

# Hyojin Chin



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**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

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

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

<b>Honors</b>	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
<b>Research Grants</b>	<b>Research Assistant</b> , 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
	<b>Research Assistant</b> , Human-Agent Interaction for Distributed Intelligence System, Electronics and Telecommunications Research Institute (ETRI)	
	KRW 150,000,000	2017.10 – 2020.08
	<b>Research Assistant</b> , Planning and Design of Big Data-Based Expert Recommendation systems, National Research Foundation of Korea (NRF)	
	KRW 50,000,000	2017.03 – 2017.09
	<b>Research Assistant</b> , Real Estate Price Evaluation Using Machine Learning, Korea Appraisal Board (KAB)	
<b>Collaboration</b>	KRW 50,000,000	2016.07 – 2016.12
	<b>Research Assistant</b> , 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
	<b>SimSimi Inc.</b>	<b>2021.08 – Present</b>
<b>Teaching Assistant</b>	Collaborative researcher analyzing SimSimi Inc.'s data	
	<b>KT AI tech center</b>	<b>2022.12 – Present</b>
<b>Teaching Assistant</b>	KAIST KSE521, Business Intelligence,	2017, 2020
	KAIST KSE612, Human Decision Making and Support,	2018, 2019
<b>Guest Lecturer</b>	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
<b>Talks</b>	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
<b>Ad-hoc Reviewer</b>	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
<b>Skills</b>	<b>Data Science:</b> Statistical Analysis, Data Mining, Data Visualization, Machine Learning, Natural Language (Python, R, SPSS, SQL, Jamovi) <b>User Research Methods:</b> Interviewing (In-depth & Focus Group) Participant-Observation, Survey Design, Experiment Design, Usability Test <b>Design Conversational Agent:</b> Develop a text-base and voice-base conversational agents.
<b>References</b>	<b>Dr. Meeyoung Cha</b> , Associate Professor, School of Computing, KAIST, meeyoungcha@kaist.ac.kr <b>Dr. Mun Yong Yi</b> , Professor, Graduate School of Data Science, KAIST, munyi@kaist.ac.kr <b>Dr. Chiyoung Cha</b> , Associate Professor, College of Nursing, Ewha Womans University, chiyoung@ewha.ac.kr

## Publications List

<b>Citations</b>	Google Scholar 160 citations (as of July 07, 2023) <a href="https://scholar.google.com/citations?user=Sch8esQAAAAJ&amp;hl=ko">https://scholar.google.com/citations?user=Sch8esQAAAAJ&amp;hl=ko</a>
<b>Journals&amp; Conferences</b>	<b>User-Chatbot Conversations During the COVID-19 Pandemic: A Study Based on Topic Modeling and Sentiment Analysis</b> <b>H. Chin</b> , 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%) <a href="https://www.jmir.org/2023/1/e40922">https://www.jmir.org/2023/1/e40922</a>  <b>Understanding the Categories and Characteristics of Depressive Moods in Chatbot Data</b> <b>H. Chin</b> , C. Jung, G. Baek, C. Cha, J. Choi, and M. Cha. <i>KIPS Transactions on Software and Data Engineering</i> , September 2022. (KCI) <a href="http://ktsde.kips.or.kr/digital-library/25979">http://ktsde.kips.or.kr/digital-library/25979</a>  <b>Voices that Care Differently: Understanding the Effectiveness of a Conversational Agent with an Alternative Empathy Orientation and Emotional Expressivity in Mitigating Verbal Abuse</b> <b>H. Chin</b> and M.Y. Yi <i>International Journal of Human-Computer Interaction</i> , 2022, (SCIE, SSCI, IF=4.7, Q1), <a href="https://doi.org/10.1080/10447318.2021.1987680">https://doi.org/10.1080/10447318.2021.1987680</a>

**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>

**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>

**Conferences  
(Korean)**

**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**

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

Exploring the Potential of Chatbots for Providing Emotional Support and Enhancing Mental Well-Being: A Cultural Perspective, *with H. Song, M. Shin, G. Baek, C. Cha, C. Jung, J. Choi, and M. Cha*

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*

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

Trust and Empathy in Social Chatbots: A Three-year Analysis of Superusers and their Language, Topics, and Emotions, *with A. Zhunis, 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](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>