NBER Innovation Research Boot Camp Committee
National Bureau of Economic Research
Cambridge, MA

Dear Members of the NBER Innovation Research Boot Camp Committee,

I am writing to express my enthusiasm for attending the NBER Innovation Research Boot Camp 2025. As a PhD student in innovation, entrepreneurship and strategy with a focus on innovation and institutional arrangements, I believe this boot camp will provide a unique opportunity to enhance my understanding of the economics of innovation and contribute to my research.

My research investigates how institutional policies and open-source methods incentivize scientific innovation and contribute to economic growth, inequality reduction, and labor market dynamics. My first study investigates how institutional policies, specifically publication requirements, influence the PhD journey. My second study explores how open-source organization structure serve as an alternative that supports the professional and psychological transformation of novice engineers from disadvantaged backgrounds.

My application documents prepared are listed below:

1. CV
2. Course Completed
3. Research Statement

Thank you for considering my application. I look forward to contribute to the NBER community.

Sincerely,

Yacheng Yang
Tsinghua University
School of Economics and Management
chencheng371@gmail.com

Referee：
Dongbo Shi
Associate Professor
Dept. of Public Administration,
School of International and Public Affairs, Shanghai Jiaotong University
shidongbo@sjtu.edu.cn

Yacheng Yang

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Education

School of Economics and Management, Tsinghua University 2021-2025(expected)
Ph.D. Candidate in Innovation, Entrepreneurship and Strategy *Beijing, China*

- **Supervising Committee:** Xudong Gao, Yidi Guo
- **Area of Interests:** Economic of Ideas & Entrepreneurship

INSEAD 2024-2025
Visiting PhD Student *Singapore*

- **Supervisor:** Winnie Jiang

Australia National University 2018-2020
Master of Management in Technology & Innovation Management *Canberra, Australia*

St. Olaf College 2008-2012
Bachelor of Arts in Theater Studies (Concentration: Media Studies) *Northfield, Minnesota*

Working Paper

Yacheng Yang, (with Dongbo Shi and Yundong Xie (2024). "Publish to Graduate: Impact of Publication Requirements on Doctoral Students". Target: Review of Economic Statistics.

Yacheng Yang, (with Yidi Guo and Winnie Jiang) (2024). "Uphill Battle: Open-Source Values and Positive Transformation for Disadvantaged Individuals". Target: Administrative Science Quarterly.

Book Chapter

Duan, Yueran, Qing Guan, Petter Holme, Yacheng Yang, and Wei Guan (2023). "Temporal link prediction methods based on behavioral synchcrony". In: *Temporal Network Theory*. Springer International Publishing.

Yang, Yacheng (2023). "Technology for social goods, knowledge firms and values: Case studies of online suicide prevention platforms". In: *Technology for Social Goods*. Tsinghua University Press.

Teaching Experience

Antai College of Economics and Management, Shanghai Jiaotong University 2024
Lecturer *Shanghai, China*

- **Open-Source Course:** Large Language Model Prompting for Economics and Management Research

School of Economics and Management, Tsinghua University 2023-2024
Teaching Assistant *Beijing, China*

- **Department Courses:** Strategic Management (MBA Course, 2022 Fall), Macro-Management Theory (Doctoral Course, 2023 Spring), Current Research in Strategic Management (Doctoral Course, 2022 Fall, 2023 Fall), Strategic Management (Master Course, 2022 Fall)
- **X-lab Online Courses:** Corporate Governance (2023-2024)
- **Executive Education Online Courses:** Global Competition and Strategic Choices (2023-2024), Innovation Management (2024-2025)

Honors and Awards

Future Computational Social Scientist Grant, Tsinghua University. 2024
Well-rounded Student Scholarship, Tsinghua University. 2023
Best Paper Second Place, Tech for Social Good Conference, Tsinghua University. 2023
Best Paper Third Place, 10th Conference on Firm Growth & Innovation, Tsinghua University. 2019
Best Paper Second Place, 9th Conference on Firm Growth & Innovation, Tsinghua University. 2018
Best Paper Second Place, 8th Conference on Firm Growth & Innovation, Tsinghua University. 2017
Higher Distinction Graduate, Australian National University. 2020
NTI Scholarship, Eugene O'Neil National Theater Institute. 2011
Dean's Scholarship, American University. 2011
Maland Scholarship, St. Olaf College. 2011
International Student Scholarship, St. Olaf College. 2008-2012

Presentations

May Meeting 2024
Uphill battle: Open-source organizing and positive transformation for disadvantaged individuals *Wallingford, PA*

Economics of Ideas Winter Institute 2024
Impact of Publication Requirements on Doctoral Students *Shenzhen, China*

Complex Management Seminar Series (Swarma Club) 2022
Higher-order Network and the Application of Science *Online Presentation*

ICC-Tsinghua University Conference 2019
Commercialization of University and Research Institutes' Science-based Innovation *Beijing, China*

10th Conference on Firm Growth & Innovation 2019
International Collaboration of Chinese Science Academy: Patent Network View *Kunming, China*

9th Conference on Firm Growth & Innovation 2018
Scientist's engagement, knowledge flow and the growth of science-based firms *Qinghai, China*

8th Conference on Firm Growth & Innovation 2017
Entrepreneurial education impact on college students *Guangxi, China*

Host & Facilitator Roles

2050 Global Conference: AI for Science Panel 2024
Host *Hangzhou, China*

Swarma Club (AI & Comlexity Scientists Community) 2020-2024
Seminar & Conference Host *Beijing, China*

- **Seminars:** Agent and Social Simulation with Navid Ghaffarzade &Yilun Du (2024), Causal Inference with Donald Rubin (2021), Causal Emergence with Erik Hoel (2022)
- **Conferences:** Annual Conference on AI for Science (2023)

Professional Activities and Service

Academy of Management, Reviewer. 2022
P3394 Working Group, Secretary/Contributor. IEEE SA LLM Agent Interface Standard Committee. 2024-present
Deputy Secretary, Innovation and Entrepreneurship Chapter, China Technology Economics Society. 2018-present
Junior Member, China Management Society. 2018-present

Skills

Languages: fluent in English and Mandarin
Tech Skills: Python, R, Stata, MySQL, LaTeX
Hobbies: Ballroom Dancing, Musicals, Chinese Squash Flute, Swimming and Badminton Ball, Pingpong

Course Completed

Course Name	Instructor(s)	Affiliation
Big Data Analytics and Econometrics	Dongbo Shi	Department of Public Administration, Shanghai Jiaotong University
Big Data Analytics (B)	Wenwu Zhu	Department of Computer Science, Tsinghua University
Advanced Applied Mathematical Statistics	Liu Yang	Department of Management Science & Engineering, Tsinghua University
Macromanagement Theory	Yidi Guo	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University
Micromanagement Theory	Lei Wang, Xiaoye Wang	Department of Leadership and Organization Behavior, Tsinghua University
Entrepreneurship: Theory and Empirical Study	Xibao Li	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University
Organization, Environment & Competitive Advantage	Yi Wang	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University
Advanced Topics in Management & Organization Research: Ambicultural Perspectives	Zhenzhen Xie	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University
Management Research Methods I	Chen Zhang	Department of Leadership and Organization Behavior, Tsinghua University
Management Research Methods II	Zhenzhen Xie, Mingtao Xu	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University
Current Research in Strategic Management	Mingtao Xu	Department of Innovation, Entrepreneurship and Strategy, Tsinghua University

Team Cooperation Learning Theory and Training	Yisi Zhan	Department of Higher Education, Tsinghua University
Research on Innovation Management	Zhengfeng Li	Department of Sociology, Tsinghua University
Sociology Theory	Henrich Greve	INSEAD
Entrepreneurship	Henrich Greve, Vissa Balagopal	INSEAD

Workshops

- ✓ Tsinghua R Club Seminars
- ✓ Tsinghua State Club Seminars
- ✓ Tsinghua Python Club Sminars
- ✓ Datawhale Open-source Coding Team-up Learning Project

My research investigates how institutional policies and open-source methods incentivize scientific innovation and contribute to economic growth, inequality reduction, and labor market dynamics.

My first study investigates how institutional policies, specifically publication requirements, influence the PhD journey. While publication requirements are a major source of pressure in PhD programs, there is little evidence on their impact. We documented the policy of canceling publication requirements at elite business schools in China and analyzed its effects. The dataset includes 461 PhD students paired with their advisors, manually collected from PhD admission lists, dissertations, and employment outcomes at three elite business schools. First, we found that removing publication requirements significantly reduced publication output in both Chinese and English journals and extended students' time to completion. Second, most of the decline in publication quantity was concentrated in predatory journals. Third, faculty members showed little sensitivity to this policy change. This research has important implications for the design of PhD programs, as it emphasizes that research quality can be enhanced by alleviating the pressure on PhD students to publish, where the focus can shift toward fostering long-term, meaningful research for early career economic PhDs.

My second study explores how open-source organization structure serve as an alternative that supports the professional and psychological transformation of novice engineers from disadvantaged backgrounds. While prior research highlights benefit for skilled contributors, less-skilled participants are often seen as free riders. Using a five-year field study and interviews with 78 open-source learners, this study finds that open-source communities foster transformation through core values—personalization, equalization, and recognition—which create a sense of unconditional acceptance. This psychological support helps individuals overcome barriers, develop self-growth goals, and engage in meaningful contributions. This research contributes to the economics of innovation by highlighting the role of organizational structures in promoting underrepresented populations into higher educational path.

My future research will continue to explore the PhD journey along two main paths. The first path will examine the time-to-completion of PhD programs, testing the limits of how program duration influences PhD knowledge production. The second path will focus on the increasing number of PhDs and investigate how this growth impacts the overall quality and quantity of PhD knowledge production.I believe that my participation in the NBER Innovation Research Boot Camp 2025 would significantly enhance my research and academic trajectory for three reasons. First, attending this bootcamp will refine my ideas in future research on PhD journey, and gain valuable insights into how my research can inform innovation policies globally. Second, I am eager to exchange ideas with fellow scholars working on similar topics, receive constructive feedback, and gain a broader perspective to strengthen my future research and policy recommendations. Third, it will provide precious opportunity for networking and future career opportunities.

Feb, 7, 2025

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School of International and Public Affairs,
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P.R.China
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Dear Committee Members,

I am writing to recommend Yacheng Yang for the 2025 NBER Innovation Research Boot Camp. I have known Yacheng since 2023 when she was a student in my Big Data Economics class and in the same year, she was also admitted to the First Summer Institute of Economics of Ideas where I organized, where her genuine enthusiasm for research questions in innovation economics consistently stood out.

As a Ph.D. candidate at Tsinghua University and visiting scholar at INSEAD, Yacheng has shown not only solid research capabilities but also a deep curiosity about the economics of ideas. During our collaboration exploring the mechanisms on how publication requirements affect the productivity of doctoral students, she was always eager to explore new angles and share insights with team members. In our weekly discussions, she showed consistent persistence in working through challenging methodological questions. What impressed me was her resilience - when faced with difficult analytical problems, she would systematically work through different approaches and actively seek input from other researchers until she found effective solutions. This determination to thoroughly understand and resolve research challenges reflects her commitment to scholarly rigor.

Beyond her technical competence in research, Yacheng brings an infectious enthusiasm to her academic work that energizes those around her. She has shown particular interest in understanding innovation, her willingness to engage with others' ideas while contributing her own perspectives makes her a valuable member of any research community.

I believe Yacheng would be a constructive addition to the Boot Camp's intellectual environment, both through her research contributions and her enthusiasm for scholarly exchange. I recommend her for the program.

Sincerely,

