Yoo Jung (Erika) Oh

Department of Communication Michigan State University ohyoojun@msu.edu

Updated: 9/5/2023

EDUCATION

PhD in Communication

June 2023

Designated Emphasis in Computational Social Science

University of California, Davis (Davis, California, United States)

Dissertation: "Relational Chatbots in Fostering Human-Chatbot Relationships for Health

Behavior Change"

Advisor: Jingwen Zhang

MA in Journalism and Mass Communication

2018

Korea University (Seoul, South Korea)

Thesis: "Investigating Organ Donation-Related Behaviors Using the Transtheoretical Model

and Construal Level Theory"

Advisor: Hee Sun Park

BA in English Interpretation and Translation & Japanese Area Studies

2016

Hankuk University of Foreign Studies (Seoul, South Korea)

AREAS OF RESEARCH

Human-computer interaction; Artificial intelligence (AI) Chatbots; Strategic communication; Health communication; Public health; Health Technologies.

PEER-REVIEWED PUBLICATIONS

19. Liao, W., **Oh, Y. J.,** Zhang, J., & Feng, B. (2023). Conversational dynamics of joint attention and shared emotion predict outcomes in interpersonal influence situations: an interaction ritual perspective. *Journal of Communication*, jqad003.

18. Liao, W., **Oh, Y. J.,** Feng, B., & Zhang, J. (2023). Understanding the Influence Discrepancy Between Human and Artificial Agent in Advice Interactions: The Role of Stereotypical Perception of Agency. *Communication Research*, 00936502221138427.

- 17. **Oh, Y. J.,** Hoffmann, T. J., & Fukuoka, Y. (2023). A Novel Approach to Assess Weekly Self-efficacy for Meeting Personalized Physical Activity Goals Via a Cellphone: 12-Week Longitudinal Study. *JMIR Formative Research*, 7(1), e38877.
- 16. Stevens, H., Rasul, M.E., & **Oh, Y. J.** (2022). Emotions and incivility in vaccine mandate discourse: Natural language processing insights. *JMIR Infodemiology*, 2(2), e37635. https://infodemiology.jmir.org/2022/2/e37635
- 15. Fukuoka, Y., Katzman, W. B., Gladin, A., Lane, N. E., Kado, D. M., & **Oh, Y. J.** (2022). Slower upper extremity function in older adults with hyperkyphosis negatively impacts the 6-min walk test. *BMC Musculoskeletal Disorders*, 23(1), 1-8. https://doi.org/10.1186/s12891-022-05455-x
- 14. Fukuoka, Y., & **Oh**, **Y. J.** (2022). Self-Weighing Behaviors of Diverse Community-Dwelling Adults Motivated for a Lifestyle Change. *International Journal of Environmental Research and Public Health*, *19*(9), 5242. https://doi.org/10.3390/ijerph19095242
- 13. Fukuoka, Y., & **Oh, Y. J.** (2022). Perceived Heart Attack Likelihood in Adults with a High Diabetes Risk. *Heart & Lung*, *52*, 42-47. https://doi.org/10.1016/j.hrtlng.2021.11.007
- **12. Oh, Y. J.,** Zhang, J., Fang, M. L., & Fukuoka, Y. (2021). A systematic review of artificial intelligence chatbots for promoting physical activity, healthy diet, and weight loss. *International Journal of Behavioral Nutrition and Physical Activity*, *18*(1), 1-25. https://doi.org/10.1186/s12966-021-01224-6
- 11. Fukuoka, Y., & **Oh, Y. J.** (2021). Perceived Risk of Heart Attack and Type 2 Diabetes in Hispanic Adults With Overweight and Obesity. *The Journal of Cardiovascular Nursing*. https://doi.org/10.1097/JCN.000000000000000866
- 10. Liang, K. H., Lange, P., **Oh, Y. J.,** Zhang, J., Fukuoka, Y., & Yu, Z. (2021). Evaluation of In-Person Counseling Strategies To Develop Physical Activity Chatbot for Women. *SIGDIAL*. https://arxiv.org/pdf/2107.10410.pdf
- 9. Stevens, H. R., **Oh**, **Y. J.**, & Taylor, L. R. (2021). Desensitization to fear-inducing COVID-19 health news on Twitter: observational study. *JMIR infodemiology*, *1*(1), e26876. https://doi.org/10.2196/26876
- 8. Liao, W., Zhang, J., **Oh, Y. J.,** & Palomares, N. A. (2021). Linguistic Accommodation Enhances Compliance to Charity Donation: The Role of Interpersonal Communication Processes in Mediated Compliance-Gaining Conversations. *Journal of Computer-Mediated Communication*. https://doi.org/10.1093/jcmc/zmab001

- 7. Zhang, J., **Oh, Y. J.**, Lange, P., Yu, Z., & Fukuoka, Y. (2020). Artificial Intelligence Chatbot Behavior Change Model for Designing Artificial Intelligence Chatbots to Promote Physical Activity and a Healthy Diet. *Journal of Medical Internet Research*, *22*(9), e22845. https://doi.org/10.2196/22845
- **6. Oh, Y. J.,** Ryu, J. Y., & Park, H. S. (2020). What's going on in the Korean peninsula?: A study on perception and influence of South and North Korea-related fake news. *International Journal of Communication*, 14, 1463-1479. https://ijoc.org/index.php/ijoc/article/viewFile/10904/3004
- 5. Shi, W., Wang, X., **Oh, Y. J.,** Zhang, J., Sahay, S., & Yu, Z. (2020). Effects of Persuasive Dialogues: Testing Bot Identities and Inquiry Strategies. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1-13). https://dl.acm.org/doi/10.1145/3313831.3376843
- **4. Oh, Y. J.,** Park, H. S., & Min, Y. (2019). Understanding Location-Based Service application connectedness: Model development and cross-validation. *Computers in Human Behavior*, 94, 82-91. https://doi.org/10.1016/j.chb.2019.01.003
- 3. Wang, X., Shi, W., Kim, R., **Oh, Y. J.,** Yang, S., Zhang, J., & Yu, Z. (2019). Persuasion for Good: Towards a Personalized Persuasive Dialogue System for Social Good. In *Proceedings* of the 57th Annual Meeting of the Association for Computational Linguistics (pp. 5635-5649). **Best Paper Nomination Award**. https://arxiv.org/pdf/1906.06725.pdf
- 2. Park, H. S., Ryu, J. Y., & **Oh, Y. J.** (2018). Comparisons of Koreans, Korean Americans, and White Americans regarding deceased organ donation. *Journal of Health Psychology*. https://doi.org/10.1177/1359105318793710
- 1. Park, H. S., **Oh, Y. J.,** & Ryu, J. Y. (2018). The influence of James C. McCroskey's research in South Korea. *Communication Research Reports*, 35, 190-194. https://doi.org/10.1080/08824096.2018.1425982

MANUSCRIPTS UNDER REVIEW/ IN PREPARATION

- Liang, K. H., Shi, W., **Oh, Y. J.**, Zhang, J., & Yu, Z. (R&R) Discovering Chatbot's Self-Disclosure's Impact on User Trust, Affinity, and Recommendation Effectiveness. *CHI* 2023.
- **Oh, Y. J.,** Zhang, J., & Feng, S. (in prep) Towards predicting successful persuasion based on conversational dynamics: Markov chain model and sequence analysis.
- **Oh, Y. J.,** Youk. S. B., Ryu, J. Y., Lim, J. I., & Park. H. S. (in prep). The AI doctor will see you now: The effect of human vs. embodied AI doctor on patient adherence.

- **Oh, Y. J.,** Zhang, J., Ji, X., Liao, W., & Feng, B. (in prep). Efficacy of a chatbot-based sleep intervention on sleep quality improvement among young adults.
- **Oh, Y. J.,** Stevens, H., Calabrese, C., Ye, Y., & Tin, J. (in prep). I got vaccinated today: Understanding linguistic cues and development of LSTM neural network model for vaccination behavior classification.

CONFERENCES/PRESENATIONS

- 23. Calabrese, C., **Oh, Y. J**., Yu, X. (2023, May). Examining Discussions Related to Transgender Athletes on Twitter: A Natural Language Processing Approach. Paper accepted for presentation at the annual convention of the International Communication Association, Toronto, Canada.
- 22. **Oh, Y. J.**, Stevens, H. (2022, November). Online help seeking as an effective method to alleviate suicidal ideation. Paper accepted to the 108th Annual Convention of National Communication Association, New Orleans, LA.
- 21. Rasul, M. E., Stevens, H., **Oh, Y. J.** (2022). Emotions and Incivility in Vaccine Mandate Discourse: Natural Language Processing Insights. Paper accepted for presentation at the American Political Science Association's Political Communication Preconference, Montreal, Quebec, Canada.
- **20. Oh. Y. J.,** Zhang, J., Ji, X., Liao, W., & Feng, B. (2022, June). Efficacy of a Chatbot-Based Sleep Intervention on Sleep Quality Improvement among Young Adults. Paper accepted for presentation at the SLEEP 2022 conference, Charlotte, NC.
- **19. Oh, Y. J.,** Stevens, H., Calabrese, C., Ye, Y., & Tin, J. (2022, May). Extended Abstract: I Got Vaccinated Today: Understanding Linguistic Cues and Development of LSTM neural network model for Vaccination Behavior Classification. Paper accepted for presentation at the annual convention of the International Communication Association, Paris, France.
- 18. Liao, W., **Oh, Y. J.,** Feng, B., & Zhang, J. (2022, May). Ritualistic Dynamics of Task and Social-emotional Interactions Predict Interpersonal Influence Outcomes in Compliance-Gaining and Advice- Giving Conversations. Paper accepted for presentation at the annual convention of the International Communication Association, Paris, France. **Top Paper Award.**
- 17. Stevens, H., **Oh, Y. J.,** & Rasul, M. E. (2022, May). Concrete Language Expression and Suicidal Behaviors on r/suicidewatch subreddit. Paper accepted for presentation at the annual convention of the International Communication Association, Paris, France.

- 16. Park, H. S., Yun, D., **Oh, Y. J.**, Kim, Y., Ki, H., & Park, S. (2022, May). Reasons for my intentions: Donor registry sign-up and family discussion about deceased organ donation. Paper accepted for presentation at the annual convention of the International Communication Association, Paris, France.
- **15. Oh, Y. J.,** Calabrese, C., & Stevens, H. (2021, November). Tweet Concretely: Examining the Relationship between Concrete Language and Perceived Temporal Distance to COVID-19 Vaccination. Paper accepted to the 107th Annual Convention of National Communication Association, Seattle, WA.
- **14. Oh, Y. J.,** & Huskey, R. (2021, May). Applying Information Theory in Human Communication: A biological Perspective. Paper accepted to the 71st Annual Convention of International Communication Association, Denver, CO. *Virtual conference due to COVID-19.
- 13. Liao, W., **Oh, Y. J.,** Feng, B., & Zhang, J. (2021, May). Are Bots Agentic Enough? Understanding Agentic Perceptions and Social Influence From Taking Sleep Advice with Human versus Artificial Agent. Paper accepted to the 71st Annual Convention of International Communication Association, Denver, CO. *Virtual conference due to COVID-19.
- 12. Stevens, H., **Oh, Y. J.,** & Taylor, L. (2021, May). Natural Language Processing Reveals Decreased Anxiety in U.S. Responses to Threatening COVID-19 Health News on Twitter, Despite Rising Death Toll: An Observational Study. Paper accepted to the 71st Annual Convention of International Communication Association, Denver, CO. *Virtual conference due to COVID-19.
- 11. Oh, Y. J., Youk. S. B., Ryu, J. Y., Lim, J. I., & Park. H. S. (2020, May). The AI doctor will see you now: The effect of human vs. AI doctor on patient adherence. Paper accepted for presentation at the annual convention of the International Communication Association, Gold Coast, Australia.
- 10. Zhang. J., **Oh, Y. J.,** & Feng, S. (2020, May). Predicting successful persuasion based on conversational dynamics: Markov Chain models and sequence analyses. Paper accepted for presentation at the annual convention of the International Communication Association, Gold Coast, Australia.
- 9. Liao, W., Zhang. J., **Oh, Y. J.,** & Palomares, N. (2020, May). Linguistic Accommodation Enhances Compliance to Donate: The Role of Interpersonal Processes in Mediated Conversations. Paper accepted for presentation at the annual convention of the International Communication Association, Gold Coast, Australia. **Top Paper Award.**

- 8. Youk, S., **Oh, Y. J.,** & Park, H. S. (2019, October). Communicative responsibility and patient satisfaction: Comparing human and AI doctors in the context of telemedicine. Paper accepted for presentation at 2019 ICA Regional Conference-ASPIKOM, Bali, Indonesia.
- **7. Oh, Y. J.** & Park, H. S. (2019, May). Bridging between construal level theory and the transtheoretical model: The effect of temporal distance on organ donor registration behavior. Paper accepted for presentation at the annual convention of the International Communication Association, Washington, D.C.
- 6. Zhang, J., **Oh, Y. J.,** Wang, X., Kim, R., Yang, S., & Yu, Z. (2019, May). First step towards an automated personalized persuasive conversational system: Investigating moderating effects of psychological factors. Paper accepted for presentation at the annual convention of the International Communication Association, Washington, D.C.
- **5. Oh, Y. J.** & Park, H. S. (2018, November). Understanding location-based service application connectedness: Model development and cross-validation. Paper accepted for presentation at the annual convention of the National Communication Association, Salt Lake City, UT.
- **4. Oh, Y. J.,** Ryu, J. Y., Park, H. S., & Youk, S. B. (2018, November). What's going on in the Korean Peninsula?: A study on perception and influence of South and North Korea-related fake news. Paper accepted for presentation at the annual convention of the National Communication Association, Salt Lake City, UT.
- 3. Im, W. J., Park, H. S., Youk, S. B., Ryu, J. Y., & **Oh, Y. J.** (2018, November). Will you accept our apology? Evaluation of timing of announcement, type of apology, and fulfillment of individual's needs to be heard as a crisis management strategy. Paper accepted for presentation at the annual convention of the National Communication Association, Salt Lake City, UT.
- 2. Park, H. S., **Oh, Y. J.**, & Ryu, J. Y. (2017, November). Organ donation intentions: The effects of message describing specific vs. general benefits. Paper accepted for presentation at the annual convention of the National Communication Association, Dallas, TX, USA.
- 1. Oh, Y. J., Park, H. S., Ryu, J. Y., & Yun, D. (2017, June). Differences in intentions to enroll in an organ donor registry between two countries: An integration of theory of planned behavior and construal level theory. Paper Presented at the spring conference of Korea Health Communication Association, Seoul, South Korea.

GRANTS/ FUNDING

National Institute of General Medical Sciences (NIH NIGMS), COBRE Pilot Award, Researcher (\$50,000)

Title: Sleep chatbot intervention for emerging adults with cardiometabolic risk factors.

Status: Approved by the COBRE center and within NIH for full approval

Google Health Equity Research Initiative, co-PI (\$50,000)

Title: Leveraging Artificial Intelligence (AI) Chatbot to Increase Physical Activity and Reduce Health Disparities among Sedentary Latina and African American Women

Status: not funded

Academic Senate New Research Initiatives and Interdisciplinary Research Grant, co-PI (\$20,000)

Title: A Relational Artificial Intelligence Chatbot for Physical Activity Promotion Intervention among Adults with a Sedentary Lifestyle.

Status: not funded

National Science Foundation (NSF), Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science

Status: In preparation

UCSF RAP Team Science, Research Assistant

2020-2022

2021

Title: Building a chatbot to deliver personalized activity interventions to reduce metabolic syndrome.

Department Dissertation Grant (\$1,000)
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Department of Communication, University of California, Davis

Conference Travel Grant (\$800) 2021

Department of Communication, University of California, Davis

Conference Travel Grant (\$800) 2019

Department of Communication, University of California, Davis

Small Grant (\$500) **2018**

Department of Communication, University of California, Davis

Conference Travel Grant (\$800) 2018

Department of Communication, University of California, Davis

RESEARCH/WORK EXPERIENCE

Data Analyst, June 2021 – December 2022, Advisor: Yoshimi Fukuoka

CPT authorization: 06/23/2021 - 09/21/2021; 09/22/2021 - 12/10/2021;

 $12/13/2021 - 03/18/2022; \ 03/19/2022 - 06/09/2022; \ 09/19/2022 - 12/09/2022$

Department of physiological nursing, University of California, San Francisco (UCSF)

Research area: Public health, health communication, data analysis

Graduate Student Researcher, CHATR Lab, September 2018 – June 2023, Advisor: Jingwen Zhang

Department of Communication, University of California, Davis

Research area: Health communication, Artificial intelligence, Conversational agents, chatbots, health applications

Research Assistant, March 2017 – February 2018, Advisor: Hee Sun Park

Journalism and Mass Communication, Korea University

TEACHING EXPERIENCE

Department of Communication, University of California, Davis

Associate Instructor

<u>Undergraduate Level Courses</u>

CMN001 Public Speaking Summer Session 2020, 2021, 2022

CMN178 Persuasive Technology Winter Session 2023

School of Media and Communication, Korea University

Associate Instructor

Undergraduate Level Courses

JMCO448 Strategic Communication Research Winter Session 2020

Department of Communication, University of California, Davis

Teaching Assistant

<u>Undergraduate Level Courses</u>

CMN001 Public Speaking Fall 2018, Winter 2019, Spring 2019, Spring 2020 CMN112 Theories of Persuasion Fall 2019, Spring 2021, Fall 2021

CMN123 Intercultural Communication Winter 2021

CMN140 Introduction to Mass Communication Winter 2020, Fall 2020

CMN178 Persuasive Technology Winter 2022, Spring 2022

School of Media and Communication, Korea University

Teaching Assistant March 2017 – February 2018

Undergraduate Level Courses

JMCO330 Human Communication

<u>Graduate Level Courses</u>

JMC579 Data Analysis I

MOY503 Research Paper Preparation

FELLOWSHIPS/AWARDS

Top Paper Award 2022

International Communication Association – Interpersonal Communication

Paper titled "Ritualistic Dynamics of Task and Social-emotional Interactions Predict Interpersonal Influence Outcomes in Compliance-Gaining and Advice-Giving Conversations"

Top Paper Award 2020

International Communication Association – Interpersonal Communication

Paper titled "Linguistic Accommodation Enhances Compliance to Donate: The Role of Interpersonal Processes in Mediated Conversations"

Best Paper Awards Nomination

2019

International Communication Association – Interpersonal Communication

Paper titled "Persuasion for Good: Towards a Personalized Persuasive Dialogue System for Social Good"

Minister Prize (second-place award) (\$2,290)

2017

Unification Research Competition

Institute for Unification Education, Ministry of Unification

Paper titled "Examining the Influence and Perception of South and North Korea-Related Fake News (Written in Korean)"

Research Assistant Scholarships (\$9,100)

2017

Korea University, South Korea

Student Council Scholarships (\$4,550)

2016

Korea University, South Korea

SERVICE TO THE DISCIPLINE/UNIVERSITY

Ad-Hoc Reviewer

Asian Journal of Communication

Digital Health

Frontiers in Nutrition

International Journal of Human-Computer Interaction

JMIR mHealth and uHealth

Public Health Nursing

Guest speaker at Clemson University

November 2022

Comm3050 Persuasion

1-hour talk and Q&A sessions on Persuasive effects of AI chatbots.

Guest speaker at University of California San Francisco (UCSF)

January 2022

N269 Integration of Scientific Literature

1-hour talk and Q&A sessions regarding conducting a systematic review and protocol writing.

Guest speaker at University of California San Francisco (UCSF) February 2021

N269 Integration of Scientific Literature

1-hour talk and Q&A sessions regarding conducting a systematic review and protocol writing.

PROFESSIONAL AFFILIATIONS

International Communication Association (ICA) National Communication Association (NCA)