

Jiuheng He

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Education

Sept. 2018 - present	Ph.D. (2025 expected), Science and Technology Studies, Cornell University. Dissertation committee: Prof. Stephen Hilgartner (Chair), Prof. Michael Lynch, Prof. Ronald Kline
Sept. 2016 – July 2018	M.A., Science and Technology Studies, Tsinghua University.
Sept. 2014 - Jan. 2015	Visiting student, School of Communication, Simon Fraser University.
Sept. 2012 – Jan 2016	B.A., Journalism and Communication, Tsinghua University.

Working Paper

2024	<i>“Is Move 37 a ‘brilliant’ or ‘poor’ move: Human Players’ Discursive Moves facing the challenge from AlphaGo”</i>
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Abstract: On March 9th of 2016, AlphaGo defeated Lee Sedol, a legendary Go player who had won the world Go championship 14 times. This paper focuses on a specific moment in the second game when AlphaGo played a very unconventional move (move 37) that shocked almost all commentators and audiences in the Go community. Along with the confusion, shock, and mockery from human Go experts, move 37 in the second game marked a significant challenge by AlphaGo to human expertise and signaled the beginning of a revolution in the Go community. This article explores how human players reconstructed AlphaGo's 37th move, shifting from a ‘poor move’ to a ‘brilliant move’, and make sense of the challenge AlphaGo presented to the expertise of human players.

2024	<i>Redefining human Go experts in post-AI era: perspective from sociology of professions</i>
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Abstract: This paper outlines the transformation of human professional Go players from being seen as authoritative knowledge holder to becoming interpreters of AI strategies and gatekeepers of human Go knowledge. The article also examines how the expertise of Go AI becomes possible, identifying which actors and what arrangements enable Go AI to make expert statements and become a productive contributor to human Go community. Utilizing concepts from professional sociology, such as jurisdictional struggle, the article offers insights into AI's broader impact on professional communities. The role of human experts needs to be redefined in the post-AI era, where human experts remain indispensable mediators between AI and the public, tasked with navigating new knowledge and interpretations that AI introduces.

Publication

He, Jiuhe." The Go Community under the Wave of Artificial Intelligence: An Interview with Go World Champion Gu Li 9-Dan." *Journal of Intelligent Society* 1.01(2022):208-216. doi:CNKI:SUN:ZNSH.0.2022-01-024. (In Chinese)

He, Jiuhe." The premise of machines acquiring human knowledge: having a body or mastering language?" *Tsinghua Sociological Review*.02(2020):46-62. doi:CNKI:SUN:QHSP.0.2020-02-004. (In Chinese)

Conferences

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| July. 2024 | Presentation entitled " <i>How do we understand Go AI: knowledge production after the revolution of AlphaGo</i> ", Twenty-fourth International Conference on Knowledge, Culture, and Change in Organizations, Lisbon, Portugal. |
| Apr. 2024 | Presentation entitled " <i>Redefining human Go experts in post-AI era: perspective from sociology of professions</i> ", Science Studies Research Group in Cornell STS department, Ithaca, United States. |
| Nov. 2023 | Presentation entitled " <i>Understanding Knowledge Produced by AI: The Go Community After the Revolution of AlphaGo</i> ", Society for Social Studies of Science 2023, Honolulu, Hawaii. |
| Oct. 2023 | Presentation entitled " <i>Blurring the Boundary Between Human and Machine: Cheating with AI in Go Community</i> ", Science Studies Research Group in Cornell STS department, Ithaca, United States. |
| Dec. 2022 | Presentation entitled " <i>Knowledge production under the 'oracle' of AI: an empirical study on AlphaGo and Go community</i> ", Society for Social Studies of Science 2022, Mexico. |
| July. 2022 | Presentation entitled " <i>Interpretability Issue of machine learning and ANNs in practice: A Case Study on Go AI (机器学习与人工神经网络在实践中的可解释性问题——围棋人工智能的案例研究)</i> ", Annual Conference of Chinese Sociological Association 2022, online. |
| Apr. 2022 | Presentation entitled " <i>How to Understand Machine Learning Algorithms: A Case Study on Go AI (如何理解基于机器学习的人工智能——围棋人工智能的案例研究)</i> ", 2022 AI Philosophy Frontier Forum, Beijing, China. |
| Apr. 2021 | Presentation entitled " <i>Unveiling the Black Box of AlphaGo: Interpretability and Transparency of machine Learning</i> ", Science Studies Research Group in Cornell STS department, Ithaca, United States. |
| Apr. 2020 | Presentation entitled " <i>'Move 37': Discursive Moves in AlphaGo challenge match</i> ", Science Studies Research Group in Cornell STS department, Ithaca, United States. |
| Nov. 2019 | Presentation entitled " <i>God of Go: Discursive Moves in Understanding AlphaGo</i> ", |

Cornell East Asia Program Lunch Dialogue Series, Ithaca, United States.

Sept. 2017 Presentation entitled “*Mundane reason in scientific community: a study on Han Chunyu’s controversy over genetic editing and its solution*”, Society for Social Studies of Science 2017, Boston, United States.

Aug. 2016 Presentation entitled “*Interaction between Reviewers, Editors and Authors during Production of Scientific Knowledge*”, Annual Conference of Chinese Sociological Association 2016, Lanzhou, China.

Research Experiences

Jan. 2019 – Present Dissertational Project, “*The Go Community and AlphaGo: An Ethnographic Study of an Encounter with AI*”, supervised by Prof. Stephen Hilgartner, Cornell University.

2021 - Present Research Assistant, “*Ethics-in-the-Making: Changing Practices in Data Science*” (NSF grant), directed by Prof. Stephen Hilgartner, Cornell University.

2019-2020 Independent Study
“*History of Artificial Intelligence*”, directed by Prof. Ronald Kline, Cornell University
“*Social construction of Technology*”, directed by Prof. Trevor Pinch, Cornell University

Jan. 2017 – July. 2018 Research Assistant, “*Social Construction of Air Pollution in China*”, directed by Prof. Wei Hong, Tsinghua University, Beijing (Funding from National Foundation for Social Sciences)

Teaching Experiences

Aug. 2023- Dec. 2023 Instructor, “*STS 1123 Technology and Society: History of Artificial Intelligence*”, Cornell University.

2019 - 2023 Teaching Assistant for following courses at Cornell University:
“*Ethical Issues in Health and Medicine*”, instructed by Prof. Kim Overby
“*Computing Cultures*”, instructed by Prof. Malte Ziewitz
“*What is Science?*”, instructed by Prof. Stephen Hilgartner
“*Designing Technology for Social Impact*”, instructed by Prof. Chris Csíkszentmihályi

Grant and Awards

2023 Cornell Graduate School Conference Grant
2023 Society for Social Studies of Science Conference Travel Grant
2023 The CCSS QuIRI (Cornell center for Social Sciences Qualitative and Interpretative Research Institute) Small Grants Program
2022 Cornell Graduate School Research Travel Grant
2018-2023 Cornell Sage Fellowship

Media Coverage

April. 2023 Interview by CNN. *How AI turned the ancient sport of Go upside down.*
<https://www.cnn.com/2023/03/24/asia/ai-disruption-go-sport-hnk-intl-dst/index.html>

Workshops and Summer Schools

Dec, 2016	3 rd Tsinghua STS Workshop: <i>The Asthma Files(TFA)</i> , lectured by Prof. Kim Fortun and Prof. Mike Fortun, Tsinghua University, Beijing
Sept. 2016	Summer course: <i>Introduction to Sociology of Science</i> , lectured by Prof. Joseph W. Dauben, Tsinghua University, Beijing
Sept. 2016	2 nd Tsinghua STS Workshop: <i>Harry Collins and Science & Technology Studies</i> , lectured by Prof. Robert Evans, Tsinghua University, Beijing (Teaching assistant)
Sept. 2015	1 st Tsinghua STS Workshop: <i>Life Science and Society</i> , lectured by Prof. Michael Lynch, Tsinghua University, Beijing (Teaching assistant)

Language Competence

Chinese (Mandarin) – Native Speaker

English – Fluent (Full Professional Proficiency)