

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	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 and Science Communication; Public Attention; Message Effects; Social Media; Emerging Media Technologies; Digital Media Ecosystems Methodological: Computational Multimodal Analysis; Digital Trace Data Analysis; Machine Learning; Experiments and Surveys; Causal Inference; AI for Social Science	
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] 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> .  [2] 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. <i>Political Analysis</i> .  [3] Chen, K*.., Duan, Z*. , & Kim, S*. (2024). Uncovering Gender Stereotypes in Controversial Science Discourse: Evidence from Computational Text and Visual Analyses across Digital Platforms. <i>Journal of Computer-Mediated Communication</i> , 29(1), 633-646.    [repo] [GitHub] [SI: Gender Gaps in Digital Spaces] *co-first authorship	

[4] 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. 

[5] 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.  *co-first authorship

[6] **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]

[7] 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] Kim, J., **Duan, Z.**, Li, J., Ryoo, Y., 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. (*under review*)

[2] Cohen, M.S., Sachdeva, M., & **Duan, Z.**. Geographically aggregated psychological traits from linguistic analysis of Twitter data predict U.S. voter realignment since 2016. (*under review*)

[3] 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. (*under review*)

[4] Luo, S., kim, SJ., **Duan, Z.**, & Chen, C. Refusal as Silence: Gendered Disparities in Vision-Language Model Responses. (*1st round R&R*)

[5] Yang, S., Sun, L., Tao, R., Suh, Y., **Duan, Z.**, Sun, Y., Wang, Y., & Liu, J. What Makes a Strong Argument in Health Promotional Messages? Identifying Latent Persuasive Message Features through An Agnostic Causal Machine Learning Approach. (*2nd round R&R*)

[6] Borah, P., Hu, Y., Shen, L., Sun, Y., Cao, X., Sun, L., **Duan, Z.**, Shah, D.V., Wagner, M., & Yang S. All Visuals Are Not Equal? Credibility Perceptions, Vaccine Misinformation Correction, and the Moderating Role of Political Interest (*1st round R&R*)

[7] Ye, Q., **Duan, Z.**, & Huang, S. Leveraging Large Language Models in Message Stimuli Generation and Validation for Experimental Research. (*under review*)

GRANTS	Non-profit Organization/Private Foundation The International Fact-Checking Network, Project Title: <i>Identifying and Implementing Effective Visual Enhancements to Correct High-Priority COVID-19 Misinformation</i> PI: Sijia Yang Co-PI: Dhavan Shah, Porismita Borah, Jianing Li, Ran Tao, Zening Duan , Adati Tarfa, Liwei Shen, and Xiaoya Jiang	\$9,658 2023-2024
	University-affiliated Foundation/Center National University of Singapore NUS-PYP Strategic Hire Fund, Project Title: <i>Computational Media Ecosystems and Technology Research</i> PI: Zening Duan	\$197,581 2026-2030
	University of Wisconsin-Madison WARF Accelerator Big Data Challenge Grant, #MSN275569 Project Title: <i>Constructing Vec-tionaries to Extract Latent Message Features from Texts</i> (announcement) PI: Sijia Yang Co-PI: Zening Duan	\$25,000 2023-2024
	UW Robert F. and Jean E. Holtz Center Mini Grant, Project Title: <i>"Moral Algorithms": The Use of Moral Appeals by Bot Actors</i> PI: Zening Duan	\$1,000 2023-2024
	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 The Fudan-UC Center on Contemporary China, CA, U.S. Shanghai Jiao Tong University, CN AI + Social Science Workshop, pattern.swarma.org Humanities AI Conference, Lehigh University, PA, U.S. City University of Hong Kong, Hong Kong SAR National University of Singapore, SG Purdue University, IN, U.S. University of Florida, FL, U.S. Texas A&M University, TX, U.S. Georgia State University, GA, U.S. Jiangxi Normal University, CN Beijing Normal University, CN Institute of Journalism at Shanghai Academy of Social Sciences, CN Tun Tan Cheng Lock Center for Social & Policy Studies, UTAR, Malaysia	2026 2026 July 2025 April 2025 April 2025 February 2025 February 2025 February 2025 January 2025 January 2025 January 2025 June 2024 April 2023 June 2022 April 2020
ORGANIZED WORKSHOPS	Panel Chair "Generative AI for Computational Communication Research" ICA (CM Division) Conference, Denver, U.S. with Drs. Alvin Zhou (Minnesota), Sarah Shugars (Rutgers) "Algorithmically Yours: Communicating in the Age of Generative AI"	June 2025 June 2024

ICA (CAT Division) Conference, Gold Coast, Australia. <i>with Drs. Jeffrey T. Hancock (Stanford), S. Shyam Sundar (Penn State)</i>	
"Leveraging Generative AI in Communication Research: Opportunities, Challenges, and Best Practices"	June 2024
ICA (Bluesky) Conference, Gold Coast, Australia. <i>with Drs. Alvin Zhou (Minnesota), Yingdan Lu (Northwestern)</i>	
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	
	NM6770 Graduate Research Seminar	Mar 2026
	National University of Singapore, SG	
	CA343 Human Communication in the Age of Artificial Intelligence	Dec 2025
	University of Wisconsin-Madison, WI, U.S.	
	395-0-25 Topics in Communication Studies	May 2024
	Northwestern University, IL, U.S.	
	JOUR630089 Computational Analysis for Communication	May 2024
	Fudan University, CN	
	JOURN818 Computational Approaches to Communication Research	Oct 2022
	University of Wisconsin-Madison, WI, U.S.	
SERVICE	International Associations Related Services Social Media Director AEJMC-Communication Theory and Methodology (CTAM) Division	2025-2026

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

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 Vec-tionaries 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., Boulian, 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: January, 2026