JIETENG CHEN

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EDUCATION

The Chinese University of Hong Kong
Ph.D. in Marketing — 2021 - 2026 *(Expected)*

Yale University
Visiting Student — 2024 - 2025

Xiamen University
B.A. in Economics — 2017 - 2021

RESEARCH INTERESTS

Economics of AI, Generative AI, Online Platforms, Industrial Organization

JOB MARKET PAPER

1. "Designing Detection Algorithms for AI-Generated Content: Consumer Inference, Creator Incentives, and Platform Strategy" [*Link*]

   Jieteng Chen, T. Tony Ke, and Jiwoong Shin

   Under Review at **Marketing Science**

PUBLICATION

2. "Regulating Digital Piracy Consumption" [*Link*]

   Jieteng Chen, Yuetao Gao and T. Tony Ke

   Journal of Marketing Research, (2024)

WORKING PAPERS

3. "From Canvas to Blockchain: Impact of Royalties on Art Market Efficiency" [*Link*]

   Xinyu Cao, **Jieteng Chen,** and T. Tony Ke (Equal contribution)

   Minor Revision at **Management Science**

4. "More Than a Match: Balancing Match Quality and Labor Supply via Allocation Algorithm on Gig Platforms" [*Link*]

   Jieteng Chen and Chongyan Sun

5. "Data Externalities and Data Acquisition by Online Platforms" [*Link*]

   Jieteng Chen and T. Tony Ke

GRANTS

National Natural Science Foundation of China, Research Grant for PhD Students

   "Privacy Leakage and Platform Regulation", PI, (300,000 RMB) — 2025-2027

The Chinese University of Hong Kong, Graduate Research Grants

   "Algorithmic Detection by Content Platforms", PI, (30,000 HKD) — 2025-2026
   "Regulating Digital Piracy", PI, (20,000 HKD) — 2023-2025

HONORS & AWARDS	Research Output Award, The Chinese University of Hong Kong, (25,000 HKD)	2025
	Sole awardee in CUHK Business School	
	Reaching Out Award, The Chinese University of Hong Kong, (10,000 HKD)	2025
	ISMS Doctoral Consortium Fellow	2025

CONFERENCE PRESENTATIONS	The 47th ISMS Marketing Science Conference, Washington DC	2025
	Chinese Marketing Association Annual Conference, Jinan	2025
	Chinese Marketing Association Annual Conference, Changsha	2024
	Asia-Pacific Marketing Academy Conference, Hong Kong	2024
	The 46th ISMS Marketing Science Conference, Sydney	2024
	Asia-Pacific Industrial Organization Conference, Hong Kong	2023
	Asia-Pacific Marketing Academy Conference, Guangzhou	2023
	The 45th ISMS Marketing Science Conference, Miami	2023

TEACHING EXPERIENCE	Marketing Research (Undergrad), Tutorial Instructor (for R and SPSS Programming)	2025
	Teaching Evaluation: 5.5/6.0; Recognized as an Excellent TA by CUHK	
	Marketing Management (MBA), Teaching Assistant	2023

SERVICE WORK   Ad-hoc Reviewer for *Marketing Science*

SELECTED GRADUATE COURSEWORK

Economics

Microeconomic Theory I	Jimmy Chan
Microeconomic Theory II	Wei He
Econometric Theory and Application	Xun Lu
Applied Econometrics	Qingliang Fan
Theory of Industrial Organization (HKUST)	Pakhung Au
Empirical Industrial Organization (HKUST)	Kohei Kawaguchi
Game Theory	Duozhe Li & Murayama Kota
Review of Quantitative Methods	Kam Chau Wong
Advanced Microeconomic Theory (Yale, audit)	Roberto Corrao & Kai Hao Yang
Industrial Organization I (Yale, audit)	Phil Haile & Charles Hodgson

Marketing

Analytical Modeling in Marketing	T. Tony Ke
Empirical Modeling in Marketing	Francisco Cisternas
Marketing Models (CityU)	Liang Guo
Special Topics in Marketing I	Sha Yang
Special Topics in Marketing II	Ganesh Iyer
Behavioral Studies in Marketing	Xianchi Dai
Research Methodology in Behavioural Studies	Jessica Kwong
Empirical Methods in Marketing (Yale, audit)	K. Sudhir

Computer Science, Statistics, Optimization

Foundation of Optimization	Man Cho So
Advanced Statistical Computing	Yingying Wei
Machine Learning (CityU)	Anthony Chan
Applied Deep Learning (CityU)	Po Lai Man

REFERENCES

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PAPER ABSTRACT

"Designing Detection Algorithms for AI-Generated Content: Consumer Inference, Creator Incentives, and Platform Strategy", *Under Review* at **Marketing Science** (Job Market Paper)

Generative AI has transformed content creation, enhancing efficiency and scalability across media platforms. However, it also introduces substantial risks, particularly the spread of misinformation that can undermine consumer trust and platform credibility. In response, platforms deploy detection algorithms to distinguish AI-generated from human-created content, but these systems face inherent trade-offs: aggressive detection lowers false negatives (failing to detect AI-generated content) but raises false positives (misclassifying human content), discouraging good creators. Conversely, conservative detection protects creators but weakens the informational value of labels, eroding consumer trust. We develop a model in which a platform sets the detection threshold, consumers form beliefs from content labels and decide whether to engage, and creators choose whether to adopt AI and how much effort to exert to create content. A central insight is that detection does not affect outcomes continuously: instead, equilibrium structure shifts discontinuously as the threshold changes. At low thresholds, consumers trust human labels and partially engage with AI-labeled content, disciplining AI misuse and boosting engagement. But when detection threshold becomes higher, this inference breaks down, AI adoption rises, and both trust and engagement collapse. Thus, the platform's optimal detection strategy balances these risks, influencing content creation incentives, consumer beliefs, and overall welfare.

"Regulating Digital Piracy Consumption", *Journal of Marketing Research* (2024)

Regulators across the globe have imposed penalties on consumers for digital piracy consumption. Contrary to expectations, however, digital piracy consumption has continued to grow. The authors develop a simple model of competition between a copyright holder and a pirate firm to offer a plausible account for this observation as well as actionable guidelines for optimal regulation design. The core of this idea is to endogenize the pirate firm's strategic investment in antitracking technologies that help consumers evade a regulator's penalty. The authors find that as the penalty rises, piracy consumption can surprisingly increase after decreasing first; relatedly, the copyright holder and the society may suffer from tighter regulation. Depending on the cost of antitracking technologies of the pirate firm, the regulator optimally sets the penalty to operate in two different regimes. When the technology is available at a low cost, the regulator can achieve the goals of maximizing social welfare and minimizing piracy consumption simultaneously by setting a moderate penalty that maximizes consumers' expected penalty and tolerates some level of piracy consumption. In contrast, when the technology is costly, the regulator should set a relatively high penalty to completely impede piracy supply. Additionally, the authors show that supply-side regulation does not substitute away demand-side regulation, and educating consumers about copyright protection may unintentionally lead to an increase in piracy consumption. Last, the authors identify complex nonmonotonic long-run effects of piracy consumption regulation on the copyright holder's incentives for content creation and copyright protection.

PAPER ABSTRACT

"From Canvas to Blockchain: Impact of Royalties on Art Market Efficiency", *Minor Revision* at **Management Science**

Since the advocacy for *droit de suite* in France in the 1890s, policymakers and the public have recognized artworks as intellectual property and sought to grant artists resale royalties—yet encountered heated debates and various logistical obstacles. The emergence of blockchain technology now makes automated royalty collection feasible. We examine the impact of resale royalties on artists' pricing decisions and the overall efficiency of the art market. We build an infinite-horizon model in which an artist sells her artwork in the primary market, after which it can be resold in a sequence of secondary markets. We find that when artwork popularity is public information, royalties—acting as a tax on resales—reduce the artwork's resale value and transaction volume, lowering the artist's profit and leaving all market participants worse off. However, when the artist possesses superior information about artwork popularity compared to buyers, a popular artist may set an inefficiently high price to signal their appeal, which hurts primary market efficiency. In this case, royalties benefit the popular artist by reducing the unpopular artist's incentive to mimic, thereby mitigating price distortion in the primary market. Consequently, the profit of a popular artist first increases and then decreases with the royalty rate, peaking at a unique positive rate. Social welfare may either rise or fall with the royalty rate, depending on whether the reduction in primary-market price distortion outweighs the deadweight loss in resale markets.

"More Than a Match: Balancing Match Quality and Labor Supply via Allocation Algorithm on Gig Platforms"

Gig platforms often match demand to supply via allocation algorithms that prioritize workers who provide high-quality service. Using data from a large on-demand delivery platform that matches shippers with independent drivers, we document how the prioritization allocation mechanism directs more orders toward high-quality drivers, improving customer satisfaction and leading to higher hourly earnings for these drivers. To evaluate the welfare implications of such an allocation algorithm and explore its optimal design, we develop a structural model that nests quality-based prioritization in a frictional matching environment with endogenous labor supply. Counterfactual analyses reveal a central trade-off in the design of allocation algorithms: prioritizing high-quality workers can improve match quality and customer satisfaction, but also depress earning opportunities for low-quality workers and discourage their participation, which may shrink total labor supply and ultimately erode platform profitability. Our findings underscore the importance of balancing match quality with labor supply in the design of allocation algorithms.

"Data Externalities and Data Acquisition by Online Platforms"

In the digital era, platforms actively acquire consumer data to improve match efficiency between the two sides. Under the prevalent privacy regulations, the platform can only obtain consumer data upon their consent. However, even if a consumer opts out of the data collection, their information can still be leaked by others' data sharing because a consumer's data are predictive of others' preferences, thereby generating data externalities. This paper investigates the platform's optimal data acquisition strategy under privacy rights and data externality. We find that the platform compensates consumers who share data based on the consumption utility difference between sharing and not sharing data, which is endogenously affected by others' data sharing. In equilibrium, the platform balances the benefit of data to optimize match efficiency through personalized recommendations against the cost of data acquisition. As information correlation increases, the benefit of individual data for learning this specific consumer's preference declines because the information could be more accurately predicted from others' data. Conversely, the value of individual data for predicting other ones' preferences is enhanced, and the costs of data acquisition are lower. Consequently, the platform may acquire data from more or fewer consumers as the information correlation rises. We also discuss the implications for platform profit, consumer surplus, and social welfare.

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