Nebraska Prairie Initiative Blueprint

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PRAIRIE

Overview

This Prairie Initiative Blueprint provides an implementation plan to transform COE's AI momentum, built over multiple decades, into coordinated excellence. With over half of our faculty already engaged in AI research and substantial expertise distributed across all departments, we have the foundation to become national leaders by **p**ioneering **r**esponsible **AI** for **r**esearch, **i**nnovation, and **e**ducation. Prairie will channel our existing strengths -- world-class researchers, creative educators, inspiring students, and community connections -- into an integrated movement that demonstrates how ethical AI development accelerates both scientific discovery and student success.

The blueprint builds on the extensive existing strengths revealed in our 2025 faculty survey: high research adoption, significant innovation in AI tool development, and a strong appetite for collaboration. It also addresses the opportunities for growth we've identified: creating the governance structures that will accelerate responsible innovation, streamlining access to AI tools and computing resources, and providing environments for collaboration, training, and dialogue. By removing these barriers, we will enable our community to focus on pioneering discoveries and preparing students for AI-transformed careers.

At its core, this blueprint operationalizes the Prairie framework's four interconnected pillars (*Construct, Connect, Cultivate, and Create*) with concrete actions, timelines, and accountability measures. It establishes *Communities of Practice* as the primary mechanism for converting individual excellence into collective impact, while ensuring that every student, regardless of background or program, gains meaningful AI competencies.

The next 90 days will demonstrate Prairie's value through immediate, visible wins: the AI website and Essentials Hub launched, innovative curriculum initiated, our first Communities of Practice activated, enterprise licenses deployed, and GPU access streamlined. These early successes will build momentum for the broader transformation ahead, showing our community that Prairie makes AI integration easier, more collaborative, and impactful.

By implementing this Blueprint, COE will leverage its existing strengths to establish Nebraska engineering as a thoughtful leader in responsible AI development, creating a model that balances innovation with ethics, excellence with inclusion, and vision with practical impact.

The Prairie Framework

The Prairie Initiative is built on a four-pillar framework that has been refined to operate as an interconnected ecosystem. The four pillars of **Construct**, **Connect**, **Cultivate,** and **Create**, provide a set of mutually reinforcing activities that work together to create a vibrant and sustainable AI ecosystem.

CONSTRUCT: Build Sustainable Systems

This pillar provides the governance and foundational infrastructure that enables all other activities. It is the essential first step in removing the barriers that currently hinder AI adoption.

Key Activities:
- Establish the Prairie website and AI Essentials Hub as a central repository for resources, policies, and training materials.
- Develop and implement clear and concise policies on responsible use of AI, ethics, academic integrity, and data governance.
- Deploy enterprise licenses for key AI tools, including OpenAI, Claude, and GitHub Copilot.
- Provide reliable and efficient access to GPU resources through the Scott Data Center, Holland Computing Center, and other cloud services.

CONNECT: Strengthen Partnerships

This pillar focuses on building strong partnerships with industry, government, and other internal and external stakeholders. These partnerships are a critical source of ground-truthing, financial sustainability, real-world problems, and political support.

Key Activities:
- Establish an Industry Advisory Board to provide strategic guidance and to connect faculty with funding and collaboration opportunities.
- Connect COE efforts with relevant UNL, NU system, UNO, etc. initiatives.
- Pursue external funding opportunities from agencies such as NSF, DOE, and DOD along with private industry to build financial sustainability.

CULTIVATE: Empower AI-Ready Learners

This pillar focuses on preparing students for the AI-powered workforce and on providing faculty and staff with the skills they need to thrive in an AI-enabled world.

Key Activities:
- Create a vibrant and inclusive AI student community through the Husker AI student organization and the AI Maker Space.
- Launch key priority courses on AI Fundamentals and Applied AI to meet the needs of current students and upcoming graduates.
- Initiate the process to integrate AI literacy across the entire engineering curriculum.
- Develop and deploy a tiered faculty and staff development program.

CREATE: Drive Discovery

This pillar is the innovation engine of the initiative. It is where new knowledge is created, new tools are developed, and new solutions are discovered. The primary mechanism for driving discovery will be our Communities of Practice (CoPs).

Key Activities:
- Develop a clear governance framework for chartering, funding, and evaluating CoPs.
- Provide seed funding, dedicated GPU access, and graduate assistant support to CoPs.
- Connect faculty and staff across COE, UNL, and the NU system to catalyze new research and discovery opportunities.
- Curate special seminars, invited speakers, and training to catalyze cutting edge discovery