

GOOD SYSTEMS

Fiscal Year 2024 Annual Report



The University of Texas at Austin
Research Development
*Vice President for Research, Scholarship
and Creative Endeavors*

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Designing AI technologies that benefit society is our grand challenge.

AI technologies are permeating nearly every industry and discipline, aiding in solving complex problems. However, these powerful tools also have the potential to cause unintended harm. It is therefore crucial to consider not just what AI can do, but what it *should* — and should not — do.



Through its six core research projects, Good Systems investigators aim to better understand the changes new AI technologies will bring, predict how those changes will unfold and mitigate potential harms or unintended consequences while leveraging AI's benefits. The grand challenge's interdisciplinary teams span 34 disciplines across campus at The University of Texas at Austin, encompassing technologists, humanists and social scientists. (For a complete list of participating colleges and departments, refer to the Good Systems team members at the end of this report.) These teams collaborate with city and state government, nonprofits, industry and community partners to investigate how to define, evaluate and build ethical AI systems to positively transform society.

At the heart of these teams' research is the definition of what makes for a "good" system. The grand challenge considers a good system to be a socially beneficial human-AI partnership that is driven by values like agency, equity, trust, transparency, democracy and justice.

"We believe good systems are all about human-AI partnerships. That's why our orientation is toward putting the human in control, having the human be the active part of that, and the AI is augmenting a tool that the worker is using, assisting the worker in performing their tasks but not performing the task [for them]."

— Kenneth R. Fleischmann,
School of Information

Good Systems Highlights in Numbers

EXPANDING NETWORKS

- 140** active researchers
- 34** UT departments & disciplines
- 12** schools & colleges
- 32** external partners
- 27** hosted events over the past year

ENGAGING STUDENTS

86 undergraduate & graduate student researchers

SCHOLARLY OUTPUT & PUBLICITY

- 44** scholarly works acknowledging Good Systems support published over the past year
- 24** news articles over the past year

BUILDING CAPACITY

\$19.5M awarded in external funding to date

Program Achievements

Research

Good Systems' six **core research projects** explore critical areas within ethical AI:

- **Designing AI to Advance Racial Equity**
- **Being Watched: Embedding Ethics in Public Cameras**
- **Smart Hand Tools: Building the Future of Work with Ethical AI**
- **Designing Responsible AI Technologies to Protect Information Integrity**
- **A Good System for Smart Cities**
- **Living and Working with Robots**

In Fiscal Year 2024, all six multiyear projects continued to make progress in defining, evaluating and building ethical AI systems; highlights from three of the projects follow.



Elliott Hauser from the School of Information leads a session during the “Living and Working with Robots” project’s “Incidental Encounters with Robots” workshop in March 2024. Credit: Charles Quinn

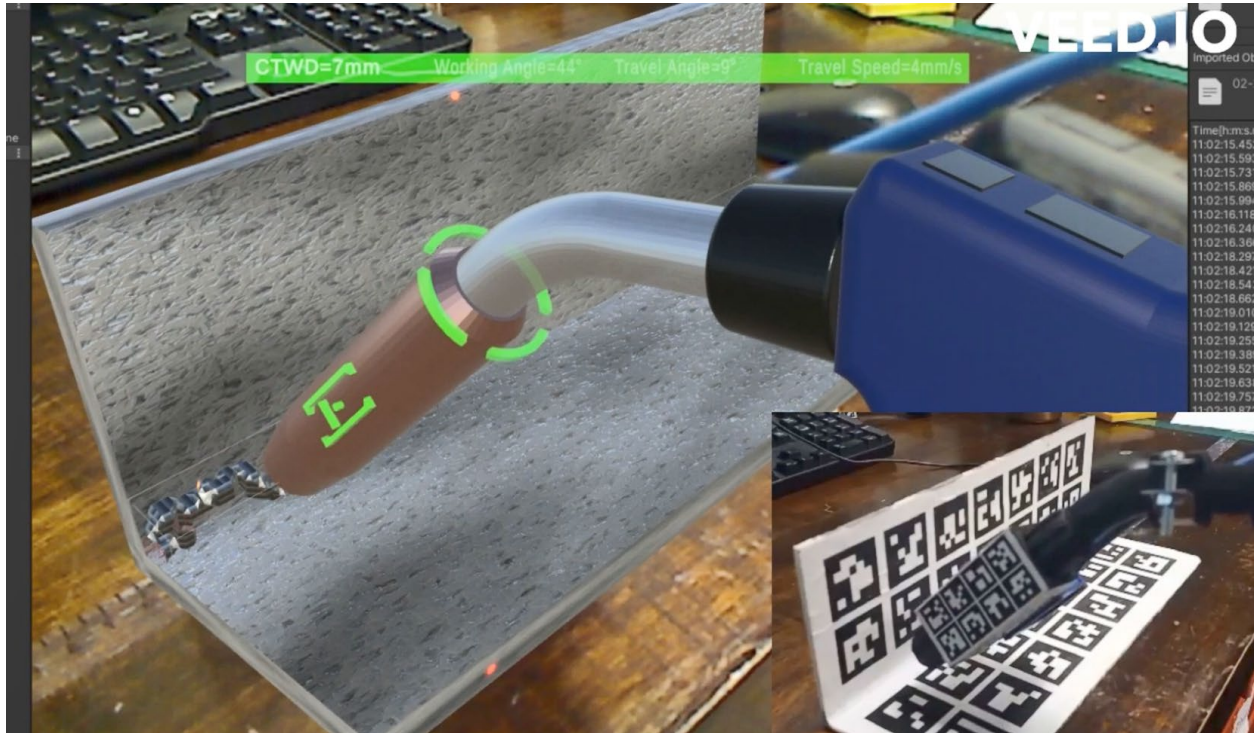


Mechanical engineering student Rachel New (left) and School of Information student Daisy Pinaroc (right) work with an AI-assisted rotary tool.

Making Smart Tools Work for Everyone

One of Good Systems' core projects, **“Smart Hand Tools: Building the Future of Work with Ethical AI,”** is integrating AI into hand tools to empower skilled trade workers by improving safety, training and accessibility. In one of its application areas, the Smart Tools team aims to **make welding safer by integrating AI into welding torches**, which will, they hope, address some safety concerns and make the workplace more accessible to a diverse range of potential workers. “We believe good systems are all about human-AI partnerships,” said **Kenneth R. Fleischmann** (School of Information), the Smart Tools project lead. “That’s why our orientation is toward putting the human in control, having the human be the active part of that, and the AI is augmenting a tool that the worker is using, assisting the worker in performing their tasks but not performing the task [for them].”

The research team collaborated with Austin Community College (ACC) on a participatory design approach, conducted focus groups with welding students, and made site visits



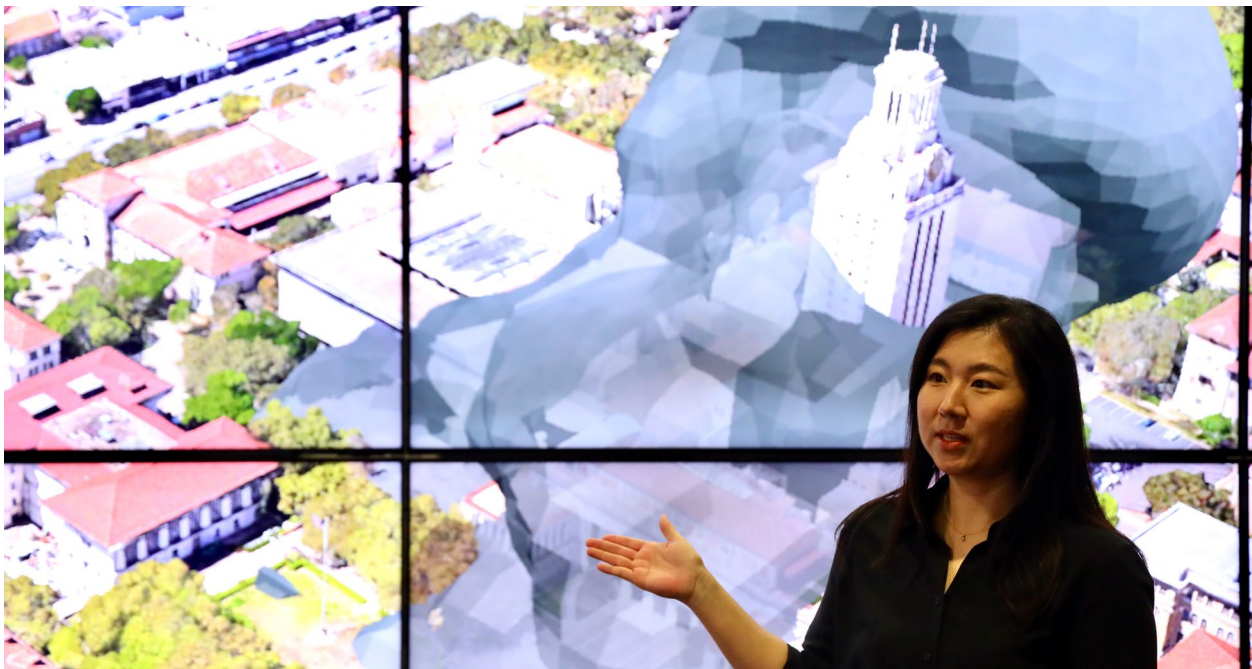
A still from a video demonstration of Carlos Salazar's AI-assisted welding tool prototype. The main screen shows the user's point of view (i.e., augmented reality), with the actual tool displayed in the inset on the bottom right.

in the classroom to understand future welders' needs and inform the design of the tool. Based on their learnings, mechanical engineering doctoral student Carlos Salazar designed an augmented-reality simulator (see image above) that helps welders build muscle memory and receive instant feedback in a safe virtual environment, which can both reduce injuries and improve the quality of their work in the real world. Troy DeFrates, a former welding instructor and chair of the welding technology department at ACC who worked extensively with the Smart Tools team, said that the partnership has been a symbiotic one. "I think they really did a great job trying to get a good, holistic feel for how we all teach — not just one instructor, but multiple instructors," he said. "And our students love it. They want to talk about what they're learning. I think it helped them develop the soft skills that a lot of our students don't typically get."

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A Good System for Smart Cities

As part of the “**A Good System for Smart Cities**” core research project, **researchers are developing digital twin models** of critical city infrastructure. These virtual replicas can ingest real-time data to simulate and predict how changes or events may impact aspects of city life and sustainability like traffic, housing, energy usage and disaster response. By testing scenarios in these digital environments first, city planners and decision-makers can better understand the potential effects and make more informed choices. “It’s a two-way street,” said **Junfeng Jiao** (School of Architecture), Smart Cities project team lead. “We collect the data from the physical world and run simulations in the digital world, but we also use the simulation results to optimize what we’re controlling in the physical world. So, it’s not just a monitoring system. It’s a monitoring system, plus a control optimization system.”



Researcher Kijin Seong from the School of Architecture explains a simulation of how smoke plumes might travel across Austin if the UT Tower were to catch fire. Seong is part of the “Good System for Smart Cities” core research project.

The project takes an interdisciplinary approach that combines AI, data analytics, urban planning and community engagement to ensure the digital twin models reflect the needs of residents and promote sustainable, equitable solutions for managing cities as urban populations rapidly grow.

Read more about digital twins and **watch this video** to learn more about how Good Systems is collaborating with the City of Austin.



S. Craig Watkins from the Moody College of Communication speaks as a panelist at the 2024 Good Systems Smart Cities and Generative AI Symposium.

Designing AI to Advance Racial Equity

In January, a multi-university research team including researchers from the Good Systems project “**Designing AI to Advance Racial Equity**” received a grant from the National Institutes of Health (NIH) to develop AI-based interventions to address the disproportionately high risk of suicide among Black youth. The UT Austin team will work with researchers from Cornell University and in collaboration with Prairie View A&M and Tuskegee University in Alabama, two historically Black universities.

The project aims to identify risk factors by using natural language processing to analyze data from death reports in collaboration with community stakeholders, including healthcare professionals and nonprofits. “We suspect there are a variety of issues that combine to create a powerful, if not deadly, recipe for the outcomes we are seeing,” said one of the project leaders, IC² Institute Director **S. Craig Watkins** (School of Journalism and Media, Moody College of Communication). “Our goal in this project is to develop more relevant artificial intelligence and machine learning algorithms to address these real-world health problems in a way that’s responsible, ethical and equitable.”

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—S. Craig Watkins, Moody College of Communication

The goal is to create models that can better understand the complex issues contributing to the mental health crisis among Black children and adolescents. The team will work alongside community partners at every stage of the research process to build trust, identify relevant questions and design effective interventions tailored to the specific needs of this population. The project is being led by professor **Ying Ding** (School of Information) and includes professor **Yan Leng** (McCombs School of Business).

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Ethical AI Research Traineeship Program

Over the last decade, the National Science Foundation (NSF) has been working to advance high-impact interdisciplinary research that will position society to use AI for the greater good, creating a framework for building ethical and trustworthy AI systems. **NSF's National Research Traineeship (NRT)** program is at the forefront of that effort, supporting a new generation of AI researchers committed to exploring how AI can be directed to support equity and well-being in society.



NRT-AI program director Junfeng Jiao (fifth from left), along with colleagues Kenneth R. Fleischmann (fourth from left) and Peter Stone (middle), pose with the NSF NRT Ethical AI trainees.

One of those NRT programs, **NRT-AI: Convergent, Responsible, and Ethical Artificial Intelligence Training Experience**, was developed at UT Austin by Good Systems and **Texas Robotics** faculty committed to expanding the ethical use of AI. Experts in fields ranging from computer science and robotics to aerospace engineering are partnering with graduate students to pursue cutting-edge AI research focused on social good. Led by program director **Junfeng**

Jiao (School of Architecture), UT Austin's 14 trainees work across disciplines to imagine and design human-centered ethical AI systems and standards. **The program** includes six elements: interdisciplinary coursework, research opportunities, mentorship, professional development, internships and public service. Trainees work closely with faculty advisors to explore individual research projects aligned with their interests, such as developing AI for smart cities, improving generative AI, reducing disinformation and creating AI-enabled tools to make industrial jobs safer.

Read more about the **program** and two of UT's trainees, **Chelsea Collier** and **Connor Phillips**.

Engagement

The Year of AI

In 2024, Good Systems played a pivotal role in UT Austin's **Year of AI** campaign, a university-wide initiative showcasing the strengths of AI research and education across the University. This year-long effort aimed to increase awareness of UT Austin's leadership in interdisciplinary AI research and share insights with a broader public. The campaign included special news stories, new partnerships, enhanced collaboration opportunities and participation in signature events such as SXSW. Good Systems leaders **S. Craig Watkins** (School of Journalism and Media, Moody College of Communication), **Peter Stone** (Computer Science, College of Natural Sciences) and **Sherri Greenberg** (LBJ School of Public Affairs) were featured in the **announcement video**, with Greenberg emphasizing the initiative's core mission: "We are invested in ensuring that AI works for the good of society."

The Year of AI embodied the spirit of UT Austin's 10-year "**Change Starts Here**" strategic plan, setting a precedent for more unified efforts to invite people to benefit from the University's resources. Through innovative storytelling, public programs and community outreach, the Year of AI campaign helped a wider audience understand UT Austin's strategic and longstanding focus on AI and society, its unique interdisciplinary approach and the wide-ranging applications and implications of its research. It also highlighted the University's responsive educational offerings and cross-sector partnership opportunities, underscoring Good Systems' central role in shaping UT Austin's approach to AI research and development, with a focus on ethical and societal implications.

Good Systems Annual Symposium

The fourth annual **Good Systems Symposium** brought together an interdisciplinary and cross-sector community of more than 200 faculty, researchers, students, professionals and partners to dive deep into the most urgent opportunities and challenges in ethical and responsible AI. Attendees represented more than 13 colleges and schools and nine administrative and research units at UT Austin, as well as industry leaders including Google AI, Indeed, Kungfu.AI and AMD; nonprofit innovators MITRE and MEASURE; and local and state elected officials.



Emily Norman, a doctoral student from the Moody College of Communication, presents research from the “Living and Working with Robots” project to an attendee at the 2024 Good Systems Symposium poster session. Credit: Brian Birzer

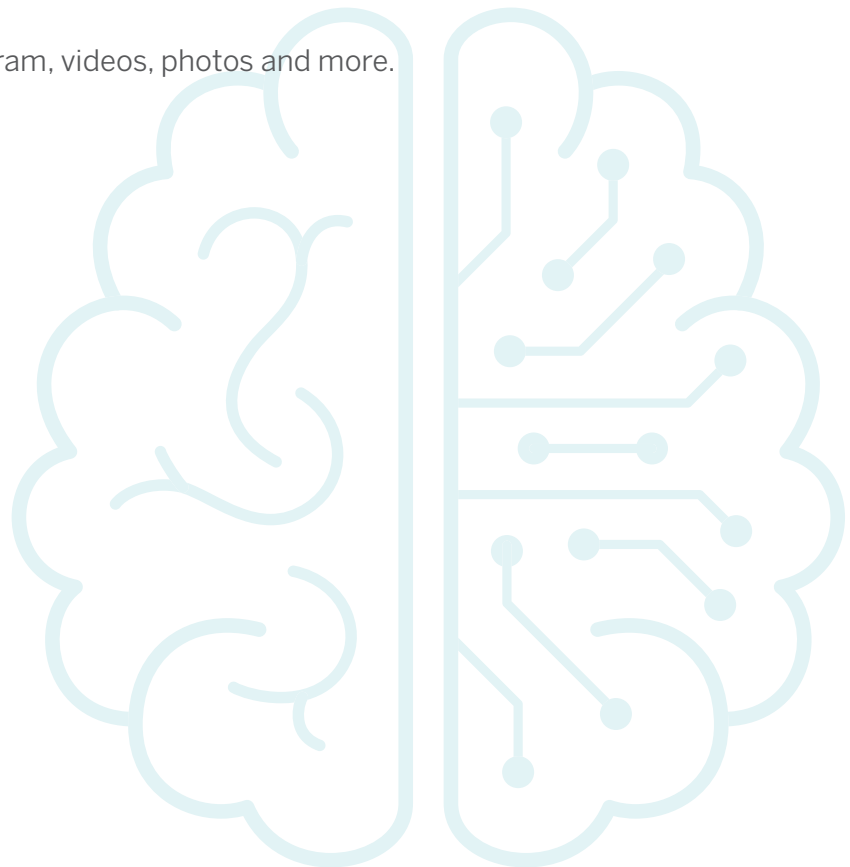
Keynotes from Northwestern University’s Dr. Kristian Hammond on amplifying human capabilities and the future of large language models, and from Cornell Tech’s Dr. Helen Nissenbaum on the privacy theory of contextual integrity, anchored the program. In sessions dedicated to showcasing Good Systems research, faculty and their partners shared outputs from the core research projects, including:

- Digital twin technologies in smart cities: **Jun-Whan Lee**, (Maseeh Department of Civil, Architectural and Environmental Engineering, Cockrell School of Engineering), **Kijin Seong** (School of Architecture) and Lonny Stern, executive director of Austin nonprofit Movability

- AI tools that assist and empower fact-checkers: **Greg Durrett** (Computer Science, College of Natural Sciences)
- Tools and methods that can help society navigate new challenges in privacy: **Junyuan Hong** (Chandra Family Department of Electrical and Computer Engineering, Cockrell School of Engineering)
- AI and the future of augmented behavioral health care: **S. Craig Watkins** (School of Journalism and Media, Moody College of Communication) and **Ruben Rathnasingham** (Dell Medical School)
- AI-enabled welding tools: Carlos Salazar (Walker Department of Mechanical Engineering, Cockrell School of Engineering) and Troy DeFrates (Austin Community College)
- Integration of LLMs and robotics with a demo of a robot tour guide: **Justin Hart** (Computer Science, College of Natural Sciences) and **Yifan Xu** (Communication Studies, Moody College of Communication)

The program also included a panel discussion on generative AI and the new landscape of work, with speakers from Google AI, the Texas Department of Information Resources, Indeed and UT Austin’s Academic Affairs. Panelists emphasized the importance of human decision-making and honing critical thinking skills as we incorporate AI tools into our workflows and education systems.

Explore the symposium program, videos, photos and more.



Policymaker Engagement

Throughout FY24, Good Systems researchers were active in **informing AI policy** in Austin and beyond.

In April, **UT President Jay Hartzell met with members of Texas's congressional delegation** in Washington, D.C. Accompanied by Good Systems' **S. Craig Watkins** (School of Journalism and Media, Moody College of Communication) and Samantha Shorey (Communication Studies, Moody College of Communication), Hartzell advocated for increased federal support of public AI research and workforce initiatives and emphasized the crucial role of public universities in advancing AI research and development. He urged lawmakers to support legislation that would bolster funding for AI research, enhance partnerships between academia and industry and address the growing demand for an AI-skilled workforce.



From left, Peter Stone, Matthew Lease, Sherri Greenberg and S. Craig Watkins participated in the Ethics and Policy of AI panel at the TAMEST (Texas Academy of Medicine, Engineering, Science & Technology) Conference held at the AT&T Conference in February 2024.

One month earlier, **Matthew Lease** (School of Information), along with colleagues **Luis Sentis** (Aerospace Engineering and Engineering Mechanics, Cockrell School of Engineering) and **Peter Stone** (Computer Science, College of Natural Sciences), met with Pentagon officials as part of a University delegation that was invited to visit Adm. Christopher W. Grady, vice chairman of the Joint Chiefs of Staff, and science and technology advisors as part of a pilot program to enhance Joint Staff engagement with academic research

partners. Additional faculty from across the University also attended the meeting organized by **Defense Research Advancement**.

At the state level, Lease provided expert testimony to the **Texas House Committee on AI and Emerging Technologies**, offering key recommendations on transparency, data provenance and cross-sector collaboration. The Committee's **Interim Report** was published in May. "It was an honor to contribute to this important dialogue at the state level," Lease said. "As AI becomes increasingly integrated into our daily lives, it's crucial that policymakers understand both its capabilities and the associated risks."

Locally, Good Systems researchers **Sherri Greenberg** (LBJ School of Public Affairs) and **Sharon Strover** (School of Journalism and Media, Moody College of Communication) collaborated with Austin City Council Member Vanessa Fuentes to inform a resolution establishing ethical guidelines for the City's use of AI technologies. The **resolution**, which passed unanimously, emphasizes transparency, community engagement and regular audits to prevent bias. The collaborative efforts between academia and policymakers are helping to ensure that AI development in Texas and beyond aligns with societal values and needs.

[READ MORE](#)

"As AI becomes increasingly integrated into our daily lives, it's crucial that policymakers understand both its capabilities and the associated risks."

— Matthew Lease, School of Information



Leading Voices in Ethical AI

Good Systems researchers represent a wide range of disciplines and have become a go-to source of information and insight for the media, policymakers, industry leaders and peers in academia.

Good Systems Leaders Break Down Ethics of AI

Last winter, *Alcalde*, the official publication of the Texas Exes, interviewed Good Systems' **Sherri Greenberg** (LBJ School of Public Affairs), **Peter Stone** (Computer Science, College of Natural Sciences), **Sharon Strover** (School of Journalism and Media, Moody College of Communication), and **Kate Canales** and **Michael Baker** (both from the School of Design and Creative Technologies, College of Fine Arts) for a feature story about AI technologies, their societal implications and the ethical questions they raise. In the piece, "**Society Faces Tough Choices About Artificial Intelligence**," the contributors elucidated "five of the most important concepts for beginners": definitions of AI, sociotechnical issues, policy guardrails, education and AI literacy.

Stone compared AI to other major technological innovations — cars, airplanes, the internet and so on — that have upended the status quo. "Every one of those technologies has improved life in some ways and made life more difficult or been harmful to society in some ways," Stone said. "It's up to society to do what we can to steer the technology so there are more positive outcomes than negative."

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Good Systems at SXSW

With AI once again a hot topic at the international South by Southwest (SXSW) conference, Good Systems experts were featured in five sessions, bringing ethics and responsibility to the forefront of cross-sector conversations on the global stage:

- "**How Human is Too Human? Our Relationships with AI & Robots**" – SXSW Interactive fireside chat featuring **Luis Sentis** (Aerospace Engineering and Engineering Mechanics, Cockrell School of Engineering)
- "**The Truth Might Hurt: Media Literacy, Factchecking & Beyond**" – SXSW Interactive panel featuring past chair and founding member **Sharon Strover** (School of Journalism and Media, Moody College of Communication)

"It's up to society to do what we can to steer the technology so there are more positive outcomes than negative."

— Peter Stone, College of Natural Sciences

- **“AI-Enabled Robots: Possibilities, Challenges and Ethics”** – SXSW Interactive panel featuring **Peter Stone** (Computer Science, College of Natural Sciences)
- **“Generative AI in Class: Perspectives from Women Leaders”** – SXSW EDU workshop co-led by **Sherri Greenberg** (LBJ School of Public Affairs) and **Julie Schell** (School of Design and Creative Technologies, College of Fine Arts)
- **“How to Train a Humanoid Robot”** – SXSW Interactive workshop led by **Luis Sentis** and three students from his **Human-Centered Robotics** lab

Generation AI

Last spring, Good Systems partnered with **UT Austin’s The Drag Audio Production House**, a student-led program in Texas Student Media, to produce **Generation AI**, a six-part podcast exploring how AI is transforming the way we live, work, teach, learn and connect with each other. Topics included AI’s impact on election mis- and disinformation, ChatGPT and the future of large language models, how AI is making cities smarter, how surveillance technology can improve public safety, and how AI is being used to enhance skilled-trade work. “I think we need to have a slightly higher standard for autonomous cars just to get public acceptance, but I think that the bar is too high right now,” said **Peter Stone** (Computer Science, College of Natural Sciences), in the episode about the benefits and tradeoffs of autonomous vehicles. “It’s clear to me it would be a very easy societal trade off if we could move from 40,000 traffic deaths a year down to 4,000 traffic deaths a year. There’d be 36,000 lives a year saved. If you can save many lives through autonomy, then we should do that, even if we’re still far short from perfection.”

[LISTEN HERE](#)



“Essentials of AI” and More

As the influence of AI tools in the classroom and workplace increases and their wide-ranging applications become more evident, the need for AI literacy has become more urgent. To help advance AI literacy, Good Systems partnered with UT Austin’s Department of Computer Science in the fall of 2023 to develop “**The Essentials of AI for Life and Society**,” a 1-credit course uniquely available to all UT Austin students, faculty and staff, regardless of major or department. Taught by Computer Science Chair **Don Fussell** and Good Systems’ **Peter Stone** and **Joydeep Biswas** (both from Computer Science, College of Natural Sciences), the “Essentials of AI” course was designed to be a gentle introduction to artificial intelligence. Several hundred students, faculty and staff took the class, which covered the types of AI and their applications as well as the risks, benefits and societal impacts of AI technologies. The **course materials** are available to the public, with the lecture recordings **archived**. A new 3-credit course, which has been awarded the ethics flag, will debut in fall 2024.

“Essentials of AI” was not the only course Good Systems researchers helped develop. Professor **Kenneth R. Fleischmann** (School of Information) developed and taught the new **Master’s of Artificial Intelligence** (MSAI) program’s only required course, “Ethics in AI,” and **Sharon Strover** (School of Journalism and Media, Moody College of Communication) and **Junfeng Jiao** (School of Architecture) offered Good Systems’ signature course for first-year students “Ethical AI: Good Systems.”

Good Systems Headlines

In FY24, Good Systems received nationwide media coverage on TV, in print and online.

External News Features and Mentions

- 9/29/2023 **Chat GPT-4 Update: Latest Update and the Case for Coexisting With AI** Popular Mechanics
- October 2023 **Advancing Ethical Artificial Intelligence Through the Power of Convergent Research** National Science Foundation
- 12/13/2023 **Hays County Approves AI Facial Recognition Technology for Sheriff's Office** KXAN
- 12/18/2023 **This Engineering Team is Defining How Robots Share our Spaces** Quartz
- Jan/Feb 2024 **Society Faces Tough Choices About Artificial Intelligence** Alcalde
- 4/4/2024 **Dr. S. Craig Watkins on Why AI's Potential to Combat or Scale Systemic Injustice Still Comes Down to Humans** Unlocking Us with Brené Brown
- 4/7/2024 **Automated Vehicles** Spectrum News
- 4/30/2024 **The Growing Union Drive in Tech** Texas Standard, KUT

UT Austin News Coverage

- 1/23/2024 **2024 to be 'Year of AI' at UT** The Daily Texan
- 1/31/2024 **UT Austin, Cornell Researchers Developing AI Interventions to Address Suicide Rates Among Black Youth** UT News
- 2/12/2024 **Texas Career Engagement Panel Examines Ethical Considerations of AI in the Workplace** The Daily Texan
- 2/12/2024 **Well-Trained Eyes Stay Focused on the Big Picture** UT News
- 2/22/2024 **"Don't Believe the Hype": Good Systems Hosts Roundtable Discussion on Perceptions of AI Perpetuated by Media** The Daily Texan
- 2/29/2024 **Importance of Ethical AI** The Daily Texan

UT Austin OVPB Communications

- 9/5/2023 **Looking Forward: Good Systems Leaders & Partners on Opportunities and Challenges in Ethical AI**
- 9/13/2023 **Changing of the Good Systems Chairs**
- 9/20/2023 **Good Systems Awards Funding to Advance Ethical AI Research in Core Project Areas**
- 12/15/2023 **Where Sparks Fly: Transforming Welding With AI-powered Hand Tools**
- 1/26/2024 **Responsible Data Handling in the Age of AI: Insights From Good Systems' Sharon Strover and Amy Kristin Sanders**
- 3/19/2024 **"People Conflate Privacy With Secrecy" — An Interview with Good Systems Symposium Keynote Speaker Helen Nissenbaum**
- 6/24/2024 **Twins City: Good Systems Project Leverages Digital Twins to Make Austin Smarter**
- 7/5/2024 **Cultivating Interdisciplinary Collaboration**
- July 2024 **City of Austin Office of Resilience Manager Marc Coudert on Innovation**
- 08/19/2024 **Good Systems, Great Policy: How Researchers Are Informing AI Policy, Locally and Nationwide**

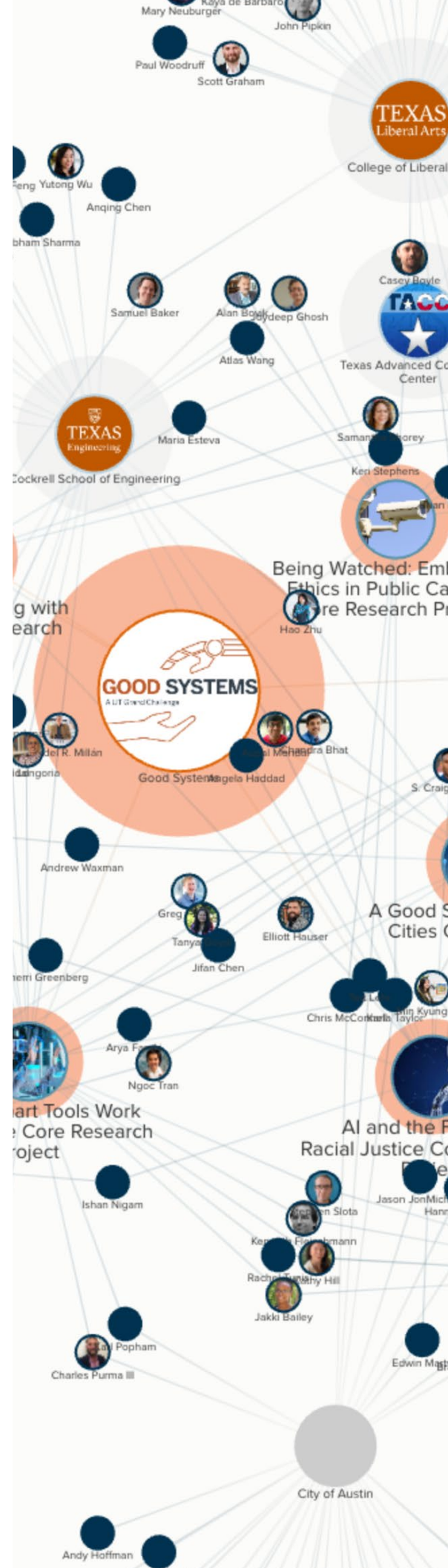
Creating Connections

Good Systems' growing network of researchers draws from nearly every college and school on campus, from the Cockrell School of Engineering to the College of Liberal Arts and the College of Natural Sciences to the LBJ School of Public Affairs. This intellectual diversity is crucial to fostering interdisciplinary research, a key component of the program's success.

Collaborative partnerships extend beyond the University. Good Systems expanded its partnerships locally with the City of Austin and Austin Community College and became a founding member of the new nonprofit Austin AI Alliance. Good Systems also grew national and international partnerships with MITRE, the UKRI Trustworthy Autonomous Systems Hub, and Responsible AI UK, which aim to spark creative, collaborative research that will translate into real-world solutions. This year, Good Systems increased its engagement with policymakers, serving as a resource for the bipartisan, bicameral Texas Innovation and Technology Caucus, informing the City of Austin's AI resolution, and meeting with leaders from the EU Parliament, among other efforts. The Executive Team also brought together a values-aligned group of peer university programs focused on responsible AI, forming a community of practice with Harvard University's Berkman-Klein Center, Johns Hopkins University's Institute for Assured Autonomy, Rutgers Critical AI, North Carolina State's AI and Society and Carnegie Mellon University.

At the project level, researchers expanded relationships with community groups such as Movability, the Austin Digital Inclusion movement, the Austin Public Library and more. Four core research teams convened advisory councils to facilitate ongoing dialogue with key stakeholders across sectors.

Explore the [interactive network map](#) to see how different researchers, schools and organizations are connected to Good Systems. Search by name, College/School/Unit, or project, or click any node on the map and pause to see its connections appear. You can magnify or expand the view, and you can click on any individual to see which projects they've been affiliated with.



Funded Grants

Through FY24, Good Systems researchers have received over \$19.5 million in external grants, gifts and awards that directly enable the grand challenge's work. External awards from the past fiscal year are listed below.

National Institutes of Health

Use AI/Machine Learning to Address Behavioral Health Crises Among Black Youth
\$998,739
Ying Ding, School of Information

U.S. Department of Transportation

AI Enabled Smart Transportation System
\$335,000
Junfeng Jiao, School of Architecture

City of Austin

Multilingual AI-Assisted Emergency Preparedness: Enhancing Resilience and Equity in Underserved Communities During Climate Change-Induced Weather Events
\$99,812
Lucy Atkinson, Moody College of Communication

Episcopal Health Foundation

Designing AI for Diverse Mental Health Care Providers
\$88,470
S. Craig Watkins, Moody College of Communication

Amazon Science Hub

Verifying Factuality of Limited Language Models with Limited Language Models
\$70,500
Greg Durrett, College of Natural Sciences

Microsoft Research

Providing Natural Language Decision-Support via Large Language Models
\$50,000
Matt Lease, School of Information

Good Systems Partners

Good Systems partners with individuals and groups from the following departments, organizations, and institutions.

Internal

Center for Analytics and Transformative Technologies

Humanities Institute

IC² Institute

Institute for Foundations of Machine Learning (IFML)

Machine Learning Lab (MLL)

RGK Center for Philanthropy and Community Service

Texas Career Engagement Career Services

Texas Robotics

The Drag Audio Production House / Texas Student Media

University Marketing and Communications

Visual Arts Center

External

Austin AI Alliance

Austin Community College

Austin Forum on Technology and Society

Austin Regional Manufacturers Association

Carnegie Mellon University

Chequeado

City of Austin

City of San Antonio

Federation of American Scientists

Full Fact

Good Tech Advisory LLC

Harvard Berkman-Klein Center

Huston-Tillotson University

Jail to Jobs

Johns Hopkins University Institute for Assured Autonomy

KUNGFU.AI

Meedan

Massachusetts Institute of Technology (MIT)

MITRE

Movability

NIST AI Safety Institute Consortium

North Carolina State University AI & Society Program

Northeastern University

Public Interest Technology University Network (PIT-UN)

Responsible AI UK (RAi UK)

Rutgers Critical AI

Sony AI

Texas Tribune Festival

Texas Innovation and Technology Caucus

UKRI Trustworthy Autonomous Systems Hub

University of Houston

University of Kentucky

Publications

In FY24, Good Systems researchers continued to make advancements through successful multi-disciplinary collaborations that resulted in numerous discoveries recorded in peer-reviewed articles and conference papers. Publications from the previous fiscal year are listed below; nearly all are available online.

- Chan, Yao-Cheng, and Elliott Hauser. [Understanding Reactions in HUMAN-ROBOT Encounters with Autonomous Quadruped Robots](#). *Proceedings of the Association for Information Science and Technology* 60, no. 1 (October 2023): 86–97.
- Choi, Seung Jun, and Junfeng Jiao. [Developing a Transit Desert Interactive Dashboard: Supervised Modeling for Forecasting Transit Deserts](#). Edited by Xiao-Dong Yang. *PLOS ONE* 19, no. 7 (July 24, 2024): e0306782.
- Choi, Seung Jun, and Junfeng Jiao. [Measurement of Regional Electric Vehicle Adoption Using Multiagent Deep Reinforcement Learning](#). *Applied Sciences* 14, no. 5 (February 23, 2024): 1826.
- Collier, Chelsea, Kenneth R. Fleischmann, Sherri Greenberg, Tina Lassiter, Jen Bokyoung Kim, Rachel New, Carlos Salazar, and Raul Longoria. [Works for Me: Personalizing Skilled Worker Training via Smart Hand Tools](#). In *Proceedings of the 87th Annual Meeting of the Association for Information Science & Technology*. Calgary, AB, Canada, 2024.
- Collier, Chelsea, Kenneth R. Fleischmann, Tina Lassiter, Sherri R. Greenberg, and Raul G. Longoria. [Does AI Fit? Applying Social Actor Dimensions to AI](#). In *Wisdom, Well-Being, Win-Win*, edited by Isaac Sserwanga, Hideo Joho, Jie Ma, Preben Hansen, Dan Wu, Masanori Koizumi, and Anne J. Gilliland, 14598:195–203. Lecture Notes in Computer Science. Cham: Springer Nature Switzerland, 2024.
- Collier, Chelsea, Kenneth R. Fleischmann, Tina Lassiter, Sherri R. Greenberg, Raul G. Longoria, and Sandeep Chinchali. [Co-Designing Socio-Technical Interventions with Skilled Trade Workers](#). In *2023 IEEE International Symposium on Technology and Society (ISTAS)*, 1–5. Swansea, United Kingdom: IEEE, 2023.
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