

## Seokbeom Kwon

Department of Systems Management Engineering/Graduate School of Technology  
Management, Sungkyunkwan University, Suwon-si, Gyeonggi-do, Korea  
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### ACADEMIC APPOINTMENTS

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#### **Assistant Professor, Sungkyunkwan University (2022— present)**

Department of Systems Management Engineering / Industrial Engineering  
Graduate School of Technology Management

#### **Assistant Professor, The University of Tokyo (2020 – 2022)**

Department of Advanced Interdisciplinary Studies (Policy Research on Science and Technology Unit)  
Department of Technology Management for Innovation

### EDUCATIONS

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#### **Ph.D. in Public Policy, Georgia Institute of Technology, USA (2019)**

Specialty: Science, Technology, and Innovation Policy, Chair: Prof. Alan C. Marco

#### **M.S. in Technology Management for Innovation, The University of Tokyo, Japan (2013)**

#### **B.S. in Electrical Engineering, Seoul National University, Korea (2011)**

#### **B.S. in Management of Technology, Seoul National University, Korea (2011)**

### RESEARCH INTERESTS

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Academic Entrepreneurship, Market for Patents, Regulation and Innovation, Innovation and Competition, Economics of Science, Emerging Technology, Artificial Intelligence and Innovation

### PEER-REVIEWED JOURNAL ARTICLES

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1. **Kwon, S.**, Youtie, J., Porter A.L., & Newman N. (2022). How does regulatory uncertainty shape the innovation process? Evidence from the case of Nanomedicine, *The Journal of Technology Transfer* (online published) [[Link](#)][[6-pager version in Academy of management best paper proceedings](#)]
2. **Kwon, S.** (2022). Interdisciplinary knowledge integration as a unique knowledge source for technology development and the role of funding allocation, *Technological Forecasting and Social Change*, 181, 121767 [[Link](#)]
3. **Kwon, S.**, Motohashi, K., & Ikeuchi, J. (2022). Chasing Two Hares at Once? Effect of Joint Institutional Change for Promoting Commercial Use of University Knowledge on Science, *The Journal of Technology Transfer*, 47, 1242-1272 [[Link](#)]
4. **Kwon, S.**, & Marco, A. (2021). Can antitrust law enforcement spur innovation? Antitrust regulation of patent consolidation and its impact on follow-on innovations, *Research Policy*, 50(9), 104295 [[Link](#)]
5. **Kwon, S.**, & Motohashi, K. (2021). Incentive or Disincentive for Disclosure of Research Data? A Large-Scale Empirical Analysis and Implications for Open Science Policy, *International Journal of Information Management*, 60, 102371 [[Link](#)]
6. Youtie, J., **Kwon, S.**, & Woo, S. (2021). The Impact of I-Corps on Accelerating Venture

- Discontinuation in a Southeastern US University, *Science and Public Policy*, scab027 [\[Link\]](#)
7. **Kwon, S.** (2021). The prevalence of weak patents in the United States: A new method to identify weak patents and the implications for patent policy, *Technology in Society*, 64, 101469 [\[Link\]](#)
  8. **Kwon, S.**, Youtie, J., & Porter, A.L. (2021). Interdisciplinary Knowledge Combinations and Emerging Technological Topics: Implications for Reducing Uncertainties in Research Evaluation, *Research Evaluation*, rvaa029 [\[Link\]](#)
  9. Schmid, J., & **Kwon, S.** (2020). Collaboration in innovation: An empirical test of Varieties of Capitalism. *Technological Forecasting and Social Change*, 157, 120099 [\[Link\]](#)
  10. **Kwon, S.** (2020). How does patent transfer affect innovation of firms? *Technological Forecasting and Social Change*, 154, 119959 [\[Link\]](#)
  11. **Kwon, S.**, & Drev, M. (2020). Defensive Patent Aggregators as Shields against Patent Assertion Entities? Theoretical and Empirical Analysis, *Technological Forecasting and Social Change*, 151, 119745 [\[Link\]](#) [\[6-pager version in Academy of management best paper proceedings\]](#)
  12. **Kwon, S.**, Liu, X., Porter, A L., & Youtie, J. (2019). Research Addressing Emerging Technological Ideas Has Greater Scientific Impact, *Research Policy*, 48(9), 103834 [\[Link\]](#)
  13. Wang, Z., Porter, A.L., **Kwon, S.**, Youtie, J., Shapira, P., Carley, S.F., & Liu, X. (2019). Updating a search strategy to track emerging nanotechnologies, *Journal of Nanoparticle Research*, 21(9), pp1-21 [\[Link\]](#)
  14. Carley, S. F., **Kwon, S.**, Porter, A. L., & Youtie, J. (2019). The Relationship between Forward and Backward Diversity, *Scientometrics*, 120 (30), pp961-974 [\[Link\]](#)
  15. Porter, A. L., Carley, S. F., Cassidy, C., Youtie, J., Schoeneck, D. J., **Kwon, S.**, & Solomon, G. E. (2019). Measuring Interdisciplinary Research Categories and Knowledge Transfer: A Case Study of Connections between Cognitive Science and Education. *Perspectives on Science*, 27(4), pp582-618 [\[Link\]](#)
  16. Porter, A. L., Schoeneck, D. J., Youtie, J., Solomon, G. E., **Kwon, S.**, & Carley, S. F. (2019). Learning about learning: patterns of sharing of research knowledge among Education, Border, and Cognitive Science fields. *Scientometrics*, 118(3), pp1093-1117 [\[Link\]](#)
  17. Porter, A. L., Garner, J., Newman, N. C., Carley, S. F., Youtie, J., **Kwon, S.**, & Li, Y. (2019). National nanotechnology research prominence. *Technology Analysis & Strategic Management*, 31(1), pp25-39 [\[Link\]](#)
  18. Rose, K. M., Howell, E. L., Scheufele, D. A., Brossard, D., Xenos, M. A., Shapira, P., Youtie, J., & **Kwon, S.** (2018). The Values of Synthetic Biology: Researcher Views of Their Field and Participation in Public Engagement. *BioScience*, 68(10), pp782-791 [\[Link\]](#)
  19. **Kwon, S.**, Solomon, G. E., Youtie, J., & Porter, A. L. (2017). A measure of knowledge flow between specific fields: Implications of interdisciplinarity for impact and funding. *PloS one*, 12(10) e0185583 [\[Link\]](#)
  20. **Kwon, S.**, & Woo, S. (2017). Intellectual Property Rights (IPR) Regime and Innovation in a Developing Country Context. *STI Policy Review*, 8(1), pp62-86 [\[Link\]](#)
  21. Shapira, P., **Kwon, S.**, & Youtie, J. (2017). Tracking the emergence of synthetic biology. *Scientometrics*, 112(3), pp1439-1469 [\[Link\]](#)
  22. Youtie, J., Solomon, G. E., Carley, S., **Kwon, S.**, & Porter, A. L. (2017). Crossing Borders: A Citation Analysis of Connections between Cognitive Science and Educational Research... and the Fields in Between. *Research Evaluation*, 26(3), pp242-255 [\[Link\]](#)
  23. **Kwon, S.**, & Motohashi, K. (2017). How institutional arrangements in the National Innovation System affect industrial competitiveness: A study of Japan and the US with multiagent

simulation. *Technological Forecasting and Social Change*, 115, pp221-235 [\[Link\]](#)

24. **Kwon, S.**, Porter, A., & Youtie, J. (2016). Navigating the innovation trajectories of technology by combining specialization score analyses for publications and patents: graphene and nano-enabled drug delivery. *Scientometrics*, 106(3), pp1057-1071 [\[Link\]](#)
25. Huang, Y., Ma, J., Porter, A. L., **Kwon, S.**, & Zhu, D. (2015). Analyzing collaboration networks and developmental patterns of nano-enabled drug delivery (NEDD) for brain cancer. *Beilstein journal of nanotechnology*, 6(1), pp1666-1676 [\[Link\]](#)

#### BOOK CHAPTER

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Howell E, Scheufele, D, Brossard D, Xenos, M, **Kwon, S.**, Youtie, J., & Shapira, P. (2020). Scientists' and the Publics' Views of Synthetic Biology, *Synthetic Biology 2020: Frontiers in Risk Analysis and Governance, Risk, Systems and Decisions* [\[Link\]](#)

#### WORKING PAPERS

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1. **Kwon, S.**, & Porter, A. Dual Role of Data in Corporate Research on Machine Learning and Artificial Intelligence: Institutional Tension Between Innovation and Competition Policy (Under review)
2. **Kwon, S.** Privatization of tax money? Transfer of patents on government-funded inventions by universities and its impact on follow-on inventions (Under review)

#### CONFERENCE PRESENTATIONS

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1. **Kwon, S.** Dual Role of Data in Corporate Research on Machine Learning and Artificial Intelligence: Institutional Tension Between Innovation and Competition Policy
  - Asia Pacific Innovation Conference (APIC), 2022 (oral presentation)\*
2. **Kwon, S.**, Youtie, J., Porter A, & Newman N. How does regulatory uncertainty shape the innovation process? Evidence from the case of Nanomedicine
  - Academy of Management Annual Meeting, Seattle, 2022 (Oral presentation, \**TIM division Best Paper Proceeding*) [\[Link\]](#)
3. **Kwon, S.**, Motohashi, K., & Ikeuchi K. Chasing Two Hares at Once? Effect of Joint Institutional Change for Promoting Commercial Use of University Knowledge and Scientific Research
  - Korea's Allied Economic Associations Annual Meeting, 2021 (oral presentation)
4. **Kwon, S.** The Prevalence of Weak Patents in the United States and Its Consequence for Invention
  - Academy of Management Annual Meeting, 2020 (oral presentation)\*
5. **Kwon, S.** Does antitrust regulation of patent monopoly promote innovation?
  - Academy of Management Annual Meeting, Boston, 2019 (oral presentation) \*
6. **Kwon, S.** Impact of Patents Ownership Transfer on Ex-Post Patent Holdup Risk and Innovation of Firms
  - Association for Public Policy Analysis and Management Research Conference, Washington D.C., 2018\*
  - Academy of Management Annual Meeting, Chicago, 2018\*
  - DRUID Conference, Copenhagen, 2018\*
  - International Schumpeter Society Conference, Seoul, 2018\* (\**Young Scholars Award Winner*)
  - Asia Pacific Innovation Conference, Wellington, 2017\*
  - Science, Technology, and Innovation Conference, Atlanta, 2017\*
7. **Kwon, S.** Technology or Exclusion Right? Patent Licensing and Patent Trading
  - DRUID17, New York, 2017\*

8. **Kwon, S.**, & Drev, M. Strategic Patent Acquisition of Patent Assertion Entity and Defensive Patent Aggregators
  - Academy of Management Annual Meeting, Atlanta, 2017\* (***TIM division Best Paper Proceeding***)
  - DRUID Conference, Copenhagen, 2016\*
9. **Kwon, S.**, Porter, A. L., Solomon, G. E., & Youtie, J. Knowledge flow between Cognitive Science and Educational Research
  - American Evaluation Association Annual Meeting, Atlanta, 2016\*
10. **Kwon, S.**, Youtie, J., & Shapira, P. A framework for building a search strategy in an emerging technology: The case of synthetic biology patents
  - Science, Technology, and Innovation Policy Conference, Atlanta, 2015\*
11. **Kwon, S.** Building a Patent Search Strategy of an Emerging Technology Using Citation Information
  - Global Tech Mining Conference, Atlanta, 2015\*
12. Newman, N. C., Porter, A. L., Kay, L., Youtie, J., Rafols, I., **Kwon, S.**, & Porter, D. Patent Mapping: Toward a tool to understand the diffusion of technology
  - PATSTAT user day, Tokyo, 2014
13. **Kwon, S.**, & Motohashi, K. An agent-based model of patent system and effect of NPEs on innovation society
  - ASIALICS Conference, Tokyo, 2013\*
  - Science, Technology, and Innovation Policy Conference, Atlanta, 2013\*
  - Japan MOT Society Conference, Tokyo, 2013\*

\* peer-reviewed

## RESEARCH GRANTS & PROJECTS

1. Principal Investigator (2022–2025). National Research Foundation of Korea, “Impact of institutional changes for encouraging research data sharing on advance of science and technology” (Project #2022R1F1A1074022)
2. Principal Investigator (2020 – 2022). Japan Society for the Promotion of Science (JSPS) Grant-in-Aid for Research Activity Start-up, “Impact of Granting Research Fund on Interdisciplinarity of Research Outcomes” (Project #20K22116)
3. Co-Principal Investigator (2020 – 2022). Japan Society for the Promotion of Science (JSPS) Grants-in-Aid for Scientific Research A. "Empirical Analysis on Impact of Academic Science on Innovation Process" (Project #18H03631)
4. Research Assistant, US National Science Foundation (2018 – 2020). “Indicators of Technological Emergence” (Project #1759960)
5. Research Assistant, US National Science Foundation (2016 – 2017). "Connections: STEM Educational Research Communities and Knowledge Transfer" (Project #DRL-1348765)
6. Research Assistant, US National Science Foundation (2014 – 2016). “Revealing Innovation Pathways: Hybrid Science Maps for Technology Assessment and Foresight” (Project #1064146)
7. Research Assistant, US National Science Foundation (2014 – 2016). “The Center for Nanotechnology in Society at Arizona State University” (Project #0937591)
8. Research Assistant, Japan Research Institute of Economy, Trade and Industry (2013 – 2014). “Empirical Studies on “Japanese-style” Open Innovation

### SEMINARS AND INVITED TALKS

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1. **Kwon, S.**, & Motohashi, K. Incentive or Disincentive for Disclosure of Research Data? A Large-Scale Empirical Analysis and Implications for Open Science Policy, Nihon University, 2021 (invited speaker, online)
2. **Kwon, S.** Does antitrust regulation of patent monopoly promote innovation? Hitotsubashi University, Tokyo, 2019 (invited speaker)
3. **Kwon, S.** Effect of Regulation of Patents Transfer on Innovation. Workshop Original Research Presentation, Georgia Tech, Atlanta, 2018
4. **Kwon, S.** Impact of Patents Ownership Transfer on Ex-Post Patent Holdup Risk and Innovation of Firms. Hanyang University, Seoul, 2018
5. **Kwon, S.**, & Drev, M. Strategic Patent Acquisition of Offensive and Defensive Patent Aggregators. Workshop Original Research Presentation, Georgia Tech, Atlanta, 2015
6. **Kwon, S.**, Shapira, P., & Youtie, J. A framework of building a search-term strategy of an emerging technology: case of synthetic biology. University of Manchester, Manchester, 2015
7. **Kwon, S.**, Effect of NPE on innovation society and implications for Public Research Institute. Korea Institute of Science and Technology, Seoul, 2014

### TEACHING

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1. Research Method for Science and Technology Policy Analysis (Undergraduate level), Spring 2023, Sungkyunkwan University
2. Seminars on Bibliometrics and Patent Analytics (Graduate level), Fall 2022, Sungkyunkwan University
3. Innovation Strategy & Management (Undergraduate level), Fall 2022, Sungkyunkwan University
4. R&D Innovation (Graduate level), Spring 2022/2023, Sungkyunkwan University
5. Economics of Innovation Policy and Management (Graduate level), Fall 2021, The University of Tokyo
6. Introduction to Advanced Interdisciplinary Studies (Graduate Level), Fall 2021, The University of Tokyo
7. Quantitative Methods for Management and Policy Analysis (Graduate Level), The University of Tokyo, Spring 2020/2021
8. Research Methods and Problem Solving (undergraduate level), Georgia Tech, Fall 2019
9. Research Design and Policy Science (graduate level class), Georgia Tech, 2017 (guest lecturer)

### AWARDS AND RECOGNITIONS

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1. **Best Paper Proceeding** (Top 10% paper), Technology and Innovation Management Division, Academy of Management Annual Meeting, 2022
2. **Outstanding Doctoral Student Award**, Georgia Tech, 2019
3. **Young Scholars Award**, International Schumpeter Society, 2018
4. **Second-Prize**, Ivan Allen College Graduate Conference Award, Georgia Tech, 2018
5. **Best Paper Proceeding** (Top 10% paper), Technology and Innovation Management Division, Academy of Management Annual Meeting, 2017
6. **First-Prize**, Ivan Allen College Graduate Conference Award, Georgia Tech, 2017
7. **STEPI Fellowship**, Science and Technology Policy Institute, 2016
8. **Outstanding Graduate Student**, University of Tokyo, 2013
9. **MEXT (Monbukagakusho) Scholarship**, Ministry of Education, Culture, Sports, Science, and

Technology, 2011-2013

10. **Korean Government National Science & Technology Scholarship**, Korea Science and Technology Foundation, 2004-2011

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#### **ACADEMIC MEMBERSHIP & SERVICES**

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- Scientific Committee  
Global Tech Mining Conference 2020/2021/2022
- Discussant  
Academy of Management Annual Meeting 2018, DRUID conference 2018, Korea Society for Innovation Management & Economics (KOSIME) Summer Meeting 2022
- Memberships  
Academy of Management Technology & Innovation Management Division (2017 – Present)  
KOSIME (2022 – Present)
- Journal Referee  
Research Policy  
Research Evaluation  
Journal of Technology Transfer  
Journal of Law and Economics  
Journal of Evolutionary Economics  
Technological Forecasting and Social Change  
IEEE Transactions on Engineering Management  
Policy Studies  
Scientometrics  
Journal of Informetrics  
Applied Economics (+ Letters)  
Journal of Association for Information Science and Technology  
Information Processing and Management  
Academy of Management Annual Meeting (conference)

#### **PROFESSIONAL EXPERIENCE**

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- **Researcher**, The University of Tokyo (2013 – 2014)
- **Patent Engineer**, Division of Intellectual property management, SONY Corp., Tokyo (2012)
- **Staff**, Patent Evaluation and Licensing Team, Korea Invention Promotion Association, Seoul (2010)
- **National Military Service**, Republic of Korea Army (2007 – 2009)

#### **TECHNICAL SKILLS & LANGUAGE**

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- Programming languages: MATLAB\*, Python\*, PHP, C/C++, HTML, Visual Basic Script
  - Database management system: My-SQL\*, MS-SQL, VantagePoint
  - Statistical analysis package: STATA\*
  - Language: Korean (Native), English (Fluent), Japanese (Fluent)
- \* primary software package/programming language