Deepak Varuvel Dennison

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Research Interests

My research focuses on **AI-based educational technologies for multilingual learners**. Currently, I am developing ConvoEd, an AI-based tool that serves as a teachers' assistant for conducting conversational learning activities. My skill set spans **software development, statistical analysis**, and **qualitative methods**, enabling mixed-methods research that bridges technical approaches and social science perspectives.

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.

Publications

Auditing Multilingual LLMs for Teaching Across Languages

Deepak Varuvel Dennison, Emily Yang, Rene F. Kizilcec, Aditya Vashistha

In Preparation

From Written Response to Dialogue with AI: How Activity Format, Interaction Modality, and Language Impact Student Learning and Engagement [🔗]

Deepak Varuvel Dennison, Connie Zhang, Rene F. Kizilcec, Aditya Vashistha

Under Submission

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

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

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

CSCW'26 | 🏆 *Best Paper Honorable Mention*

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

Deepak Varuvel Dennison

Aeon | *Republished in The Guardian[🔗]* | 🏆 *Featured in the Five Great Reads*

Why AI alone cannot fix social problems [🔗]

Deepak Varuvel Dennison, Aditya Vashistha

Rest of World

Teachers' Perceived Benefits and Risks of AI Across Fifty-Five Countries: An Audit of LLM Alignment and Steerability [🔗]

Yan Tao, Olga Viberg, *Deepak Varuvel Dennison*, Zhikun Wu, René F. Kizilcec

L@S 2026

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

Dorottya 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)

Awards

Graduate Resident Fellow, Cornell University 2026
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

Vogue[🔗]
"Could AI Drive Indigenous Knowledge Out of Fashion?"

Freethink[🔗]
"Stanford study finds AI improves the performance of teachers and students"

Homegrown[🔗]
"A Children's Book With Progressive & Inclusive Stories"

The Hindu[🔗]
"Chennai Corporation's vaccination portal gets a good response"

The Indian Express[🔗]
"Global Shapers 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

- 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, Global AI 2025, 2026
Reviewer, ACM FAccT 2026
Reviewer, ACM CHI 2025, 2026, 2027
Reviewer, ACM COMPASS 2026
Organizer, GSE Design Collective, Stanford University 2023
Impact Officer, Global Shapers Hub - Chennai, World Economic Forum 2021