

Deepak Varuvel Dennison

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Research Interests

My research is focused on **developing and evaluating AI-supported Learning and Knowledge Sharing Systems for the Global Users**. I combine technical & social science methods in my research approach, drawing on qualitative inquiry, statistical analysis, and Natural Language Processing (NLP) techniques to understand multifaceted human–AI systems. Broadly, I am interested in **Human-Computer Interaction (HCI)**, **Human-AI Interaction (HAI)**, **Responsible AI (RAI)**, and **Learning Sciences**.

Education

Cornell University , PhD in Information Science	Aug'24 - Present
Stanford University , MS Learning Design and Technology	Aug'22 - Aug'23
Ashoka University , PG Diploma in Liberal Studies	Jun'17 - Jun'18
SSN College of Engineering , BE Biomedical Engineering	Jun'12 - May'16

Experience

Research Intern , Microsoft Research	Jun'25 - Aug'25
• Examined how culturally aligned AI systems are developed for social good applications to support learning and knowledge sharing in diverse global environments.	
Research Assistant , Stanford Institute for Human-Centered Artificial Intelligence	Jun'23 - May'24
• Built EdTech tools leveraging AI technologies for supporting teachers and students in their classroom teaching/learning processes.	
• Built the AI-Feedback feature for Code In Place, a large-scale coding course offered by Stanford, to provide automated feedback to section leaders and students leading to improvement in learning outcomes.	
• Developed a web-based learning tool to empower students to utilize LLMs critically and effectively in their writing processes.	
Operations & Technology Manager , Infant Jesus Matric Hr Sec School	Jul'18 - Jul'22
• Handled and optimized the operations of a K-12 school with 1200 students by integrating technology-enabled operational processes and pedagogical enhancements.	
• Received several awards for designing and implementing initiatives for nurturing maker culture and improving reading ability among students across India.	
UI/UX Designer , Zoho Corporation	Jun'16 - Jun'17
• Designed user-centric interfaces for an IT-helpdesk software that caters to around 100,000+ teams worldwide.	

Technical Skills

- **Web Development:** Javascript Frameworks(Next, React, Astro), Streamlit, Databases (Firestore, Supabase)
- **Scripting & Automation:** Python, Node.js, Appscript, AWS Lambda, GC Functions
- **UI/UX Design:** Figma, Adobe XD, Balsamiq
- **Physical Prototyping:** Lasercutting, 3D Printing, Raspberry Pi, Arduino
- **Content Creation:** Photoshop, Illustrator, InDesign, Premiere Pro, After Effects, Audition, LaTeX

Ongoing Project

ConvoEd: Personalized Learning through Conversations [🔗]

- Designing and developing an voice-based AI learning and assessment platform that supports learners through conversational interactions in their native language, with the goal of reducing language barriers and strengthening conceptual understanding.
- Driving an ongoing research agenda on AI-mediated learning, investigating native-language and bilingual assessment workflows, personalized adaptive feedback, and LLM-as-judge approaches for evaluating student understanding through open-ended oral responses.

Publications

Holes in the web: An Essay on the Knowledge Gaps in Generative AI [🔗]

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Aeon | Republished in *The Guardian* [🔗]

Designing Culturally Aligned AI Systems For Social Good in Non-Western Contexts [🔗]

Deepak Varuvel Dennison, Mohit Jain, Tanuja Ganu, Aditya Vashistha

Accepted to CHI 2026

Teacher-AI Collaboration for Curating and Customizing Lesson Plans in Low-Resource Schools [🔗]

Deepak Varuvel Dennison, Bakhtawar Ahtisham, Kavyansh Chourasia, Nirmit Arora, Rahul Singh, Rene F. Kizilcec, Akshay Nambi, Tanuja Ganu, Aditya Vashistha

Accepted to CSCW'26

Does Increased Choice over Learning Topic Improve the Effectiveness of Automated Feedback for Educators? [🔗]

Dorotya Demszky, Heather C. Hill, Eric S. Taylor, Ashlee Kupor, Deepak Varuvel Dennison, Chris Piech
Education Sciences

From Consumers to Critical Users: Prompty, an AI Literacy Tool For High School Students [🔗]

Deepak Varuvel Dennison, Raycelle C C Garcia, Parth Sarin, Jacob Wolf, Christine Bywater, Benjamin Xie and Victor Lee

The Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI-24)

Co-designing AI Education Curriculum with Cross-Disciplinary High School Teachers [🔗]

Benjamin Xie, Parth Sarin,* Jacob Wolf,* Raycelle C. C. Garcia, Victoria Delaney, Isabel Sieh, Anika Fuloria, Deepak Varuvel Dennison, Christine Bywater, Victor R. Lee

The Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI-24)

Evaluating LLMs' Generation of Growth-Mindset Supportive Teacher Language [🔗]

Margarett Clapper, Cameron Hecht, Michaela Jones, Nirel Jonesmitchell, Meghann Johnson, Deepak Varuvel Dennison, Dorotya Demszky and David Yeager

AIED2023 Workshop: Equity, Diversity, and Inclusion in Educational Technology Research and Development

Awards

GSE Fellowship, Stanford University	2023
UNLEASH Plus Finalist, UNLEASH	2022
Winners - Open Innovation Challenge, Government of Tamil Nadu	2022

Winners - Youth for Earth , The Climate Reality Project	2021
Star Educator 2020 - Excellence in Digital Innovation , Learning Matter	2020
Mother Teresa Fellow , Center for Social Impact & Philanthropy, Ashoka University	2019
Torchbearer, Young India Fellowship , Ashoka University	2018
Academic Top Rank Holder , Anna University	2016

Media Features

EducationWeek [🔗]

“AI Can Make Education More Personal (Yes, Really)”

Freethink [🔗]

“Stanford study finds AI improves the performance of teachers and students”

ABC7 News [🔗]

“How will AI be taught in classrooms? These Bay Area teachers are integrating it into lessons”

The Hindu [🔗]

“Chennai Corporation’s vaccination portal gets a good response”

The Indian Express [🔗]

“TN polls: Global Shapers Chennai Hub comes up with website to help voters make informed decisions before voting”

Other Selected Projects

CESTA Digital Anthology, Stanford University , Software Architect	Jan'24 - May'24
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- Designed and developed the CESTA Digital Anthology System from scratch to facilitate the publication of Stanford Center for Spatial and Textual Analysis’s scientific works by both faculty and students.
- Architected a Quarto-based system integrated with GitHub and designed processes that enable both technical and non-technical authors to contribute to the anthology.

Tales For Tweens, Creator

Sep'21 - July'22

- Created an inclusive, progressive storybook for young Indians on themes like body positivity, financial literacy, climate change, and mental health — selling over 2,000 copies.

GCC COVID-19 Vaccination Portal, UI/UX Lead

Jun'21 - Aug'21

- Designed the COVID-19 vaccination appointment portal of Greater Chennai Corporation in partnership with the state government.
- The portal facilitated over 2,19,000 vaccinations and was awarded by the government for positive impact.

Election Promises, Tech & Design Lead

Feb'21 - May'21

- Developed a platform that allowed voters to compare party promises and candidate information during the Tamil Nadu 2021 Legislative Assembly Elections, facilitating informed voting choices.
- Designed marketing creatives and assisted in content translation from English to Tamil and vice versa. The platform reached 12 million+ views and was widely acclaimed.

Service

Admissions Representative , Information Science Graduate Student Organization	2025
Student Volunteer , Thought Summit: LLMs & Society	2025
Reviewer , ACM CHI	2025, 2026
Organizer, GSE Design Collective , Stanford University	2023
Impact Officer, Global Shapers Hub - Chennai , World Economic Forum	2021