

KRISHNA POTHUGUNTA

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EDUCATION

2019-2025 **Eli Broad College of Business, Michigan State University**

PhD, Information Technology and Management

2018-2019 **Herbert Wertheim College of Business, Florida State University**

MS, Business Analytics

2010-2012 **School of Management, University at Buffalo**

MBA, Finance and Consulting

2003-2007 **Gandhi Institute of Technology and Management, Visakhapatnam, India**

BE, Electronics and Communications

DISSERTATION

Title: Assessing Inclusion and Representativeness on Digital Platforms for Health Education: Evidence from YouTube (study 1). Assessing Actionable Information in Patient Education Videos: A Multi-Modal Transformer and Convolutional Neural Network Approach (study 2).

Committee Members: Anjana Susarla (Chair), Chenhui Guo, Quan Zhang, and Suman Basuroy

FELLOWSHIPS

- *Dissertation Completion Fellowship*, Eli Broad College of Business, Michigan State University, Spring 2025.
- *Cloud Computing Fellowship*, Institute for Cyber-Enabled Research (ICER), Michigan State University, Fall 2021 and Spring 2022.
- *Colleges Online Learning Academy (COLA) Fellowship*, Michigan State University, Summer 2021.

RESEARCH EXPERIENCE

University of Notre Dame, Mendoza College of Business

Jul 2025 – Present

Postdoctoral Research Associate

- Conduct research on **human-AI interaction** with a specific focus on LLM personalization and cross-cultural representativeness, applying **Cultural Consensus Theory** to evaluate whether LLM outputs reflect the shared cultural knowledge of target cultural populations.
- Design and develop a cross-cultural benchmark dataset to assess how accurately **LLM personas** reflect demographic and cultural variation. Conduct user studies examining how culturally situated personas shape human perceptions of LLM responses.
- Evaluate chatbot behavioral consistency across affective and organizational constructs including compassion, productivity, and collaboration using consensus-based measurement frameworks.

Michigan State University, Eli Broad College of Business

Aug 2019 – May 2025

Research Assistant

- Implemented advanced research in the field of **Responsible AI**, focusing on the ethical, societal, and technical implications of AI systems, particularly in content moderation, education, and healthcare contexts.
- Developed innovative machine learning models utilizing **transformers**, leveraging state-of-the-art techniques such as **cross-attention** and **co-attention mechanisms** to integrate and analyze **multi-modal inputs** including **text, audio, and visual data**.
- Explored and implemented multi-modal learning frameworks to enhance classification and prediction tasks, combining insights from linguistic, acoustic, and visual signals for improved performance and interpretability.
- Published findings in high-impact journals and presented at international conferences to contribute to academic discourse in AI ethics, multi-modal learning, and transformer-based architecture.

Florida State University, Herbert Wertheim College of Business

May 2018 – May 2019

Research Assistant

- Assisted in data collection from Twitter using the official API by developing scripts to parallelize requests with multiple bearer tokens, significantly increasing data retrieval speed and reducing latency.
- Contributed to front-end improvements of the women’s soccer team web page by designing a more intuitive user interface using **Flask, Python, and HTML/CSS**, enhancing user navigation and content visibility.

REFEREED JOURNAL PUBLICATIONS

- K Pothugunta, X Liu, A Susarla, R Padman, “CAAC: Co-attentive Actionability Classification for Assessing Patient Education Videos,” forthcoming, *INFORMS Journal on Computing*.
- K Pothugunta, X Liu, A Susarla, R Padman, “Assessing Inclusion and Representativeness on Digital Platforms for Health Literacy: Evidence from YouTube,” *Journal of Biomedical Informatics*, Volume 157, 2024, 104669, ISSN 1532-0464.

PAPERS UNDER REVIEW / WORK IN PROGRESS

- K Pothugunta, J Lalor, “Digital Representations of Cross-Cultural Value Structures: Evaluating Consensus Consistency across Inference Settings,” under review at 47th *International Conference on Information Systems (ICIS)*, 2026.
- K Pothugunta, J Lalor, “Coherent but Displaced: Domain-Contingent Cultural Displacement in LLM Outputs,” to be submitted to *Management Information Systems Quarterly*.
- K Pothugunta, J Lalor, “When AI Learns to Care: Cross-Cultural Variation in Artificial Compassion,” to be submitted to *Management Information Systems Quarterly*.
- V Kanuri, K Pothugunta, “Bridging the Equity-Efficiency Frontier: A Novel Approach for Mitigating Intersectional Bias in Targeted Advertising,” to be submitted to *Marketing Science*.

CURRENT RESEARCH PROJECTS

- K Pothugunta, J Lalor, “Toward a Public Benchmark Dataset for LLM Personalization.”

CONFERENCE PRESENTATIONS

- K Pothugunta, J. Lalor. "Carefully Considering Culture: Analyzing LLM Alignment in Single- and Multi-Cultural Settings using Cultural Consensus Theory." Accepted at Findings of the *Annual Meeting of the Association for Computational Linguistics*, San Diego, USA, July 2026.
- K Pothugunta, X Liu, A Susarla, R Padman, "Evaluating Actionable Guidance in Patient Education Videos using Transformer-based Approach," *34th Workshop on Information Technology and Systems*, Bangkok, Thailand, December 2024.
- K Pothugunta, X Liu, A Susarla, R Padman, "Classifying Actionable Information in Videos using HST-CAT: Hybrid Spatiotemporal Cross-Attention Transformer," *Proceedings of the 45th International Conference on Information Systems*, Bangkok, Thailand, December 2024.
- K Pothugunta, X Liu, A Susarla, R Padman, "Assessing Actionable Guidance in Videos," *INFORMS 2024 Workshop on Data Science (DS)*, Seattle, USA, October 2024.
- K Pothugunta, X Liu, A Susarla, R Padman, "Actionable Information Classification in Videos using Spatiotemporal Cross-Attention Transformer," *AOM CTO Doctoral Consortium*, Chicago, USA, August 2024.
- K Pothugunta, X Liu, A Susarla, R Padman, "Assessing Actionability in Patient Education Videos," *INFORMS 2023 Workshop on Data Science (DS)*, Phoenix, USA, October 2023.
- K Pothugunta, X Liu, A Susarla, R Padman, "Machine Learning in Healthcare Videos: Mapping Actionability Criteria to Computable Features," *KDD 2023 Doctoral Consortium*, Long Beach, USA, August 2023.
- K Pothugunta, X Liu, A Susarla, R Padman, "Actionability Assessment in a Video Retrieval and Recommendation System for Patient Education," *Statistical Challenges in Ecommerce Research (SCECR)*, Bogota, Colombia, June 2023.
- K Pothugunta, X Liu, A Susarla, R Padman, "Assessing Bias and Fairness in YouTube Videos on Healthcare: Analytics using Face and Speech Recognition Methods," *INFORMS 2022 Workshop on Data Science (DS)*, Indianapolis, USA, October 2022.
- K Pothugunta, X Liu, A Susarla, R Padman, "On Curating Responsible and Representative Healthcare Video Recommendations: An Augmented Intelligence Approach," *KDD 2022 Workshop on Data Science and Artificial Intelligence for Responsible Recommendations (DS4RRS)*, Washington DC, USA, August 2022.
- K Pothugunta, X Liu, A Susarla, R Padman, "Fair and Trustworthy Recommendations Using Augmented Intelligence and Machine Learning Methods," *Statistical Challenges in Ecommerce Research (SCECR)*, Madrid, Spain, June 2022.

RESEARCH INTERESTS

- Human-AI Interaction and LLM Behavioral Evaluation
- Cultural Consensus Theory and Cross-Cultural AI Representativeness
- Responsible Artificial Intelligence and Algorithmic Governance

TEACHING EXPERIENCE

Courses Taught

Alliance University, Bengaluru, India

Aug 2017 – Apr 2018

- **Statistics for Business Decisions** (Undergraduate)
- **Business Research Methods** (Undergraduate)

Bangalore University-Affiliated Colleges, Bengaluru, India

Sep 2014 – Aug 2017

- **Statistics for Management** (Graduate)

- **Technology for Management** (Graduate)
- **Quantitative Techniques and Operations Research** (Graduate)
- **Management Research Methods** (Graduate)
- **Investment Analysis and Management** (Graduate)
- **Risk Management and Derivatives** (Graduate)

Florida State University

Aug 2018 – May 2019

- **Tutor at Student Athlete Academic Services (SAAS):** Taught and guided seven students every week for one hour per student on courses related to Statistics, Finance and Management Accounting, and Entrepreneurship

Michigan State University

- Teaching Assistant – ITM 885 – **Machine Learning and Optimization in Analytics** (Graduate) Fall 2020 & Fall 2021
- Teaching Assistant – ITM 818 - **Data Management and Visualization in Analytics** (Graduate) Spring 2020

CORPORATE EXPERIENCE

Capital Fortunes Private Limited, Hyderabad, India

Sep 2013 – Aug 2014

Analyst

- Managed Prowess database to generate financial reports of various companies related to industries such as Agro-Processing, Media & Entertainment and Urban Infrastructure.
- Created a report on “*How to Set up a TV Channel in Andhra Pradesh, India*” and assisted the higher management in developing new business opportunities for the company.
- Developed financial models and analyzed industry trends from annual reports and summarized future growth opportunities and insights into market dynamics.

Blue Cross Blue Shield, Kansas City, USA

Aug 2012 – Apr 2013

Business Analyst

- Coordinated with various groups, including business owners, SMEs (subject matter experts) and marketing team, for requirements gathering in definition stage.
- Developed, coordinated, and supported Information Technology Division on all operational requirements of FACETS claims processing system and production management.

Infosys Technologies Limited, Mysuru, India

Jun 2009 – May 2010

Senior Systems Engineer

- Managed a team of four throughout the project’s lifecycle of the product from the requirement gathering through design, development, QA to the rollout, customer integration and support.
- Created and implemented a screenshot tool focused on banking industry projects that assisted my team in logging 2000 defects, significantly exceeding senior management and client expectations for uncovering problems.
- Exceeded manager’s expectations by volunteering to provide knowledge transfer sessions to 12 newcomers in the account, maintaining high level of security standards.

Systems Engineer

May 2007 – May 2009

- Successfully supervised and motivated five people for two KPMG audits of Charles Schwab’s offshore work center, ensuring that site employees did not breach security compliance.

- Mentored two new systems engineers successfully by making sure that all the deliverables were processed in time and without any defects.
- Interacted with global clients via web conference to identify and execute project requirements and collaborated with team members internationally to resolve issues and discuss progress.
- Focused deployment of Server builds and coded web designed interfaces using AJAX, XML, and XSL.

PROFESSIONAL ACTIVITIES / SERVICE

Reviewer for Conferences

- Conference on Information Systems and Technology (CIST)
- INFORMS Data Science Workshop
- International Conference on Information Systems (ICIS)
- American Medical Informatics Association (AMIA)

Reviewer for Journals

- Information Systems Research (ISR)
- Transactions on Management Information Systems (TMIS)

Professional Memberships

- Association for Information Systems (AIS), INFORMS