Lydia Manikonda

Lally School of Management, Rensselaer Polytechnic Institute

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ACADEMIC APPOINTMENTS	**Assistant Professor**, Lally School of Management, Rensselaer Polytechnic Institute, Troy, NY (*Position was put on hold during Fall 2020 due to visa issues*)	Fall 2019 – *Present*

EDUCATION

Ph.D. Computer Science,   2019
Arizona State University, Tempe, Arizona
Advisor: *Prof. Subbarao Kambhampati* (rakaposhi.eas.asu.edu)

M.S. Computer Science and Engineering,   2012
International Institute of Information Technology, Hyderabad, India

B.Tech (Hons) Computer Science and Engineering,   2009
International Institute of Information Technology, Hyderabad, India

REFEREED JOURNAL PUBLICATIONS

[1] Mee Young Um, **Lydia Manikonda**, Doncy Eapen, Kristin Ferguson, Diane Santa Maria, Sarah Narendorf, Robin Petering, Anamika Barman-Adhikari, Hsun-Ta Hsu, "Predicting Intimate Partner Violence Perpetration among Young Adults Experiencing Homelessness in Seven U.S. Cities Using Interpretable Machine Learning", *Journal of Interpersonal Violence*, 2024.

[2] **Lydia Manikonda**, Dorit Nevo, Benjamin D. Horne, Clare Arrington, and Sibel Adali, "The Reasoning behind Fake News Assessments: A Linguistic Analysis", *AIS Transactions on Human-Computer Interaction (Special issue on Fake News and Deception)*, 2022.

[3] Niharika Jain, Alberto Olmo, Sailik Sengupta, **Lydia Manikonda**, Subbarao Kambhampati, "Imperfect ImaGANation: Implications of GANs Exacerbating Biases on Facial Data", *Artificial Intelligence (AIJ) Journal*, 2021.

[4] Benjamin D. Horne, Dorit Nevo, Sibel Adali, **Lydia Manikonda**, and Clare Arrington, "Tailoring Heuristics and Timing AI Interventions for Supporting News Veracity Assessments", *Computers in Human Behavior Reports*, 2020.

[5] **Lydia Manikonda**, Tathagata Chakraborti, Kartik Talamadupula, Subbarao Kambhampati, "Herding the Crowd: Using Automated Planning for Better Crowdsourced Planning", *Human Computation Journal*, 2017.

[6] Shashi Shekhar, KwangSoo Yang, Venkata M.V. Gunturi, **Lydia Manikonda**, Dev Oliver, Xun Zhou, Betsy George, Sangho Kim, Jeffrey M. R. Wolff, Qingsong Lu, "Experiences with Evacuation Route Planning Algorithms", *International Journal of Geographical Information Science (IJGIS)*, 2012.

PEER-REVIEWED CONFERENCE PUBLICATIONS

[7] Yuanyuan Liu, T. Ravichandran, **Lydia Manikonda** "Can Emotional Cues Substitute for Sharing Privacy Compromising Personal Information: An Empirical Exploration in Medical Crowdfunding", *European Conference on Information Systems (ECIS)*, 2024

[8] Joseph Sebastian, **Lydia Manikonda** "Exploring the Role of Temporal Privacy in Intelligent Personal Assistants", *TREO, International Conference on Information Systems (ICIS)*, 2023

[9] Yelena Mejova[1], **Lydia Manikonda**[1] "Comfort Foods and Community Connectedness: Investigating Diet Change during COVID-19 using YouTube Videos on Twitter", *ICWSM*, 2023

[10] Joseph Sebastian, **Lydia Manikonda**, "Investigating Privacy Paradox in the Context of Voice-based AI Systems", *TREO, Americas Conference on Information Systems (AMCIS)*, 2022.

[11] **Lydia Manikonda**, Mee Young Umm, and Rui Fan, "Shift of User Attitudes about Anti-Asian Hate on Reddit Before and During COVID-19", *ACM Web Science Conference (WebSci)*, 2022.

[12] Nay Aungwin Zaw, **Lydia Manikonda**, "Linguistic Analysis of User Disclosures about Smoking Addiction during COVID-19 via Reddit", *Data Challenge at ICWSM*, 2022.

[13] Yufei Wu, Thilanka Munasinghe, **Lydia Manikonda**, and Oshani Seneviratne, "Data-driven Analysis of Remote Work in China during the COVID-19 Pandemic", *In Proceedings of the 55th Hawaii International Conference on System Sciences*, 2022.

[14] Niharika Jain, Alberto Olmo, Sailik Sengupta, **Lydia Manikonda**, Subbarao Kambhampati, "Imperfect ImaGANation: Implications of GANs Exacerbating Biases on Facial Data", *SDG Workshop, ICLR*, 2021.

[15] Brendan Cunha, **Lydia Manikonda**, "An RNN-based Classifier to detect Misinformation in News Articles", *ICWSM Data Challenge: Safety*, 2020.

[16] **Lydia Manikonda**, Shailesh Divey, "Reddit: A Novel Online Financial Consultancy", *The AAAI-20 Workshop on Knowledge Discovery from Unstructured Data in Financial Services (KDF)*, 2020.

[17] Niharika Jain, **Lydia Manikonda**, Alberto Olmo Hernandez, Sailik Sengupta, and Subbarao Kambhampati, "Imagining an Engineer: On GAN-Based Data Augmentation Perpetuating Biases", *arXiv preprint arXiv:1811.03751*, 2018.

[18] **Lydia Manikonda**, Subbarao Kambhampati, "Tweeting AI: Perceptions of Lay vs Expert Twitterati", *The International Conference on Weblogs and Social Media (ICWSM)*, 2018.

[19] Nur Kamarudin, Vineeth Rakesh, Ghazaleh Beigi, **Lydia Manikonda**, Huan Liu, "A Study of Reddit – Users Response to Rape", *ASONAM*, 2018.

[20] **Lydia Manikonda**, Ghazaleh Beigi, Huan Liu, Subbarao Kambhampati, "#metoo through the Lens of Social Media", *SBP-BRiMS*, 2018.

[21] **Lydia Manikonda**, Aditya Deotale, Subbarao Kambhampati, "What's up with Privacy?: User Preferences and Privacy Concerns in Intelligent Personal Assistants", *AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society*, 2018.

[22] **Lydia Manikonda**, Shirin Sohrabi, Biplav Srivastava, Kartik Talamadupula, Subbarao Kambhampati, "Extracting Incomplete Planning Action Models from Unstructured Social Media Data to Support Decision Making", *Workshop on Knowledge Engineering for Planning and Scheduling, ICAPS*, 2017.

[23] **Lydia Manikonda**, Tathagata Chakraborti, Kartik Talamadupula, Subbarao Kambhampati, "Herding the Crowd: Using Automated Planning for Better Crowdsourced Planning", *Human Computation Journal* Vol 4, No 1 2017.

[24] **Lydia Manikonda**, Munmun De Choudhury, "Modeling and Understanding Visual Attributes of Mental Health Disclosures in Social Media", *ACM CHI Conference on Human Factors in Computing Systems (CHI)*, 2017.

[25] Ece Kamar, **Lydia Manikonda**, "Complementing the Execution of AI Systems with Human Computation", AAAI Workshop on Crowdsourcing, Deep Learning and Artificial Intelligence Agents, 2017.

[26] **Lydia Manikonda**, Vamsi Meduri, Subbarao Kambhampati, "Tweeting the Mind and Instagramming the Heart: Exploring Differentiated Content Sharing on Social Media", *The International Conference on Weblogs and Social Media (ICWSM)*, 2016.

[27] **Lydia Manikonda**, Heather Pon-Barry, Subbarao Kambhampati, Eric Hekler, David W. McDonald, "Venting Weight: Analyzing the Discourse of an Online Weight Loss Forum", *The 3rd International Workshop on the World Wide Web and Population Health Intelligence (AAAI-W3PHI)*, 2016.

[28] **Lydia Manikonda**, Tathagata chakraborti, Sushovan De, Kartik Talamadupula, Subbarao Kambhampati, "AI-MIX: How a Planner Can Help Guide Humans Towards a Better Crowdsourced Plan", *Conference on Human Computation & Crowdsourcing (HCOMP) WIP Track*, 2014.

[29] Yuheng Hu, **Lydia Manikonda**, Subbarao Kambhampati, "What We Instagram: A First Analysis of Instagram Photo Content and Users", *The International Conference on Weblogs and Social Media (ICWSM)*, 2014 [*Featured on Wired, abcnews*].

[30] **Lydia Manikonda**, Usha Kumar, Shashi Shekhar, "A Facebook Application for Improving Disaster Management", *Grace Hopper Conference for Women in Computing,* 2012.

[31] Ashish Garg, **Lydia Manikonda**, Shashank Kumar, Vikrant Krishna, Shyam Boriah, Michael Steinbach, Vipin Kumar, Durga Toshniwal, Christopher Potter, Steven Klooster, "A Model-Free Time Series Segmentation Approach for Land Cover Change Detection", *NASA Conference on Intelligent Data Understanding (CIDU),* 2011.

[32] **Lydia Manikonda**, Raghvendra Mall, Vikram Pudi, Raghunath Rao, "Mining Nutrition Survey Data", *IEEE Symposium on Computational Intelligence and Data Mining*, Paris, France, April 2011.

[33] **Lydia Manikonda**, Ashish Mangalampalli, Vikram Pudi, "UACI: Uncertain Associative Classifier for Object Class Identification", *The 25th International Conference of Image and Vision Computing,* New Zealand, November 2010.

[34] **Lydia Manikonda**, Annu Tuli, Vikram Pudi, "ProMax: A Profit Maximizing Recommendation System for Market Baskets", *SIGAI Workshop on Emerging Research Trends in AI,* 2010.

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

[35] Mee Young Um, **Lydia Manikonda**, et al., (*Accept* with Revisions). "Predicting Intimate Partner Violence Perpetration among Young Adults Experiencing Homelessness in Seven U.S. Cities Using Interpretable Machine Learning".

[36] Yuanyuan Liu, T. Ravichandran, **Lydia Manikonda**, (*Conditionally accepted*) "Can Emotional Cues Substitute For Sharing Privacy Compromising Personal Information in Medical Crowdfunding".

[37] **Lydia Manikonda**, Yuanyuan Liu, T. Ravichandran, (*in prep*) "Pre-trained LLM Wrapper to Automatically Detect Privacy Compromising Personal Information in Medical Text".

[38] Joseph Sebastian, **Lydia Manikonda**, Khadija Ali Vakheel, (*in prep*) "Human-Human vs Human-AI Interactions: A Broader Approach to Understanding Online privacy concerns".

[39] Karuna Chandra, Cherukuri Gaurav Sushant, Bhupathi Reddy Budupu, **Lydia Manikonda**, ponnurangam kumaraguru (*in prep*) "Funding Hope: Analysis and Characterization of Crowdfunding".

[40] **Lydia Manikonda**, Brook Zeleke, Amish Soni, (*in prep*) "Investigating the Reasoning Aspects of the Generated Text by GenAI vs Humans".

[41] **Lydia Manikonda**, Muhammad Haris Saleem, (*in prep*) "Multimodality vs Privacy: Characterizing User Reviews to Investigate Privacy Concerns through Multimodal Inputs".

[42] Raffi Garcia, **Lydia Manikonda**, (*in prep*) "Impact of Race on Finances: Empirical Investigation as Evidenced through Surveying Individuals from Three major Cities in the United States".

PATENTS

[43] **Lydia Manikonda**, Shirin Sohrabi, Biplav Srivastava, Kartik Talamadupula, "Learning Personalized Actionable Domain Models" Pub.No: US 2018/0285770 A1, Pub.Date: Oct.4,2018.

[44] **Lydia Manikonda**, Shirin Sohrabi, Biplav Srivastava, Kartik Talamadupula, Anton Riabov, Deepak Turaga, "Autonomous learning of actionable models from unstructured data" Pub.No: US 2018/0218270 A1, Pub.Date: Aug.2, 2018.

BOOK CHAPTERS

[45] Nur Shazwani Kamarudin, Ghazaleh Beigi, **Lydia Manikonda**, Huan Liu, "Social Media for Mental Health: Data, Methods, and Findings", Open Source Intelligence and Cyber Crime (Social Media Analytics), 195-220, Springer Link, 1st ed. 2020.

CURRENT FUNDED AND PENDING AWARDS

1. The Louis & Hortense Rubin Community Fellows Program. An Artificial Intelligence (AI) Framework to address Unemployment and Mental Health issues. L. Manikonda (PI). $11,000. (*Awarded* but pending official announcement).

2. New York State Pollution Prevention Institute, Research & Development Program. Sunwise: Empowering Solar Solutions for Homes and Small Businesses through Data-Centric AI. $100,000. (*In review*).

3. Robert Wood Johnson Foundation (RWJF) – Research on Diet-Related Health Data Access Awards 2024. Mining Associations between Diet, Prescriptions and Health Iniquities in the though Advanced AI techniques. Only data access. (*In review*).

4. NSF IUCRC – Center for Research toward Advancing Financial Technologies (CRAFT). Full Grant: High Dimensional Portfolio Design and Optimization using an Explainable Ensemble Learning Framework. L. Manikonda (PI), C. Edirisinghe (Co-PI). $100,000. 06/01/2022 to 05/31/2023.

REJECTED AWARDS	• **NSF** – CAREER: Goal-Centric Decision-Making Tools and Education to Support Addiction Recover. $869,138. 2023. • **NSF** IUCRC – Center for Research toward Advancing Financial Technologies (CRAFT). Full Grant: A Neural embedding-based Framework to Analyze Fintech-related Social Media Discussions. $100,000. 2023. • **NSF** – Full proposal: Classroom with AI assistant. $600,000. 2021. • **DARPA** – Full proposal: eMPiRIC: Modeling Population Response to Information Campaigns. $7,004,240. 2021.
AWARDS	• RPI's **Board of Trustees Celebration of Faculty Achievement Award** – December 2022. • Best **reviewer award** ICWSM 2019. • People's Choice award for **Best Demonstration**, ICAPS 2014. • Recipient of **Anita Borg Institute Scholarship** 2015, 2011. • **Full travel support** to attend Doctoral Consortium at ICAPS-2014, HCOMP-2014. • Recipient of **University Graduate Fellowship Award** for Fall-2013, Spring-2014 and Summer-2014, Arizona State University. • Google-India **Woman in Engineering Award** 2011. • Listed in the **Dean's Merit List** at IIIT-H for the academic performance in Fall-2007, Spring-2008. • Recipient of **Special Mention Award**-2009 from IIIT-H for organizing research activities from 2007-2009.
ADVISING	• **Current** *Doctoral Students*: Joseph Sebastian, Yuanyuan Liu • **Current** *Masters and Undergrad Students*: Sophia Mazzariello, Brook Zeleke, Ritika Brahmadesam • **RCOS Undergraduates** Russell Harter, Ritika Brahmadesam, Kalvin Ramiah, Yashas Balaji, Pranav Rana, Noah Taylor • **RPI-STEP program** Julieta Gil-Marin • **Past**: Amish Soni, Noah Kader, Nay Zaw Aung Win, Shuhan Li, Bradley Morton, Shailesh Divey, Joshua Graham, Junxiong Tang, Aditya Deotale, Cameron Dudley
SERVICE	Served on an **NSF** panel. **Ad hoc Journal Reviewer** Information Systems Research (ISR), MIS Quarterly (MISQ), ACM Transactions on the Web (TWEB), ACM Transactions on Social Computing (TSC), ACM Transactions on Internet Technology (TOIT) **Organizer/Chair** – *Scientific Discovery with AI* Diversity Series Workshop at **AAAI-2021** (https://sites.google.com/view/ai4be) **Senior Program Committee member** ICWSM, WebScience **Program Committee member** WebConf, NAACL-HLT, ACL, ASONAM, SDM **Data Analyst for IJCAI 2016**

Volunteer Map Editor with USGS

INVITED TALKS
AND MEDIA
COVERAGE
- "The Pursuit of AI and the Future of Health", Plenary Talk, 24th Biennial Conference, ACMS, Iowa.
- "Human-AI Collaboration in the New Age of AI", Invited Talk, IIIT-Hyderabad, Hyderabad.
- Seeking a Moral Compass in the Digital Age (URL)
- Discussing COVID-19 and Unemployment on Spectrum News (URL)
- "Why Not Change the World?" RPI Podcast on Social Media and Artificial Intelligence (URL)
- Twelve Christian Women in Science You Should Know (URL) by Christianity Today
- "Instagram and Mental Health", Data and Society, NYC.
- AI and Machine Learning in the context of Privacy – State Press – Arizona State University (URL)
- The Best of the Physics arXiv – MIT Technology Review (URL)
- Article on AI expertise and Twitter – Network World (URL)
- Write up on our Instagram research – ABC news (URL)
- Article on our Instagram research – Wired (URL)

PREVIOUS
RESEARCH &
EMPLOYMENT
EXPERIENCE

Course Instructor – CSE 494/598 Information Retrieval,   Spring 2016
Arizona State University, Tempe, AZ

Research Intern,   Summer 2016
IBM T. J. Watson Research Center, Yorktown Heights, NY

Research Intern, Summer 2015
Microsoft Research, Redmond, WA

Research Engineer, Summer 2012
Kyungpook National University, Daegu, South Korea

Research Intern, January 2011 – December 2011
University of Minnesota, Twin Cities, MN

Research Intern, Summer 2008
University of Sydney, Sydney, Australia

Research Assistant
- Arizona State University, Tempe, AZ   Fall 2013 – Summer 2019
- IIIT-Hyderabad, Hyderabad, India   Fall 2008 – Fall 2010

PROFESSIONAL
MEMBERSHIPS
ACM, **AAAI**, **AIS**

OUTSIDE
ACTIVITIES
None to report