

Zeyu Lyu

Associate Professor
Graduate School of Arts and Letters
Tohoku University

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EDUCATION

Ph.D. Computational Humanities and Social Sciences, Tohoku University, 2019-2022
M.S. Behavioral Science, Tohoku University, 2017-2019
B.S. Journalism, Northeastern University (China), 2012-2016

WORK EXPERIENCE

2023/4-Present **Associate Professor**
Graduate School of Arts and Letters, Tohoku University
2022/4-2023-3 **Project Researcher**
Institute of Social Science, The University of Tokyo

GRANTS AND AWARDS

Awards and Honors

2022 Tohoku University President's Award
2018 Monbukagakusho Honors Scholarship for Privately Financed International Students

Grants (PI)

2025-2028 *Investigating social spatial segregation using large-scale mobility data*, [Grant-in-Aid for Early-Career Scientists: 25K16783](#)
2024-2026 *Using Large Language Models to Simulate Opinion Polarization and Evaluate Depolarizing Interventions*, Sustainability Open Knowledge-Action Program by Connecting Multi-stakeholder
2022-2024 *Investigation of Opinion Polarization in Online Communication: Towards an Integration of Explanation and Prediction*, [Grant-in-Aid for Research Activity Start-up: 22K20182](#)
2022-2023 Research Grant of Institute of Social Science, the University of Tokyo (東京大学社会科学研究所所内プロジェクト支援経費)
2020-2022 *Investigating the mechanism political polarization on social media*, [Grant-in-Aid for JSPS Fellows: 20J11407](#)
2019-2020 *Sentiment analysis on social media: Combining natural language processing and network analysis to examine how social media shape opinion dynamics*, The Division for Interdisciplinary Advanced Research and Education Research Grant

Grants (Co-Investigator)

- 2025-2027 歴史史料から探る 100 年以上の長期気象変化 (村田学術振興・教育財団研究助成文理融合 /PI: Kohei Ichikawa)
- 2024-2026 ビッグデータを用いた社会秩序問題の解明ー計算社会秩序論の創成ー (Grant-in-Aid for Challenging Research (Exploratory):24K21436 /PI: Yoshimichi Sato)
- 2022-2025 動的な多細胞コミュニティの数理社会解析 (Transformative Research Areas:22H05086 /PI: Susumu Cato)

Fellowships

- 2020-2022 JSPS Research Fellowship for Young Scientists DC2
- 2019-2022 AIE - WISE Program for AI Electronics, Tohoku University
- 2019-2022 The Division for Interdisciplinary Advanced Research and Education, Tohoku University

PUBLICATIONS

Peer-Review Articles

- 2025 Wang Zhichao, **Zeyu Lyu**. “From ABM to GABM:How Generative AI is Reshaping Social Simulation”, *Journal of Intelligent Society* 4(2): 138-157. [link](#) (corresponding author).
- 2023 **Zeyu Lyu**, Kohei Ichikawa, Yongchao Cheng, Hisashi Hayakawa, Yukiko Kawamoto. “Digitization of weather records of Seungjeongwon Ilgi: A historical weather dynamics dataset of the Korean Peninsula in 1623-1910”, *Geoscience Data Journal* 11:504-513,. [doi:10.1002/gdj3.227](#).
- 2022 **Zeyu Lyu**, “Cross-cutting interaction, inter-party hostility, and partisan identity: Analysis of offensive speech in social media”, *New Media and Society* 27(2):595-613. [doi:10.1177/14614448231180654](#).
- 2022 **Zeyu Lyu**, Hiroki Takikawa. “Media framing and expression of anti-China sentiment in COVID-19-related news discourse: An analysis using deep learning methods”, *Heliyon*, 8(8):e10419. [doi:10.1016/j.heliyon.2022.e10419](#).
- 2022 **Zeyu Lyu**, Hiroki Takikawa. “Disparity and Dynamics of Social Distancing Behaviors in Japan: An Investigation of Mobile Phone Mobility Data”, *JMIR Medical Informatics* 10(3):e31557. [doi:10.2196/31557](#)
- 2020 Maoxin Ye, **Zeyu Lyu**. “Trust, Risk Perception, and COVID-19 Infections: Evidence from Multilevel Analyses of Combined Original Dataset in China”, *Social Science and Medicine* 265:113517. [doi:10.1016/j.socscimed.2020.113517](#) (corresponding author)
- 2020 **Zeyu Lyu**. “Ideological and Behavioral Perspectives on Political Polarization: Evidence from Japan.”, *Sociological Theory and Methods* 35(2). [doi:10.11218/ojjams.35.170](#)
- 2019 **Zeyu Lyu**. “Towards an Understanding of Online Extremism in Japan”, *IEEE/WIC/ACM International Conference on Web Intelligence on - WI '19 Companion*. [doi:10.1145/3358695.3360922](#)

Books

- 2024 **Zeyu Lyu**, Kikuko Nagayoshi, Hiroki Takikawa. “Polarization of Opinion”, in *Sociological Foundations of Computational Social Science*, Springer: [2509-9574](#)
- 2024 瀧川裕貴, 呂沢宇, 稲垣佑典, 中井豊, 常松淳, 阪本拓人, 大林真也. “ソーシャル・ディスタンス政策のメンタルヘルスへの影響” パンデミックと社会科学—ポストコロナから見えるもの, 勁草書房: [978-4-326-30337-3](#)

Other Articles

- 2024 下窪拓也, 呂沢宇, 永吉希久子, 瀧川裕貴, 渡辺誓司, 中村美子. “X から浮かび上がる東京 2020 パラリンピック競技大会と障害者への意識: 計算社会科学におけるソーシャルメディア分析技術の応用”, 放送研究と調査 74(8). [link](#)
- 2024 呂沢宇. “自然言語処理の社会科学における応用”, 社会と調査 32:116-123. [link](#)
- 2023 永吉希久子, 瀧川裕貴, 呂沢宇, 下窪拓也, 渡辺誓司, 中村美子. “ソーシャルメディア言論分析の方法 II: 安倍首相に対する Twitter 上の投稿分析を事例としたトピックモデルの適用”, 放送研究と調査 73(4). [doi:10.24634/bunken.73.426](#)
- 2023 瀧川裕貴, 永吉希久子, 呂沢宇, 下窪拓也, 渡辺誓司, 中村美子. “ソーシャルメディア言論分析の方法 I: 2020 年 1 月から辞任までの安倍首相に対する Twitter 上の投稿分析を事例として” パンデミックと社会科学—ポストコロナから見えるもの, 放送研究と調査 73(3). [doi:10.24634/bunken.73.370](#)

Updated December 2025