

Hyojin Chin



Email: tesschin@gmail.com

Homepage: <http://tesschin.github.io>

Affiliation: Center for Mathematical and Computational Sciences, Institute for Basic Science (IBS)

Interests Understanding and designing human interactions with artificial intelligence systems, Solving challenging social science problems (e.g., hate speech, AI ethics, and misinformation) using computational methods, and explaining and predicting unknown behavior by analyzing data

| | | |
|------------------|---|-------------------|
| Positions | Institute for Basic Science (IBS) | Daejeon, Korea |
| | Senior Researcher | 2020.09 – Present |
| | Data Science Group, Center for Mathematical and Computational Sciences | |
| | Innocean Worldwide | Seoul, Korea |
| | Senior Account Planner | 2011.04 – 2015.08 |
| | Marketing Department | |
| | Samsung Electronics | Suwon, Korea |
| | Assistant Manager | 2004.20 – 2011.04 |
| | Brand Marketing Department | |

| | | |
|------------------|--|---------------------|
| Education | Ph.D. in the Graduate School of Knowledge Service Engineering, KAIST | |
| | * Advisor: Mun Yong Yi | 2015. 08 – 2020. 08 |
| | * Thesis Topic: Understanding How a Conversational Agent Should Respond to Users' Verbal Abuse | |
| | M.B.A. in Information and Media, KAIST College of Business | |
| | Certificate of Excellence | 2013. 02 – 2014. 02 |
| | B.S in Food and Microbial Technology, Seoul Women's University | |
| | B.B.A in Business Administration | 1999. 03 – 2004. 02 |

| | | |
|---------------------------|---|--------------------------|
| Honors | Rising Star Researcher (Google & KAIST ExploreCSR) | 2023 |
| | Best Paper Award (HCI Korea 2022 Conference) | 2022 |
| | Best Presentation Award (Knowledge Service Engineering, KAIST) | 2019 |
| | Leadership Award (KAIST College of Business) | 2014 |
| | The Best Student of The Year (KAIST College of Business) | 2013 |
| | Best Idea Award (Innocean Worldwide) | 2012 |
| | Outstanding Service Award (Samsung Electronics Leadership Center) | 2004 |
| | Excellence Award in the Future Digital Appliance Idea Competition (Samsung Electronics) | 2003 |
| Research Grants | Research Assistant , Data Science Research at the Pioneer Research Center for Mathematical and Computational Sciences, Institute for Basic Science (IBS) | |
| | KRW 5,000,000,000 | 2019.01 – 2023.12 |
| | Research Assistant , Human-Agent Interaction for Distributed Intelligence System, Electronics and Telecommunications Research Institute (ETRI) | |
| | KRW 150,000,000 | 2017.10 – 2020.08 |
| | Research Assistant , Planning and Design of Big Data-Based Expert Recommendation systems, National Research Foundation of Korea (NRF) | |
| | KRW 50,000,000 | 2017.03 – 2017.09 |
| | Research Assistant , Real Estate Price Evaluation Using Machine Learning, Korea Appraisal Board (KAB) | |
| Collaboration | KRW 50,000,000 | 2016.07 – 2016.12 |
| | Research Assistant , Implementation of Smart Data Town Platform with Big data & IOT, Institute of Information & communications Technology Planning & Evaluation (IITP) | |
| | KRW 137,200,000 | 2019.01 – 2023.12 |
| | SimSimi Inc. | 2021.08 – Present |
| Teaching Assistant | Collaborative researcher analyzing SimSimi Inc.'s data | |
| | KT AI tech center | 2022.12 – Present |
| Teaching Assistant | KAIST KSE521, Business Intelligence, | 2017, 2020 |
| | KAIST KSE612, Human Decision Making and Support, | 2018, 2019 |
| Guest Lecturer | Topic: Users' AI Chatbot Misuses and AI for Human Well-Being, <i>CS492 Generative AI for society, School of Computing, KAIST</i> | 2023.09 |
| | Topic: Social Computing for Mental Health, <i>College of Nursing, Ewha Womans University</i> | 2022.04 & 2023.04 |
| | Topic: Methodologies for Social Computing for Mental Health Research, <i>College of Nursing, Ewha Womans University</i> | 2022.04 |
| Talks | Topic: Understanding Users' Chatbot Misuses and Health-related Conversations in Chatbot Data | |
| | <i>KAIST exploreCSR: Rising Stars 2023, Seminar, KAIST N1 Building</i> | 2023. 02 |
| | Topic: How Natural Language Processing can Help Healthcare Research | |
| | <i>IBS Winter School on AI-Boosted Basic Science, IBS, Daejeon</i> | 2022. 12 |

| | |
|------------------------|--|
| | Topic: Users' chatbot misuses and chatbot's response styles <i>HCI Korea 2019, ETRI Tech. Workshop, Convention Center Jeju</i> 2019. 02 |
| Ad-hoc Reviewer | ACM CHI 2023 (Special Recognition for Outstanding Review) ACM CSCW 2022, 2023 (Special Recognition for Outstanding Review at 2022) IJHCS, International Journal of Human-Computer Studies, 2021-23 Conference on Empirical Methods in Natural Language Processing, 2022 The World Wide Web Conference, 2021 |
| Skills | Data Science: Statistical Analysis, Data Mining, Data Visualization, Machine Learning, Natural Language (Python, R, SPSS, SQL, Jamovi) User Research Methods: Interviewing (In-depth & Focus Group) Participant-Observation, Survey Design, Experiment Design, Usability Test Design Conversational Agent: Develop a text-base and voice-base conversational agents. |
| References | Dr. Meeyoung Cha , Associate Professor, School of Computing, KAIST, meeyoungcha@kaist.ac.kr Dr. Mun Yong Yi , Professor, Graduate School of Data Science, KAIST, munyi@kaist.ac.kr Dr. Chiyoung Cha , Associate Professor, College of Nursing, Ewha Womans University, chiyoung@ewha.ac.kr |

Publications List

| | |
|----------------------------------|--|
| Citations | Google Scholar 179 citations (as of Oct 05, 2023) https://scholar.google.com/citations?user=Sch8esQAAAAJ&hl=ko |
| Journals& Conferences | The Potential of Chatbots for Emotional Support and Promoting Mental Well-Being in Different Cultures H. Chin , H. Song, G. Baek, M. Shin, C. Jung, M. Cha, J. Choi, C. Cha <i>Journal of Medical Internet Research (JMIR)</i> , 2023, (Accepted. 2023.09.29 , SCIE, IF=7.40, Q1, 97.6%) http://dx.doi.org/10.2196/51712 User-Chatbot Conversations During the COVID-19 Pandemic: A Study Based on Topic Modeling and Sentiment Analysis H. Chin , G.Lima, M. Shin, A. Zhunis, C. Cha, J Choi, and M. Cha <i>Journal of Medical Internet Research (JMIR)</i> , 2023, (SCIE, IF=7.40, Q1, 97.6%) https://www.jmir.org/2023/1/e40922 Understanding the Categories and Characteristics of Depressive Moods in Chatbot Data H. Chin , C. Jung, G. Baek, C. Cha, J. Choi, and M. Cha. <i>KIPS Transactions on Software and Data Engineering</i> , September 2022. (KCI) http://ktsde.kips.or.kr/digital-library/25979 |

Voices that Care Differently: Understanding the Effectiveness of a Conversational Agent with an Alternative Empathy Orientation and Emotional Expressivity in Mitigating Verbal Abuse

H. Chin and M.Y. Yi

International Journal of Human-Computer Interaction, 2022, (SCIE, SSCI, IF=4.7, Q1),

<https://doi.org/10.1080/10447318.2021.1987680>

An Experimental Study to Understand User Experience and Perception Bias Occurred by Fact-checking Messages

S. Park, Y. Park, **H. Chin**, J. Kang, and M. Cha

In proc. of the Web Conference (WWW), April 2021. (Acceptance rate = 20.6%)

<https://doi.org/10.1145/3442381.3450121>

Empathy Is All You Need: How a Conversational Agent Should Respond to Verbal Abuse

H. Chin, L.W. Molefi, and M.Y. Yi.

In proc. of the ACM CHI Conference on Human Factors in Computing Systems, 2020, (Acceptance Rate=24.3%)

<https://doi.org/10.1145/3313831.3376461>

Explicit Content Detection in Music Lyrics Using Machine Learning

H. Chin, J. Kim, Y. Kim, J. Shin, and M.Y. Yi

In proc. of the IEEE International Conference on Big Data and Smart Computing (BigComp), 2018.

<https://doi.org/10.1109/BigComp.2018.00085>

Job Preference Analysis and Job Matching System Development for the Middle Aged Class

S. Kim, J. Jang, S. Kim, **H. Chin**, and M.Y. Yi

Journal of Intelligence and Information Systems, 2016. (KCI)

<https://doi.org/10.13088/jiis.2016.22.4.247>

**Workshops&
Posters**

Algorithm-driven news outcomes on political knowledge and MeToo-related rumor beliefs

S.Y. Bae, **H. Chin**, and M. Cha, *In Extended Abstracts of the 2022 International Communication Association Conference*, 2022

Do differences in national or political identity matter more for preferences?

M. Whiting, S. Park, M. Cha, S.W. Lee, **H. Chin**, and M.M. Molaie, *8th The International Conference for Computational Social Science (IC2S2)*, 2022

A Study of Verbal Abuse Types and Conversational Agents' Response Styles

H. Chin and M.Y. Yi, *In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI EA '19)*, 2019

<https://doi.org/10.1145/3290607.3312826>

**Conferences
(Korean)**

WatchOut: Facilitating Safe Driving Behaviors with Social Support

H. Chin, H. Zabihi, S. Park, M.Y. Yi, and U. Lee, *In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17)*, 2017

<https://doi.org/10.1145/3027063.3053188>

Depression-related discourse between AI chatbot and users: A qualitative study

G. Baek, C. Cha, J. Choi, M. Cha, and H. Chin* *Proceedings of the Korean Information Science Society Conference*, 2023

Contrastive Learning for Hate Speech Detection

C. Jung, H. Song, H. Chin, M. Shin, and M. Cha *Proceedings of the Korean Information Science Society Conference*, 2022

Unique Characteristics of Human-Chatbot Conversations and Their Potential for Mental Health Support

A. Zhunis, G. Lima, H. Chin, M. Shin, J. Choi, C. Cha and M. Cha. *Proceedings of the Korean Information Science Society Conference*, 2022

Characteristics and differences of depressive moods in Korean and English Chatbot Data

H. Chin G.Baek, C.Cha, J.Choi, and M.Cha. *Proceedings of HCI korea 2022 (Best Paper Award)*

A Study on the Categories and Characteristics of Depressive Moods in Chatbot Data

H. Chin, G.Baek, C.Cha, H. Im, J. Choi, and M. Cha. *Proceedings of the Korea Information Processing Society Conference*, 2021

Hate Speech Detection in Chatbot Data Using KoELECTRA

M. Shin, H. Chin, H. Song, J. Choi, H. Lim, and M. Cha. *Proceedings of the 33th Annual Conference on Human and Cognitive Language Technology*, 2021

A Study on the Influence of Contents of Internet News Comments on the Acceptance of New Car Products

H. Chin and M.Y. Yi. *Proceedings of the Korean Information Science Society Conference*, 2017

Job Preference and Selection Analysis of Senior People for Developing Senior Job Recommendation Algorithm

S. Kim, S. Kim, J. Jang. H. Chin, and M.Y. Yi. *Proceedings of the Korean Information Science Society Conference*, 2016

Requirement Analysis of Personalized Job Matching Service for Middle-Aged Adults in South Korea

J. Jang, D. Zhao, S. Kim, H. Chin, S. Kim, and M.Y. Yi. *Proceedings of HCI korea 2016*

Working Paper

Who Are Chatbot Superusers? A Deep Dive into the Characteristics and Chat Behaviors of the Top 1% Active Users, *with A. Zhunis, and M. Cha*

Exploring the Influence of User Characteristics on Verbal Aggression Towards Social Chatbots, *with M.Y. Yi*

Empathetic conversations with chatbots for depression: An analysis of users' help-seeking patterns and commercial conversational agents *with G. Baek, C. Cha, J. Choi, and M. Cha*

Detecting Offensive Language in an Open Chatbot Platform, *with H. Song, M. Shin, Y. Choi, and M. Cha*

Context-Aware Offensive Language Detection in Chatbot-Human Conversation Data, *with M. Shin, H. Song, Y. Choi, and M. Cha*

Algorithm-Driven News Use and Citizens' Political Information Engagement, *with S. Bae, and M. Cha*

Media Coverage

Conversation with AI chatbot was found to reduce negative moods during COVID-19

EN-Medicalxpress, Jan 2023, <https://shorturl.at/cvHS7>

EN-Prnewswire, Mar 2023, <https://rb.gy/m4fcp>

KR-YTN, Jan 2023, https://www.youtube.com/watch?v=U_irLjK5wFQ

KR-Newsis, Jan 2023, <https://rb.gy/ejmxh>

KR-Yonhapnews, Jan 2023, <https://rb.gy/mx669>

KR-Herald, Jan 2023, <https://rb.gy/jiumo>

KR-Hankyoreh, Jan 2023, <https://rb.gy/t3zkw>

KR-Digitaltimes, Jan 2023, <https://rb.gy/p0v36>

KR-Chosun Biz, Jan 2023, <https://rb.gy/6lkft>

KR-DongaScience, Jan 2023, <https://rb.gy/lsexh>