

SUKWOONG CHOI

100 Main St, Cambridge, MA 02142

sukwoong@mit.edu

ACADEMIC APPOINTMENTS

Massachusetts Institute of Technology

Cambridge, MA, July 2021 - Present

Sloan School of Management

Initiative on the Digital Economy (IDE)

Computer Science & Artificial Intelligence Laboratory (CSAIL)

Postdoctoral Scholar

University of Southern California

Los Angeles, CA, July 2020 - July 2021

Viterbi School of Engineering

Technology Innovation and Entrepreneurship

Postdoctoral Scholar

University of Kentucky

Lexington, KY, July 2019 - June 2020

Gatton College of Business and Economics

Department of Management

Postdoctoral Scholar

RESEARCH INTERESTS

[1] Research Topics: Innovation, Entrepreneurship, and Economics of Artificial Intelligence (AI)

[2] Methodologies: Econometrics, Big-Data Analysis, Machine Learning, and Social Network Analysis

EDUCATION

KAIST (Korea Advanced Institute of Science and Technology)

Daejeon, Korea, June 2019

Ph.D., School of Business and Technology Management, College of Business

Northwestern University

Evanston, IL, Jan 2019 - Mar 2019

Kellogg School of Management, Management of Organizations (MORS)

Visiting Ph.D. Student (Sponsored by Professor Hyejin Youn)

University of California, Berkeley

Berkeley, CA, Jan 2018 - June 2019

Haas School of Business, Management of Organizations (MORS)

Visiting Ph.D. Student (Sponsored by National Research Foundation of Korea)

KAIST (Korea Advanced Institute of Science and Technology)

Daejeon, Korea, Feb 2012

B.S. Mathematical Science, B.E. Management Science

SELECTED WORKING PAPERS

[1] How Does AI Improve Human Decision-Making? Evidence from the AI-Powered Go Program (with N. Kim, J. Kim, and H. Kang) *Revise and Resubmit*

- Winner for the Best Interdisciplinary Paper Award Strategic Human Capital in the SMS 2021

- Media Cover: MIT IDE Blog, State of AI Report 2021, The Chosun Ilbo (Leading Korean Daily Newspaper)

[2] It Ain't Over 'Til It's Over: Post-IPO VC Ownership Effect on Innovation-Enhancing Investment of Newly Public Firms (with T. Kim and H. Woo) *Revise and Resubmit*

- [3] The Dynamics of Entrepreneurship Research: A Topic Modeling Analysis and Research Agenda (with W. Kim and K. Lee) *Reject and Resubmit*

ONGOING RESEARCH PROJECTS

- [1] Stay the Course? The Effects of Government Matching R&D Funding on Tech Startups (with Y. Lee, T. Kim, and W. Kim) *Working Paper*
- [2] Practical Quantum Computing is about—More Than Just Hardware (with K. Greene, P. Shukla, and N. Thompson) *Working Paper*
- [3] The Quantum Tortoise and the Classical Hare: An analysis of which problems quantum computing will accelerate (and which it won't) (with W. Moses and N. Thompson) *Working Paper*
- [4] Standing on the Shoulders of AI? Knowledge Creation by Learning from AI (with H. Kang, N. Kim, and J. Kim) *Working Paper*
- [5] Algorithmic Patents, Algorithm Improvements and Firm Value (with N. Ahmed and N. Thompson) *Data Analysis*
- [6] How Does AI Improve Human Collaboration and Performance? Evidence from AI-powered X-ray Triage in University Hospitals (with H. Kang and N. Kim) *Data Analysis*

REFEREED JOURNAL ARTICLES

- [1] When Does AI Payoff?: AI-Adoption Intensity, Complementary Investments, and R&D Strategy (with T. Kim, W. Kim, and Y. Lee (*Equally contributed*)) *Technovation*, 2022
- Media Cover: MIT Sloan, MIT IDE Research in Brief
- [2] International Alliance Formation: The Effect of Technology Competition Networks (with N. Kim and W. Kim) *Journal of Business Research*, 2022
- [3] Are Social Entrepreneurs More Risk-Averse? (with N. Kim and W. Kim) *Applied Economics Letters*, 2019
- [4] An Empirical Study on Successful Crowdfunding (with D. Lee, J. Kim, and W. Kim) *Asia-Pacific Journal of Business Venturing and Entrepreneurship* (KCI), 2017
(Written in Korean / Winner of the Best Paper Award)

BOOK CHAPTERS

- [1] Choi, Sukwoong. How is Artificial Intelligence Affecting Individuals and Organizations? In *Digital Power 2023: A Future Society Led by Digital Innovation*. HadA Press. 2022. (Written in Korean)

INVITED PRESENTATIONS, CONFERENCES, AND ACADEMIC PROGRAMS

2023-Present (includes scheduled): University at Albany, SUNY; Stonybrook University, SUNY; Imperial College London; Economics of Quantum Information Technology conference; Druid 2023; AOM Annual Meetings; International Conference on Science of Science and Innovation (ICSSI); TEDxGateway Webinar Series;

2022: Yonsei University; 3rd AI and Strategy Consortium; IP and Innovation (IPI) Seminar; the 2022 Wharton Technology and Innovation Conference; The Artificial Intelligence for Good Group (meetup, New York); 1st Wharton/Columbia Management, Analytics, and Data (MAD) Conference; Samsung Advanced Institute of Technology (Targeted to Vice Presidents of Technology); the Work in the Age of Intelligent Machine (WAIM) Summer Conference; Carnegie School of Organizational Learning (CSOL) Academy; NBER Innovation Research Boot Camp; AOM Annual Meetings; STR Dissertation Consortium; Transatlantic Quantum Forum; Northwestern University (Center of Science of Science &

Innovation (CSSI)); Bocconi University; Stevens of Institute Technology; 2022 Conference on Artificial Intelligence, Machine Learning, and Business Analytics; *Cancelled due to Covid-19: 15th Digital Economics Conference (Toulouse, France)*; *Could not attend due to Covid-19: the 5th Vienna Conference on Strategy, Organizational Design, and Innovation*

2021: NBER Economics of Artificial Intelligence Conference; MIT IDE Fall Seminar; AOM Annual Meetings; SMS Annual Conference; Conference on Artificial Intelligence, Machine Learning, and Business Analytics; Yonsei University; NBER Doctoral Student Workshop on Economics of Artificial Intelligence; *Could not attend due to Covid-19: DRUID (Copenhagen, Denmark)*

2019-2020 & Before: AOM Annual Meetings (2020, 2017); SMS Annual Conference (2019, 2017); University of Kentucky Colloquium (2019); NBER Entrepreneurship Bootcamp (2018); STR Managing Your Dissertation Workshop (2018); INSEAD Doriot Entrepreneurship Conference (Poster, 2018); TIM Doctoral Student Consortium (2017); MIS summer program at Harbin Institute of Technology (2017); KAIST College of Business Colloquium (2017)

HONORS, GRANTS, AND FELLOWSHIPS

- [1] Co-investigator, Finance, Competitiveness & Innovation Global Practice, World Bank Group - "The Effects of Government Matching R&D Funds on Tech Startups: The Case of Korea's TIPS Program" (with Y. Lee, T. Kim, and W. Kim) (2022-2023) (\$20,000)
- [2] Co-principal investigator, USC Marshall Institute for Outlier Research in Business Grant Program - "How Does AI Improve Human Decision-Making and Performance? Evidence from AI-powered X-ray Triage in University Hospitals" (with H. Kang and N. Kim) (2022-2023) (\$19,400)
- [3] NBER Grant for Summer Innovation Boot Camp (2022) (\$2,000)
- [4] Winner, Best Interdisciplinary Paper Award (Strategic Human Capital IG), SMS Conference (2021)
- [5] Kauffman Foundation Entrepreneurship Research to Practice Bootcamp (2020) (\$3,000) *Cancelled due to Covid-19*
- [6] NBER Grant for Summer Entrepreneurship Boot Camp (2018) (\$1,000)
- [7] National Research Funding (NRF) of Korea Fellowship for Social Science Korea - All but Dissertation (2017) (\$22,000)
- [8] Winner, Best Paper Award, Asia-Pacific Journal of Business Venturing and Entrepreneurship (2017)
- [9] KAIST, College of Business Graduate Fellowships (2012-2016)

TEACHING EXPERIENCE

Managing Social and Organizational Networks (Undergraduate Course Instructor at Gatton B-School) Spring 2020, Rating 4.2/5
Social Dynamics and Network Analysis (MBA Course TA at Kellogg B-School) Winter 2019
Innovation and Technology Management (Graduate Course TA) Spring 2016, Fall 2016
Econometrics (Undergraduate Course TA) Spring 2015, Fall 2015
Organization Theory (Graduate Course TA) Spring 2014
Research Methodology I (Graduate Course TA) Spring 2013, Fall 2013

OTHERS

Research Assistantship

RA for Abhishek Nagaraj, Assistant Professor of UC Berkeley, Mar. 2018 - Dec. 2018
Project Name: Improving Data Access Democratizes and Diversifies Science. Published at Proceedings of the National Academy of Sciences (PNAS, A. Nagaraj, E. Shears, and M. de Vaan, 2020).

Programming

Languages: R, Python, Java
Statistical packages: Stata
Network Analysis: iGraph (R/Python), NetworkX (Python), UCINET, Gephi

Academic Service

Peer-Review Journal Referee: Journal of Business Venturing, Journal of Economic Growth, Journal of Strategy and Management, Applied Economics Letters, the Journal of the Royal Statistical Society: Series A

Peer-Review Grant Referee: Swiss National Science Foundation

Academy of Management, STR, ENT, and TIM Reviewer 2016-2021

SMS Annual Conference Reviewer 2022

Support for Holding Academic Conferences

the 2015 AIEA-NBER conference, the 2022 Workshop on the Computational Foundations of Prosperity

Military Service

Serving a military service at KAIST as the Technical Research Personnel during 3 years (2014-2016)

REFERENCES

Neil Thompson, Initiative on the Digital Economy, MIT, neil_t@mit.edu

Yong Suk Lee, Technology, Economy, and Global Affairs, University of Notre Dame, yong.s.lee@nd.edu

Hyo Kang, Marshall School of Business, University of Southern California, hyokang@marshall.usc.edu

Wonjoon Kim, College of Business, KAIST, wonjoon.kim@kaist.edu

Namil Kim, School of Management, Harbin Institute of Technology, namil.kim@hit.edu.cn

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