

# ANNUAL REPORT



Five Partners Place | 201 Stephenson Pkwy, Suite 4100 | Norman, OK, 73019 Phone: 405-325-3980 | Email: icast@ou.edu | Website: www.ou.edu/icast

# **ACKNOWLEDGMENT**



# **ICAST Commitment to Opportunity and Belonging for All**

ICAST and the Office of the Vice President for Research and Partnerships at the University of Oklahoma advance the University's commitment to Pillar 4 of the Lead On University Strategic Plan through our support of Norman campus research.

# **Land Acknowledgment Statement**

"Long before the University of Oklahoma was established, the land on which the University now resides was the traditional home of the "Hasinais" Caddo Nation and "Kirikir?i:s" Wichita & Affiliated Tribes.

We acknowledge that this territory once also served as a hunting ground, trade exchange point, and migration route for the Apache, Comanche, Kiowa, and Osage nations.

The University of Oklahoma recognizes the historical connection our university has with its Indigenous community. We acknowledge, honor, and respect the diverse Indigenous peoples connected to this land. We fully recognize, support, and advocate for the sovereign rights of all of Oklahoma's 39 tribal nations. This acknowledgment is aligned with our university's core value of creating a place of belonging and emotional growth for all students, faculty, staff, and alumni. It is an institutional responsibility to recognize and acknowledge the people, culture, and history that make up our entire OU community."

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# MESSAGE FROM THE DIRECTOR

The Institute for Community and Society Transformation (ICAST) team is delighted to share our Annual Report for 2024. ICAST had an extraordinary year of growth and accomplishments. As local and global communities face unprecedented challenges and needs, ICAST's unique research ecosystem facilitates impactful collaborations to generate new knowledge, insights, and solutions. Our affiliated centers and institutes, individual affiliates, and community partners have grown innovative multi-disciplinary research and creative activity that is transforming communities and societies.

During FY24, ICAST supported the OU community through team building, writing collaborations, proposal submissions, networking events, seed grant funding, hiring new staff, and other activities. Our affiliated centers, institutes and researchers thrived as we expanded the number of ICAST affiliates and community partners. We developed some new research areas and deepened others, partnering on many grant proposals and expanding the diversity of funding sponsors. These activities led to increases in FY24 external funding that exceeded the amounts achieved during ICAST's first two years! In addition to supporting networking events and teams, we hired an Operations Director and new Administrative Coordinator and launched our ICAST Faculty Fellows program.

Our door is always open if you need assistance or would like to engage with ICAST to support and advance your research. We are grateful for your continuing support and engagement and we look forward to pursuing new opportunities and partnerships together in the coming

year.

We are excited to share highlights from the FY24 activities and accomplishments of the ICAST leadership team, affiliates, and centers and institutes.

Sincerely,

Share Cornelly

Shane Connelly, Ph.D.

George Lynn Cross Research Professor, Psychology Director, Institute for Community and Society Transformation (ICAST)

ICAST is dedicated to increasing access and opportunity and creating innovative pathways for positive societal change.

Through community-engaged research and creative endeavors, ICAST advances various domains, including health and wellbeing, social justice, arts and humanities, education, and technological and workforce adaptations.

**Mission**: Increase access and opportunity and forge new pathways toward positive societal transformation through community-engaged research and creative activity that advances health and well-being, social justice, arts and humanities, education, and technological and workforce adaptations.

**Vision**: transform societies by setting the national standard for convergent, community-engaged research and creative activity.

# -Values -

Innovation

In collaboration with partners, we implement new and improved ideas to provide solutions that create positive and lasting social change.

Creativity

We generate novel transdisciplinary research, knowledge, and solutions to intractable societal and community challenges.

Integrity

We practice honesty, consistency, and persistence in our work to ensure the quality of our research and creative activities and build trust in our collaborative relationships. We promote awareness of and adherence to ethical principles within and across disciplines.

Humility

We are lifelong learners who do not have all (or even most) of the answers, and we commit to remaining open to the experience, knowledge, and ideas of all involved in our work. We acknowledge and promote community strengths.

Collaboration

We strive to create authentic, respectful, equitable, and engaged relationships with community partners and transdisciplinary scholars, reflecting a commitment to a common goal.

Inclusiveness & Opportunity

In collaboration with partners, we will implement new and improved ideas to provide solutions that create positive and lasting social change.

INSTITUTE FOR COMMUNITY AND SOCIETY TRANSFORMATION

# Meet our Team



Shane Connelly, PhD
Director



Brittany Hott, PhD Associate Director



Matthew Jensen, PhD Associate Director





**Tosin Akande, MPH**Operations Manager



**Kelly Peters**Admin Coordinator



**Dan Li, PhD**Faculty Fellow

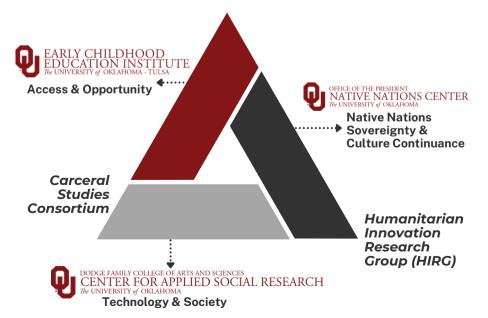


**Eric Day, PhD**Faculty Fellow

# Affiliated Centers & Institutues

The University of Oklahoma hosts research centers and institutes that cover a diverse range of disciplines and specialties across campus. These centers and institutes serve as hubs for collaborative research, bringing together investigators to drive societal transformation. OU's interdisciplinary research ecosystem encompasses various cross-school research initiatives, programs, and institutes.

# **ICAST Strategic Areas of Emphasis and OU Partners**



# The Center for Applied Social Research (CASR)

The Center for Applied Social Research applies innovative concepts and methods in social sciences to advance complex, multi-faceted organizational, policy, and public health research. CASR approaches critical emerging issues that influence institutional policies and practices from an interdisciplinary perspective to enhance our understanding of human social behavior and develop practical solutions to real-world problems.

# **Early Childhood Education Institute (ECEI)**

The Early Childhood Education Institute at OU-Tulsa is an applied research institute with multiple ongoing projects designed to advance and support access and opportunity in early childhood programming and policies by generating and disseminating high-quality, meaningful research.

# **Native Nations Center (NNC)**

The University of Oklahoma recognizes the sovereign status of the Native Nations of Oklahoma and the institution-to-institution relationship between the University of Oklahoma and Native Nations. The Department of Native American Studies and the New Native Nations Center use the star quilt symbol to symbolize their work in this area at OU.

# **Carceral Studies Consortium (CSC)**

The CarceralStudies Consortium brings together faculty, staff and students from across the University of Oklahoma and beyond to cultivate and support rigorous research, pedagogy, and community engagement toward social transformation.

# **Humanitarian Innovation Research Group (HIRG)**

The OU Humanitarian Innovation Research Group, founded in 2020, is a transdisciplinary research team working towards the development of an effective refugee resettlement model for the benefit of both hosts and refugee communities in the U.S. within a global framework.

# BECOME AN ICAST AFFILIATE

https://ousurvey.qualtrics.com/jfe/form/SV\_ebpYW1jfN1eAqGO



# A Year in Review

# **Annual ICAST Networking Event**

ICAST held its 3rd annual in-person networking event last November to foster collaboration, teamwork, and research advancement. The event featured presentations from seed grant teams and dynamic roundtable discussions on a diverse range of topics, including Health and the environment, Human-centered Artificial Intelligence (AI), Early Childhood Education and Well-being, Mental Health in Schools/Communities, LGBTQ Research & Engagement Collective, Carceral Studies, Humanitarian Innovation Research, Food and Society, and Public Safety Data Transparency—this variety of discussions catered to the diverse interests of our affiliates and other participants.

The event also introduced participants to ICAST's mission and resources. It facilitated connections among faculty members to form collaborative teams for pursuing shared multidisciplinary interests, external funding, and scholarship/creative activity. The ICAST team enjoyed sharing the value and impact of these initiatives.

# Big Idea 2 Challenge Team Building

ICAST hosted informational and team development sessions for BIC 2.0 for theme 4 – Enhancing knowledge at the intersection of technology and society to promote human flourishing.

The BIC 2.0 incentivized the formation of transdisciplinary, convergent research teams focused on grand global challenges and provided seed funding to incubate ideas with the potential for future extramural support and significant societal impact.

# Student Impact



# FY 24 Highlights

\$42.6M

\$15.9M

**PROPOSALS** 

**AWARDS** 



28

No. of Submitted Proposals

\$**9.2**M

Funded Awards



15

No. of Submitted Proposals

\$1.0M

Funded Awards



22

No. of Submitted Proposals

\$**5.7**M

**Funded Awards** 



15.0% Increase in Proposals (from last year's \$37.1M)

46.6% Increase in Awards (from last year's \$10.9M)



# RESEARCH SEED FUNDING

The 2024 ICAST seed grant funding opportunity, co-sponsored by the Data Science Institute for Societal Challenges (DISC), promotes the creation and development of multidisciplinary research teams in areas related to community and societal transformation and enhances the competitiveness of OU's multi-disciplinary research teams for external funding. The opportunity prioritizes proposals aligned with various interest areas connected to ICAST themes.

| PROJECT TITLE |                                                                                                                                    | TEAM MEMBERS                                                                                                                    | AWARD AMOUNT                            |  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--|
|               | Community Informed AI-based<br>Treefall Vulnerability Assessment<br>within the Built Environment under<br>Extreme Weather Events   | Drs. Aikterini Kyprioti,<br>Dimitrios Diochnos, Chris<br>Malloy, Georgia Kosmopoulou,<br>Heather McCarthy, and Joe<br>Ripberger | \$31,000<br>DISC Contributed<br>\$5,000 |  |
|               | Mitigating Deepfakes in Platforms and Organizations                                                                                | Drs. Yifu Li, Rui Zhu,<br>Lacey Schley, and<br>Matthew Jensen                                                                   | \$30,000<br>DISC Contributed<br>\$5,000 |  |
|               | Engineering Just Futures: Preparing<br>Engineers to Integrate Technical,<br>Sociocultural, and Environmental<br>Perspectives       | Drs. Jacob Pleasants, Brandon<br>Abbott, Jacquelyn Vadjunec,<br>and Hunter Heyck                                                | \$25,000                                |  |
|               | Creating Opportunities to Navigate<br>Health and Safety Hazard in Ottawa<br>County, Oklahoma by Designing a<br>Geospatial Database | Drs. Laurel Smith, Todd Fagin,<br>Jacqueline Vadjunec, and<br>Jennifer Koch                                                     | \$28,000<br>DISC Contributed<br>5,000   |  |
|               | Societal Takes on Deepfakes:<br>Detecting and Combatting<br>Deepfakes                                                              | Drs. Katerina Tsetsura<br>and Mark Raymond                                                                                      | \$20,000                                |  |
|               | Shedding Light on the<br>Shadows: Economic Integration in<br>the Face of Anti-Immigration Stigma                                   | Drs. Quiog Wang,<br>June Abbas, Heyjie Jung,<br>Jeong-Nam Kim, Ted Matherly,<br>and Sunha Yeo                                   | \$30,000<br>DISC Contributed<br>5,000   |  |
|               | Uncovering Black Undergraduate<br>Women's Identities and Experiences<br>through Focus Groups and Visual<br>Elicitation Data        | Drs. LaShawn Washington and<br>Rodney Bates                                                                                     | \$10,000                                |  |

- Supported CASR faculty and PIs research processes
- Supported ECEI researchers and research processes
- Supported Carceral Studies Consortium Director and research processes
- Engaged with new OU faculty members at the New OU Faculty Luncheon
- Co-sponsored the CHEPS (Carbon-Free Hydrogen Production and Storage)
   OU Sustainability Forum 2024: The Energy and Materials Nexus
- Provided consultation and support for the OADII International Security Policy community of practice consultation
- Connected affiliates and faculty with the Center for Public Management (CPM) for funding and graduate research assistant opportunities
- Attended and presented a poster at the Tribal Clean Energy Summit and Symposium hosted by the Native Nations Center and IREES
- Supported the Arts and Humanities Forum with an ICAST Summer Humanities Fellowship
- Attended the Tribal Equity Energy Summit via invitation from the Citizen Potawatomie Nation (CPN)
- Supported Gibbs Design Activism Award (5K) and served as a reviewer on the evaluation panel
- Served on the IREES seed grant evaluation panel and contributed funds to support seed grants
- Program Evaluation network at OU collaborated with the Center for Faculty Excellence to identify and build program evaluation resources at OU for funded research
- Networked with new faculty at the Gallogly College of Engineering Mentor Networking event
- Vaccine Research Symposium Co-hosted with the Center for Brazil Studies
   9 Letters of support from ICAST
- ICAST provided letters of support for multiple proposals to the National Science Foundation (NSF), National Institutes of Health (NIH), Department of Education (DOE), and National Endowment for the Humanities (NEH).
- Served on evaluation panel for the Gibbs College of Architecture Design Activism Award competition
- Supported networking events of other VPRP Institutes throughout the year

Hired two new ICAST team members. Welcome to our new Operations Manager, Tosin Akande, and our new Administrative Coordinator, Kelly Peters!

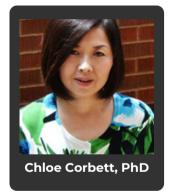
# Collaborations and Team Building Highlights

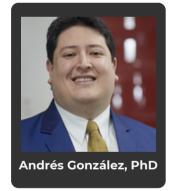
# **Technology and Society**

# Temporal Networks of Environmental Refugee Resettlement

The potential displacement of up to 1 billion people due to climate change by 2050 is a significant concern, and addressing this issue requires long-term planning. To tackle the problem, ICAST affiliates Kash Barker, Chloe Corbett, and Andrés González developed four modeling approaches using ICAST seed funding, focusing on resettlement strategies. These models include a Two-Stage Stochastic Program, a Multi-objective Decision Tree, a Temporal Network Optimization Model, and a Decentralized Optimization Model. This team was awarded a \$400,000 grant from the DoD Minerva Institute to examine the security and socio-economic impacts of refugee resettlement in collaboration with Ashly Townsen from the Air War College. Ongoing discussions with the Department of Homeland Security may also lead to a proposal submission regarding migration prediction to the US southern border.







### AI in the Workplace and Government

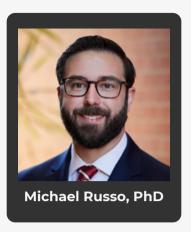
One of ICAST's seed grant teams led by Jonathan He and Eric Day is examining the impact of robotic process automation and other AI tools on employee experiences at work such as work disruption, but also leveraging these technologies to redesign their jobs. Other work by He, Day, and Matt Jensen on digital government and public trust continues to examine opinion spamming threats to digital rule making.

### Trust in Al

Faculty and researchers from the Management Information Systems Department, the Oklahoma Aerospace and Defense Innovation Institute (OADII), and the Psychology Department are discussing opportunities and approaches to study drivers of trust between and among humans and intelligent, autonomous agents.

## Systems and Methods for Detecting a Response Bias

A provisional patent for software to detect response bias in psychometric assessment was filed by ICAST affiliate Michael Russo on May 7, 2024, with the support of the OU Office of Innovation and Corporate Partnerships (OICP). Since filing, collaboration has been ongoing with OICP and a private company, Zukor Interactive, to develop software based on this patent. This software will enable researchers to begin identifying the extent to which language used in individual items on psychometric assessments may lead to or be susceptible to various types of biases. This line of research is expected to be beneficial not only to psychometricians in their efforts to develop psychometrically sound assessments but also to a much wider range of industries, including criminal justice/national security agencies, human resources, and business (generally defined). It is hoped that individuals interested in discerning the truth from misinformation or biases may find this patent and the technologies developed from it useful.



# Center for Creativity and Authenticity in Artificial Intelligence Cultural Production

ICAST facilitated the formation of the proposal team, which recently received a \$500,000 grant from the National Endowment for the Humanities grant to establish a Humanities and Arts-based Research Center for Creativity and Authenticity in Artificial Intelligence Cultural Production. The proposal team was led by Hunter Heyck, Kimberly Marshall, and Peter Froslie.

Generative AI has many capabilities for content generation and expression, which raises important questions about the nature and importance of human creative expression. This team aims to explore questions and implications of AI and cultural production practices and how this affects authenticity, truth, trust, power, and belonging.

# **Rural Education and Well-being**

# Project Rural Innovation for Mental Health Enhancement (PRIME)

Led by Brittany Hott, Cian Brown, Christina Miller, and Kendra Williams-Diehm, Project Rural Innovation for Mental Health Enhancement (PRIME) tests a collaborative, grow-your-own training model to increase school-based mental health providers serving high-needs rural school districts in Oklahoma. To date, 32 applied behavior analysis, counseling, and social work students completed coursework and internships in rural school districts. The majority of PRIME students live and work in the rural communities served through the project.

# Project Second Step to Enhance Rural Student Achievement and Wellbeing

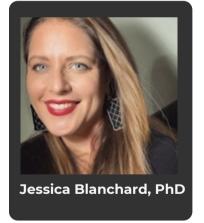
Brittany Hott and Courtney Dewhirst, in collaboration with six high-need rural school districts, began a 5-year research project, Project Second Step to Enhance Rural Student Achievement and Wellbeing, funded through the US Department of Education Institute of Education Sciences to develop and test an educator coaching model in rural schools.

# **Health Access**

# Vaccine Hesitancy, Misinformation and Messaging

Faculty, students, and researchers from the Departments of Psychology and Communication, as well as the College of Journalism and Mass Communication, published an article on the effects of vaccine messaging on college students' intentions to get a COVID-19 vaccine. This group also co-hosted a vaccine research symposium in February, with the Center for Brazil Studies, Co-directed by Fabio de Sa e Silva and Michelle Morais de Sa e Silva. This symposium covered topics on vaccine hesitancy and messaging, the socio-politics of vaccines, community interventions to boost vaccine acceptance, and the role and place of healthcare professionals in vaccine uptake.





# **Genomics and Ethics Program for Native Students**

American Indian and Alaska Native (AIAN) peoples are underrepresented in STEM training and research, which contributes to the lack of AIAN students completing doctoral degrees and entering professional careers in health and science. Since 2018, Paul Spicer, Jessica Blanchard, and Cara Monroe have been instrumental in the Genomics and Ethics Program for Native Students (GEN), which has fostered supportive learning environments, research and training opportunities, and professional networks for AIAN students interested in genomics and society. The Genomics and Ethics Program for Native Students: A Model for Multi-Site Cohort Expansion proposes to expand the GEN learning community to build out the network of AIAN trainees nationally, including cohorts at the University of Oklahoma (OU) and the Southcentral Foundation (SCF) in Anchorage, Alaska, and a national summer experience. This proposal is a renewal of the current GEN program, which supports 8-10 undergraduate/graduate students annually.

# An American Indian Community-Engaged Approach to Increasing Diagnostic Colonoscopy (American Cancer Society)

The overall study will address the current gaps in screening to diagnostic follow-up for American Indian patients by using a multilevel approach to identify barriers and facilitators to receipt of diagnostic colonoscopy, emphasizing social determinants of health (SDOH) factors.

# Tribal Engagement on the Governance and Stewardship of American Indian and Alaska Native (AIAN) Biospecimens and Data for Cancer Research

The rapidly changing landscape of precision medicine may lead to improved clinical care and targeted research to address health disparities, including cancer, for American Indian/Alaska Native (AIAN) populations. Efforts are currently underway to build a local repository at the OU Stephenson Cancer Center for storing AIAN biospecimens and data with the goal of generating local cancer research with more targeted benefits to AIAN communities. The goals of this project are to engage Tribal stakeholders about the governance and stewardship of AIAN biospecimens for cancer research and to develop and disseminate an empirically informed framework for engaging diverse views on data governance to national and international audiences. While this proposal was not funded, it will be revised and resubmitted this fall.

### Nature Access and Cycling Impacts on Youth Mental Well-being

ICAST affiliate Cian Brown is collaborating with Outride, a nonprofit organization, and experts from the School of Medicine and School of Public Health from the Loma Linda University. This team was awarded the REI Cooperative Action Fund grant to examine the impact of school cycling programs on participants' mental well-being. They will explore the connection between physical activity, access to nature, and mental well-being. The findings will be shared with the public and the scientific community to inform policy and practice. The project is supported by the REI Fund, which aims to advance inclusivity, access, and belonging outdoors.



# Colorectal Cancer Screening Program Across American Indian Communities in the Southern Plains and Southwest United States

This National Cancer Institute-funded project was a participatory and collaborative effort with the Choctaw Nation Health Services Authority (CNHSA), the Oklahoma City Indian Clinic (OKCIC), the OU Health Sciences, and the OU Health Stephenson Cancer Center. The long-term goal of this study is to enhance health equity through the reduction of colorectal cancer (CRC) disparities in morbidity, mortality, and late stage-at-diagnosis among American Indian (AI) populations. The overall objective is to increase CRC screening uptake among AIs aged 50 to 75 years. Priorities are focused on developing and evaluating an intervention to enhance CRC screening uptake in Tribal communities. A second project aims to understand key factors and processes affecting the follow-up of abnormal cancer screening tests in American Indian patients. (OU Norman subcontract with OUHSC, funded by NCI). This study uses a multilevel approach to identify barriers and facilitators to diagnostic colposcopy and colonoscopy. The information will inform clinical care processes to improve the completion of diagnostic follow-ups for positive screens.

12

# The Center for the Ethics of Indigenous Genomic Research (CEIGR, funded by NHGRI)

American Indian and Alaska Native (AI/AN) concerns about genomic research have been well-documented. Failure to engage Tribes about these concerns perpetuates barriers to participation in genomic research. CEIGR seeks to make progress on these issues through community-led ethical, legal, and social implications (ELSI) research and a commitment to training the next generation of leaders in the field from both the academy and the community. Since 2018, the Genomics and Ethics Program for Native Students (GEN, NHGRI) has provided Indigenous-based, mentor-linked learning opportunities for undergraduate and graduate students interested in ethical, legal, and social questions related to genetics research in Native communities.

### **Pandemic Prevention**

ICAST worked with OU's Research Integrity Officer Shannon Lunt to develop an ethics plan for a convergence research proposal for a Pandemic Prevention Center planning grant proposal led by Xiangming Xiao.

# **Environmental Collaborations**

# Air Quality in School Settings – EPA Center of Excellence

A group of faculty, graduate students, and staff collaborators across the Early Childhood Education Institute (ECEI) and OU Health Sciences are investigating air quality in early childhood education (ECE) settings. Led by Changie Cai and Diane Horm, the group launched their initial project funded by the Oklahoma Clearinghouse for Early Childhood Success, and they were awarded a Center of Excellence by the Environmental Protection Agency (EPA) to continue this work. The group has also submitted additional proposals to the National Institutes of Health to examine air quality in school settings and to NASA to develop and test models that will aid public and private agencies in decision-making and policy regarding air quality.

# Climate Adaptation and Wildlife Management

Another collaboration with the Muscogee Creek Nation and ICAST affiliates will integrate Myskoke Indigenous Knowledge (IK) to enhance climate adaptation strategies in wildlife management if funded by the North Central Climate Adaptation Science Center.

# **Methane Monitoring Team Training**

ICAST provided training on team climate for creativity and ethics for the NSF Methane Monitoring grant team, led by Binbin Wang and David Ebert.

### Soil Health

13.

A joint seed grant project awarded by IREES, DISC and ICAST led by Lori Han, Laura Bray, and Robert Nairn is examining farmer knowledge and perceptions of Biochar, a nature-based solution for improving soil health and combatting Eastern Redcedar in rural Oklahoma.

# **Large Convergence Research Efforts**

# **NSF Advancing Research Translation**

A project team led by David Ebert (DISC Director) was awarded a large grant to Intensify Translational Research in Oklahoma (InTRO). This convergence team includes faculty from the Center for Faculty Excellence, ICAST, the Office of Innovation and Corporate Partnerships, the Polytechnic Institute, and the OVPRP. This project supports the translation of research findings, processes, and products for use by the public, industry, government, and others. InTRO Seed Grants for Translational Research Projects have been awarded to OU faculty and researchers for advancing the translation of early-stage projects as well as a new Accelerating Research Translation (ART) Academy to provide additional education and training on research translation, partnerships and collaborations, ethics, and workforce training and development and more.

# NSF Growing Convergence Research: Transition to Green Energy in Gas Producing Regions

ICAST supported a convergence research team led by PI Dimitrios Papavassiliou, which was comprised of OU faculty and staff from chemical engineering, the OU Geological Survey, economics, journalism and mass communication, and psychology. This team was awarded an NSF grant to examine the feasibility and practicalities of just energy transitions in Oklahoma by advancing methods for generating clean hydrogen from natural gas. The project uses social science to guide engineering and geoscience research based on issues, perceived risks, and interests of rural communities that are expected to be immediately impacted by a transition to hydrogen energy. By identifying and clearly articulating the needs of rural communities, including Tribal Nations, researchers will develop viable ways to pursue hydrogen production and storage research.

# Oklahoma Climate Change and Health Research Center Proposal

ICAST facilitated proposal development and submission for a convergence team, led by Paul Spicer, and in collaboration with Hank Jenkins-Smith at IPPRA, for a National Institutes of Health (NIH) planning grant for an Oklahoma Climate Change and Health Research Center.









### **PROVOST FACULTY AWARDS**

### DAVID L. BOREN AWARD FOR OUTSTANDING GLOBAL ENGAGEMENT

Chie Noyori-Corbett: Anne and Henry Zarrow School of Social Work, Dodge Family College of Arts and Sciences

### HENRY DANIEL RINSLAND MEMORIAL AWARD FOR EXCELLENCE IN EDUCATIONAL RESEARCH

Kyong-ah Kwon: Department of Instructional Leadership and Academic Curriculum, Jeannine Rainbolt College of Education

### AWARD FOR EXCELLENCE IN RESEARCH IN THE SOCIAL SCIENCES

Jeong-nam Kim: Gaylord College of Journalism and Mass Communication

# AWARD FOR EXCELLENCE IN RESEARCH, DESIGN, AND CREATIVE EXPRESSION IN THE HUMANITIES AND THE ARTS

Kalenda Eaton: Clara Luper Department of African and African American Studies, Dodge Family College of Arts and Sciences

Heather Bedle: School of Geosciences, Mewbourne College of Earth and Energy

### VPRP AWARD FOR EXCELLENCE IN TRANSDICIPLINARY, CONVERGENT RESEARCH

Shane Connelly: Director of ICAST/Department of Psychology

### **VPRP AWARD FOR EXCELLENCE IN RESEARCH GRANTS**

Shane Connelly: Director of ICAST/Department of Psychology

Brittany Hott: Co-Director of ICAST/Department of Educational Psychology

David Ebert: Associate VP of Research and Partnerships/ Director of Data Institute for Societal Challenges Carol Silva: Senior Associate VP for Research and Partnerships/Edith Kinney Gaylord Presidential Professor of Political Science

Clara Smith: Associate Director, Research and Creative Activities

Michael Schade: Interim Chief Innovation Officer/Interim Executive Director Office of Innovation and

Corporate Partnerships



# Director of the Early Childhood Education Institute; George Kaiser Family Foundation Endowed Chair in Early Childhood Education

Presented the Distinguished Contributions to Early Education/Child Development Award by the Early Education/Child Development (EECD) Special Interest Group of the American Educational Research Association (AERA) on April 13, 2023.

Dr. Diane M. Horm was presented the Research and Scholarship Award by the Jeannine Rainbolt College of Education, University of Oklahoma, on April 26, 2024.

### Hott Named Editor of Rural Special Education Quarterly

Brittany Hott, an associate director of the Institute for Community and Society Transformation and associate professor of special education, was recently selected to serve a three-year term as editor of RSEQ, the only national scholarly publication devoted to topics and issues in service delivery or personnel preparation in rural special education and disability services.



VPRP AWARDS FOR EXCELLENCE IN RESEARCH AND CREATIVE ACTIVITY

### **EXCELLENCE IN TRANSDISCIPLINARY, CONVERGENT RESEARCH**

Carbon-Free Hydrogen Energy Production and Storage (CHEPS): Dimitrios Papavassiliou, Firat Demir, Katerina Tsetsura, Ngoc Bui, Steven Crossley, Michele Galizia, Jeffrey Harwell, Sepideh Razavi, Daniel Resasco, Alberto Striolo, Bin Wang, Shane Connelly, Adam Felz, Dingjing Shi, Nicholas Hayman, Zev Trachtenberg

### **EXCELLENCE IN RESEARCH IN THE SOCIAL SCIENCES**

Jeong-Nam Kim: Public Relations, College of Journalism and Mass Communication

### **NEAL LANE AWARD FOR EXCELLENCE IN RESEARCH IN THE NATURAL SCIENCES**

16.

Daniel Becker: School of Biological Sciences, College of Arts and Sciences

# EXCELLENCE IN RESEARCH, DESIGN, AND CREATIVE EXPRESSION IN THE HUMANITIES AND THE FINE ARTS

Kalenda Eaton, Anne Hyde: Department of African and African American Studies, College of Arts and Sciences, Department of History, College of Arts and Sciences

### **EXCELLENCE IN RESEARCH IN ENGINEERING AND APPLIED SCIENCE**

Bin Wang: Office of the Vice President for Research and Partnerships

### **EXCELLENCE IN RESEARCH SERVICE AND ADMINISTRATION**

Meghan Bomgaars: Office of Research Services

### LIFETIME ACHIEVEMENT AWARD

Hong Liu, Jizhong Zhou: School of Electrical and Computer Engineering, College of Engineering, School of Biological Sciences, College of Arts and Sciences

# **COMMUNITY PARTNERS**

ICAST has established a vibrant network of community partners, encompassing many Oklahoma K-12 public school districts, the Citizen Potawatomie Nation (CPN), the Caddo Nation and Caddo Nation Economic Development Authority (CNEDA), EnDev Resources, Inc., Slumberkins, Oklahoma Head Start Collaboration Office and several Head Start agencies across Oklahoma, Tulsa Educare, OK Partnership for School Readiness, Committee for Children, United Way of Norman, We Rock the Spectrum, Private Energy Companies, the 76th Software Engineering Group, (SWEG), OU's Center for Public Management, and other various private and non-profit organizations.



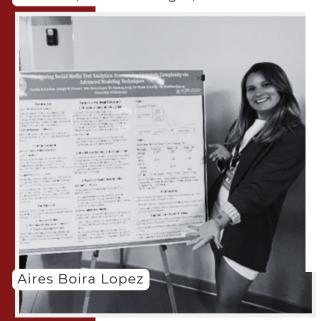
NRCEC - June 2024 National Research Conference on Early Childhood

This diverse range of partners reflects the ICAST's commitment to collaboration and engagement with different sectors of society. By working closely with these partners, the ICAST integrates varied perspectives and expertise into its initiatives, fostering a more comprehensive and inclusive approach to community transformation and innovation.

# Navigueling Meological Dictourus: Printers and Countries of the Countries



**Research Scientists** From left to right: Drs. Jacquelyn Purser, Robye Kay Jackson, Sarah Heiniger, & Julie Atwood



# **FUTURE DIRECTIONS**

- Continue to facilitate multidisciplinary team development and proposal activities aligned with external funding opportunities.
- Grow ICAST affiliate membership.
- Host campus-wide and focused ICAST networking sessions.
- Expand the amount of ICAST seed grant funding provided and the number of funded teams.
- Strengthen collaboration with OUHSC through novel partnerships (e.g., EPA center and the new Future of Health Institute).
- Develop principal investigator leadership at OU.
- Work with the Native Nations Center to support their research mission and to continue developing relationships with Tribal Nations.
- Seek affiliate faculty feedback and engage in new activities/support structures in response.
- Continue strategic collaborations with DISC, OADII, IREES, IPPRA, and other OU Centers and Institutes.

- [1] Aguilar Escamilla, J. E., & Diochnos, D. I. (2023). Perceptrons under verifiable random data corruption. In International Conference on Machine Learning, Optimization, and Data Science (LOD). https://link.springer.com/chapter/10.1007/978-3-031-53969-5\_8
- [2] Bessarabova, E., Banas, J., Reinikainen, H., Talbert, N., Luoma-Aho, V., & Tsetsura, K. (2024). Assessing inoculation's effectiveness in motivating resistance to conspiracy propaganda in Finnish and US samples. Frontiers in Psychology, 15, 1416722. https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2024.1416722/abstract
- Bhalerao, M. J., Honeycutt, W. T., Allen, J. K., & Mistree, F. (2023). Framing wicked problems through evidentiary and interpretative analysis. In ASME Design Automation Conference (Paper No. DETC2023-117285). Boston, MA.
- [4] Bilal, D., Julien, H., Sonnenwald, D. H., Ngulube, P., Sawyer, S., & Abbas, J. (2023). The role of theory in information science scholarship. Proceedings of the Association for Information Science and Technology, 60(1), 747-750. https://asistdl.onlinelibrary.wiley.com/doi/abs/10.1002/pra2.852
- [5] Bitterman, A., Krocak, M. J., Ripberger, J. T., Ernst, S., Trujillo-Falcón, J. E., Gaviria Pabón, A., ... & Jenkins-Smith, H. (2023). Assessing public interpretation of original and linguist-suggested SPC risk categories in Spanish. Weather and Forecasting, 38(7), 1095-1106. https://journals.ametsoc.org/view/journals/wefo/38/7/WAF-D-22-0110.1.xml
- [6] Bolino, M., Bowers, J., Guzman, F., Parris, D., & Wang, Q. (2024). The new rules for marketing across channels Strategies for navigating a new kind of communication landscape: The "echoverse." Harvard Business Review. https://hbr.org/2024/06/the-new-rules-of-marketing-across-channels
- [7] Brown, C. L., Christian, D. D., & Crowson, H. M. (2023). Effects of an adventure therapy mountain bike program on middle school students' resiliency. Journal of Child and Adolescent Counseling, 9(2), 222-241. https://doi.org/10.1080/23727810.2023.2229084
- Brown, C. L., Peltier, C., Smarinsky, E. C., Lewis, O. J., & Lee, D. Y. (2024). A review of counseling research using single-case research design. Journal of Counseling and Development. https://doi.org/10.1002/jcad.12517
- Camarena, L., & Jung, H. (2024). Leadership ambition: The gendered and racialized differences of leadership representation in public organizations. Review of Public Personnel Administration. https://doi.org/10.1177/0734371X241258201
- Cao, J., Ming, Z., Allen, J. K., & Mistree, F. (2023). On how a self-organizing system produces collective behavior. In ASME Design Automation Conference (Paper No. DETC2023-116875). Boston, MA.
- Carrasco Galvan, G. B., Vadjunec, J. M., & Fagin, T. D. (2024). Lessons from the archives: Understanding historical agricultural change in the Southern Great Plains. Land, 13(2), 196. https://www.mdpi.com/2073-445X/13/2/196
- Carrasco Galvan, G. B., Vadjunec, J. M., & Fagin, T. D. (2024). Lessons from the archives: Understanding historical agricultural change in the Southern Great Plains. Land, 13, 196. https://doi.org/10.3390/land13020196
- [13] Carsten, M., Clapp-Smith, R., Haslam, S. A., Bastardoz, N., Gooty, J., Connelly, S., & Spain, S. (2023). Doing better leadership science via replications and registered reports. The Leadership Quarterly, 34(4), 101712.
- Cavazos, A., & Pleasants, J. (2024). Teaching students to think critically about technology. Social Education, 88(2), 86-91. https://www.socialstudies.org/social-education/88/2/teaching-students-think-critically-about-technology-and-society-approaches
- [15] Celis, J. A., Xiao, X., White, P., Basara, J. B., Adler, P. R., & McCarthy, H. R. (2023). Advancing agroecosystems: High-resolution crop monitoring and yield forecasting with the VPM model in high value crops in the US. AGU23.
- Celis, J., Xiao, X., Wagle, P., Basara, J., McCarthy, H., & Souza, L. (2024). A comparison of moderate and high spatial resolution satellite data for modeling gross primary production and transpiration of native prairie, alfalfa, and winter wheat. Agricultural and Forest Meteorology, 344, 109797. https://www.sciencedirect.com/science/article/abs/pii/S0168192323004872
- [17] Christian, D. D., Brown, C. L., & Smarinsky, E. C. (2024). A neurofeedback device to reduce high school student anxiety using a single-case research design. Journal of Counseling and Development. https://doi.org/10.1002/jcad.12516
- Ciciolla, L., Shreffler, K. M., Quigley, A. N., Price, J., & Gold, K. (2024). The protective role of maternal-fetal bonding for postnatal bonding following a NICU admission. Maternal and Child Health Journal. https://doi.org/10.1007/s10995-023-03873-4
- Cordero, R. R., Feron, S., Damiani, A., Carrasco, J., Karas, C., Wang, C., Kraamwinkel, C. T., & Beaulieu, A. (2024). Extreme fire weather in Chile driven by climate change and El Niño–Southern Oscillation (ENSO). Scientific Reports, 14, 1974. https://doi.org/10.1038/s41598-024-52481-x
- Deschenes, O., Malloy, C., & McDonald, G. (2023). Causal effects of renewable portfolio standards on renewable [20] investments and generation: The role of heterogeneity and dynamics. Resource and Energy Economics, 75, 101393. https://www.sciencedirect.com/science/article/abs/pii/S0928765523000489
- Deshmukh, R., Weber, P., Deschenes, O., Hernandez-Cortes, D., Kordell, T., Lee, R., ... & Meng, K. C. (2023). Equitable low-carbon transition pathways for California's oil extraction. Nature Energy, 8(6), 597-609. https://www.nature.com/articles/s41560-023-01259-y
- Deshmukh, R., Weber, P., Deschenes, O., Hernandez-Cortes, D., Kordell, T., Lee, R., ... & Meng, K. C. (2023). Well setbacks [22] limit California's oil supply with larger health benefits and employment losses than excise and carbon taxes. Nature Energy, 8(6).
- [23] Dewhirst, C. B. (2023). Exploring the cognitive apprenticeship approach: A case study of an early childhood practicum experience. Early Child Development and Care. https://doi.org/10.1080/03004430.2023.2187326

- [24] Dewhirst, C. B., & Casey, E. M. (2023). Listening to mothers' voices: Parent-child play challenges during social distancing. Journal of Early Childhood Research, 21(2), 256-270. https://doi.org/10.1177/1476718X23115307
- [25] Dewhirst, C. B., Spivey, E., Jang, C. S., & Grimes, B. (2023). Early childhood education interns' and cooperating teachers' discussions on trauma-informed practices. Action in Teacher Education.
- [26] Diochnos, D. I., Golumbic, M. C., & Hoffman, F. (2024). Foreword. In ISAIM-2022: International Symposium on Artificial Intelligence and Mathematics. Annals of Mathematics and Artificial Intelligence, 92, 1–4. https://link.springer.com/article/10.1007/s10472-024-09922-0
- [27] Dong, W., Li, Y., & Zhu, R. (2023, December). Deep-learning-assisted cardiac electrophysiology simulation. In 2023 Winter Simulation Conference (WSC) (pp. 758-769). IEEE. https://ieeexplore.ieee.org/abstract/document/10408359/
- [28] Dong, Y., Liu, J., Cheng, X., Fan, F., Lin, W., Zhou, C., Wang, S., Xiao, S., Wang, C., Li, Y., & Li, C. (2023). Wastewater-influenced estuaries are characterized by disproportionately high nitrous oxide emissions but overestimated IPCC emission factor. Communications Earth & Environment, 4, 395. http://doi.org/10.1038/s43247-023-01051-6
- [29] Fadel, K. J., Jensen, M. L., & Meservy, T. O. (2023). Online information filtering: The role of contextual cues in electronic networks of practice. ACM SIGMIS Database: The DATABASE for Advances in Information Systems, 54(4), 77-106. https://dl.acm.org/doi/abs/10.1145/3631341.3631347
- [30] Fagin, T. D., Vadjunec, J. M., Boardman, A. L., & Hinsdale, L. M. (2024). Use of participatory sUAS in resilient socioecological systems (SES) research: A review and case study from the Southern Great Plains, USA. Drones, 8(6), 223. https://www.mdpi.com/2504-446X/8/6/223
- [31] Feeney, M. K., Jung, H., Johnson, T. P., & Welch, E. W. (2023). US visa and immigration policy challenges: Explanations for faculty perceptions and intent to leave. Research in Higher Education, 64(7), 1031-1057. https://link.springer.com/article/10.1007/s11162-023-09731-0
- [32] Feng, X., & Koch, J. (2024). Combining vector and raster data in regionalization: A unified framework for delineating spatial unit boundaries for socio-environmental systems analyses. International Journal of Applied Earth Observation and Geoinformation, 128, 103745. https://www.sciencedirect.com/science/article/pii/S1569843224000992
- [33] Fernando, D. M., Brown, C. L., & Robbins, R. (2024). An earth-centered psycho-educational counseling group for Native American college students. Journal of Experiential Education. https://doi.org/10.1177/10538259241259657
- Fisher, C. J., Nelson, H. H., Allen, J. K., Kazempoor, P., & Mistree, F. (2024). Analyzing hydrogen hub locations: Resources, energy, and social impact. International Journal of Hydrogen Energy, 70, 641-653. https://doi.org/10.1016/j.ijhydene.2024.03.125
- [35] Foster, B., Person, A., & Peppler, R. (2023-2024). Expressions of place attachment and environmental justice near the Tar Creek Superfund site. Chronicles of Oklahoma, 101(4), 384-398.
- [36] Frechette, L., Castle, S., Jeon, S., Horm, D., Martinez, I., Vega Ruvalcaba, D., & Schaefer, S. (2023). Effects of family and neighborhood vulnerability on dual language learner and monolingual children's preschool outcomes. Frontiers in Education. https://doi.org/10.3389/feduc.2023.955967
- [37] Fusi, F., Jung, H., & Welch, E. (2023). Technological vulnerability and knowledge of cyber-incidents: Threats to innovativeness in local governments? Public Management Review, 1-27. https://www.tandfonline.com/doi/abs/10.1080/14719037.2023.2250362
- [38] Galvan, G. B. C., Vadjunec, J. M., & Fagin, T. D. (2024). Lessons from the archives: Understanding historical agricultural change in the Southern Great Plains. Land, 13(2), 1-31. https://ideas.repec.org/a/gam/jlands/v13y2024i2p196-d1334027.html
- [39] Gender-inclusive research instructions in author submission guidelines: Insufficient for gender-inclusive obstetrics and gynecology research. (2023). American Journal of Obstetrics & Gynecology MFM. https://doi.org/10.1016/j.ajogmf.2023.101179
- Guo, L., Allen, J. K., & Mistree, F. (2024). Optimize or satisfice in engineering design? Research in Engineering Design. https://doi.org/10.1007/s00163-023-00431-5
- [41] Gupta, K., Jenkins-Smith, H., Ripberger, J., Silva, C., Fox, A., & Livingston, W. (2024). Americans' views of fusion energy: Implications for sustainable public support. Fusion Science and Technology, 1-17. https://www.tandfonline.com/doi/full/10.1080/15361055.2024.2328457
- [42] Habashi, J. (2024). Criminalization of the right to home for Palestinian children. In Home in Early Childhood Care and Education: Conceptualizations and Reconfigurations. UK: Springer Nature.
- [43] Habashi, J. (2024). Subjection of Palestinian children's political agency: Beyond the family discourse. In H. Morrison (Ed.), Palestinian Children: Targets of Settler Colonialism, Agents of National Struggle (Children, Youth and War Series). Atlanta: University of Georgia Press.
- [44] Hampson, F. O., & Raymond, M. (2013). Human security as a global public good. In S. Neumeier & M. Raymond (Eds.), International organization and global governance (pp. 550-560). Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9781003266365-50/human-security-global-public-good-stefanie-neumeier-mark-raymond
- Hardy, J., III, Day, E. A., North, M., & Rockwood, J. (2024). Unpacking on-task effort in performance-based learning: Information-knowledge gaps guide effort allocation. Journal of Applied Psychology, 109, 77-98. https://psycnet.apa.org/doiLanding?doi=10.1037%2Fapl0001140
- Hausam, S. (2024). Bringing justice to habitat conservation with Indigenous refugia: Potential for planning and management of Douglas-fir (Pseudotsuga menziesii var. glauca) in New Mexico. Frontiers in Sustainability, 5, 1398130. https://www.frontiersin.org/journals/sustainability/articles/10.3389/frsus.2024.1398130/full

- [47] Hoppough, T. (2024, April 2). Study shows climate change is affecting some Native American tribes. Scripps News.
- [48] Horm, D. (2024). High-quality early childhood education is worth the investment. Oklahoma Education Journal, 2(3), 13–20.
- [49] Horm, D. M., Brophy-Herb, H. E., & Peterson, C. A. (2024). Optimizing health services for young children in poverty: Enhanced collaboration between Early Head Start and pediatric health care. Frontiers in Public Health, 12, 1297889. https://doi.org/10.3389/fpubh.2024.1297889
- [50] Horm, D. M., Jeon, S., Vega Ruvalcaba, D., & Castle, S. (2024). Resilience: Supporting children's self-regulation in infant and toddler classrooms. Frontiers in Psychology, 15, 1271840. https://doi.org/10.3389/fpsyg.2024.1271840
- [51] Hott, B. L. (2023, March 29). Addressing the challenges of rural America. Oral testimony, Labor, Health and Human Services, and Education Subcommittee, Washington, DC. [Invited]
- Hott, B. L. (2023, March 29). Written testimony: Addressing the challenges of rural schools. Labor, Health and Human Services, and Education Subcommittee, Washington, DC. https://docs.house.gov/meetings/AP/AP07/20230329/115575/HHRG-118-AP07-Wstate-HottB-20230329.pdf
- [53] Hott, B. L., & Flores, M. M. (2023). Single-case research design: Introduction to the special series. Learning Disability Quarterly, 46(1), 3-5. https://doi.org/10.1177/07319487211040493
- [54] Hott, B. L., Flores, M. M., Morano, S., Randolph, K. M., & Peltier, C. (2023). Reviewing manuscripts reporting findings from single-case research design studies. Learning Disability Quarterly, 46(1), 46–58. https://doi.org/10.1177/07319487221089616
- [55] Hott, B. L., Heiniger, S., Justus, J., Randolph, K., Al Shabibi, A., Beasley, B., Frank, K., Justus, J., Mitchell, W., Tennell, C., & Webster, F. (2023). Single case research reporting quality in learning disabilities journals. Learning Disabilities Research & Practice, 38, 224-238. https://doi.org/10.1111/ldrp.12317
- [56] Indianz.com. (2024, April 22). Native America Calling: Earth Day assessment for Native peoples.
- [57] Jensen, M., Meservy, T., Fadel, K., & Crane, C. (2024). Experts vs. peers: The role of situational characteristics in opinion seeking on electronic networks of practice. AIS Transactions on Human-Computer Interaction, 16(1), 28-56. https://aisel.aisnet.org/thci/vol16/iss1/2/
- Jester, M. L., Brown, C. L., & Loraas, D. (2024, June 13). A scoping review to understand the whole school, whole community, whole child model and the school-based built environment. Poster presentation accepted at the 2024 CANS State of the Science Congress on Nursing Research, Washington, D.C.
- [59] Jones, M. S., & Worthen, M. G. F. (2023). Measuring the prevalence and impact of adverse childhood experiences in the lives of LGBTQ individuals: A much-needed expansion. Child Abuse & Neglect. https://doi.org/10.1016/j.chiabu.2023.106560
- [60] Jung, H., Chen, Y., Frandell, A., & Welch, E. (2024). Ties with benefits: Relationship between relational multiplexity, gender, and work-life balance. Review of Public Personnel Administration. https://doi.org/10.1177/0734371X241237562
- [61] Jung, W., Taflanidis, A. A., Kyprioti, A. P., Adeli, E., Westerink, J. J., & Tolman, H. (2023). Efficient probabilistic storm surge estimation through adaptive importance sampling across storm advisories. Coastal Engineering, 183, 104287.
- [62] Jung, Y. J., Chang, Y., Moon, J., Seo, J., Bonnette, R., Lee, J. Y., ... & Alstad, Z. (2024). Learning environments designed for and with learners with disabilities. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024 (pp. 1918-1925). International Society of the Learning Sciences. https://repository.isls.org/handle/1/10838
- [63] Justus, J., Hott, B. L., & Heiniger, S. (2023). Strategies for implementing planned ignoring in the elementary classroom. Beyond Behavior, 32(2), 80-92. https://doi.org/10.1177/10742956231162863
- [64] Kamala, V. V. R., Das, A. K., Sharma, A., Allen, J. K., & Mistree, F. (2023). A method for social entrepreneurs to develop value propositions for sustainable development. International Journal of Sustainable Development and Planning, 17(8), 2347-2356.
- Khademorezaian, K., Kosmopoulou, G., Connelly, S., Fichtel, M., Gujar, Y., & Sun, H. (2023). Technology use, work adaptation, and economic vulnerability during COVID-19. Southern Economic Journal, 90(1), 31-43. https://onlinelibrary.wiley.com/doi/abs/10.1002/soej.12634
- [66] Kim, Y., & Noyori-Corbett, C. (2024). Ethnic density as a key factor to narrow health disparities: A case of American Indian and Alaska Native. Health and Social Work.
- Korah, A., Koch, J. A., & Wimberly, M. C. (2024). Understanding urban growth modeling in Africa: Dynamics, drivers, and challenges. Cities, 146, 104734. https://www.sciencedirect.com/science/article/pii/S0264275123005462
- [68] Krutka, D. G., Heath, M. K., & Pleasants, J. (In press). Technoskepticism in social studies education. In B. Varga & E. Adams (Eds.), Always-already on the lookout: Searching for, enacting, and storying theory in social studies education. Teachers College Press.
- [69] Lambert, D. M., Ripberger, J. T., Jenkins-Smith, H., Silva, C. L., Bowman, W., Long, M. A., ... & Fox, A. (2024). Consumer willingness-to-pay for a resilient electrical grid. Energy Economics, 131, 107345. https://www.sciencedirect.com/science/article/pii/S0140988324000537
- [70] LaShaw, 2024. Dissertation of the Year Award (Semi-Finalist), Division J. American Educational Research Association.
  Dissertation title: "Let love lead": An ethnographic investigation of relationships, praxis, and love within a Black womenled leadership program at a PWI.

S

- [71] Lei, H., Koch, J., Shi, H., & Zhao, D. (2024). Is urban spatial expansion on track to achieve low-carbon cities? An empirical comparative study of Xi'an and Chengdu in western China. Ecological Indicators, 160, 111787. https://www.sciencedirect.com/science/article/pii/S1470160X24002449
- [72] Li, P., Wang, Z.-H., & Wang, C. (2024). The potential of urban irrigation for counteracting carbon-climate feedback. Nature Communications, 15, 2437. https://doi.org/10.1038/s41467-024-46826-3
- Li, Y., Wang, L., Chen, X., & Jin, R. (2024). Distributed data filtering and modeling for fog and networked manufacturing. IISE Transactions, 56(5), 485-496. https://www.tandfonline.com/doi/abs/10.1080/24725854.2023.2184884
- [74] Li, Z., Segura, L. J., Li, Y., Zhou, C., & Sun, H. (2023). Multiclass reinforced active learning for droplet pinch-off behaviors identification in inkjet printing. Journal of Manufacturing Science and Engineering, 145(7), 071002. https://asmedigitalcollection.asme.org/manufacturingscience/article/145/7/071002/1159788/Multiclass-Reinforced-Active-Learning-for-Droplet
- [75] Li, Z., Tsoodle, T., Chen, M., Gao, S., Zhang, J., Wen, Y., Yang, T., & Hong, Y. (2023, October). Future extreme rainfall and flood risks for Native America under climate and demographic changes: A case study in Oklahoma. Weather, Climate, and Society.
- Lipson, M. J., Grimmond, S., Best, M., Abramowitz, G., Coutts, A., Tapper, N., Baik, J.-J., Beyers, M., Blunn, L., Boussetta, S., Bou-Zeid, E., De Kauwe, M. G., de Munck, C., Demuzere, M., Fatichi, S., Fortuniak, K., Han, B.-S., Hendry, M., Kikegawa, Y., Kondo, H., Lee, D.-I., Lee, S.-H., Lemonsu, A., Machado, T., Manoli, G., Martilli, A., Masson, V., McNorton, J., Meili, N., Meyer, D., Nice, K. A., Oleson, K. W., Park, S.-B., Roth, M., Schoetter, R., Simón-Moral, A., Steeneveld, G.-J., Sun, T., Takane, Y., Thatcher, M., Tsiringakis, A., Varentsov, M., Wang, C., Wang, Z.-H., & Pitman, A. (2024). Evaluation of 30 urban land surface models in the Urban-PLUMBER project: Phase 1 results. Quarterly Journal of the Royal Meteorological Society, 150, 126–169. https://doi.org/10.1002/qj.4589
- [77] Long, M. A., León-Corwin, M., Peach, K., Olofsson, K. L., Ripberger, J. T., Gupta, K., ... & Jenkins-Smith, H. (2023). Watts at stake: Concern and willingness-to-pay for electrical grid improvements in the United States. Energy Research & Social Science, 102, 103179.
- [78] Lu, M., Zhou, C., Wang, C., Jackson, R. B., & Kempes, C. P. (2024). Worldwide scaling of waste generation in urban systems. Nature Cities, 1, 126–135. https://doi.org/10.1038/s44284-023-00021-5
- [79] Malloy, C. (2023). The consequences of wildfire liability for firm precaution: Evidence from power shutoffs in California. SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4780392
- McGovern, A., Ebert-Uphoff, I., Barnes, E. A., Bostrom, A., Cains, M. G., Davis, P., Demuth, J. L., Diochnos, D. I., Fagg, A. H., Tissot, P., & Williams, J. K. (2024). Al2ES: The NSF AI Institute for Research on Trustworthy AI for Weather, Climate, and Coastal Oceanography. AI Magazine, 45(1). https://onlinelibrary.wiley.com/doi/full/10.1002/aaai.12160
- [81] Minks, A. G. (2023). Indigenous audibilities: Music, heritage, and collections in the Americas. Oxford University Press. https://global.oup.com/academic/product/indigenous-audibilities-9780197532492?cc=us&lang=en&
- [82] Mooi, E., Wang, Q., Seggie, S., & Jap, S. D. (2024). The show must go on: The role of contract frames in safeguarding relationship continuity. Journal of the Academy of Marketing Science, 1-17. https://link.springer.com/article/10.1007/s11747-024-01023-y
- [83] Morgan, S., DeJong, C., & Worthen, M. G. F. (2023). Examining sexual identity in the context of general strain theory, school-based strain, depression, and delinquency. Victims & Offenders. https://doi.org/10.1080/15564886.2023.2255589
- [84] Native America Calling. (2024, April 22). Earth Day assessment: New climate report and oil leases.
- [85] Newbold, T. R., Burak, E. G. D., Leshner, G., Connelly, S., Wong, N., Lee, S. K., & Jang, S. (2024). COVID-19 vaccine messaging for young adults: Examining framing, other-referencing, and health beliefs. Health Psychology.
- [86] Noyori-Corbett, C., Sharma, Y., Bhattacharjee, S., Harden, M., & Ratcliffe, E. (2024). Social constructivist and rights-based analysis of global governance of statelessness: The case of the Rohingya. Journal of Human Rights and Social Work.
- [87] Parent preferences for peer connection in virtual mental health and parenting support platforms. (2024). Journal of Child and Family Studies. https://doi.org/10.1007/s41347-024-00408-8
- [88] Parrish, J., Pleasants, J., Reid, J., Mulvey, B., Peters-Burton, E., & Recker, A. (2024). Using epistemic network analysis to explore preservice teachers' ideas about the nature of engineering. Science & Education, 33(2), 301-326. https://doi.org/10.1007/s11191-022-00395-3
- [89] Peltier, C., Smarinsky, E. C., Brown, C. L., Lewis, O. J., & Lee, D. Y. (2024). Systematic review of data analysis decisions in counseling single-case research designs to inform best practices. Counseling Outcome Research and Evaluation. https://doi.org/10.1080/21501378.2024.2342588
- [90] Phenotypic environmental sensitivity and mental health during pregnancy and postpartum: Protocol for the experiences of pregnancy longitudinal cohort study. (2024). Journal of Medical Internet Research. https://doi.org/10.2196/49243
- [91] Pleasants, J. (2022-2024). Stories of engineering work. Instructional materials available at www.rennercenter.oucreate.edu/stories-of-engineering-work
- [92] Pleasants, J. (2024). Can ChatGPT help pre-service teachers analyze classroom discourse? Critical reflections from a science methods course. Innovations in Science Teacher Education, 9(2), 1-18. https://innovations.theaste.org/can-chatgpt-help-pre-service-teachers-analyze-classroom-discourse-critical-reflections-from-a-science-methods-course/
- [93] Pleasants, J. (2024). Critically examining the stories we tell about AI in education. Policy Insights #04: AI and Digital Inequities. NORRAG Publications. https://resources.norrag.org/resource/845/policy-insights-ai-and-digital-inequities

- [94] Pleasants, J. (2024). The humans and algorithms of music recommendation: A review of Computing Taste. Digital Humanities Quarterly, 18(2). http://www.digitalhumanities.org/dhq/vol/18/2/000576/000576.html
- [95] Pleasants, J., & Cavazos, A. (In press). Imagining just futures by thinking critically about technology: An approach in the informal STEM education context. In L. Bencze (Ed.), Mobilizing critical and altruistic science education. Springer.
- [96] Pleasants, J., & Radloff, J. (In press). Promoting a critical perspective on educational technology in a pre-service teacher education course. Journal of Technology and Teacher Education.
- [97] Pleasants, J., Krutka, D. G., & Nichols, T. P. (2023). What relationships do we want with technology? Toward technoskepticism in school. Harvard Educational Review, 93(4), 486-515. https://doi.org/10.17763/1943-5045-93.4.486
- [98] Pleasants, J., Ledford, B., Patrick, I., Fusselman, K., & Dew, D. (In press). Using stories of engineering to provide windows to real-world applications of science. The Science Teacher.
- Press, R., De Silva, D. G., Kosmopoulou, G., & Pownall, R. A. (2023). Surviving in the marketplace: The importance of network connectivity for art dealers. SSRN. https://www.sciencedirect.com/science/article/abs/pii/S0165176523003373
- [100] Randolph, K. M., Horn, A. L., Sears, J. A., Hott, B. L., & Willis, T. (2024). Remote coaching via technology in rural schools: Exploring three coaching models. Journal of Special Education Technology. Advanced online publication. https://doi.org/10.1177/01626434241263059
- Raymond, M., & Sherman, J. (2024). Authoritarian multilateralism in the global cyber regime complex: The double transformation of an international diplomatic practice. Contemporary Security Policy, 45(1), 110-140. https://www.tandfonline.com/doi/full/10.1080/13523260.2023.2269809
- Roland, A., Dressler, C., & Shreffler, K. M. (2024). Maternal postpartum bonding impairment and increased substance use to cope with pandemic-related stress. Frontiers in Health Psychology, 15, 1275857. https://doi.org/10.3389/fpsyg.2024.1275857
- [103] Russo, G. M. (2023). Use of electroencephalogram to detect bias in assessments (Invention Disclosure No. 2024-014). University of Oklahoma, Office of Technology and Commercialization.
- [104] Russo, G. M. (2024). Systems and methods for detecting a response bias in an individual (Provisional Patent No. 63/643,567). U.S. Patent and Trademark Office.
- Russo, G. M., Beeson, E. T., & Burt, I. (2024). Integrating neuroscience-informed counseling research into counseling practice. In T. A. Field, L. K. Jones, & L. A. Russell-Chapin (Eds.), Neurocounseling: Brain-based clinical approaches (2nd ed., pp. 269–286). American Counseling Association.
- [106] Russo, G. M., Jimenez, U., & Mir, C. P. (2023). Evaluation of neurofeedback in reducing depressive symptomology: A metaanalysis (ID No. CRD42023475999). National Institute for Health and Care Research: PROSPERO. https://www.crd.york.ac.uk/prospero/display\_record.php?ID=CRD42023475999
- [107] Satterthwaite-Freiman, M., Wantchekon, K. A., Aguilar, G., Sladek, M. R., Ison, A., Mason, P., Soto-Shed, E., & Umaña-Taylor, A. J. (2024). The challenges of engaging in conversations and activities focused on race, ethnicity, and identity in the classroom: Learning from U.S. based teachers. Identity. https://doi.org/10.1080/15283488.2024.2340489
- [108] Sex and gender measurement for scientific rigor and data harmonization across studies. (2023). Current Problems in Pediatric and Adolescent Health Care. https://doi.org/10.1016/j.cpnec.2023.100199
- [109] Shreffler, K. M., Dressler, C., Ciciolla, L., Wetherill, M. S., & Croff, J. M. (2024). Maternal periconception food insecurity and postpartum parenting stress and bonding outcomes. Frontiers in Nutrition, 11, 1275380. https://doi.org/10.3389/fnut.2024.1275380
- [110] Sladek, M. R., Umaña-Taylor, A. J., Neville, H. A., Ison, A., Martinez-Fuentes, S., Mason, P., Park, Y., Satterthwaite-Freiman, M., Soto-Shed, E., Safa, M. D., & Wantchekon, K. A. (2024). Professional development for providing time and opportunities for change in U.S. teachers' ethnic-racial identity. Identity. https://doi.org/10.1080/15283488.2024.2366892
- Tian, C. A., Jensen, M. L., & Durcikova, A. (2023). Phishing susceptibility across industries: The differential impact of influence techniques. Computers & Security, 135, 103487. https://www.sciencedirect.com/science/article/abs/pii/S0167404823003978
- [112] Tian, C., Jensen, M. L., Bott, G., & Luo, X. (2024). The influence of affective processing on phishing susceptibility. European Journal of Information Systems, 1-15. https://www.tandfonline.com/doi/abs/10.1080/0960085X.2024.2351442
- Umaña-Taylor, A. J., Sladek, M. R., & Safa, M. D. (2024). Teachers' implementation of the Identity Project is associated with increases in U.S. high school students' ethnic-racial identity exploration. Journal of Youth and Adolescence. https://doi.org/10.1007/s10964-024-01955-2
- [114] Vukomanovic, J., Smart, L. S., Koch, J., Dale, V. H., Plassin, S., Byrd, K. B., ... & Doyon, F. (2023). Translating stakeholder narratives for participatory modeling in landscape ecology. Landscape Ecology, 38(10), 2453-2474. https://link.springer.com/article/10.1007/s10980-023-01724-9
- [115] Wade, T., McConomy, A., Heiniger, S., Root, J. R., & Hott, B. L. (2023). Using technology to assess IEP goal progress during virtual learning. Journal of Special Education Technology, 38(1), 102-110. https://doi.org/10.1177/01626434221074054
- [116] Wang, C., Song, J., Shi, D., Reyna, J., Horsey, H., Feron, S. C., Zhou, Y., Ouyang, Z., Li, Y., & Jackson, R. B. (2023). Impacts of climate change, population growth, and power sector decarbonization on urban building energy use. Nature Communications, 14, 6434. http://doi.org/10.1038/s41467-023-41458-5
- [117] Wang, D., Choi, J.-K., & Jiang, Q. (2024). Cooperative coparenting and the associations with adolescent behavioral problems and delinquency in unmarried families. Journal of Adolescence. https://doi.org/10.1002/jad.12310
- [118] Wang, D., Tu, X., de Guzman, M. R., & Xia, Y. (2023). Parenting beliefs and practices of immigrant Chinese in the Midwest area: A qualitative study. Journal of Family Issues. https://doi.org/10.1177/0192513X231209045

- [119] Wicker, P. D., & Washington, L. F. (2023, October). Navigating scholar friendships and relationships on the academic job market. Chronicle of Higher Education. https://www.chronicle.com/article/how-to-stay-friends-on-the-faculty-job-market
- [120] Wiley, A., Marshall, A., Person, A., & Peppler, R. (2023). Collegial or contentious? Reflections on an interdisciplinary panel discussion about an oil pipeline. Studies in Social Justice. https://doi.org/10.26522/ssj.v17i3.4219
- Wimhurst, J. J., Greene, J. S., & Koch, J. (2023). Predicting commercial wind farm site suitability in the conterminous United States using a logistic regression model. Applied Energy, 352, 121880. https://www.sciencedirect.com/science/article/pii/S0306261923012448
- [122] Worthen, M. G. F. (2024). Anti-femininity or gender-nonconformity prejudice? An investigation of femme, twink, and butch LGBTQ victimization using norm-centered stigma theory. Critical Criminology. https://doi.org/10.1007/s10612-024-09753-9
- Worthen, M. G. F. (2024). Interrogating the use of LGBTQ slurs: Still smearing the queer? New York: Routledge.
- [124] Worthen, M. G. F., & Jones, M. S. (2024). "Homophobia" in the country? Rural America and the stigmatization of LGBTQ people: An empirical test of norm-centered stigma theory. Rural Sociology, 89(1), 63-85.
- [125] Worthen, M. G. F., & Schleifer, C. (2024). #MeToo and sexual violence reporting in the National Crime Victimization Survey. Journal of Interpersonal Violence. https://doi.org/10.1177/08862605241234355
- [126] Wu, Y., Ye, H., Jensen, M. L., & Liu, L. (2024). Impact of project updates and their social endorsement in online medical crowdfunding. Journal of Management Information Systems, 41(1), 73-110. https://www.tandfonline.com/doi/abs/10.1080/07421222.2023.2301173
- Yang, X., Wang, Z.-H., Wang, C., & Lai, Y.-C. (2024). Megacities are causal pacemakers of extreme heatwaves. npj Urban Sustainability, 4, 8. https://doi.org/10.1038/s42949-024-00148-x
- [128] Yu, Z., Chen, J., Chen, J., Zhan, W., Wang, C., Ma, W., Yao, X., Zhou, S., Zhu, K., & Sun, R. (2024). Enhanced observations from an optimized soil-canopy-photosynthesis and energy flux model revealed evapotranspiration-shading cooling dynamics of urban vegetation during extreme heat. Remote Sensing of Environment, 305, 114098. https://doi.org/10.1016/j.rse.2024.114098
- [129] Zumpe, E. (2024). School improvement at the next level of work: The struggle for collective agency in a school facing adversity. Journal of Educational Change. https://doi.org/10.1007/s10833-023-09500-x
- [130] Zumpe, E., & Aramburo, C. (2023). Developing enabling conditions for continuous improvement: Building foundational team "habits of mind." In E. Anderson & S. Hayes (Eds.), Continuous improvement: A leadership process for school improvement (pp. 187-204). Information Age Publishing. https://www.infoagepub.com/products/Continuous-Improvement



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