs in clinical documentation, chart review, inbasket, reports, medical inquiry and patient interactions and follow ups by 50% of medical staff by FY26.
- Use and adoption of AI/ML/LLMs in imaging for triage, diagnostic review, accuracy, explain-ability, workflow enhancement and efficiencies for 50% of reads by FY26.
- Provide dedicated staff to support AI/ML/LLM initiatives, applications and workflows before implementing these technologies.
- Collaboration/crossover with research is an imperative for clinical care.

COMBAT DISINFORMATION, MISINFORMATION AND BIAS

- By July 2024, UNMC will engage in current scholarship to determine the most pressing harms posed by AI in dis/misinformation and bias to individuals, communities and health systems.
- By September 2025, UNMC will develop curriculum on machine learning/generative AI that can be integrated into required courses for medical, nursing, allied health, pharmacy, dentistry and public health students, as well as training for faculty and staff, particularly focused on vulnerabilities to misinformation, disinformation, bias and health inequity.
- By September 2026, UNMC will embrace its mission of public education, working with Nebraska Medicine and other state and local partners, to implement a sustained outreach campaign to inform Nebraskans about the harms to individuals, communities and health systems of health dis/misinformation. UNMC will include efforts to cultivate enlightened consumers of health information, and employ AI to meet Nebraskans where they are, with tailored social media and targeted information platform messaging. The outreach campaign will make specific efforts to reach and support disadvantaged communities who struggle with access to care and health equity, including minority, immigrant, Native American and rural communities.
- By 2027, UNMC will develop a research program in combating health dis/misinformation and leverage AI tools through a Center for Advancing Insight and Health Literacy. UNMC will engage UNL and UNO, with academic and industry collaborators nationwide, to improve our understanding of the health dis/misinformation space, the impact of AI, social media, new information sharing platforms and develop methods to use AI and modern technology to improve health literacy and reduce vulnerability to false and misleading health information. The center will emphasize health literacy to counter health disparities and combating dis/misinformation to strengthen health security.

APPENDIX 3. GOALS TIMELINE

Goals of the five subcommittee areas have been combined and ordered by proposed time to completion. The goals timeline includes goals developed by the subcommittees.

< 1 year	1. Prepare employees and students for the integration of AI technologies to **enhance learning.** 2. Develop a shared philosophy for AI application to **education.** 3. Develop a comprehensive inventory of research teams across UNMC who are using AI approaches in their **research.** 4. Engage in current **disinformation** scholarship to determine most pressing harms.
1-3 year(s)	1. Develop a set of guidelines to support compliance and effective application of AI in **education.** 2. Create master data use and transfer agreements, an established data platform/infrastructure and processes in place to access/utilize the data for AI **research** projects. 3. Develop AI-related research conduct policies that reflect federal and state regulations on the use of AI in **research,** encourage best practices and judicious use of AI for detecting research misconduct. 4. Develop curricula focused on **disinformation,** vulnerabilities and health equity.
1-3 year(s) costs money	1. AI use is widely adopted for **clinical** functions—documentation, chart review, in-basket, reports, medical inquiry, and patient interactions. 2. AI use is widely adopted in imaging for triage, diagnostic review, accuracy, explain-ability, workflow enhancement and efficiencies in the **clinical** environment. 3. Develop outreach campaign to inform Nebraskans about harms of **disinformation.**

3-5 years costs money	1. Develop a research program through a new **Center for Advancing Insight and Health Literacy** to combat misinformation. **Engage NU partners.**
Goals requiring more investigation	1. Staff are fully trained to support AI initiatives, applications, and workflows. 2. Develop appropriate collaboration/crossover with research; approach as an imperative for clinical care. 3. Identify opportunities to reduce repetitive data entry and manual processes. 4. Identify bottlenecks and pain points that lead to significant delays in processes. 5. Leverage AI to address difficulties in managing workforce needs.

APPENDIX 4. ROSTER OF TASK FORCE MEMBERS

Co-Chairs

Rachel Lookadoo, College of Public Health

Emily Glenn, McGoogan Health Sciences Library

Subcommittee 1: Enhance Learning

Co-Chairs:

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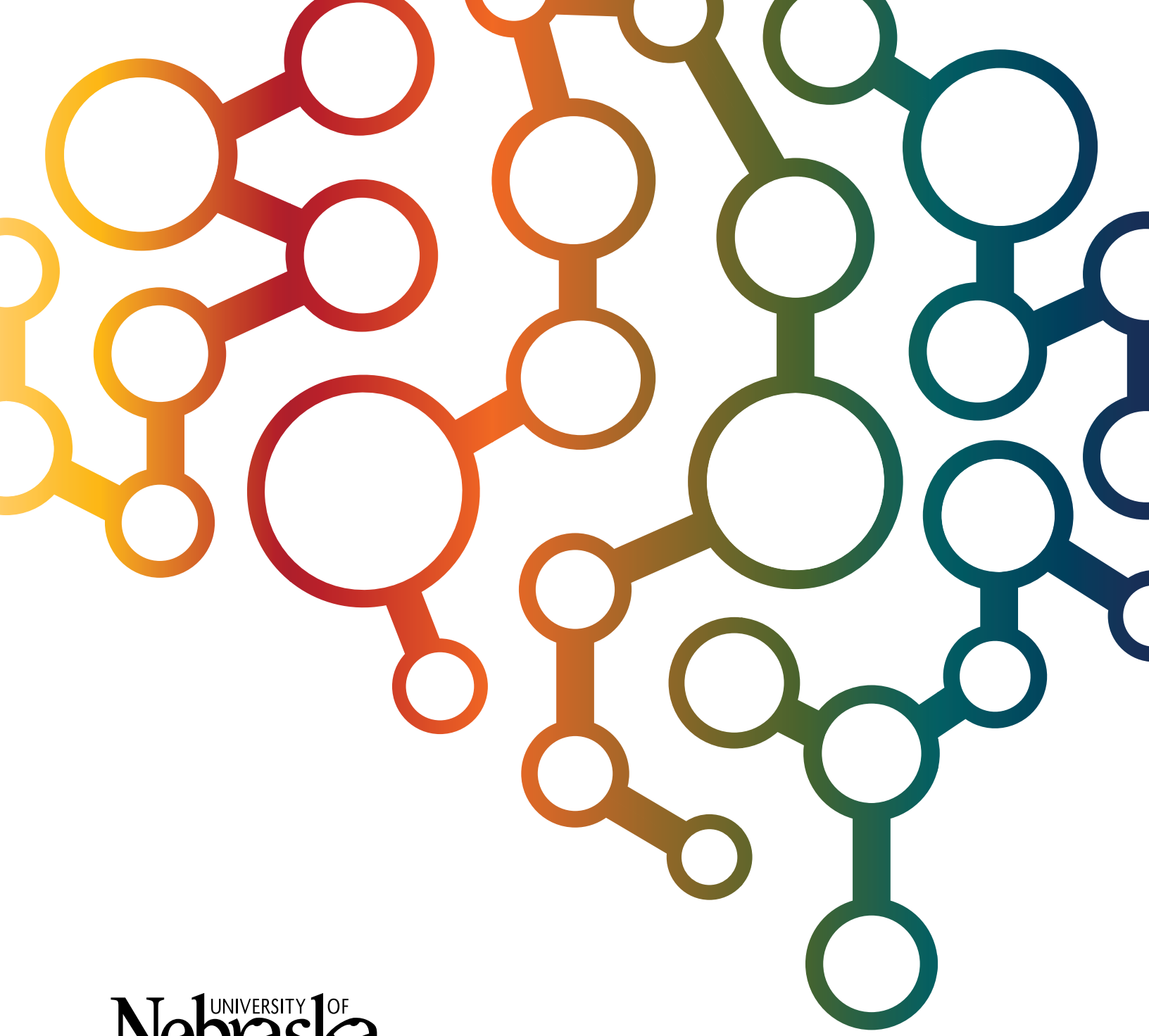

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