



Faculty & Research Highlights

Winter 2026

A companion to the Winter 2026 newsletter, this brief gathers recent publications, recognitions, and public engagements from Design Lab faculty and affiliates across UC San Diego.

UC San Diego · June 2026 · Months included: 2025-12 · 2026-01 · 2026-02

Featured Research

This quarter, Design Lab faculty published research spanning digital health ethics education, wastewater surveillance for infectious disease, assistive robotics for chronic illness, and interventions to improve physical activity and mental health access. These projects exemplify our commitment to human-centered innovation that addresses pressing health and social challenges.

JOURNAL ARTICLE · ACM TRANSACTIONS ON HUMAN-ROBOT INTERACTION

Telepresence robots, reimagined through the eyes of people living with Long Covid

Paper: Envisioning Telepresence Robots for Long Covid: A Critical Disability Lens

*Pratyusha Ghosh, Arthi Haripriyan, Alex Chow, Signe Redfield, **Laurel D. Riek***

The work examines how telepresence robots can be designed to support individuals with Long Covid through a critical disability perspective, centering the lived experiences and needs of people navigating chronic illness and accessibility challenges.

[Read the paper →](#)

JOURNAL ARTICLE · JOURNAL OF MEDICAL INTERNET RESEARCH

The ethics of digital-health research are missing from most student curricula

Paper: Educating Students About Digital Health Research Ethics: Curricula Review and Expert Interview Study

*Yier Zhu, Brian McInnis, Tanya Punater, Brittany York, **Camille Nebeker***

The research combines curricula review with expert interviews to identify gaps in how students are trained to navigate the ethical challenges of digital health research involving wearable devices, mobile apps, and sociotechnical systems, providing recommendations for strengthening ethics education in this emerging field.

[Read the paper →](#)

JOURNAL ARTICLE · PLOS ONE

Wastewater can flag a Hepatitis A outbreak before the first patient is ever diagnosed

Paper: Assessing the sensitivity and predictive value of wastewater in detection of Hepatitis A cases in San Diego County

*Aishwarya Ramesh, Ravi Goyal, Sarah Stous, Hannah R. Thomas, Seema Shah, **Eliah Aronoff-Spencer**, Mark E. Beatty, **Natasha K. Martin***

The study evaluates how wastewater surveillance can detect Hepatitis A virus, which is shed through stool before symptom onset, providing an early warning system that could enable public health officials to identify outbreaks before clinical cases are reported.

[Read the paper →](#)

JOURNAL ARTICLE · JMIR HUMAN FACTORS

Can a digital coach make exercise actually feel good? An early therapeutic puts it to the test

Paper: An Early-Stage Digital Therapeutic Intervention to Enhance Affective Response During Physical Activity Among Adults With Overweight or Obesity: Benchmark-Driven Formative Testing Study

Rachel Crosley-Lyons, Lori Hatzinger, Micaela Hewus, Wei-Lin Wang, Delfien Van Dyck, Jimi Huh, Eric Hekler, Genevieve F Dunton

The research tests an early-stage digital therapeutic designed to improve how people feel during exercise, using benchmark-driven formative methods to refine the intervention for adults with overweight or obesity and potentially increase long-term physical activity adherence.

[Read the paper →](#)

JOURNAL ARTICLE · JOURNAL OF IMMIGRANT AND MINORITY HEALTH

Quietly, childhood adversity shapes which Asian American adults seek mental-health care

Paper: Impact of Adverse Childhood Experiences (ACEs) on Mental Health Help-Seeking Among Asian American Adults: Findings from the 2021 California Health Interview Survey

Cindy Chwa, Biblia S. Cha, Gloria J. Kim, Judith Borghouts, Elizabeth Eikey, Dana B. Mukamel, Stephen M. Schueller, Margaret Schneider, Nicole A. Stadnick, Kai Zheng, Dara H. Sorkin

The study analyzes data from the 2021 California Health Interview Survey to examine how adverse childhood experiences shape mental health help-seeking behaviors among Asian American adults, addressing a critical gap in understanding barriers to mental health care in this population.

[Read the paper →](#)

Awards & Recognitions

This quarter, members of the Design Lab community received prestigious awards and honors recognizing excellence in research, teaching, and service.

Voting Faculty

- Edward Wang Named Senior Member of National Academy of Inventors**

Edward Wang was named a Senior Member of the National Academy of Inventors. The recognition reflects his research on translational invention at UC San Diego's Jacobs School of Engineering and Design Lab, supported by NIH

Affiliated Faculty

- Mattheus Ramsis selected for Robert A. Winn Excellence in Clinical Trials Award Program**

Mattheus Ramsis was selected for the Robert A. Winn Excellence in Clinical Trials Award Program cohort. The award is supported by the American Heart Association and the Bristol-Myers Squibb Foundation and recognizes physician-sci

In the News

Design Lab faculty and their work were featured in national and international media this quarter, highlighting the real-world impact of research on technology, health, and society.

Voting Faculty

Parinaz Naghizadeh

Assistant Professor of Electrical & Computer Engineering

- **Assistant Professor Parinaz Naghizadeh presents seminar on machine learning and strategic human behavior**

Assistant Professor Parinaz Naghizadeh presented a seminar at UC San Diego's Mechanical and Aerospace Engineering Department addressing the design of machine learning systems in response to strategic human behavior.

Mai Nguyen

Director of the Design Lab; Professor of Urban Studies & Planning

- **Director Mai Nguyen co-authors final brief on affordable mortgage innovations**

Design Lab Director Mai Nguyen co-authored the fifth and final installment of an affordable housing series with Kate Zegans, examining innovative mortgage models to improve housing access.

- **Mai Nguyen's Center participates in San Diego Economic Roundtable on housing**

The Center for Housing Policy and Design, led by Mai Nguyen, participated in the 2026 Economic Roundtable hosted by San Diego Workforce Partnership to address regional housing challenges.

Affiliated Faculty

Memo Akten

Assistant Professor of Visual Arts

- **Memo Akten co-creates The Thinking Ocean at Whitney Museum of American Art**

Assistant Professor Memo Akten co-created The Thinking Ocean with Katie Hofstadter, launched at the Whitney Museum of American Art. The work explores the intersection of art and environmental science.

- **Memo Akten presents SUPERRADIANCE installation at Gray Area**

Assistant Professor Memo Akten's collaborative work SUPERRADIANCE with Katie Hofstadter was presented as a large-scale three-channel installation at Gray Area in San Francisco.

Caroline Collins

Assistant Professor of Communication

- **Dr. Caroline Collins discusses Take Me to the Water exhibition at Museum of Sonoma County**

Assistant Professor Caroline Collins participated in a conversation at the Museum of Sonoma County about Take Me to the Water: Histories of the Black Pacific, which she curated.

Bill Fulton

Professor of Practice of Urban Studies & Planning

- **Bill Fulton appointed advisor to Infilla State Project**
Professor of Practice Bill Fulton has been appointed as an advisor to Infilla for a state-level project, marking Infilla's first state-level involvement.
- **Bill Fulton delivers keynote address at online CEQA update seminar**
Professor of Practice Bill Fulton served as keynote speaker for an online continuing education seminar on California Environmental Quality Act (CEQA) updates.
- **Bill Fulton and Kate Zegans examine mortgage innovation for affordable housing access**
Professor of Practice Bill Fulton and colleague Kate Zegans published the final installment of a five-part affordable housing series analyzing new mortgage models designed to improve access to homeownership.

Bobby McElver

Associate Professor of Theatre & Dance

- **Bobby McElver's soundscape featured in Stratford East production**
Associate Professor Bobby McElver's soundscape design work was featured in the production of "Here There Are Blueberries" at Stratford East, noted in the play's critical review.

Michael Yip

Associate Professor of Electrical & Computer Engineering

- **Dr. Michael Yip discusses current capabilities and future of autonomous robots in surgery**
Associate Professor Michael Yip discussed the current state and timeline of robotic assistance in surgical procedures on a health podcast, covering existing technologies and future possibilities.

Recent Publications

Design Lab faculty published 27 peer-reviewed articles, preprints, and conference papers this quarter across venues spanning human-computer interaction, AI, health informatics, cognitive science, sustainability, and education research — a comprehensive view of design research output at UC San Diego.

Faculty × Area overview

Faculty	HCI & Interaction	Health & Wellbeing	AI & Autonomy	Design & Creativity
Voting Faculty				
Elijah Aronoff-Spencer	•	•		•
Elizabeth Eikey	••	••		
Philip Guo	••			••
Eric Hekler	•	•	•	
Parinaz Naghizadeh			•	
Camille Nebeker	•••	•••		
Laurel Riek	•••+	•••+	•••+	
Nadir Weibel	•••+	•••+	•••+	

Affiliated Faculty				
Ben Bergen				••
Haojian Jin	•		•	
Sam Lau	••		••	
Nadia Polikarpova			•	
Mattheus Ramsis		••		

• = 1 publication, •• = 2, ••• = 3, •••+ = 4 or more. Darker shade reinforces the count. Multi-area publications count toward every area their authors' themes cover.

HCI & Interaction · 12 publications

- Behind the Scenes of Delivering a Large Computing Course: The Experience of a TA Managing Logistics**
Rachel S. Lim, Philip J. Guo
 Proceedings of the 57th ACM Technical Symposium on Computer Science Education V.1 · February 2026 Conference
- "Bespoke Bots": Diverse Instructor Needs for Customizing Generative AI Classroom Chatbots**
Irene Hou, Zeyu Xiong, Philip J. Guo, April Yi Wang
 arXiv preprint · February 2026 arXiv
- Improving LLM-Generated Educational Content: A Case Study on Prototyping, Prompt Engineering, and Evaluating a Tool for Generating Programming Problems for Data Science**
Jiaen Yu, Ylesia Wu, Gabriel Cha, Ayush Shah, Samuel Lau
 Proceedings of the 57th ACM Technical Symposium on Computer Science Education V.1 · February 2026 Conference
- Robot Characters: Co-Designing Dynamic Personalities for Cognitively Assistive Robots**
Dagoberto Cruz-Sandoval, Alyssa Kubota, Connie Guan, Soyon Kim, Laurel D. Riek
 ACM Transactions on Human-Robot Interaction 2026 · December 2025 Conference
- Holo-Stroke-ii: Stroke care through stroke hologram teleportation- inpatient immersion**
Weichen Liu, Ben Shifflett, Teri McQuaid, Marissa D'Souza, Reza Bavarsad Shahripour, Kunal Agrawal, Dawn M. Meyer, Derek Dutt, Dale Keehan, Nadir Weibel, Brett C. Meyer
 Journal of Stroke and Cerebrovascular Diseases · December 2025 Journal
- SweeperBot: Making 3D Browsing Accessible Through View Analysis and Visual Question Answering**
Chen Chen, Cuong Nguyen, Alexa Siu, Dingzeyu Li, Nadir Weibel
 International Journal of Human-Computer Interaction · December 2025 Journal
- Designing and Implementing Skill Tests at Scale: Frequent, Computer-Based, Proctored Assessments with Minimal Infrastructure Requirements**
Anastasiya Markova, Anish Kasam, Bryce Hackel, Marina Langlois, Sam Lau
 SIGCSE TS 2026: The 57th ACM Technical Symposium on Computer Science Education · February 2026 Conference
- Human-robot action teams: How robot proactivity affects teamwork**
Rabeya Jamshad, Arthi Haripriyan, Advika Sonti, Susan Simkins, Laurel D. Riek
 Computers in Human Behavior: Artificial Humans · February 2026 Journal
- CAR-EM: A Synthesis-Based Clinically Assistive Robot System for Emergency Medicine**
Sandhya Jayaraman, Andrew Violette, U Lam Lou, Sruti Mani, Divya Prakash, Leslie Oyama, Christopher Coyne, Hadas Kress-Gazit, Laurel Riek
 ACM Transactions on Human-Robot Interaction · February 2026 Conference
- Same Words, Different Judgments: How Preferences Vary Across Modalities**
Aaron Broukhim, Nadir Weibel, Eshin Jolly
 arXiv preprint · February 2026 arXiv

- **Goldilocks Contouring: Enriching One-to-One Medical Apprenticeship with Timely and Diverse Expert Feedback**

*Matin Yarmand, Joyce Lu, Yunhao Luo, Megan Orr, Michael Sherer, **Nadir Weibel***

ACM Transactions on Computing for Healthcare · February 2026 **Conference**

- **Envisioning Telepresence Robots for Long Covid: A Critical Disability Lens**

*Pratyusha Ghosh, Arthi Haripriyan, Alex Chow, Signe Redfield, **Laurel D. Riek***

ACM Transactions on Human-Robot Interaction **Conference**

Health & Wellbeing · 9 publications

- **Multi-agent Self-triage System with Medical Flowcharts**

*Yujia Liu, Sophia Yu, **Hongyue Jin**, Jessica Wen, Alexander Qian, Terrence Lee, **Mattheus Ramsis**, Gi Won Choi, Lianhui Qin, Xin Liu, **Edward J. Wang***

arXiv preprint · December 2025 **arXiv**

- **Abstract WP114: Increasing Rates of Lipoprotein(a) Testing in Young Ischemic Stroke Patients from 2015-2024: An Analysis of 300 Million Individuals**

*Mustafa Naguib, Brett Meyer, Michael Wilkinson, Ehtisham Mahmud, Pam Taub, Harpreet Bhatia, **Mattheus Ramsis***

Stroke · February 2026 **Other**

- **Navigating open data sharing and privacy in the age of clinical AI research: from reidentification to pseudo-reidentification**

*Shahin Hallaj, Anna Heinke, Fritz Gerald P. Kalaw, Nayoon Gim, Marian Blazes, Julia Owen, Eamon Dysinger, Erik S. Benton, Benjamin A. Cordier, Nicholas G. Evans, Jennifer Li-Pook-Than, Michael P. Snyder, **Camille Nebeker**, Linda M. Zangwill, Sally L. Baxter, Shannon McWeeney, Cecilia S. Lee, Aaron Y. Lee, Bhavesh Patel*

eClinicalMedicine · December 2025 **Journal**

- **El Dolor Es Lo Que Me Saluda: A Qualitative Study on Multilevel and Intersectional Factors Impacting Physical Activity Among Latino Persons With Chronic Spine Pain**

*Patricia Dionicio, Katrina S. Monroe, **Elizabeth V. Eikey**, Chadwick Campbell, Alma I. Behar, Job G. Godino, Sara P. Gombatto*

Journal of Physical Activity and Health · January 2026 **Other**

- **You can't manage what you can't imagine: The Digital Health Checklist-Risk Management (DHC-RM) Tool to enhance participant protections in digital health research**

*Alan J. Card, Daniela Vital, **Camille Nebeker***

February 2026 **Other**

- **Educating Students About Digital Health Research Ethics: Curricula Review and Expert Interview Study**

*Yier Zhu, Brian McInnis, Tanya Punater, Brittany York, **Camille Nebeker***

Journal of Medical Internet Research **Journal**

- **Assessing the sensitivity and predictive value of wastewater in detection of Hepatitis A cases in San Diego County**

*Aishwarya Ramesh, Ravi Goyal, Sarah Stous, Hannah R. Thomas, Seema Shah, **Eliah Aronoff-Spencer**, Mark E. Beatty, Natasha K. Martin*

PLOS One **Journal**

- **An Early-Stage Digital Therapeutic Intervention to Enhance Affective Response During Physical Activity Among Adults With Overweight or Obesity: Benchmark-Driven Formative Testing Study**

*Rachel Crosley-Lyons, Lori Hatzinger, Micaela Hewus, Wei-Lin Wang, Delfien Van Dyck, Jimi Huh, **Eric Hekler**, Genevieve F Dunton*

JMIR Human Factors **Journal**

- **Impact of Adverse Childhood Experiences (ACEs) on Mental Health Help-Seeking Among Asian American Adults: Findings from the 2021 California Health Interview Survey**

*Cindy Chwa, Biblia S. Cha, Gloria J. Kim, Judith Borghouts, **Elizabeth Eikey**, Dana B. Mukamel, Stephen M. Schueller, Margaret Schneider, Nicole A. Stadnick, Kai Zheng, Dara H. Sorkin*

Journal of Immigrant and Minority Health [Journal](#)

AI & Autonomy · 3 publications

- **HumanStudy-Bench: Towards AI Agent Design for Participant Simulation**

*Xuan Liu, Haoyang Shang, Zizhang Liu, Xinyan Liu, Yunze Xiao, Yiwen Tu, **Haojian Jin***

arXiv preprint · January 2026 [arXiv](#)

- **ChopChop: A Programmable Framework for Semantically Constraining the Output of Language Models**

*Shaan Nagy, Timothy Zhou, **Nadia Polikarpova**, Loris D'Antoni*

Proceedings of the ACM on Programming Languages · January 2026 [Conference](#)

- **Test-Time Adaptation for Unsupervised Combinatorial Optimization**

*Yiqiao Liao, Farinaz Koushanfar, **Parinaz Naghizadeh***

arXiv preprint · January 2026 [arXiv](#)

Design & Creativity · 2 publications

- **Lies, damned lies, and language statistics: a comprehensive review of risks from manipulation, persuasion, and deception with large language models**

*Cameron Jones, **Benjamin Bergen***

Artificial Intelligence Review · February 2026 [Other](#)

- **LLMs and people both learn to form conventions -- just not with each other**

*Cameron R. Jones, Agnese Lombardi, Kyle Mahowald, **Benjamin K. Bergen***

arXiv preprint · February 2026 [arXiv](#)

Other · 1 publication

- **Nephrocast-V: A Deep Learning Model for the Prediction of Vancomycin Trough Concentration Using Electronic Health Record Data**

Ghodsieh Ghanbari, Craig Stevens, Eliah Aronoff-Spencer, Atul Malhotra, Shamim Nemat, Zaid Yousif

Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy · January 2026 [Journal](#)

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The Design Lab advances humanity-centered design across research, education, and community. Founded in 2014 by Don Norman and Chancellor Pradeep Khosla, the Lab brings together faculty, students, and partners from across UC San Diego and beyond.

UC San Diego | The Design Lab

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