# 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 & software engineering skills with a mixed-methods research approach, drawing on qualitative inquiry, data science, and NLP techniques to understand multifaceted human–AI interactions. 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 ScienceAug'24 - PresentStanford University, MS Learning Design and TechnologyAug'22 - Aug'23Ashoka University, PG Diploma in Liberal StudiesJun'17 - Jun'18SSN College of Engineering, BE Biomedical EngineeringJun'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
- Prototyping: Lasercutting, 3D Printing, Raspberry Pi, Arduino
- Content Creation: Photoshop, Illustrator, InDesign, Premiere Pro, After Effects, Audition, LaTeX

## **Publications**

# Holes in the web: An Essay on the Knowledge Gaps in Generative AI [6]

Deepak Varuvel Dennison

Aeon | Republished in The Guardian[]

## Designing Culturally Aligned AI Systems For Social Good in Non-Western Contexts [6]

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

Under Review

# 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

Under Review

# 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 [6]

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 [6]

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 [6]

Margarett Clapper, Cameron Hecht, Michaela Jones, Nirel Jonesmitchell, Meghann Johnson, *Deepak Varuvel Dennison*, Dorrotya 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

- 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 its effectiveness and ease of use.

#### 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
Research Consultant, Pratham Education Foundation	2024
Organizer, GSE Design Collective, Stanford University	2023
Impact Officer, Global Shapers Hub - Chennai, World Economic Forum	2021