

Shaoqin Tang

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EDUCATION

- Leeds School of Business, University of Colorado Boulder**, Colorado, US Expected 2026
Ph.D. in Strategy and Entrepreneurship
- Dissertation: Orchestrating Human Capital in Open Source Communities: Roles of Algorithmic Technologies and Governance Strategies
Essay 1: Configuring Human-Algorithm Capability Bundles: How the Direction of Algorithmic Advancement Shapes Human Worker Deployment
Essay 2: How Algorithms Affect OSS Developer Contribution: A Multitask Learning Perspective
Essay 3: Motivating High-Quality Contribution in OSS Communities: The Role of Contributors' Private Benefits
- Dissertation committee:
Tony Tong (Chair), Ethan Poskanzer, Mu-Jeung Yang, Nan Jia (external), Brian Wu (external)
- Duke University**, North Carolina, US 08/2018 - 05/2020
Master of Arts in Economics
- University of Birmingham**, Birmingham, UK 09/2016 - 07/2018
Bachelor of Science in Economics
- Sun Yat-sen University**, Guangzhou, China 09/2014 - 07/2018
Bachelor of Science in Economics

RESEARCH INTERESTS

AI and Algorithm, Human Capital, Open Source, Digital Platforms, Innovation Strategy, International Business

TEACHING INTERESTS

Strategic Management, Technology and Innovation Management, Global Strategy, Entrepreneurship

REFEREED JOURNAL PUBLICATION

1. Shihao Zhou, **Shaoqin Tang**, Daitian Li, & Tony Tong. "Multihoming: An Internationalization Strategy in a World of AI ecosystems" (previously titled "Toward a Multi-Polar, Multihoming World of Artificial Intelligence"). *Journal of International Business Studies*. Forthcoming.
2. Liang Chen, Tony Tong, **Shaoqin Tang**, & Nianchen Han. 2022. "[Governance and Design of Digital Platforms: A Review and Future Research Directions on a Meta-Organization](#)" *Journal of Management*, 48(1): 147- 184. (340 Google Scholar citations, as of August 2025)

WORKING PAPERS

3. **Shaoqin Tang**, Zhiyi Wang, & Tony Tong. "Motivating High-Quality Contribution in OSS Communities: The Role of Contributors' Private Benefits"
 - Invited for revise and resubmit at *Strategic Management Journal*
 - **Winner of Best Paper Award**, Knowledge & Innovation Interest Group, Strategic Management Society, 2023
 - **Finalist of Best Ph.D. Paper Prize**, Strategic Management Society, 2023
4. **Shaoqin Tang**. "Configuring Human-Algorithm Capability Bundles: How the Direction of Algorithmic Advancement Shapes Human Worker Deployment"
 - Job market paper

RESEARCH IN PROGRESS

5. **Shaoqin Tang**. “How Algorithms Affect OSS Developer Contribution: A Multitask Learning Perspective”
 - Status: Early draft available
6. **Shaoqin Tang**. “Does Automation Mitigate Evaluative Bias? An Attention Allocation Perspective”
 - Status: Theoretical modelling and data analysis in progress

CONFERENCES & WORKSHOPS

Presenter

“Motivating High-Quality Contribution in OSS Communities: The Role of Contributors’ Private Benefits”

- Academy of Management Annual Conference, 2022
- Wharton Technology and Innovation Conference, 2022
- Strategic Management Society Annual Conference, 2023
- Wharton Corporate Strategy and Innovation Conference, 2023
- NYU Open Source SMS Conference Extension, 2023
- Virtual Workshop on the Economics of Open Source, 2023
- **Strategy Science** Conference, 2024
- Presented by coauthor: AIEA-NBER, Harvard Business School/Digital Data Design Institute (D³), Tulane University, University of California Irvine, University of South Carolina, 2023-2024

“Does Automation Mitigate Evaluative Bias? An Attention Allocation Perspective”

- Strategic Management Society Annual Conference, 2023
- Fifth AI and Strategy Consortium, Indian School of Business, 2024
- Academy of Management Annual Conference, 2024
- Wharton People and Organizations Conference, 2024
- **Organization Science** Winter Conference, 2025

“How Algorithms Affect OSS Developer Contribution: A Multitask Learning Perspective”

- Academy of Management Annual Conference, 2025
- Strategic Management Society Annual Conference, 2025

“Configuring Human-Algorithm Capability Bundles: How the Direction of Algorithmic Advancement Shapes Human Worker Deployment”

- Consortium for Competitiveness and Cooperation, Harvard Business School, 2025

Participant

- Initiative on Digital Competition Conference, University of Southern California, 2022
- **Strategy Science** Conference Doctoral Workshop, University of Michigan, 2024
- Global Entrepreneurship and Innovation Research Conference, University of Colorado Boulder, 2024
- 2nd Annual Business & Generative AI Workshop, Wharton San Francisco, 2024
- **Organization Science** Winter Conference Doctoral Consortium, UCLA, 2025
- Markets and Management Ph.D. Talent Development Workshop, Florida Atlantic University, 2025
- Consortium for Competitiveness and Cooperation (CCC), Harvard Business School, 2025

AWARDS AND HONORS

Winner of Best Paper Award, Knowledge & Innovation Interest Group, Strategic Management Society, 2023

Finalist of Best Ph.D. Paper Prize, Strategic Management Society, 2023

Gerald Hart Research Fellowship, Leeds School of Business, CU Boulder, 2022

Gerald Hart Research Fellowship, Leeds School of Business, CU Boulder, 2021

TEACHING EXPERIENCE

Instructor, BCOR 2304 Strategic & Entrepreneurial Thinking, University of Colorado Boulder, Fall 2023

- Rating: 4.2/5.0 (75 students). Department average rating: 4.0/5.0

Comments from students:

- *Class was very insightful and really helped to change my thinking process.*
- *I think Shaoqin has done a good job at laying out all the content in a way that is easy to understand and connected the material to the real world well.*
- *Really like this course and the prof is solid. I think my favorite part is all of the reflection we do with canvas discussions and case study reports. I also like how the professor brings in a lot of examples from China because it helps me consider diverse perspectives that I would otherwise not think about.*
- *Shaoqin Tang was a great instructor creating easy to follow slides and making sure we understood key concepts rather than information that wouldn't be useful to us in the future.*
- *Great professor, always has the best interest for his students at the top of his mind. I really like how he uses the cases to engage students in a collaborative environment.*
- *I really enjoyed this class. Some other classes I have really struggled through, but this class I was able to learn and understand well. I think a big part of this has to do with the fact that he really prepared us well for exams. The material shown in class was very similar to what is going to be tested and this really helps a lot. His tests weren't made to trip us up as it sometimes feels this way in other classes. When he taught it was clear that he really only wanted us to succeed and I really appreciated that.*
- *I had to retake this course so I entered the class a week late and he was sincerely understanding. He let me catch up easily and compared to my previous teacher, he taught this class way better. I actually am succeeding in this class because of the way Shaoqin teaches these lectures. The consistent structure of class helped me a lot in this course to know what the week contained before it started. Very knowledgeable and great at teaching this course.*

Teaching Assistant, MBAC 6050 Core Strategy (Prof. Tony Tong), University of Colorado Boulder, Spring 2022

Teaching Assistant, MBAX 6846 Global Strategy (Prof. Tony Tong), University of Colorado Boulder, Spring 2021

PROFESSIONAL SERVICES

Reviewer for Academy of Management Annual Conferences

Reviewer for Strategic Management Society Annual Conferences

SKILLS AND LANGUAGES

Software: Python, R, MATLAB, MySQL, Stata

Language: English (fluent), Mandarin (native), Cantonese (native)

REFERENCES

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Nan Jia

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Brian Wu

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List of Papers with Abstract

1. Shaoqin Tang. “Configuring Human-Algorithm Capability Bundles: How the Direction of Algorithmic Advancement Shapes Human Worker Deployment”
 - Job market paper, dissertation essay 1

Abstract

While traditional literature emphasizes the importance of deploying high-capability workers to tasks, this paper argues that the rise of algorithmic technologies enables the configuration of human-algorithm capability bundles, altering how organizations deploy workers with varying capabilities. Using a formal model, I show that the effects of algorithms on human worker deployment are contingent on the locus of workers’ capability and the trajectory of algorithmic capability advancement. Consider tasks comprising a focal component and a complementary component. Low-capability workers underperform relative to high-capability workers in the focal component, but are equally competent in the complementary one. When algorithmic capability advances in the focal component (“algorithmic deepening”), organizations will benefit from integrating algorithms with low-capability workers to perform tasks, reducing their need for high-capability workers. In contrast, when algorithmic capability extends into the complementary component (“algorithmic broadening”), organizations will substitute low-capability workers with algorithms, preserving their need for high-capability workers. I find support for these predictions by tracking the deployment of reviewers on firm-hosted open-source software projects over a period when the algorithm used in code review first deepens and later broadens its capabilities. My study has important implications for capability bundling and organization design in an age in which humans increasingly interact with algorithms in task performance.

2. **Shaoqin Tang.** “How Algorithms Affect OSS Developer Contribution: A Multitask Learning Perspective”
 - Dissertation essay 2

Abstract

This paper investigates how the use of algorithms in one task (“algorithmic task”) affects workers’ performance in other tasks where algorithms are absent (“non-algorithmic task”). Specifically, I develop a formal model of “multitask learning” to investigate whether and when algorithms facilitate intertemporal knowledge transfer by enabling human workers to accumulate knowledge and skills from performing algorithmic tasks and apply these gains to non-algorithmic tasks. The model predicts that algorithms reduce the skill requirements for performing algorithmic tasks, thereby expanding the range of tasks available for learning by doing. Although this shift may initially divert human effort away from non-algorithmic tasks, it ultimately benefits those tasks as workers transfer knowledge gained through performing algorithmic tasks. I find empirical support for these predictions by examining the impact of using algorithms in code review (algorithmic task) on developers’ subsequent contribution (non-algorithmic task) to open-source software projects. My theory and findings shed light on the dynamic trade-offs and potential complementarities between algorithmic and non-algorithmic tasks in shaping human capital development.

3. **Shaoqin Tang, Zhiyi Wang, & Tony Tong.** “Motivating High-Quality Contribution in OSS Communities: The Role of Contributors’ Private Benefits”
 - Dissertation essay 3; first-round revise and resubmit at *Strategic Management Journal*

Abstract

While many studies have examined contributors’ participation in open source software (OSS) communities, little attention is given to the quality of their contribution. We build on von Hippel and von Krogh’s seminal idea of private benefits and develop a theoretical model to examine how newcomer contributors’ decisions regarding continued participation and effort investment in subsequent contributions are affected by their beliefs about the private benefits they expect to obtain, based on initial interactions with project gatekeepers. We find strong support for our predictions by investigating the interactions between project gatekeepers and newcomers on GitHub. For organizations seeking to leverage OSS communities as a source of advantage, our findings emphasize the

importance of sharing project-specific knowledge with contributors to motivate both continued participation and high-quality contribution.

4. Shihao Zhou, **Shaoqin Tang**, Daitian Li, & Tony Tong. “Toward a Multi-Polar, Multihoming World of Artificial Intelligence”
 - Forthcoming in *Journal of International Business Studies*

Abstract

Competition among countries in Artificial Intelligence (AI) becomes increasingly fierce. It is important to understand where international AI competition is heading, how the new AI world will look like, and how such dynamics may shape international business. In this article, we examine these issues from an ecosystem perspective, focusing on the notion of country-rooted global AI ecosystem, which is rooted in a country's AI sectoral system but whose activities usually span the globe. We envision the emergence of a multi-polar AI world, and emphasize that the poles are of uneven sizes. In such a world, the two major players are the U.S., the established leader, and China, the rising follower. In addition, there are several middle players from both the Global North and Global South striving to establish their own AI ecosystems, ecosystems that tend to be less developed and sophisticated than the major players. We argue that the major and middle players will develop co-competitive, rather than purely cooperative or competitive, relationships with each other. We also contend that, in such a multi-polar AI world, internationalization of AI firms can be viewed from the perspective of multihoming, i.e., operating simultaneously across multiple country-rooted AI ecosystems.

5. Liang Chen, Tony Tong, **Shaoqin Tang**, & Nianchen Han. 2022. “[Governance and Design of Digital Platforms: A Review and Future Research Directions on a Meta-Organization](#)” *Journal of Management*, 48(1): 147- 184. (340 Google Scholar citations, as of July 2025)

Abstract

The burgeoning digital-platforms literature across multiple business disciplines has primarily characterized the platform as a market or network. Although the organizing role of platform owners is well recognized, the literature lacks a coherent approach to understanding organizational governance in the platform context. Drawing on classic organizational governance theories, this paper views digital platforms as a distinct organizational form where the mechanisms of incentive and control routinely take center stage. We systematically review research on digital platforms, categorize specific governance mechanisms related to incentive and control, and map a multitude of idiosyncratic design features studied in prior research onto these mechanisms. We further develop an integrative framework to synthesize the review and to offer novel insights into the interrelations among three building blocks: value, governance, and design. Using this framework as a guide, we discuss specific directions for future research and offer a number of illustrative questions to help advance our knowledge about digital platforms' governance mechanisms and design features.