Zening Duan

Contact Information	School of Journalism and Mass Communication University of Wisconsin-Madison 5035 Vilas Communication Hall, 821 University Ave Madison, WI 53706, USA	zening.duan@wisc.edu zeningduan.com @Zening_Duan +1 (608)949-2732

Education

Ph.D., Mass Communications, University of Wisconsin-Madison   Ex. June 2025
Ph.D. minor, Political Science (*methodology*)
Committee: Dhavan Shah*, Sijia Yang*, Katherine Cramer,
          William Sethares, Catalina Toma (**Co-chairs*)
Dissertation: *Selective Attention Amplification through Algorithms*
          and Consequences on Information Flow
M.A., Communication and New Media, City University of Hong Kong   June 2018
M.A., Journalism, Beijing Normal University   June 2018
B.A., Journalism, Jiangxi Normal University   June 2016

Publication

Peer-reviewed Journal Articles

J1. **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 Message Features from Texts: A Case Study of Moral Content. *Political Analysis* (*forthcoming*). ⬀ [repo]

J2. 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

J3. 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. ⬀

J4. 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

J5. **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]

J6. 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

Under Review

U1. 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*)

U2. 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*)

U3. 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*)

U4. Mak, M.K., **Duan, Z.**, Yang, S., & Wagner, M. Quit Twitter? The Interplay of Social Identities, Perceptions, and Behavioral Reactions to Changing Platform Ownership (*under review*)

U5. Ye, Q., **Duan, Z.**, & Huang, S. Leveraging Large Language Models in Message Stimuli Generation and Validation for Experimental Research. (*under review*)

WORK-IN-PROGRESS

Algorithmic Attention Amplification and Information Engagement with AI

I1. Moral AI: How Algorithmic Agents Leverage Moral Messaging Strategies for Information Engagement. (***Duan, Z.***, *Yang, S.*)

I2. The Reproductive Dynamics of Moral Appeals on Social Media: Evidence from A Large-Scale Analysis on COVID-19 Public Discourse on Twitter. (*Shao, A.,* ***Duan, Z.***, *Chen, K., Yang, S.*)

Generative AI as Computational Social Science Methods

I3. Examining Latent Moral Appeals in News Images across Partisan Outlets: a Large Language Model Approach. (***Duan, Z.***, *Yu, H.*)

I4. A Sociotechnical Lens for Evaluating Computer Vision Models: A Case Study on Detecting and Reasoning about Gender and Emotion (*with Luo, S., Kim, S.,* ***Duan, Z.***, *Chen, K.*)

Public Discourse & Digital Media Ecology

I5. Who Shifts? Who Reacts?: Analyzing Attention Allocation Among Social Media Publics in Response to Russia's Nuclear Threats- A Large Language Model Approach (***Duan, Z.***, *SMAD group*)

BOOK CHAPTER

B1. 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.

B2. 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.

GRANTS

Non-profit Organization/Private Foundation
The International Fact-Checking Network, CO-PI   August 2020 – July 2021
$9,658

University-affiliated Foundation/Center
Wisconsin Alumni Research Foundation, CO-PI   January 2023– January 2024
$25,000
Robert F. and Jean E. Holtz Center, PI   2022

$1,000
School of Journalism and Mass Communication at UW-Madison, PI   2020-present
$2,600

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

ORGANIZED
WORKSHOPS

Panel Chair
"Generative AI for Computational Communication Research"   June 2025
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 2024
ICA (CAT Division) Conference, Gold Coast, Australia.
with Drs. Jeffrey T. Hancock (*Stanford*)*, S. Shyam Sundar* (*Penn State*)
"Leveraging Generative AI in Communication Research: Opportunities, June 2024
Challenges, and Best Practices"
ICA (Bluesky) Conference, Gold Coast, Australia.
with Drs. Alvin Zhou (*Minnesota*)*, Yingdan Lu* (*Northwestern*)
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

Teaching Assistant/Session Instructor
Course: JOURN203 Information for Communication   Fall 2021
Instructor: Chris Cascio
Course: JOURN203 Information for Communication   Spring 2022
Instructor: Sijia Yang
Guest Lecture
395-0-25 Topics in Communication Studies, Northwestern University, IL   May 2024
JOUR630089 Computational Analysis for Communication,   May 2024
        Fudan University, China
JOURN818 Computational Approaches to Communication Research, October 2022
        UW-Madison, WI
Institute of Journalism at Shanghai Academy of Social Sciences, China   June 2022
Tun Tan Cheng Lock Center for Social & Policy Studies, UTAR, Malaysia April 2020

RESEARCH & PROJECT **Graduate Research Assistant**   Fall 2022 – Spring 2024
ASSISTANTS

Advisor: Sijia Yang, Dhavan V. Shah
Responsible for data management and processing for Mass Communication Research Center (MCRC) and Center for Communication and Civic Renewal (CCCR)
Student Leader   Fall 2022 - Present
Social Media and Democracy (SMAD) Group
Analyzing multi-platform, cross-language datasets for the Ukraine Project; Mentoring undergraduate research assistants and research paper writing; Communicating group updates
Student Contact Person   Spring 2020 - Fall 2020
Computational Approaches and Message Effects Research (CAMER) group

SERVICE

University of Wisconsin-Madison
Committee Member, Communication Crossroads Conference   2022

Anonymous reviewer
For peer-reviewed journals, including: Communication Methods and Measures (2023), Computational Communication Research (2023), International Journal of Public Opinion Research (2023), Journal of Information Technology & Politics (2021), Politics and the Life Sciences (2022), Scientific Reports (2022)
(*by alphabetical order, six manuscripts reviewed*)
For non-archival conferences, including: IAMCR (2020); ICA (Computational Methods, Communication and Technology, Political Communication) (2021-2023); NCA (Human Communication and Technology) (2023)
(*by alphabetical order, 19 manuscripts reviewed*)

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*   June-August 2013

CONFERENCE PRESENTATION

C20 Duan, Z., Kim, J., Xin, O., Li, J., Ryoo, Y., Hu, D., Frandrich, B., Ovod, A., Yang., K.C., Bucy, E., Pevehouse, J., & Dhavan, S. (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.

C19 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.

C18 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.

C17 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.

C16 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.

C15 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.

C14 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.

C13 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.

C12 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.

C11 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.

C10 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.

C9 Duan, Z. (2023). *Prompting Large Language Models in Computational Communication Research.* Beijing Normal University. *invited talk, virtual.*

C8 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.

C7 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.

C5 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.

C4 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.

C3 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.

C2 Chen, K., Duan, Z., and Yang, S. (2021). *Evaluating Biases and Sample Representativeness of Twitter Data.* International Communication Association Conference, Virtual.

C1 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.

AWARDS	University Fellowship, UW-Madison — 2024-2025, 2019-2020

AWARDS
University Fellowship, UW-Madison   2024-2025, 2019-2020
Leadership Award, School of Journalism and Mass Communication,   2022
First-place and Best Discovery Award, China Computer Federation   2018
Honorary Grant, approximately $5,000 at the time [*News coverage*]
Graduate Scholarship, Beijing Normal University   2017
University Graduate Student Fellowship, Beijing Normal University   2016-2018
Premier Student Distinction, Jiangxi Normal University   2015
National Academic Scholarship, The Ministry of Education of China   2014
Fu Hui Academic Fellowship, Fu Hui Education Foundation, Hong Kong   2014

REFERENCES

Dr. Dhavan V. Shah
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School of Journalism and Mass Communication
University of Wisconsin-Madison
Email: dshah@wisc.edu

Dr. Sijia Yang
Associate Professor
School of Journalism and Mass Communication
University of Wisconsin-Madison
Email: syang84@wisc.edu

Dr. Kaiping Chen
Assistant Professor
Department of Life Sciences Communication
University of Wisconsin-Madison
Email: kchen67@wisc.edu

Dr. Catalina L. Toma
Professor
Department of Communication Arts
University of Wisconsin-Madison
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Dr. S. Shyam Sundar
Professor
Donald P. Bellisario College of Communications
The Pennsylvania State University
Email: sss12@psu.edu