Weicheng Min

Address: Department of Economics
Yale University
New Haven, CT 06520-8268

Telephone: +1(917)-495-7930

E-mail: weicheng.min@yale.edu

Web page: https://weichengmin.weebly.com/

Citizenship: China, F-1 Visa

Fields of Concentration:
Primary Field(s): Microeconomic Theory
Secondary Field(s): Behavioral Economics

Desired Teaching:
Microeconomics, Game Theory, Behavioral Economics

Comprehensive Examinations Completed:
2018 (Oral): Microeconomic Theory, Behavioral Economics
2017(Written): Microeconomics, Macroeconomics

Dissertation Title: *Essays in Information Economics*

Committee:
Professor Larry Samuelson (Chair)
Professor Johannes Hörner
Professor Florian Ederer

Expected Completion Date: May 2022

Degrees:
Ph.D., Economics, Yale University, 2022 (expected)
M.Phil., Economics, Yale University, 2019
M.A., Economics, Yale University, 2018
M.Sc, Econometrics and Mathematical Economics, London School of Economics and Political Science, 2016 (with distinction)
B.A., Mathematical Economics, Fudan University, 2014 (with distinction)

Fellowships, Honors and Awards:
Carl Arvid Anderson Prize Fellowship, Cowles Foundation, Yale University, 2019
Doctoral Fellowship, Yale University, 2016-2021

Cowles Foundation Fellowship, Yale University, 2016-2021
Excellent Undergraduate Thesis Award, Fudan University, 2014
Graduate Scholarship, Fudan University, 2014
Guanghua Scholarship, Fudan University, 2013
Renmin Scholarship, Fudan University, 2011-2012

Teaching Experience:
Yale University:
Fall 2018, Teaching Assistant to Prof. John Geanakoplos and Prof. Eduardo Davila,
General Economic Theory: Microeconomics
Spring 2018, Teaching Assistant to Prof. Johannes Hörner, General Economic Theory:
Microeconomics
Fall 2020, Teaching Assistant to Prof. Larry Samuelson, General Economic Theory:
Microeconomics

Yale College:
Fall 2019, Teaching Assistant to Prof. Ryota Iijima, Microeconomic Theory
Summer 2021, Teaching Assistant to Prof. Zvika Neeman, Game Theory

Research and Work Experience:
Research Assistant to Prof. Florian Ederer, Yale University, 2020
Research Assistant to Prof. Aniko Öry and Prof. Joyee Deb, Yale SOM, 2019-2020
Research Assistant to Prof. Mira Frick and Prof. Ryota Iijima, Yale University, 2018
Research Assistant to Prof. Nicolas Lambert, Stanford GSB, 2017
Research Assistant to Prof. Francesco Nava, LSE, 2015

Working Papers:
"Expert Recommenders and Reputation Failure", Novemeber 2021, *Job Market Paper*

"Bayesian Persuasion with Lie Detection" with Florian Ederer, July 2021

Work In Progress:
"Contracts for Experimentation with Non-common Prior"

"Strategic Preference Disclosure"

"Learning from Sources with Unknown Precision"

Seminar and Conference Presentations:
2021 North American Meeting of the Econometric Society

Languages:
Mandarin (native), English (fluent), Spanish (basic)

References:

Prof. Larry Samuelson
Yale University
Department of Economics
New Haven, CT 06520
PO Box 208268
Phone: 203-432-6737
larry.samuelson@yale.edu

Prof. Florian Ederer
Yale University
School of Management
New Haven, CT 06511
PO Box 208200
Phone: 203-432-7847
florian.ederer@yale.edu

Prof. Johannes Hörner
Yale University
Department of Economics
New Haven, CT 06520
PO Box 208268
Phone: 203-432-5352
johannes.horner@yale.edu

Dissertation Abstract

Expert Recommenders and Reputation Failure [Job Market Paper]

Recommendations are a ubiquitous form of communication. For example, social media influencers use their knowledge in specific niche markets to impact followers' purchase decisions. However, the uncertainty about the recommenders' expertise might taint their credibility. This paper asks whether career concerns contribute to the value of expert recommenders.

I examine an infinitely repeated game between a long-run recommender and a long-run consumer. In each period, the recommender has access to a new product, which may or may not be suitable to the consumer. The recommender is either informed or uninformed. An informed recommender knows the product's suitability, whereas an uninformed recommender does not. The recommender either recommends the product to the consumer, or does not bring her attention to it. If he recommends it, the consumer decides whether to buy the product. If she buys the product, she learns whether it was suitable. Otherwise, no additional information transpires.

In the Pareto optimal equilibrium of the one-shot game, the consumer follows the recommendation if, and only if, she trusts the recommender's expertise sufficiently. In the repeated interaction, we may expect the informed recommender to build a reputation and achieve higher payoffs, for two reasons. First, the uninformed recommender lacks the ability to mimic the informed recommender, ensuring the latter can distinguish himself. Second, the consumer is forward-looking and so has incentives to screen the recommender's type if given the chance. Yet, I show that, under low discounting, the unique equilibrium outcome features a market breakdown: the consumer *never* follows the recommendation, even when she is virtually certain that the recommender is informed.

For any equilibrium history at which the consumer buys the product, the uninformed recommender cannot recommend the product with probability one. Otherwise, a deviation to not recommend causes the consumer to believe with certainty the recommender is informed, giving him a lucrative continuation payoff. In contrast, recommending gives him a lower continuation payoff since the product's suitability reveals additional information of the recommender's type. It follows then a sufficiently patient uninformed recommender chooses to deviate. As a result, such a recommender must *always* at least weakly prefer to *not* recommend. However, not recommending yields a zero payoff, and hence the uninformed recommender's equilibrium payoff must be zero. This in turn can arise only if the consumer *never* buys the product.

The existing "bad reputation" results do not apply when the agent are unable to mimic each other or when the principal is patient, as is the case here. This paper thus contributes to the literature by identifying a novel mechanism of reputation failure that applies even under those circumstances. This paper implies that career concerns may be harmful to the relationship in markets for expertise. So, a functional relationship in these markets cannot solely rely on reputational forces.

Bayesian Persuasion with Lie Detection, with Florian Ederer

While various fact-checking tools are used to detect lies on social media, lies are still prevalent. To explain this anomaly, we build on the canonical Bayesian persuasion model *à la* Kamenica and Gentzkow (2011) and additionally allow the Receiver to detect lies with positive probability. We show that the Sender lies more when the lie detection probability increases. As long as the lie detection probability is sufficiently small, the Sender's and the Receiver's equilibrium payoffs are unaffected by the lie detection technology because the Sender simply compensates by lying more. But when the lie detection probability is sufficiently high, the Sender's (Receiver's) equilibrium payoff decreases (increases) with the lie detection probability. The model sheds light on the prevalence of lies, even when communication is subject to intense public and media scrutiny.

Contracts for Experimentation with Non-common Prior

Experimentation is often costly and thus relies on external incentives. However, the agent who experiments and the principal who provides incentives often disagree over the quality of the project. For example, startup entrepreneurs are likely to be more optimistic in the profitability than the venture capitalists. This paper studies optimal contracting when the two parties agree to disagree. When there is no moral hazard, the contract can be contingent on both effort levels and outcomes. If the agent is more optimistic, the optimal contract only rewards good outcomes since the agent overestimates the probability of those. Instead, if the agent is more pessimistic, the principal finds it more appealing to reward the agent for effort levels, though no optimal contract exists due to non-compactness issues. When moral hazard is present, the contract can only depend on the outcomes. The length of experimentation is longer if the agent is more optimistic. In any event, the optimal contract is independent of the principal's prior belief.