



DATA INSTITUTE FOR SOCIETAL CHALLENGES

The UNIVERSITY of OKLAHOMA

A NOTE FROM THE DIRECTOR



Dear DISC Community,

As many of you know, my last day with the Data Institute for Societal Challenges (DISC) is May 13. I have accepted a new role at another university. While I look

forward to the opportunities ahead, I want to take a moment to express my heartfelt gratitude for the time I've spent working alongside each of you. Together, we have accomplished much and grown over these past five years, and the University and DISC are well-positioned to help lead OU through its Strategic Plan refresh. Now, more than ever, data science and trustable, understandable, and unbiased AI are key transformation agents. The DISC team is ready to continue supporting all of your incredible efforts as you help transform the world.

As DISC has helped the University embrace AI and data science to achieve its goals, our past five years are only the beginning of the change agents all of you will be.

Together, we have built something meaningful. Over the years, we have grown our reach, impact, and community through shared commitment and collaboration. I'm proud to share some of what we have accomplished together:

- Hosted 233 workshops and events
- Engaged over 5,900 participants across all university campuses
- Supported 45 departmental visits
- Awarded nearly \$976,000 in seed funding to faculty, graduate students, and postdoctoral researchers
- Formed and supported 92 interdisciplinary teams involving 290 researchers, resulting in over \$314 million in total proposal submissions.
- Secured a total of \$74,568,183.99 in awarded research funding

These accomplishments reflect your dedication to advancing data science and AI for societal good, and it has been an honor to support this mission with you.

Thank you again for the opportunity to learn from you, the memories, the partnerships, and the progress we have made together. I also want to publicly thank the amazing DISC team who have embraced the challenges and opportunities and helped us achieve so much. They have always found a way to get to yes to help us achieve new goals. Their dedication and amazing work have been inspiring. I look forward to seeing your and DISC's continued success.

Warm regards,
David Ebert

FEATURED

Call for Summer AI Pilot Projects

We are excited to invite proposals for AI-focused summer pilot projects that aim to expand and refine existing AI-empowered (e.g, LLM, deep learning, machine learning) teaching, training, research, or creative efforts to have a broader impact across the university. We also seek proposals focused on best practices for governance, policy development, oversight, and monitoring functions. Selected projects will receive up to \$10,000 in funding and run over a three-month summer period. Final deliverables are due by August 30, 2025, with community engagement activities during the Fall semester.

This opportunity is intended for OU faculty and staff who are already engaged with AI in some capacity—whether through teaching, research, or tool development—and are ready to take their work to the next level and share it more broadly across campus.

If you have any questions, please contact Yessenia Torres at jimeney2@ou.edu.

For more details, follow the link below.

[AI PILOT PROJECTS](#)

AI Guidelines and Principles

We are seeking OU community feedback on our newly established AI Guidelines for Staff, Faculty, Researchers, and Students. These guidelines are driven by a set of principles. They were established with input from multiple stakeholders at OU and by the newly established AI working groups over the past six months.

Over the next two weeks, by May 16, 2025, we welcome feedback on these four guidelines and principles document.

- [DRAFT - Ethical and Trustworthy AI Usage Principles](#)
- [DRAFT - AI Usage Guidelines for Faculty](#)
- [DRAFT - AI Usage Guidelines for Research](#)
- [DRAFT - AI Usage Guidelines for Staff](#)
- [DRAFT - AI Usage Guidelines for Students](#)

SPECIAL REQUEST

DISC Data Science Achievements

As we approach the end of the fiscal year, we are compiling a comprehensive record of our department's research achievements. We kindly request all researchers to submit details of their publications from the past fiscal year. This includes journal articles, conference papers, book chapters, and any other scholarly work. Please provide the title, authors, publication venue, and a link to each work. Your contributions are invaluable in showcasing our collective accomplishments and advancing our academic mission.

Thank you for your cooperation and dedication.

Please email this to Yessenia Torres at jimeney2@ou.edu.

NEWS

Keerthana Nampally won 3rd place at the Christopher C. Gibbs College of Architecture Graduate Student Showcase

Keerthana Nampally, a Graduate Student from the Gibbs College of Architecture, was awarded 3rd prize in its annual Graduate Student Showcase, a celebration of research, design innovation, and creative exploration across all graduate programs within the college.

A total of 26 graduate students participated to share their research and creative work from programs across the college, including Architecture, Construction Science, Interior Design, Landscape Architecture, Regional & City Planning, and Planning, Design & Construction.

Entanglement, Inc., in Collaboration with OU, Unveils Prepaire: A Game-Changing AI-Powered Biosurveillance Platform

Entanglement, Inc., in collaboration with a research team from the **University of Oklahoma** led by **Dr. David S. Ebert**—Interim Chief AI Officer, Associate Vice President of Research and Partnerships, Director of the Data Institute for Societal Challenges (DISC), and Gallogly Chair Professor of ECE and CS—has announced the release of Prepaire, a groundbreaking AI-powered biosurveillance platform. Prepaire uses advanced artificial intelligence to improve early detection and response to biological threats, providing real-time insights and enhancing global preparedness. This innovative tool represents a significant advancement in biosurveillance technology.

[FULL STORY](#)

Fueling Fair AI: How DISC Seed Funding Powers Dr. Jiqun Liu's Mission for Smarter, Unbiased Information Access

Dr. Jiqun Liu, an Assistant Professor in the School of Library and Information Studies and an Affiliated Assistant Professor in the Department of Psychology at OU, is pioneering advancements in interactive information systems that transform how people search for, access, and engage with information in the era of Generative AI.

[FULL STORY](#)

Enhancing Museum Design with Biosensor Data: OU Researchers Partner to Develop Innovative Methodology with DISC Support

A multidisciplinary team of researchers from the University of Oklahoma (OU), University of Florida (UF), and U.S. Holocaust Memorial Museum (USHMM), has developed a cutting-edge approach to understanding and optimizing visitor experiences in museum spaces. By integrating biosensor technology, museum visitor studies, and architectural design principles, this project offers groundbreaking insights into the emotional and psycho-physiological impacts of museum environments.

[FULL STORY](#)

Capstone Spotlight: Smarter Social Media Analysis for Crisis Response

A student team from the University of Oklahoma's School of Computer Science, mentored by Mahmoud Mousa Hamad (Software Developer, Data Institute for Societal Challenges), enhanced the SMART platform - used to analyze social media during emergencies.

The team migrated SMART from Django to FastAPI for faster performance and introduced personalized misinformation models, allowing users to train the system based on their own feedback. These upgrades help build a more adaptive SMART 2.0 to support first responders with timely, relevant insights.

Interested in learning more about SMART? Contact Mahmoud at mmh@ou.edu.

ANNOUNCEMENTS

Congratulations to our Spring Seed Funding Recipients!

Faculty Seed Funding Program

- InvisIoT: Preserving Smart Home Privacy Through Adaptive IoT Profiling and Internet Traffic Obfuscation by **Qi Li**: \$12,500
- Experimental Planning and Optimization of Nanotube Synthesis via Data-driven Machine Learning by **Jingyao Dai** and **Yijie Jiang**: \$12,500
- Exploring Large Language Models for the Inverse Design of Materials by **Shuozhi Xu** (PI) and **Xun Lu** (Co-PI): \$10,000
- Resilient Networks in the Electric Vehicle Battery Supply Chain: Market Structures and Policy Impacts by **Myongjin Kim** (PI) and **Georgia Kosmopoulou** (Co-PI): \$10,000
- Explainable AI for Predictive Analytics in Nursing Practice by **Yasser Youssef** (PI): \$10,000
- Pilot Fieldwork in Linguistic Geography in Paraguay by **Raina Heaton** (PI) and **Anthony Cummings** (Co-PI): \$9,300
- Data-Driven 2D Materials Discovery for Green Hydrogen Production by **Kasun Gunasooriya** (PI): \$10,000

Postdoctoral Fellowship Program

- A Deep Learning-Based Imaging Platform for Kidney Biopsy by **Chen Wang, Qingong Tang, Chongle Pan, Sean Duguay, William Vanlandingham, and Kar-Ming Fung**
- Mass spectrometry-based metabolomics to understand multidrug efflux and permeation in antibiotic resistance in *Pseudomonas aeruginosa* by **Thilini Peramuna**: \$5,000
- State-of-the-Art Simulations for Circumbinary Exoplanet Formation by **Jeremy Smallwood**: \$5,000

Graduate Student Seed Funding Program

- Data-Driven Conservation: Integrating Digital Humanities and Genomics to Preserve the Choctaw Hog by **Horvey Palacios, Brittany Bingham** and **Isabella Cowan**: \$2,500
- FDA Orange Book Patent Listings as a Method of Entry Deterrence by **Lilly Kirby-Riviera, Georgia Kosmopoulou** and **Myongjin Kim**: \$2,500
- Trauma to Hope: Designing Refugee Children's Dream Housing Through a Trauma-Informed Lens Using Minecraft - A Creative Design Tool by **Salma Akter**: \$2,500

RESEARCHER HIGHLIGHTS

New Research Work From Your Colleagues

- **Dr. Qihong Liu** was recently appointed as the **President's Associates Second Century Professor**. He was also named **Co-Editor** of the *Journal of Economics and Management Strategy*, a leading journal in his field. In addition, he continues to serve as **Associate Editor** of the *Journal of Media Economics*, the premier journal in the field of media economics.
- **Dr. Daniel Becker** was elected as an Early Career Fellow of the Ecological Society of America. He has also co-authored two new papers. One in *Communications Biology* using viral genomic data to improve predictive models of orthopoxvirus reservoir hosts: <https://www.nature.com/articles/s42003-025-07746-0>. Another in *Nature Review Biodiversity* that reviews the state of research on planetary change and infectious disease: <https://www.nature.com/articles/s44358-024-00005-w>

PUBLICATIONS

Recent Publications From Your Colleagues

- **Aguilar, G., Wantchekon, K.A., Sladek, M. R., McDermott, E. R., Betancur Castrillón, S., Uribe Tirado, L.M., Tilano Vega, L. M., Safa, M. D., & Umaña-Taylor, A. J.** (2024). Ethnic-racial identity, discrimination experiences, and academic adjustment among Colombian adolescents. *Comparative Education Review*, 68(4), <https://doi.org/10.1086/733483>
 - **Sladek, M. R., Martinez-Fuentes, S., Wantchekon, K. A., †Aguilar, G., & Umaña-Taylor, A.J.** (2025). Ethnic-racial discrimination, identity, and out-group contact: Asystematic review of daily process studies. *Cultural Diversity and Ethnic Minority Psychology*. Advance online publication. <https://doi.org/10.1037/cdp0000735>
-

SPOTLIGHT



Samuel J. Huskey

Dr. Samuel J. Huskey is a Joseph Paxton Presidential Professor in the Department of Classics and Letters in the Dodge Family College of Arts and Sciences, the Senior Faculty Fellow in Digital Humanities for OU's Center for Faculty Excellence, and an affiliated faculty member of DISC. He received his BA in Classics from the University of Oklahoma in 1994 and his PhD in Classics from the University of Iowa in 2002. Huskey's research interests span from traditional Latin philology, with publications on the major and minor poets of the Roman Republic and Imperial eras, to Digital Humanities. He is the director of the Digital Latin Library, a Mellon Foundation-funded initiative to catalog all existing editions of Latin texts and to publish new, born-digital critical editions. In that capacity, he works with Natural Language Processing, Artificial Intelligence/Machine Learning(AI/ML) models, and a variety of other technologies to make historical documents accessible to both humans and machines. Since 2011, he has also been the Information Architect for the Society for Classical Studies, the premier professional organization for classicists in North America. In that position, he manages the organization's data relating to outreach, annual meetings, research and publications, and position openings. His current projects seek to use AI/ML methods and technologies to facilitate research and scholarship on under-studied and under-resourced languages.

DISC TEAM HIGHLIGHT



Yessenia Torres Receives Distinguished Performance Award

Yessenia Torres, Senior Managing Director at the Data Institute for Societal Challenges (DISC) at the University of Oklahoma, has been honored with the Distinguished Performance Award at the Staff Senate Awards Ceremony. This recognition celebrates her outstanding contributions in supporting and advancing the mission of DISC and her dedication to fostering the OU data science community.

UPCOMING EVENTS

OU AI Webinar Series: Session 4

Date: Friday, May 16

Time: 12:00 PM-1:00 PM

Speakers:

- **Farrokh Mistree** – Generative AI for Designing Policy and Business Strategy for Sustainable Development
- **Manika Lamba** – Coconut Libtool: AI-Driven Document Analysis
- **Anany Gupta** - Multiagent Reinforcement learning for Peer-to-Peer Energy Trading.

Click the link below to register.
Zoom link provided after registration.

[REGISTER](#)

OU AI Webinar Series: Session 5

Date: Tuesday, May 27

Time: 12:00 PM-1:00 PM

Speakers:

- **Stacey Tovino** - AI and the HIPAA Privacy Rule
- **KT Duffy** - AI for Creative World Building, A Case Study
- **Selena Feng** - RegionDefiner: Democratizing Regionalization Algorithms Through Large Language Models

Click the link below to register.
Zoom link provided after registration.

[REGISTER](#)

GET INVOLVED

Communities of Practice

DISC's data science practices convene diverse teams to collaborate to solve some of the world's most pressing problems and achieve a lasting societal impact. The current Communities of Practice at DISC are:

- Bioinformatics
- Brain and Behavior
- Business & Economics
- Community Engagement
- Digital Humanities
- Earth System Science
- Hydrology
- Machine Learning & Big Data in the Social Sciences
- Neuroscience & Neurosurgery
- Supply Chain
- 3D Workflow
- Human-Centered Trustable AI
- Machine Learning x Supercomputing
- CyberSecurity, Blockchain, Mobile Computing & Computer Networks

Research Membership Groups

- Opioid Research Group

[Join Community of Practice](#)



DATA INSTITUTE FOR SOCIETAL CHAI

The UNIVERSITY of OKLAHOMA

Copyright (C) 2025 University of Oklahoma. All rights reserved.
You are receiving this email because you opted in via our website.

Our mailing address is:

University of Oklahoma
Five Partners Place 201 Stephenson Pkwy
Ste 4600
Norman, OK 73019-0001

[Add us to your address book](#)

Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe](#)