ERIC B. ZHOU

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Updated: August 4, 2025

Education

2023 – 2026 (Expected)	**Boston University Questrom School of Business** *Doctoral Candidate in Information Systems* Advisor: Dokyun Lee Dissertation: "*Human Creativity & Creative Markets in the Age of Generative AI*"	Boston, MA
2021 – 2023	**Washington University in St. Louis Olin Business School** *Doctoral Student,* awarded *Master of Science in Business Administration* *Transferred to Boston University	St. Louis, MO
2019 – 2021	**Carnegie Mellon University Tepper School of Business** *Master of Business Administration* Business Analytics Track Concentrations in Business Technologies and Operations Research	Pittsburgh, PA
2014 – 2018	**Washington University in St. Louis Olin Business School** *Bachelor of Science in Business Administration* Majors in Marketing and Finance	St. Louis, MO

Research Interests

Substantive	Societal consequences of generative AI Human creativity and creative markets in response to AI Multi-agent systems to simulate social processes Design and analysis of human-AI collaborative systems
Methods	Deep Learning Computer vision Large Language Models Multimodal feature extraction Causal inference

Research

Job Market Paper

Eric B. Zhou; Dokyun Lee; Gordon Burtch; Daniel Rock; Prasanna Tambe. "Generative AI and Creative Markets: Artist, Artwork, & Market Impacts of AI Entry & Data Protections." *Manuscript in preparation.*
*Manuscript available upon request.

"The emergence of generative artificial intelligence (AI) has sparked debate about its impacts on creative markets, echoing concerns raised nearly 200 years ago with the advent of photography. While historical precedents such as the introduction of photography and Photoshop initially sparked fears of artistic displacement, they ultimately spurred new genres and market expansion. This paper examines how creators respond to competitive dynamics introduced by generative AI, specifically analyzing their decisions to adopt AI tools and/or privatize their intellectual property from AI training systems via an opt-

out mechanism and the implications of these strategic choices on creative markets. Using artist- and artifact-level data from an industry art platform, we find that the market is increasingly dominated by AI-generated content as AI-sensitive creators reduce participation on the platform. To understand artifact-level shifts, we develop Visual-Concept Modeling - a multimodal feature extraction approach to scalably characterize prototypical artifacts based on visual and conceptual elements - that enables us to identify that AI-assisted creators concentrate production in character concept art while those opting out strategically navigate towards other genres. These findings suggest current data governance practices - particularly the use of artist work for AI training without consent or compensation - may inadvertently have a concentration effect on the market, potentially marginalizing artists lacking the human capital or willingness to adapt. We conclude by emphasizing the urgent need for revised data protection policies, such as strengthened copyright enforcement and opt-in datasets, to foster equitable participation and long-term sustainability within AI-mediated creative markets."

Publications

1. **Eric B. Zhou**; Dokyun Lee; Bin Gu. "Who Expands the Human Creative Frontier with Generative AI?"
   Forthcoming at *Science Advances* (July 2025)
   "Artists are rapidly integrating generative text-to-image models into their workflows, yet how this human–AI collaboration affects creative discovery remains unclear. Leveraging large-scale data from an online art platform, we compare AI-assisted creators to matched non-adopters to assess novel idea contributions. Initially, generative AI increases novelty among a concentrated subset of artists, driven primarily by substantial productivity gains; however, marginal novelty per artifact declines post-adoption, reflecting a shift toward high-volume, incremental exploration, ultimately yielding a greater aggregate of novel artifacts by AI adopters. We observe no evidence of a human–AI complementarity effect beyond productivity-driven gains. Notably, the release of open-source Stable Diffusion accelerates novel contributions across a broader, more diverse group, suggesting that text-to-image tools facilitate exploration at scale, initially enabling persistent breakthroughs by a select "mastermind" group, driven by substantial volume increases, and subsequently enabling widespread novel contributions from an emergent "hivemind" of artists."

2. **Eric B. Zhou**; Dokyun Lee. "Generative Artificial Intelligence, Human Creativity, and Art."
   Published at *Proceedings of the National Academy of Sciences Nexus* (March 2024)
   ***Ranked among the most read and cited articles on PNAS Nexus**
   Available at [SSRN] and [PNAS Nexus].
   "Recent artificial intelligence (AI) tools have demonstrated their ability to produce outputs traditionally considered creative. One such system is text-to-image generative AI, which automates humans' execution to generate high-quality digital artworks. Utilizing a dataset of over 4 million artworks from more than 50,000 unique users, our research shows that text-to-image AI substantially enhances human creative productivity by 25% and increases the likelihood of receiving a favorite per view by a similar percentage. While peak artwork content novelty (focal objects and object relationships) increases over time, average content novelty declines, suggesting an expanding but inefficient creative space. Additionally, there is a consistent reduction in visual novelty (pixel-level stylistic elements). Importantly, AI-assisted artists who can produce more novel ideas, regardless of overall novelty prior to adoption, produce artworks that their peers evaluate more favorably. The results imply that ideation and likely filtering are necessary skills in the text-to-image process, thus giving rise to "generative synesthesia" - the harmonious blending of human senses and AI mechanics to discover new creative workflow."

Works in Progress

1. **Eric B. Zhou**; Stefano Puntoni. "Understanding Human vs. AI Value Attribution in Collectors' Art Markets."
   Data collection.

2. **Eric B. Zhou**; Gordon Scott. "Creative Career Trajectories & Reskilling in Response to Generative AI." *Data exploration.*

3. Avery Chen; **Eric B. Zhou**; Yingkang Xie. Reboot of: "Economic Value of Image-Based Seller Quality Signals." *Analysis.*

4. **Eric B. Zhou**; Xiang Hui; Dokyun Lee. "Economic Value of Image-Based Seller Quality Signals."
   Workshop on Information Systems and Economics (WISE) 2022 Best Student Paper Finalist
   "In online marketplaces, sellers can rely on alternative mechanisms to signal their quality when they lack rich transaction histories. Using scraped data on GPU sales from eBay, we find that certain image signals can substitute for reputation to increase conversion rates amongst sellers with less than 100% positive reputation, and conditional on making a sale, can realize a 5% price premium on average. However, the effects are only significant for less reputable sellers."

Invited Talks

Jul. 2025	**Eric B. Zhou;** Dokyun Lee; Bin Gu**. "**Who Expands the Human Creative Frontier with Generative AI?**"** Technical University of Munich GenAI Lab (virtual)
Apr. 2024	**Eric B. Zhou;** Dokyun Lee**. "**Generative Artificial Intelligence, Human Creativity, and Art**."** Cornell Information Science Seminar (virtual)

Conference & Workshop Presentations

Eric B. Zhou; Dokyun Lee; Gordon Burtch; Daniel Rock; Prasanna Tambe. "Generative AI and Creative Markets: Artist, Artwork, & Market Impacts of AI Entry & Data Protections."

Mar. 2025	*Artificial Intelligence in Management (AIM) Conference* at Los Angeles, CA
May 2025	*Wharton AI and the Future of Work* at Philadelphia, PA
Jun. 2025	*[Accept] Marketing Science Conference* at Washington, DC
Jun. 2025	*[Accept] Symposium on Statistical Challenges in Electronic Commerce Research* at Cyprus, Greece
Jul. 2025	*[Invited] Academy of Management Annual Meeting* at Copenhagen, Denmark
Sep. 2025	*[Plenary] Wharton People & Organizations Conference* at Philadelphia, PA
Oct. 2025	*[Invite] INFORMS Annual Meeting* at Atlanta, GA

Eric B. Zhou; Dokyun Lee; Bin Gu. "Who Expands the Human Creative Frontier with Generative AI?"

May 2024	*Wharton AI and the Future of Work* at Philadelphia, PA
Aug. 2024	*[Invite] Academy of Management Annual Meeting* at Chicago, IL
Sep. 2024	*Wharton Business & Generative AI Workshop* at San Francisco, CA
Oct. 2024	*Conference on Information Systems and Technology (CIST)* at Seattle, WA
Dec. 2024	*Conference on AI, ML, and Business Analytics* at New Haven, CT
Jun. 2025	*[Accept] Symposium on Statistical Challenges in Electronic Commerce Research* at Cyprus, Greece

Eric B. Zhou; Dokyun Lee. "Generative Artificial Intelligence, Human Creativity, and Art."

Sep. 2023	*Wharton Business & Generative AI Workshop* at San Francisco, CA
Oct. 2023	*INFORMS Workshop on Data Science* at Phoenix, AZ
Oct. 2023	*[Invite] INFORMS Annual Meeting* at Phoenix, AZ

Eric B. Zhou; Xiang Hui; Dokyun Lee. "Economics of Image-Based Seller Quality Signals."

Dec. 2022	*Workshop on Information Systems and Economics (WISE)* at Copenhagen, DK ***Best Student Paper Finalist***

Dokyun Lee; **Eric B. Zhou**; Chengfeng Mao; Gerald Kane. "Interpretable Machine Learning for Theory Building"

Aug. 2020	*MISQ Author Workshop* at virtual

Awards

May 2024	Marketing Science Institute Research Grant ($5,000)
May 2024	Questrom Outstanding Research Award
Feb. 2024	Nominated: Falling Walls Science Breakthrough of the Year in Art & Science
Oct. 2023	INFORMS Gold Student Scholarship
Sep. 2023	Questrom School of Business Doctoral Fellowship
Dec. 2022	WISE 2022 Best Student Paper Finalist
Aug. 2021	Olin Business School Doctoral Fellowship
Feb. 2019	Nielsen BASES Client Service Superstar Award

Professional Service

Reviewer

Proceedings of the National Academy of Sciences Nexus
Management Science
Information Systems Research
Harvard Data Science Review
Internet Research
Hawaii International Conference on System Sciences (HICSS)

Teaching Experience

Spring 2025 — **IS 223: Introduction to Information Systems**
Lead Instructor
Instructor Rating: 4.64/5 (44 out of 54 respondents)

Spring 2023 — **DAT 500W: A/B Testing in Business**
Head Teaching Assistant
Taught by Xiang Hui and Christopher Mondy

Industry Experience

2021 – 2023 — **Machine Learning Contractor** — Santa Monica, CA
Angel Flights West — (Remote)

2018 – 2019 — **Research Analyst, Product Innovation Analytics** — Wilton, CT
Nielsen BASES

Skills

Python, PyTorch, HuggingFace, AutoGen, smolagents, R, LaTeX, SQL, web scraping, Linux

Coursework

Fall 2020 — Seminar in Business Technologies (neural language models, philosophy, & economics of AI)

Fall 2021 — Microeconomics I
Empirical Methods in Business: Part B (Advanced Econometrics)
Seminar in Marketing

Spring 2022	Microeconomics II Causal Inference Analytical Modeling in Marketing: Part A Empirical Methods in Structural Modeling
Fall 2022	Empirical Methods in Business: Part A Seminar in Strategy & Organization Experimental and Behavioral Research Methods: Part A
Spring 2023	Seminar in Strategic Management of Innovation & Technology Seminar in Strategy Independent Study in Strategy: Creativity
Fall 2023	Applied Machine Learning Seminar in Generative AI and Causal Inference with Text
Spring 2024	Seminar in Economics of Information Systems

References

Dokyun Lee – *Committee Chair*
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