

# Mu-Jung Cho 卓牧融

Assistant Research Fellow · Center for Survey Research, Research Center for Humanities and Social Sciences, Academia Sinica

128 Academia Road, Section 2, Nankang, Taipei 115201, Taiwan  
mjcho@as.edu.tw · +886 2 2789-8197

rchss.sinica.edu.tw  
Google Scholar · github.com/mjcho

*Digital interaction · Media psychology · Artificial intelligence · Data science*

## PROFILE

- Computational social scientist studying what people actually do on screens: media repertoires, informational threat, and the psychology of everyday digital life.
- Over ten years of research experience in behavioral and psychological analytics and human–computer interaction, using computer vision, NLP, predictive modeling, and causal inference on dense digital-trace data.
- Led the cloud infrastructure housing 100TB+ of digital-trace data from 500+ participants, processing over 250 million smartphone screenshots.
- Twenty refereed articles and proceedings papers on knowledge discovery from digital screen records, media selection, and survey measurement.

## ACADEMIC POSITIONS

Dec 2023 – **Assistant Research Fellow**  
*Center for Survey Research, RCHSS, Academia Sinica, Taipei*

2020 – 2023 **Postdoctoral Research Fellow**  
*Solutions Science Lab, Department of Pediatrics, Stanford University School of Medicine*

## EDUCATION

Aug 2020 **Ph.D. in Communication**  
*Stanford University*  
Dissertation: Media Production Behavior on Smartphones: Time, Content, Structure, and Context (169 pp.). Committee: Byron Reeves (advisor), Jay Hamilton, Jeff Hancock, Thomas Robinson.

Jun 2014 **M.A. in East Asian Studies**  
*Stanford University*

Jun 2009 **B.A. in Economics, minor in Political Science**  
*National Taiwan University*

## REFEREED JOURNAL ARTICLES 14 articles

- 1 Beyond apps: A method to model full distributions of screen content over time to study media effects.  
Chi, Y.\*, Cho, M.-J., Molaib, K. M., Sun, X., Robinson, T. N., Ram, N., & Reeves, B. · 2026  
*Communication Methods and Measures*, 1–28.  
SSCI · IF 3.7 · top 14.9%
- 2 An open-source platform for multimodal digital trace data collection from smartphones.  
Kim, I., Boffa, J., Cho, M.-J., Conroy, D. E., Kline, N., Haber, N., Robinson, T. N., Reeves, B., & Ram, N. · 2026  
*Nature Health*, 1(4), 437–448.

- 3 Risk communication in real time: Examining individuals' smartphone use during the 2021 Texas winter disaster with mobile sensing.  
Ng, M., Chi, Y., Cho, M.-J., Eichstaedt, J., Reeves, B., Robinson, T. N., & Ram, N. · 2026  
*Risk Analysis*, 46(4), e70235.  
SSCI/SCIE · IF 3.3 · top 19.8%

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- 4 Person-specific analyses of smartphone use and mental health: Intensive longitudinal study.  
Cerit, M., Lee, A. Y., Hancock, J., Miner, A., Cho, M.-J., Muise, D., Torres, A.-A. G., Haber, N., Ram, N., Robinson, T. N., & Reeves, B. · 2025  
*JMIR Formative Research*, 9(1), e59875.  
MEDLINE · PubMed · ESCI

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- 5 Online job scams: Unveiling the impact of overconfidence, digital literacy, and algorithmic literacy on user susceptibility to false job advertisements.  
Lee, J., & Cho, M.-J.\* · 2025  
*New Media & Society*, Online first.  
SSCI

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- 6 Climate impacts of digital use supply chains.  
Shi, L., Brandt, A., Iancu, D., Mach, K. J., Field, C., Cho, M.-J., Ng, M., Chey, K. J., Ram, N., Robinson, T., & Reeves, B. · 2024  
*Environmental Research: Climate*, 3(1), 015009.

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- 7 Balancing media selections over time: Emotional valence, informational content, and time intervals of use.  
Cho, M.-J.\*, Reeves, B., Ram, N., & Robinson, T. N. · 2023  
*Heliyon*, 9(12), e22816.  
SCIE · Scopus

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- 8 Media production on smartphones: Analysis of the timing, content, and context of message production using real-world smartphone use data.  
Cho, M.-J., Reeves, B., Robinson, T. N., & Ram, N. · 2023  
*Cyberpsychology, Behavior, and Social Networking*, 26(5), 371–379.  
SSCI · IF 3.9 · top 9.5%

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- 9 The good and bad of how theory is used in communication research.  
Reeves, B., & Cho, M.-J.\* · 2023  
*The Journal of Information Society*, 44, 1–26.

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- 10 Connectedness and independence of young adults and parents in the digital world: Observing smartphone interactions at multiple timescales using Screenomics.  
Sun, X., Ram, N., Reeves, B., Cho, M.-J., Fitzgerald, A., & Robinson, T. N. · 2022  
*Journal of Social and Personal Relationships*, 40(4), 1126–1150.  
SSCI · IF 2.3

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- 11 The idiosyncrasies of everyday digital lives: Using the Human Screenome Project to study user behavior on smartphones.  
Brinberg, M., Ram, N., Yang, X., Cho, M.-J., Sundar, S. S., Robinson, T. N., & Reeves, B. · 2021  
*Computers in Human Behavior*, 114, 106570.

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- 12 Screenomics: A framework to capture and analyze personal life experiences and the ways that technology shapes them.  
Reeves, B., Ram, N., Robinson, T. N., Cummings, J. J., Giles, C. L., Pan, J., Chiatti, A., Cho, M.-J., Roehrick, K., Yang, X., Gagneja, A., Brinberg, M., Muise, D., Lu, Y., Luo, M., Fitzgerald, A., & Yeykelis, L. · 2021  
*Human-Computer Interaction*, 36(2), 150–201.  
SCIE · IF 4.4

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- 13 Screenomics: A new approach for observing and studying individuals' digital lives.  
Ram, N., Yang, X., Cho, M.-J., Brinberg, M., Muirhead, F., Reeves, B., & Robinson, T. N. · 2020  
*Journal of Adolescent Research*, 35(1), 16–50.  
SSCI · IF 2.4

- 14 The accuracy of measurements with probability and nonprobability survey samples: Replication and extension.  
MacInnis, B., Krosnick, J. A., Ho, A. S., & Cho, M.-J. · 2018  
*Public Opinion Quarterly*, 82(4), 707–744.  
SSCI · IF 2.8
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## REFEREED CONFERENCE PROCEEDINGS archival full papers · CS / HCI venues

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- 1 Inspiration contagion effects: Elevated thoughts and transcendent emotions.  
Chang, C., & Cho, M.-J.\* · 2026  
*Proceedings of the 59th Hawaii International Conference on System Sciences (HICSS)*, 2639–2648. Maui, HI.  
HICSS full paper
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- 2 Does longer phone use always feel worse? Examining how intention and duration shape evaluations of time use.  
Hsu, J.-W., Lin, C.-T., Chen, U.-D., Kuo, J.-C., Tsai, Y.-H., Liu, J.-C., Lin, Y.-H., Chen, C.-Y., Pour Afshari, R., Lu, Y., Cho, M.-J., Bayer, J., & Chang, Y.-J. · 2026  
*Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems*, 1–17. New York: ACM.  
CHI full paper
- 
- 3 Media Content Atlas: A pipeline to explore and investigate multidimensional media space using multimodal LLMs.  
Cerit, M., Zelikman, E., Cho, M.-J., Robinson, T. N., Reeves, B., Ram, N., & Haber, N. · 2025  
*Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*, 1–13. New York: ACM.  
CHI Extended Abstract
- 
- 4 Text extraction and retrieval from smartphone screenshots: Building a repository for life in media.  
Chiatti, A., Cho, M.-J., Gagneja, A., Yang, X., Brinberg, M., Roehrick, K., Choudhury, S. R., Ram, N., Reeves, B., & Giles, C. L. · 2018  
*Proceedings of the 33rd Annual ACM Symposium on Applied Computing (SAC)*, 948–955. New York: ACM.  
ACM SAC full paper
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- 5 Text extraction from smartphone screenshots to archive in situ media behavior.  
Chiatti, A., Yang, X., Brinberg, M., Cho, M.-J., Gagneja, A., Ram, N., Reeves, B., & Giles, C. L. · 2017  
*Proceedings of the Knowledge Capture Conference (K-CAP)*, Article 40, 1–4. New York: ACM.  
ACM K-CAP full paper
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- 6 From trolley to autonomous vehicle: Perceptions of responsibility and moral norms in traffic accidents with self-driving cars.  
Li, J., Zhao, X., Cho, M.-J., Ju, W., & Malle, B. F. · 2016  
*SAE Technical Papers*, 2016-01-0164.  
SAE World Congress
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## PREPRINTS

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- 1 Daily affect fluctuations in phone screen content predict anxiety and depressive symptoms.  
Kelly, C. A., Chi, Y., Haber, N., Reeves, B., Cho, M.-J., Robinson, T. N., Ram, N., & Eichstaedt, J. C. · 2026  
*arXiv*, Preprint.
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## CONFERENCE PRESENTATIONS non-archival, peer-selected

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- 1 Beyond apps: Modeling full distributions of all screen content over time to understand adolescents' smartphone use and mental health.  
Chi, Y., Cho, M., Molaib, K., Sun, X., Robinson, T., Ram, N., & Reeves, B. · 2025  
*75th Annual Conference of the International Communication Association, Denver, CO*, Jun 12–16.
- 
- 2 Stanford Screenomics: An open-source platform for unobtrusive multimodal digital trace data collection from Android smartphones.  
Kim, I., Boffa, J., Cho, M., Conroy, D., Haber, N., Robinson, T., Reeves, B., & Ram, N. · 2024  
*APHA 2024 Annual Meeting and Expo, Minneapolis, MN*, Oct 27–30.
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- 3 Deception in the global online marketplace: How humans and computers detect algorithmically targeted online job scams.  
Lee, J.\*, & Cho, M. · 2024  
*74th Annual ICA Conference, Gold Coast, Australia*, Jun 20–24.

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- 4 Characterizing “bottom-up” engagement with climate communication with mobile sensing.  
Ng, M., Cho, M., Eichstaedt, J., Reeves, B., Robinson, T., & Ram, N. · 2023  
*73rd Annual ICA Conference, Toronto, ON*, May 25–29.

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- 5 Fragmentation of smartphone use and mental health: Changes in depressive symptoms, anxiety and turbulence over one year.  
Lee, A., Cerit, M., Hancock, J., Miner, A., Cho, M., Muise, D., Garron, A., Ram, N., Robinson, T., & Reeves, B. · 2023  
*73rd Annual ICA Conference, Toronto, ON*, May 25–29.

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- 6 Pulling closer or pushing away? Ambivalence in the dynamics between young adults and parents in the digital context.  
Sun, X., Reeves, B., Ram, N., Cho, M., Fitzgerald, A., & Robinson, T. N. · 2020  
*National Council on Family Relations Annual Conference, virtual*, Nov 4–13.

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- 7 Parent–young adult communication in the digital world: A Screenomics paradigm.  
Sun, X., Robinson, T. N., Ram, N., Reeves, B., Cho, M., Chiatti, A., Lee, J., Roehrick, K., Yang, X., & Fitzgerald, A. · 2020  
*International Conference on Computational Social Science (IC2S2), virtual*, Jul 17–20.

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- 8 Media production behavior on smartphones: Time, content, structure, and context.  
Cho, M., Yang, X., Brinberg, M., & Reeves, B. · 2020  
*70th Annual Conference of the International Communication Association, virtual*, May 21–25.

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- 9 A study of factual information consumption on smartphones: Demographics, time of use, and online media platforms.  
Cho, M., & Muise, D. · 2019  
*2019 Annual Conference of the Chinese Communication Society, Taipei*, Jun 27–28.

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- 10 Balancing the facts: The sequencing of thinking and feeling on mobile phone screens.  
Cho, M., Reeves, B., Ram, N., & Yang, X. · 2019  
*69th Annual Conference of the International Communication Association, Washington, D.C.*, May 24–28.

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- 11 Teen screenomes: Describing and interpreting adolescents’ day-to-day digital lives.  
Ram, N., Cho, M., Yang, X., Brinberg, M., Muirhead, F., Reeves, B., & Robinson, T. · 2019  
*69th Annual Conference of the International Communication Association, Washington, D.C.*, May 24–28.

## INVITED TALKS

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|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dec 2022 | <b>Screenomics assay: Digital trace profiling and its applications in health research.</b><br><i>Department of Healthcare Administration, Asia Eastern University of Science and Technology</i> |
| May 2022 | <b>Screenomics assay: Profiling digital lives on the smartphone.</b><br><i>Center for Survey Research, Academia Sinica</i>                                                                      |
| Apr 2020 | <b>Media sequencing: Balancing content selections over time on smartphones.</b><br><i>Institute for Research in the Social Sciences, Stanford University</i>                                    |

## POSTER PRESENTATIONS

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|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Apr 2023 | <b>Screenomics 2.0: A computational assay for digital screens.</b><br><i>14th Annual Pediatrics Research Retreat, Stanford University</i>                                       |
| Oct 2022 | <b>Screenomics 2.0: Processing intensive longitudinal records of everyday smartphone use at scale.</b><br><i>National AI Advisory Committee (NAIAC) reception, Stanford HAI</i> |

## GRANTS

2019 – 2020      **Magic Grant, Brown Institute for Media Innovation – US\$100,000**  
Co-PI. Screenomics Interactive Dashboard.

2018                **Summer Research Grant – US\$3,500**  
Center for East Asian Studies, Stanford University

2016                **Summer Research Grant – US\$5,000**  
Center for East Asian Studies, Stanford University

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## HONORS & FELLOWSHIPS

2021                **Nathan Maccoby Dissertation Award**  
*Department of Communication, Stanford University – awarded only in years with a truly outstanding dissertation*

2019 – 2020      **The March Fong Eu Fellowship**  
*Stanford University*

2019                **Dissertation Fellowship**  
*Institute for Research in the Social Sciences, Stanford University*

2018 – 2019      **The May Chandler Goodan Fellowship**  
*Stanford University*

2017                **Computational Social Science Fellowship**  
*Institute for Research in the Social Sciences, Stanford University*

2014 – 2016      **National Scholarship for Overseas Study**  
*Ministry of Education, Taiwan (R.O.C.)*

2014 – 2015      **The Melville J. Jacoby Fellowship**  
*Stanford University*

2012 – 2014      **Academic-Year Fellowship**  
*Center for East Asian Studies, Stanford University*

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## TEACHING EXPERIENCE teaching assistant

Stanford           **COMM 121S – Audience 2.0: Changing Practices and Experiences of Audiencing in the Digital Age**

Stanford           **COMM 154/254 – The Politics of Algorithms**

Stanford           **COMM 108/208 – Media Processes and Effects**

Stanford           **COMM 172/272 – Media Psychology**

Stanford           **COMM 121 – Behavior and Social Media**

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## RESEARCH EXPERIENCE

2016 – 2017      **Research Assistant, Human Screenome Project**  
*Stanford University*

2015 – 2016      **Research Assistant, Course Evaluation Project**  
*Stanford University*

2010 – 2011      **Research Assistant, Institute of Political Science**  
*Academia Sinica*

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## ACADEMIC SERVICE

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**TECHNICAL SKILLS**

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**Languages** Python (pandas, NumPy, scikit-learn, statsmodels, SciPy) · R (dplyr, tidyr, purrr, caret) · C, C++ · JavaScript (React, Node.js, Express.js)

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**Data & warehousing** SQL · MongoDB · Spark · Hive · Hadoop

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**Cloud** GCP (Compute Engine, GCS, BigQuery, Vertex AI, App Engine) · AWS (EC2, S3)

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**Deep learning** PyTorch · TensorFlow · Keras · ONNX

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**Visualization & reporting** ggplot2 · matplotlib, seaborn, OpenCV, Pillow · Shiny · LaTeX · Quarto · Typst

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