Jieteng Chen

Room 1149, Cheng Yu Tung Building
12 Chak Cheung St, Shatin
N.T., HK SAR

(+86) 138-6013-5951
jieteng.chen@link.cuhk.edu.hk
https://jietengchen.github.io

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

Artificial Intelligence, Platform Design, Quantitative Marketing

Publication

1. "Regulating Digital Piracy Consumption"
Jieteng Chen, Yuetao Gao and T. Tony Ke, *Journal of Marketing Research*, (2024)

Working Papers

2. "Designing Detection Algorithms for AI-Generated Content: Consumer Inference, Creator Incentives, and Platform Strategy" (**Job Market Paper**)
Jieteng Chen, T. Tony Ke, and Jiwoong Shin, *under review*, *Marketing Science*

3. "From Canvas to Blockchain: Impact of Royalties on Art Market Efficiency"
Xinyu Cao, **Jieteng Chen**, and T. Tony Ke, *major revision*, *Management Science*

4. "Algorithmic Allocation: Match Quality and Labor Supply on a Two-Sided Market"
Jieteng Chen and Chongyan Sun, *draft available*

5. "Data Externalities and Data Acquisition by Online Platforms"
Jieteng Chen and T. Tony Ke, *draft available*

Conference Presentations

Designing Detection Algorithms for AI-Generated Content: Consumer Inference, Creator Incentives, and Platform Strategy
- The 47th ISMS Marketing Science Conference, DC 2025
- Chinese Marketing Association Annual Conference, Jinan (Scheduled) 2025

From Canvas to Blockchain: Impact of Royalties on Art Market Efficiency
- Asia-Pacific Industrial Organization Conference, Hong Kong 2023
- Chinese Marketing Association Annual Conference, Changsha 2024
- Asia-Pacific Marketing Academy Conference, Hong Kong 2024
- The 46th ISMS Marketing Science Conference, Sydney 2024

Regulating Digital Piracy Consumption
- 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

Grants, Honors & Awards

National Natural Science Foundation of China, Research Grant for PhD Students
- "Privacy Leakage and Platform Regulation", PI, (300,000 RMB) 2025-2027
- Sole recipient in Hong Kong across management disciplines in the 2024 round

The Chinese University of Hong Kong
- Research Output Award, (25000 HKD) 2025
  - Sole awardee in CUHK Business School
- Reaching Out Award, (10,000 HKD) 2025
- Graduate Research Grants
  - "Algorithmic Detection by Content Platforms", PI, (30,000 HKD) 2025-2026
  - "Regulating Digital Piracy", PI, (20,000 HKD) 2023-2025
- ISMS Doctoral Consortium Fellow 2025

Xiamen University
- Outstanding Graduates 2021
- Academic Excellence Scholarship 2019, 2020, 2021

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
Marketing Management	Hao Shen
Buyer Behaviour	Rosette Leung
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

T. Tony Ke (Advisor)
Associate Professor of Marketing
The Chinese University of Hong Kong
✉ tonyke@cuhk.edu.hk
✆ (+852) 3943-8565

Xinyu Cao
Associate Professor of Marketing
The Chinese University of Hong Kong
✉ xinyucao@cuhk.edu.hk
✆ (+852) 3943-7829

Jiwoong Shin
Professor of Marketing
Yale University
✉ jiwoong.shin@yale.edu
✆ (+1) 203-432-6665

PAPER ABSTRACT

Designing Detection Algorithms for AI-Generated Content: Consumer Inference, Creator Incentives, and Platform Strategy (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

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.

From Canvas to Blockchain: Impact of Royalties on Art Market Efficiency

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.

PAPER ABSTRACT

Algorithmic Allocation: Match Quality and Labor Supply on a Two-Sided Market

Platforms increasingly rely on algorithms to manage demand allocation across service providers. This paper investigates the implications of quality-based allocation algorithms that prioritize higher-quality workers, highlighting the tradeoff in algorithmic design: improving matching quality may undermine labor supply. Using data from a large on-demand delivery platform in Asia, we find that the quality-based allocation mechanism directs more customer orders toward higher-quality drivers, leading to higher hourly earnings for these drivers and lower customer cancellation rates. We further develop and estimate a two-sided market model with endogenous labor supply and heterogeneous driver types. Counterfactual simulations reveal that although prioritizing high-quality drivers improves average match quality and customer outcomes, it reduces earnings and participation incentives for lower-quality drivers, leading to the risk of labor supply shortages. Therefore, favoring match quality does not universally improve platform profits. Our findings underscore the importance of balancing match efficiency with labor supply considerations in the design of algorithmic management systems.

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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