

Zening Duan

CONTACT INFORMATION	Department of Communications and New Media National University of Singapore Blk AS6, #03-41, 11 Computing Drive Singapore, 117416	zening.duan@nus.edu.sg zeningduan.com @Zening_Duan
PROFESSIONAL	National University of Singapore Assistant Professor in Computational Communication, Department of Communications and New Media NUS Artificial Intelligence Institute (affiliated faculty member) University of Wisconsin-Madison School of Journalism and Mass Communication (Honorary Fellow, 2026) Public Tech Media Lab (Faculty Associate, 2026-)	2026 -
EDUCATION	Ph.D. , University of Wisconsin-Madison, Mass Communications <i>Ph.D. minor, Political Science</i> M.A. , City University of Hong Kong <i>Distinction</i> , Communication and New Media M.A. , Beijing Normal University <i>Honours</i> , Journalism B.A. , Jiangxi Normal University <i>Honours</i> , Journalism	2019-2025 2018 2018 2016
RESEARCH AREAS AND KEYWORDS	Substantive: Political Communication; Public Attention; Message Effects; Social Media and Technologies; Digital Media Ecosystems Methodological: AI for Social Science; Computational Multimodal Analysis; Digital Trace Data Analysis; Experiments and Surveys; Causal Inference	
HONORS AND AWARDS	NUS Presidential Young Professorship Award University of Wisconsin-Madison Fellowship Leadership Award, School of Journalism and Mass Communication First-place and Best Discovery Award, China Computer Federation <i>Honorary Grant, approximately \$5,000 at the time</i> [News coverage] Beijing Normal University Graduate Student Fellowship China National Academic Scholarship Fu Hui Academic Scholarship, Fu Hui Education Foundation, Hong Kong	2026- 2019, 2024 2022 2018 2016-2018 2014 2014
RESEARCH	Peer-reviewed Journal Articles [1] Luo, S*, kim, SJ*, Duan, Z* , & Chen, C*. (2026). Refusal as Silence: Gendered Disparities in Vision-Language Model Responses. <i>New Media & Society</i> . 🔗 * co-first authorship [2] Yang, S., Sun, L., Tao, R., Suh, Y., Duan, Z. , Sun, Y., Wang, Y., & Liu, J. (2026). Can Algorithms Efficiently Identify Interpretable and Persuasive Message Features? An Agnostic Causal Machine Learning Approach. <i>Health Communication</i> . 🔗 [3] Mak, MKF., Duan, Z. , Yang, S., & Wagner, MW. (2025). To quit or not to quit Twitter? The interplay of identities, perceptions, and behavioral reactions to changing platform ownership. <i>Information, Communication & Society</i> . 🔗	

- [4] **Duan, Z.**, Shao, A., Hu, Y., Lee, H., Liao, X., Suh, Y., Kim, J., Yang, K. C., Chen, K., & Yang, S. (2025). Constructing Vec-tionaries to Extract Message Features from Texts: A Case Study of Moral Content. *Political Analysis*. [\[repo\]](#)[\[GitHub\]](#)
- [5] Chen, K*, **Duan, Z***, & Kim, S*. (2024). Uncovering Gender Stereotypes in Controversial Science Discourse: Evidence from Computational Text and Visual Analyses across Digital Platforms. *Journal of Computer-Mediated Communication*, 29(1), 633-646. [\[repo\]](#) [\[SI: Gender Gaps in Digital Spaces\]](#) ***co-first authorship**
- [6] Ma, S., Wang, Y., Shu, Z., **Duan, Z.**, & Sun, L. (2023). Development and Validation of Internet Literacy Scale for High School Students. *Education and Information Technologies*(29), 1427–1454. [\[repo\]](#)
- [7] Chen, K*, Molder, A*, **Duan, Z***, Boulianne, S., Eckart, C., Mallari, P., & Yang, D. (2022). How Climate Movement Actors and News Media Frame Climate Change and Strike: Evidence from Analyzing Twitter and News Media Discourse from 2018-2021. *The International Journal of Press/Politics*, 28(2), 384-413. [\[repo\]](#) ***co-first authorship**
- [8] **Duan, Z.**, Li, J., Lukito, L., Yang, K. C., Chen, F., Shah, D. V., & Yang, S. (2022). Algorithmic Agents in the Hybrid Media System: Social Bots, Selective Amplification and Partisan News about COVID-19. *Human Communication Research*, 48(3), 516-542. [\[repo\]](#) [\[SI: Rethinking Communication in the Era of AI\]](#)
- [9] Chen, K*, **Duan, Z***, and Yang*, S. (2021). Twitter as Research Data: Tools, Costs, Skill Sets, and Lessons Learned. *Politics and the Life Sciences*, 41(1), 114-130. [\[repo\]](#) ***co-first authorship**

Book Chapters

- [1] Bucy, E., Shah, D., Sun, Z., Sethares, W., Borah, P., Kim, S., & **Duan, Z.** (2022) Detecting Nonverbal Aggression in Presidential Debate. In R. X. Browning (Ed.), *Democracy and the Media: The Year in C-SPAN Archives Research*, Vol. 8. West Lafayette, IN: Purdue University Press.
- [2] Lukito, J., Dempsey, D., Suk, J., Li, J., Yang, E., Foley, J. M., Hughes, C., Busch, M.S., Sun, Z., **Duan, Z.**, & Franklin, C. (2022) *Studying the Wisconsin Communication Ecology*, Chapter 3 from the book *Battleground: Asymmetric Communication Ecologies and the Erosion of Civil Society in Wisconsin* by Friedland, L. A., Shah, D. V., Wagner, M. W., Wells, C., Cramer, K. J., & Pevehouse, J. C. W.

Under Review

- [1] Wang, Y. & **Duan, Z.** How Academia, News, and the Public Make Moral Sense of Generative AI on Social Media: Who Speaks and What Spreads.
- [2] Kim, J., **Duan, Z.**, Li, J., Ryoo, Y., Xin, H., Monard, E., Nanz, A., Nouri, C., Bucy, E., Pevehouse, J. C. W., & Shah, D. V. Russian Nuclear Threats in a Multi-Platform World: Shaping Communication Flows About Ukraine Across English, French, and German.
- [3] Cohen, M.S., Sachdeva, M., & **Duan, Z.** Geographically aggregated psychological traits from linguistic analysis of Twitter data predict U.S. voter realignment since 2016.
- [4] Zhou, A., Mukerjee, S., Maslowska, E., **Duan, Z.**, Jaidka, K., Lukito, J., Shugars, S., Smith, M., Trilling, D., & Yang, T. Generative AI in Computational Communication Research: Opportunities, Challenges, and Future Directions.

[5] Ye, Q., **Duan, Z.**, & Huang, S. Leveraging Large Language Models in Message Stimuli Generation and Validation for Experimental Research. (*1st R&R*)

GRANTS

Non-profit Organization/Private Foundation

The International Fact-Checking Network, \$9,658
 Project Title: *Identifying and Implementing Effective Visual* 2023-2024
Enhancements to Correct High-Priority COVID-19 Misinformation
 PI: Sijia Yang
 Co-PI: Dhavan Shah, Porismita Borah, Jianing Li, Ran Tao,
Zening Duan, Adati Tarfa, Liwei Shen, and Xiaoya Jiang

University-affiliated Foundation/Center

National University of Singapore
 NUS-PYP & Strategic Hire Fund, \$782,900
 Project Title: *Computational Media Ecosystems and Technology Research* 2026-2030
 PI: **Zening Duan**

University of Wisconsin-Madison
 WARF Accelerator Big Data Challenge Grant, #MSN275569 \$25,000
 Project Title: *Constructing Vec-tionaries to Extract Latent Message* 2023-2024
Features from Texts (announcement)
 PI: Sijia Yang
 Co-PI: **Zening Duan**

UW Robert F. and Jean E. Holtz Center Mini Grant, \$1,000
 Project Title: *"Moral Algorithms": The Use of Moral Appeals by Bot Actors* 2023-2024
 PI: **Zening Duan**

Conference Travel Grant

School of Journalism and Mass Communication Conference Travel Grant 2019-2024
 American Political Science Association Travel Grant 2023
 Summer Institute in Computational Social Science Travel Grant 2022

INVITED TALKS

University of Zurich, Switzerland 2026
 University of California San Diego, CA, U.S. May 2026
 South China University of Technology, CN April 2026
 Shanghai Jiao Tong University, CN July 2025
 AI + Social Science Workshop, pattern.swarma.org April 2025
 Humanities AI Conference, Lehigh University, PA, U.S. April 2025
 City University of Hong Kong, Hong Kong SAR February 2025
 National University of Singapore, SG February 2025
 Purdue University, IN, U.S. February 2025
 University of Florida, FL, U.S. January 2025
 Texas A&M University, TX, U.S. January 2025
 Georgia State University, GA, U.S. January 2025
 Jiangxi Normal University, CN June 2024
 Beijing Normal University, CN April 2023
 Institute of Journalism at Shanghai Academy of Social Sciences, CN June 2022
 Tun Tan Cheng Lock Center for Social & Policy Studies, UTAR, Malaysia April 2020

ORGANIZED
 WORKSHOPS

Panel Chair

“Generative AI for Computational Communication Research” ICA (CM Division) Conference, Denver, U.S. <i>with Drs. Alvin Zhou (Minnesota), Sarah Shugars (Rutgers)</i>	June 2025
“Algorithmically Yours: Communicating in the Age of Generative AI” ICA (CAT Division) Conference, Gold Coast, Australia. <i>with Drs. Jeffrey T. Hancock (Stanford), S. Shyam Sundar (Penn State)</i>	June 2024
“Leveraging Generative AI in Communication Research: Opportunities, Challenges, and Best Practices” ICA (Bluesky) Conference, Gold Coast, Australia. <i>with Drs. Alvin Zhou (Minnesota), Yingdan Lu (Northwestern)</i>	June 2024
Host-Computational Methods Research Group [About CMRG]	
Open-source Innovation and Censorship (Ouyang Rongxin, NUS)	April 19, 2024
AI Chatbots Behaviors (Yutong Xie, U Michigan)	April 12, 2024
Multilingual Cross-platform Information Flow (Yingdan Lu, NU)	Nov 13, 2023
LLMs for Opinion Prediction (Junsol Kim, U Chicago)	Nov 8, 2023
Social Media Monitoring using Synthesio (Zening Duan, Madison)	Sep 21, 2023
Ethical/Legal Issues in Computational Research (Jo Lukito, Austin)	April 14, 2023
Competition in Online Community (Marlon Twyman, USC)	April 7, 2023
Crowdsourcing/Computational Modeling (Jiaxin Pei, U Michigan)	March 24, 2023
Automated Online Data Collection (Anqi Shao, Madison)	March 2, 2023
Web Automator using Selenium (Zening Duan, Madison)	Feb 24, 2023
Social Bots Detection and Studies (Kaicheng Yang, IU Bloomington)	Feb 17, 2023
Computational Content Analysis (Zening Duan, Madison)	Feb 3, 2023

TEACHING

National University of Singapore	
NMC5342 Introduction to Applied Social Media Analytics	Spring 2026
University of Wisconsin-Madison	
<i>Teaching Assistant/Session Instructor</i>	
JOURN203 Information for Communication	Fall 2021
JOURN203 Information for Communication	Spring 2022
Guest Lectures	
CS4271 Human-AI Interaction & Communication Nanyang Technological University, SG	Mar 2026
NM6770 Graduate Research Seminar National University of Singapore, SG	Mar 2026
CA343 Human Communication in the Age of Artificial Intelligence University of Wisconsin-Madison, WI, U.S.	Dec 2025
395-0-25 Topics in Communication Studies Northwestern University, IL, U.S.	May 2024
JOUR630089 Computational Analysis for Communication Fudan University, CN	May 2024
JOURN818 Computational Approaches to Communication Research University of Wisconsin-Madison, WI, U.S.	Oct 2022

SERVICE

International Associations Related Services	
Social Media Director	2025-2026
AEJMC-Communication Theory and Methodology (CTAM) Division	

Reviewer

For peer-reviewed journals, including: *Communication Methods and Measures*; *Computational Communication Research*; *Health Communication*; *International Journal of Public Opinion Research*; *Journalism and Mass Communication Quarterly*; *Journal of Information Technology & Politics*; *Mass Communication and Society*; *New Media & Society*; *Politics and the Life Sciences*; *Scientific Reports*; *Telematics & Informatics*; *The International Journal of Press/Politics*

For non-archival conferences, including: *International Association for Media and Communication Research (IAMCR)*; *International Communication Association (ICA)*; *National Communication Association (NCA)*; *Association for Education in Journalism and Mass Communication (AEJMC)*

University and Departmental Service

National University of Singapore

Departmental Service:

– Department Ethics Review Committee (DERC) 2026-

University of Wisconsin-Madison

Lead, Computational Methods Research Group 2023-2025

Committee Member, Communication Crossroads Conference 2022

Community

Founder, Computational Communication Island 2021-present

An online platform for computational communication research (12,000 + followers)

- Organize this platform to share cutting-edge computational communication research, facilitate academic discussions, and promote resource exchange among students and scholars, especially those underrepresented in Asia and beyond.
- Write and edit articles to introduce computational communication studies, methods, and resources to students and scholars in communication, political science, public health, and other related disciplines.
- Manage platform maintenance, editor recruitment, editorial work, and outreach.

PROFESSIONAL EXPERIENCE

Journalist and Marketing Intern, Huxiu.com 2013

CONFERENCE PRESENTATION

- [1] Duan, Z., Zhou, X., Shah, D., & Yang, S. (2026). *Moral Language Shapes Engagement With Algorithmic Communicators*. International Communication Association Conference, Cape Town, South Africa.
- [2] Duan, Z., Xu, L., Shah, D., & Yang, S. (2026). *Testing Synthetic Moral Appeals: A Preregistered Experiment on Moral Appeals, AI Attribution, and Message Retransmission*. International Communication Association Conference, Cape Town, South Africa.
- [3] Duan, Z., Kim, J., Xin, O., Li, J., Ryoo, Y., Hu, D., Frandrich, B., Ovod, A., Yang, K.C., Bucy, E., Pevehouse, J., & Shah, D. (2025). *Who Shifts? Who Reacts?: Analyzing Attention Allocation Among Social Media Publics in Response to Russia's Nuclear Threats- A Large Language Model Approach*. International Communication Association Conference, Denver, U.S.

- [4] Ye, Q., Duan, Z., & Huang, S. (2025). *Leveraging Large Language Models in Message Stimuli Generation and Validation for Experimental Research*. International Communication Association Conference, Denver, U.S.
- [5] Duan, Z., Shao, A., Hu, Y., Lee, H., Liao, X., Suh, Y., Kim, J., Yang, K. C., Chen, K., & Yang, S. (2024). *Constructing Vectors to Extract Latent Message Features from Texts: A Case Study of Moral Appeals*. International Communication Association Conference, Gold Coast, Australia.
- [6] Kim, J., Lee, H., Liao, X., Duan, Z., Sun, L., and Yang, S. (2024). *Unpacking Health Politicization: Distinguishing Message Versus Perception Effects on COVID-19 Vaccine-Related Attitudes and Partisan Polarization*. International Communication Association Conference, Gold Coast, Australia.
- [7] Duan, Z., Yang, K-C., Hu, Y., Shao, A., Chen, K., and Yang, S. (2024). *vecMFD – A Python Library for Computational Analysis of Moral Appeals from English Texts*. International Communication Association Conference, Gold Coast, Australia.
- [8] Yang, S., Sun, L., Tao, R., Suh, Y., Duan, Z., Sun, Y., Wang, Y., and Liu, J. (2024). *What Makes a Strong Argument in Health Promotional Messages? Identifying Latent Persuasive Message Features through an Agnostic Causal Machine Learning Approach*. International Communication Association Conference, Gold Coast, Australia.
- [9] Duan, Z., and Yu, H. (2024). *Examining Latent Moral Appeals in News Images across Partisan Outlets Using GPT-4: Insights and Challenges using a Large Language Models Approach*. International Communication Association Conference, Gold Coast, Australia.
- [10] Duan, Z., and Yang, S. (2024). *Unveiling the Moral Messaging Strategies of Algorithmic Agents in the Age of Generative AI: A Mixed-Methods Analysis*. International Communication Association Conference, Gold Coast, Australia.
- [11] Duan, Z., Chen, K., and Kim, S. (2024). *How Moral Judgements are Used with Gender Cues in Controversial Science Discourse: Evidence from Computational Text and Visual Analyses across Digital Platforms*. International Communication Association Conference, Gold Coast, Australia.
- [12] Ye, Q., Duan, Z., and Huang, S. (2024). *Leveraging Large Language Models in Message Stimuli Generation and Validation for Experimental Research*. International Communication Association Conference, Gold Coast, Australia.
- [13] Mak, M.K., Duan, Z., Yang, S., and Wagner, M. W. (2024). *Quit Twitter? The interplay of social identities, perceptions, and behavioral reactions to changing platform ownership*. International Communication Association Conference, Gold Coast, Australia.
- [14] Duan, Z. (2023). *Prompting Large Language Models in Computational Communication Research*. Beijing Normal University. invited talk, virtual.
- [15] Duan, Z., Cohen, M.S., and Sachdeva, M. (2023). *Relating Psychological Metrics Inferred From Social Media Posts with Political Preferences: Evidence From a Geospatial Perspective*. International Communication Association Conference, Toronto, Canada.
- [16] Duan, Z., Hu, Y., and Yang, S. (2022). *Strategic Usage of Moral Appeals by Twitter Bots in the Context of COVID-19 Pandemic*. International Conference on Computational Social Science, Chicago. U.S.
- [17] Duan, Z., Chen, K., Shao, A., and Yang, S. (2022). *Differentiating Discrete Moral Appeals in Predicting Online Communicative Actions: Analyzing A Two-Week Firehose Archival of COVID-19 Tweets*. International Communication Association Conference, Paris, France.

- [18] Chen, K., Molder, A., Boulianne, S., Duan, Z., Eckart, C., Mallari, P., and Yang, D. (2022). *How Youth Activists and News Media Frame Climate Change and Strike: Evidence from Analyzing Twitter and Newspaper Discourse from 2018-2021*. International Communication Association Conference, Paris, France.
- [19] Duan, Z., Li, J., Lukito, L., Shah, D., and Yang, S. (2021). *Bot as Strategic Communicator in the Digital Public Space: Evidence for Algorithmic Agenda-Setting during the COVID-19 Pandemic*. International Communication Association Conference, Virtual.
- [20] Chen, K., Duan, Z., and Yang, S. (2021). *Evaluating Biases and Sample Representativeness of Twitter Data*. International Communication Association Conference, Virtual.
- [21] Duan, Z., Li, J., Lukito, L., Chen, X., and Yang, S. (2020). *Bot or Not? Algorithm-driven Public Opinion During the Global Coronavirus Crisis*. International Communication Association Conference, Virtual.

MEDIA REPORTS
AND QUOTES

Channel3000, patterns.warma, Guangming Daily

Updated: June, 2026