# Minsu Park

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# RESEARCH INTERESTS

Fields: Computational Social Science, Human-centered Data Science, Social Computing
Topics: Impact of Socially Constructed Information; Global Diffusion of Culture; Success and Failure
in Creative Domains

Other Keywords: Consumption and Production of Creative Work (with special emphasis on cultural products, including music, video, fashion, and food, and science), Taste and Preference, Social Networks, Social Status and Reputation, Social Traces, User Engagement

# **CURRENT APPOINTMENTS**

New York University Abu Dhabi, Abu Dhabi, UAE

Fall 2020 – Present Assistant Professor, Social Research and Public Policy
Fall 2022 – Present Faculty Affiliate, Business, Organizations, and Society

New York University, New York, NY, USA

Fall 2020 – Present Faculty Affiliate, Center for Data Science

Northwestern University, Evanston, IL, USA

Fall 2020 – Present Research Affiliate, Kellogg School of Management

- Center for Science of Science and Innovation (CSSI)

Northwestern Institute on Complex Systems (NICO)

Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany

Fall 2023 – Present Visiting Researcher, Computational Auditory Perception Group

# **EDUCATION**

Cornell University, Ithaca, NY, USA

2014 – 2019 PhD in Information Science (Minors in Sociology and Communication)

- Committee: Michael Macy (Advisor), Mor Naaman, Drew Margolin

2018 MS in Information Science, Cornell University, Ithaca, USA

Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea

2012 MS in Culture Technology (Social Data Science concentration)

Hongik University, Seoul, Korea

2010 BS in Mechanical and System Design Engineering

# PAST APPOINTMENTS & WORK EXPERIENCE

Fall 2019 – Summer 2020 Research Fellow, Kellogg School of Management, Northwestern University, Evanston, IL, USA

Host/Mentor: Dashun Wang

Summer 2018 UX Research Intern, Materials Experience, Google, San Francisco, CA, USA

Host/Mentor: Michael Gilbert and Elizabeth Churchill

Summer – Winter 2017 Research Scientist Intern, Product Insights, Spotify, Somerville, MA, USA

- Host/Mentor: Jennifer Thom and Henriette Cramer

Summer 2016 UX Research Intern, Materials Experience, Google, San Francisco, CA, USA

- Host/Mentor: Julia Haines, Michael Gilbert, and Elizabeth Churchill

Spring 2014 Research Associate, Social Computing Group, Qatar Computing Research Institute, Doha, Qatar

Host/Mentor: Ingmar Weber

2013 Researcher, Department of Biomedical Informatics, Asan Medical Center, Seoul, Korea

Spring - Fall 2012 Research Intern, School of Information, University of Washington, Seattle, WA, USA

- Host/Mentor: Jeffrey Kim, David W. McDonald, and Ricardo Gomez

# **PUBLICATIONS** († Joint First Authorship; \* Joint Senior/Last Authorship)

Ref. Journal Articles & Archival Conf. Proc.

Hazem Ibrahim, Fengyuan Liu, [many authors including **Minsu Park**], Talal Rahwan\*, and Yasir Zaki\*. Perception, Performance, and Detectability of Conversational Artificial Intelligence across 32 University Courses. 2023. *Scientific Reports*.

**Minsu Park**<sup>†</sup>, Chao Yu<sup>†</sup>, and Michael Macy. Fighting Bias with Bias: How Same-race Endorsements Reduce Racial Discrimination on Airbnb. 2023. *Science Advances*.

- Honorable Mention for James Coleman Award for Outstanding Article, Decision-Making, Social Networks, and Society Section, American Sociological Association
- Honorable Mention for Best Article Award, Communication, Information Technologies, and Media Sociology Section, American Sociological Association

Harin Lee, Frank Höger, Marc Schöenwiesner, **Minsu Park**\*, and Nori Jacoby\*. Cross-cultural Mood Perception in Pop Songs and Its Alignment with Mood Detection Algorithms. The 22<sup>nd</sup> International Society for Music Information Retrieval Conference (*ISMIR 2021*).

- Best Paper Honorable Mention (Top 3%)

Monica Lee, Amaç Herdağdelen, **Minsu Park**, and John Levi Martin. Measuring Mohr Social Capital. 2021. *Poetics*.

**Minsu Park**, Jennifer Thom, Sarah Mennicken, Henriette Cramer, and Michael Macy. Global Music Streaming Data Reveals Diurnal and Seasonal Patterns of Affective Preference. 2019. *Nature Human Behaviour*.

**Minsu Park**<sup>†</sup>, Jaram Park<sup>†</sup>, Young Min Baek<sup>\*</sup>, and Michael Macy<sup>\*</sup>. Cultural Values and Cross-cultural Video Consumption on YouTube. 2017. *PLoS ONE*.

- Accepted and presented at the 11<sup>th</sup> International AAAI Conference on Web and Social Media (*ICWSM 2017*) under the social science and socio-physics track (acceptance rate = 14%)

**Minsu Park**, Mor Naaman, and Jonah Berger. A Data-driven Study of View Duration on YouTube. The 10<sup>th</sup> International AAAI Conference on Web and Social Media (*ICWSM* 2016) (acceptance rate = 21%).

**Minsu Park**, Ingmar Weber, Mor Naaman, and Sarah Vieweg. Understanding Musical Diversity via Online Social Media. The 9<sup>th</sup> International AAAI Conference on Web and Social Media (*ICWSM* 2015) (acceptance rate = 18%).

Minsu Park, David W. McDonald, and Meeyoung Cha. Perception Differences between the Depressed and Non-depressed Users in Twitter. The 7th International AAAI Conference on Weblogs and Social Media (ICWSM 2013) (acceptance rate = 20%).

Ricardo Gomez, Norah Abokhodair, Ivette Bayo, and Minsu Park. Computer Training to Empower Day Laborers: A Heat Map to Address Emotional Barriers and Technical Skills. The 46<sup>th</sup> IEEE Hawaii International Conference on System Sciences (*HICSS 2013*).

Minsu Park, Chiyoung Cha, and Meeyoung Cha. Depressive Moods of Users Portrayed in Online Social Networks. The workshop on Health Informatics (HI-KDD 2012) at the 18th ACM International Conference on Knowledge Discovery and Data Mining (SIGKDD 2012).

**Book Chapters** 

Meeyoung Cha and Minsu Park. Ch 15, Social Network Analysis of Knowledge-based Services. Knowledge Service Engineering Handbook. 2012. CRC Press, Taylor and Francis Group.

Theses

Decoding Cultural Consumption from Digital Traces. PhD Dissertation, Cornell University (2019).

Exploring Healthcare Opportunities in Twitter: On User-generated Health Information and Depressive Moods of Users. MS Thesis, KAIST (2012).

Designing a Transformable and Rotatable Car Seat. BS Thesis, Hongik University (2010).

# WORKS IN PROGRESS († Joint First Authorship; \* Joint Senior/Last Authorship)

**Working Papers** 

Minsu Park, Suman Kalyan Maity, Stefan Wuchty, and Dashun Wang. Interdisciplinary Papers Supported by Disciplinary Grants Garner Deep and Broad Impact. – R&R at Nature Communications

Minsu Park<sup>†</sup>, Jaehyuk Park<sup>†</sup>, Fabio Rojas, and Yong-Yeol Ahn. Rap Music as a Social Reflection: Exploring the Relationship Between Social Conditions and Expressions of Violence and Materialism in Rap Lyrics. – Under Review

Nouar AlDahoul†, Hazem Ibrahim†, Minsu Park, Talal Rahwan\*, and Yasir Zaki\*. Inclusive Content Reduces Racial and Gender Biases, Yet Non-inclusive Content Dominates Popular Media Outlets. – **Under Review** 

Harin Lee<sup>+</sup>, Manuel Anglada-Tort<sup>+</sup>, Oleg Sobchuk, Pol van Rijn, Marc Schönwiesner, Ofer Tchernichovski\*, Minsu Park\*, and Nori Jacoby\*. Global music discoveries reveal cultural shifts during the war in Ukraine. - Under Review

Harin Lee, Marc Schöenwiesner, Minsu Park\*, and Nori Jacoby\*. Evaluating the Agreement between Music Analysis Algorithms across Time, Culture, and Genre. – Draft Available

Patrick Park, Minsu Park, and Michael Macy. Economic Correlates of Diversity and Inequality in Online Social Networks. – Draft Available

Minsu Park and Jessa Lingel. Reappropriating Infrastructures: A Qualitative Study of Transnational Migrants' Technology Use in Qatar. – Draft Available

Papers in Preparation

Minsu Park, Pratik Kayal, Nima Dehmamy, and Andreas Wimmer. Deep Neural Networks Uncover Sequence-Dependence in Global Diffusion of Cultural Interests.

Alex Chae, Kinga Makovi, and Minsu Park. From Articles to Posts: Sentiment and News Frame Changes in the Transition to Instagram.

Harin Lee, Marc Schöenwiesner, Nori Jacoby\*, and **Minsu Park**\*. GlobalPop: Studying the Evolution of Pop Music across 55 Countries since the 1950s. – Presented at the International Conference on Music Perception and Cognition 2021 and the Cultural Evolution Society 2022

Chao Yu and Minsu Park. Unpacking Restaurants' Life Cycles through Crowdsourced Reviews on Yelp.

Chao Yu and **Minsu Park**. Does Distance Lend Enchantment? A Study of How Transnational Distance Influences Online Reviews on TripAdvisor.

Rui Pan, Mario D. Molina\*, and **Minsu Park**\*. Status Differences and Team Disruption among K-Pop Bands using Wikipedia Edits.

Some other on-going projects are related to (1) global diffusion of cultural interests; (2) wisdom of crowds in the matters of tastes; (3) recurrent patterns around paradigm shifts in creative domains; and (4) effects of reputation and aging on the success in creative markets.

# **AWARDS & HONORS**

- 2024 Honorable Mention, James Coleman Award for Outstanding Article, Decision-Making, Social Networks, and Society Section, American Sociological Association (for **Fighting Bias with Bias: How Same-race Endorsements Reduce Racial Discrimination on Airbnb**)
- 2023 Honorable Mention, Best Article Award, CITAMS (Communication, Information Technologies, and Media Sociology) Section, American Sociological Association (for **Fighting Bias with Bias: How Samerace Endorsements Reduce Racial Discrimination on Airbnb**)
- 2021 Honorable Mention, Best Paper Award, International Society for Music Information Retrieval (for Cross-cultural Mood Perception in Pop Songs and Its Alignment with Mood Detection Algorithms)
- 2018 Best Reviewer Award, International AAAI Conference on Web and Social Media (ICWSM)
- The Best of the arXiv (week ending April 23, 2016), MIT Technology Review (for **Understanding Musical Diversity via Online Social Media**)
- 2015 Special Recognition on Full Paper/Note Review, ACM Conference on Human Factors in Computing Systems (CHI)
- 2011 Outstanding Graduate Research Award, Graduate School of Culture Technology, KAIST
- 2010 Outstanding Graduate Academic Award, Graduate School of Culture Technology, KAIST
- 2010 2011 Culture Technology National Scholarship (full tuition and stipend supports for entire years for the MS degree), Ministry of Culture, Sports, and Tourism, Korea
  - 2009 Best Thesis Award, Mechanical and System Design Engineering, Hongik University
- 2008 2009 Hongik Scholarship, Hongik University (the highest merit-based scholarship for all semesters through 3<sup>rd</sup> and 4<sup>th</sup> years of undergraduate)

# **GRANTS & OTHER FUNDING**

- Joint-cluster Research Grant, Division of Social Science, NYUAD (USD 14,000)

  Summer Research Grant, Center for Interacting Urban Networks, NYUAD (USD 5,000)
- 2023 Research Grant, Computational Social Science Cluster, NYUAD (USD 14,000)
  Summer Research Grant, Center for Interacting Urban Networks, NYUAD (USD 5,000)

- 2022 Internal Competition Award for a 3-Year Postdoctoral Researcher Line, Division of Social Science, NYUAD (AY 2023-2026)
  - Research Grant, Computational Social Science Cluster, NYUAD (USD 10,000)
- 2021 Google Cloud Academic Research Grant (USD 10,000)
- 2013, 2015 2017 ICWSM Student Grant Award, AAAI (USD 450, 400, 350, and 300)

# INVITED TALKS & REFEREED ORAL PRESENTATIONS

# Invited Seminar & Refereed Presentation

#### Sequence-Dependence in the Global Diffusion of Cultural Interests

- Annual Conference of the International Network of Analytical Sociology (INAS) (May 2024)

# Interdisciplinary Papers Supported by Disciplinary Grants Garner Deep and Broad Impact

- Complexity in Social System Lab, POSTECH (June 2024)
- Max Planck Institute for Empirical Aesthetics (May 2024)
- International Conference for Computational Social Science (IC2S2) (July 2023)
- Summer Institute of Computational Social Science (SICSS) Korea (July 2023)
- Computational Sociology x Culture Working Groups, Department of Sociology, UCLA (June 2023)
- Danish Institute for Advanced Study (DIAS), University of Southern Denmark (May 2023)

# Impact of Social Traces on User Behaviors

- International Conference for Computational Social Science (IC2S2) (July 2023)
- Tech Talk Series, NAVER (July 2023)
- Applied Data Science Lab, KDI School of Public Policy and Management (July 2023)
- Data Science Group, Institute for Basic Science Korea (July 2023)

#### **Decoding Cultural Consumption Using Digital Traces**

- Summer Institute of Computational Social Science (SICSS) Shanghai (July 2023)
- School of AI Convergence, Soongsil University (June 2022)
- Information Science and Culture, Seoul National University (June 2022)
- Department of Artificial Intelligence Convergence, Kangwon National University (May 2022)
- Psychology Program, New York University Abu Dhabi (March 2021)
- Department of Sociology, Yonsei University (January 2020)
- School of Computing, KAIST (January 2020)
- Department of Physics, Sungkyunkwan University (January 2020)
- Kellogg School of Management, Northwestern University (July 2019)
- Microsoft Research NYC (May 2019)
- Tandon School of Engineering, New York University (April 2019)
- Division of Social Science, New York University Abu Dhabi (April 2019)
- Department of Communications and New Media, National University of Singapore (April 2019)
- Department of Sociology, Cornell University (March 2018)
- Plenary Talk, International AAAI Conference on Weblogs and Social Media (ICWSM) (May 2017)

#### Understanding Diversity of Musical Tastes via Online Social Media

- School of Informatics, Computing, and Engineering, Indiana University Bloomington (May 2015)
- Plenary Talk, International AAAI Conference on Weblogs and Social Media (ICWSM) (May 2015)
- Mathematical Institute, University of Oxford (May 2015)

#### Perception Differences between the Depressed and Non-depressed Users in Twitter

Plenary Talk, International AAAI Conference on Weblogs and Social Media (ICWSM) (July 2013)

- Imaging Media Research Center, Korea Institute of Science and Technology (KIST) (June 2013)

#### Trends and Challenges of Sentiment Analysis

- Department of Library and Information Science, Yonsei University (March 2013)
- School of Information, University of Washington (March 2012)

#### **Guest Lecture**

#### **Decoding Cultural Consumption Using Digital Traces**

- Introduction to Computational Social Science (M1304.003000), Department of Sociology, Seoul National University (November 2023)
- Computational Social Science (CS-UH2219E), Computer Science Program, New York University Abu Dhabi (November 2023)
- Musicology Colloquium (MUSICOL 490-0), Bienen School of Music, Northwestern University (February 2020)

## Examples and Challenges of Socio-demographic Attribute Inference on Social Media

- Digital Propaganda and Public Opinion (NM 4239), Department of Communications and New Media, National University of Singapore (April 2019)

## Exploring Healthcare Opportunities in Online Social Media

- University of Washington-KAIST Joint Workshop, KAIST (August 2013)
- Computer-mediated Communication (GCT 572), Graduate School of Culture Technology, KAIST (May 2013)

#### Tutorial

## Data Mining in Online Social Networks

- National Information Society Agency (NIA) (June 2013)
- Webometrics Institute, Yeungnam University (July 2011)

# **TEACHING** (\* Courses for MBA/MPA/MPS/Executive Education Programs)

#### Instructor

#### **New York University Abu Dhabi**

# Human-Centered Data Science (CDAD-UH 1044Q)

- Spring & Fall 2021; Spring & Fall 2022; Spring & Fall 2023

#### Textual Analysis for the Social Sciences (SOCSC-UH 2213)

- Spring 2021; Spring 2022; Spring 2023

#### Executive Education Programs ^

- Data Science – Abu Dhabi Executive Office (Spring 2023)

#### **Teaching Assistant**

# Kellogg School of Management, Northwestern University

# Social Dynamics and Network Analytics (MORS 457-0) ^

- Instructor: Professor Dashun Wang (Fall 2019)
- Instructor: Professor Hyejin Youn (Spring 2020)

# Information Science, Cornell University

#### Networks II: Market Design (INFO 4220/CS 4852/ECON 3825)

- Instructor: Professor Arpita Ghosh (Spring 2016, Spring 2019)

#### MPS Project and MPS Project Practicum (INFO/CS 5900 and 5901)^

- Instructor: Dr. Jonathan Kent Saxe (Fall 2018)

#### Language and Information (INFO/CS 4300)

- Instructor: Professor Cristian Danescu-Niculescu-Mizil (Spring 2018)

#### Introduction to HCI (INFO/COMM 3450)

- Instructor: Dr. Gilly Leshed (Fall 2016)

**ADVISING & MENTORING** (Mentees who worked with me for more than 6 months)

**PhD Students & Postdoctoral Researchers** 

Fall 2023 – Present Alexander T. J. Barron, Division of Social Science, New York University Abu Dhabi (Postdoctoral

Research Associate; under joint supervision with Dr. Nori Jacoby at the Max Planck Institute for Empirical

Aesthetics in Frankfurt)

Fall 2020 – Present Harin Lee, Max Planck Institute for Human Cognitive and Brain Sciences (External PhD Student)

Fall 2020 — Fall 2021 Wei Quan, Information Science, Drexel University (External Postdoctoral Research Associate; Next —

Assistant Professor of Data Science at BNU-HKBU United International College)

**Undergraduate Research Assistants & Postbaccalaureate Researchers** 

Fall 2020 – Present Pratik Kayal, Artificial Intelligence, University of Amsterdam (External MS Student; from 2020 to 2022 as

an External Undergraduate Research Assistant in Computer Science at the IIT Gandhinagar)

Fall 2020 — Fall 2023 Rui Pan, Computational Social Science, University of Chicago (External MS Student; from 2020 to 2021 as

an External Undergraduate Research Assistant in Economics and Philosophy at Peking University; Next – PhD student in Management and Organizations at the Kellogg School of Management at Northwestern University)

Senior Thesis Advising at NYU Abu Dhabi

Class of 2025 Computer Science: Levith Andreade Cuellar

Class of 2024 Social Research and Public Policy: Alex Chae (Capstone Award)

Computer Science: Yeonie Heo, Safal Shrestha, and Jennifer Zheng

Class of 2023 Computer Science: Gopika Krishnan

Economics: Federico Jannelli

Class of 2022 Social Research and Public Policy: Hwangbo Soohyun (Capstone Award)

Class of 2021 Social Research and Public Policy: Iman Zambasri (Capstone Award)

Computer Science: Jiwon Kim

**PROFESSIONAL ACTIVITIES & SERVICES** 

Organizer Summer Institute in Computational Social Science (SICSS) – Abu Dhabi (2023)

Organizing Committee Workshop Chair, AAAI ICWSM (2023)

Workshop Chair, Social Informatics (2019)

Associate Chair for Late Breaking Work, ACM CHI (2018)

Program Committee AAAI ICWSM (2018 – Present)

ACM Web Science (2019 - Present)

The Web Conference (formerly WWW; 2020 – Present)

Panel & Discussant Diverse Data Types: Catalyst for Theory Building and Testing in Analytical Sociology, Annual

Conference of the International Network of Analytical Sociology (INAS) (2024)

Computational Sociology: Methods and Application, Annual Meeting, American Sociological

Association (ASA) (2023)

External Reviewer Journals: American Sociological Review, Communications Physics, EPJ Data Science, Humanities and

Social Sciences Communications, Journal of Communication, Journal of Medical Internet Research, Journal of Multimedia Tools and Applications, PLoS ONE, Poetics, Proceedings of the National

Academy of Sciences (PNAS), Scientific Data, Scientific Reports

Computer and Information Science Conferences: ACM CHI (2014 – Present), ACM CSCW (2017 – Present), AAAI ICWSM (2016 – 2018; now program committee), ACM UbiComp (2014)

Student Volunteer iConference 2016, Philadelphia, PA, USA

Vice President Information Science Graduate Student Association (2016 – 2017)

Service at NYUAD Co-organizer of Social Research and Public Policy speaker series (Spring 2024 – Present); Divisional

representative on the High-Performance Computing (HPC) steering committee (Fall 2023 – Present); Member of the working group for the computational social science minor design (Spring 2023 – Spring 2024); Member of the working group for the public policy curriculum design (Fall 2022 – Spring 2023); Member of the visiting professor search committee for Business, Organization, and Society program

(Spring 2022)