

Seolmin YANG

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ACADEMIC POSITION

School of Data Science University of Virginia Postdoctoral Research Associate (supervisor: Prof. Yong-Yeol Ahn)	2025.08 ~
Observatory on Social Media Luddy School of Informatics, Computing, and Engineering Indiana University Bloomington Postdoctoral Fellow (supervisor: Prof. Yong-Yeol Ahn)	2025.02 ~ 2025.08
Kellogg School of Management Northwestern University Postdoctoral Fellow (supervisor: Prof. Hyejin Youn)	2024.02 ~ 2025.02

EDUCATION

Ph.D. Science and Technology Policy KAIST, Daejeon, South Korea <ul style="list-style-type: none">(Dissertation) Research Innovation and Collaboration in Government-Funded ScienceAdvisor: So Young KimPh.D. Dissertation Fellowship, National Research Foundation of Korea	2024
Visiting Predoctoral Fellow , Northwestern Institute on Complex Systems, Northwestern University (supervisor: Prof. Hyejin Youn)	2019.12 ~ 2020.03
M.S. Science and Technology Policy KAIST, Daejeon, South Korea <ul style="list-style-type: none">(Thesis) Understanding the process of knowledge creation in university laboratories: An analysis of laboratory dynamics at KAISTAdvisor: So Young Kim	2016
B.S. Chemistry KAIST, Daejeon, South Korea <ul style="list-style-type: none">Minor in Chemical & Biomolecular Engineering	2014

AREAS OF INTERESTS

Technology Evolution, Science of Science, Innovation Policy, R&D Management

PEER-REVIEWED PUBLICATIONS

- Yang, S. & Kim, S.Y. (2023). Knowledge-integrated research is more disruptive when supported by homogeneous funding sources: a case of US federally funded research in biomedical and life sciences. *Scientometrics*, 128, 3257–3282.
- Yang, S. & Kim, S. Y. (2021). Managing individual knowledge creation with demographic faultlines: A case of university laboratories. *Asian Journal of Technology Innovation*, 29(3), 349-368.
- Lee, S., Yang, S., & Nah, K. (2020). Discovering the topology of design process: A network analysis of author keywords in Design Studies. *Archives of Design Research*, 33(1), 191-203.

WORKS IN PROGRESS

- Yang, S., & Youn, H. (2023). Geometrics of the adjacent possible: Harvesting values at the curvature. *arXiv preprint arXiv:2311.16360*.
- Yang, S., Jeong, D., & Youn, H. Evolution of technology landscape from micro- to macro-structures.
- Yang, S., Youn, H., & Jung, H. Boundary Reclassification.
- Jeong, D., Yang, S., Evans, J., & Youn, H. Exploring consolidation pathways in knowledge assemblies.
- Jeong, D., Yang, S., Jang, S., & Shin, S. R. Links from papers to patents are becoming less disruptive than the reverse.

AWARDS & FELLOWSHIPS

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|---|---------|---|
| Best Paper Award, Summer 2022 Korea Society Innovation Management & Economics Academic Conference | 2022.07 | |
| *Title: Reducing the risk of exploration: Innovation relying on government-funded research | | |
| Ph.D. Dissertation Fellowship, National Research Foundation of Korea | 2021.06 | ~ |
| *Title: Making 1+1 more than 2: A scientometric analysis of the efficacy of government funding for interdisciplinary research | 2022.05 | |
| Emerging Scholar Award, 17 th International Conference on Knowledge, Culture, and Change in Organizations, Darwin, Australia | 2017 | |
| STEDI Fellowship, Science and Technology Policy Institute, South Korea | 2017 | |

*Title: Understanding the organization of team science: A case of the institute for basic science in South Korea

PEER-REVIEWED CONFERENCE PRESENTATIONS

Yang, S. (2023, June). Skewed funding for basic sciences: Unpacking the basicness of NIH grants, Poster presented at International Conference on the Science of Science and Innovation (ICSSI), Evanston, IL.

Kwon, H. Y., Yang, S., & Youn, H. (2022, July). Occupational mobility and wages from a perspective of worker skills, Poster presented at IC2S2, Chicago, IL.

Yang, S., Youn, H., & Kim, S. Y. (2022, July). Reducing the risk of exploration: Innovation relying on government-funded research, Paper presented at Summer 2022 Korea Society Innovation Management & Economics Academic Conferenc, Jeju, South Korea.

Yang, S., & Kim, S. Y. (2019, October). Strategizing scientific awards: The impacts of early-career awards on the research network of recipient scientists, Poster presented at 8th Biennial Atlanta Conference on Science and Innovation Policy, Atlanta, GA, U.S.

Yang, S., & Kim, S. Y. (2017, October). Re-combining social category diversity and tenure diversity: A cross-level analysis of individual explicit knowledge, Paper presented at 7th Biennial Atlanta Conference on Science and Innovation Policy, Atlanta, GA, U.S.

Yang, S. (2017, September). Affiliation diversity and team performance: Impact of the external social network ties of leading scientists, Paper presented at 15th International Triple Helix Conference, Daegu, South Korea

Yang, S., & Kim, S. Y. (2017, April). Re-combining social category diversity and tenure diversity: A cross-level analysis of individual explicit knowledge creation, Paper presented at 17th International Conference on Knowledge, Culture, and Change in Organizations, Darwin, Australia

Yang, S., & Kim, S. Y. (2016, September). Understanding the process of knowledge creation in university laboratories: An analysis of laboratory dynamics at KAIST, Paper presented at XIV International Triple Helix Conference, Heidelberg, Germany

INVITED PRESENTATIONS & TALKS

Yang, S. (2017, November). Demographic faultlines and psychological safety: A cross-level analysis of individuals' reliance on explicit and tacit knowledge. Talk given at the Seminar on Innovation for Global Development (led by Prof. Calestous Juma), Harvard Kennedy School, Cambridge, MA, U.S.

Yang, S. (2017, June). Re-combining social category diversity and tenure diversity: A cross-level analysis of individual explicit knowledge creation. Talk given at the Joint S&T Policy Workshop, School of Public Policy & Management, Tsinghua University, Beijing, China

EXPERIENCE

Teaching Assistant

Winning with Networks (MORS-457-0), Northwestern University (Instructor: Prof. Hyejin Youn) Spring 2020
 Role: assisted students in handling and visualizing network data

Research Assistant

The Trend of Artificial Intelligence in South Korea, KAIST-Fourth Industrial Revolution Center (FIRIC), Daejeon, South Korea (PI: Prof. So Young Kim) 2019
 Role: analyzed the bibliometric data about AI and conduct a network analysis

A Proposal for Improvement of the Current Science Awards System with Its Comprehensive Assessment in South Korea, Korea National Research Foundation, Daejeon, South Korea (PI: Prof. So Young Kim) 2018
 Role: analyzed survey data to assess factors affecting the scientists' perception of science awards.

A Study of Future Technology Roadmaps based on the Time Series Analysis of Technologies, Korea National Research Foundation, Daejeon, South Korea (PI: Prof. So Young Kim) 2018
Role (Head RA): conducted and interpreted interviews with the Center for the Fourth Industrial Revolution (WEF), Program on Emerging Technologies, and MIT Technology Review about the organizations' processes for reviewing, selecting, and publishing emerging technologies; analyzed the trends of emerging technologies from public institutions in South Korea over a decade.

A Policy for Collaborative Lab Design, KAIST (PI: Prof. Hongjin Kong) 2017
Role (Head RA): analyzed the system of university laboratory in Japan, Germany, and France; interpreted interviews with lab heads about how to collaborate with colleagues.

Evidence-based Appraisal of the Program for Women Returners to Research & Development, Center for Women In Science, Engineering and Technology, Seoul, South Korea (PI: Prof. So Young Kim) 2016
Role (Head RA): conducted and analyzed focus-group interviews with female scientists and engineers returning to profession; analyzed survey data to assess factors affecting the success of return.

The Impact of IBS on Regional Development, Institute for Basic Science, Institute for Basic Science, Daejeon, South Korea (PI: Prof. Yoonjung Lee) 2016
Role: analyzed survey data to measure the market values of non-market goods

or services.

Researcher in Center for Strategic Foresight, Science and Technology Policy
Institute, Seoul, South Korea.

2013 ~
2014

STATISTICAL SKILLS

R, Python, Gephi, UCINET, SPSS