# **Andy Tao LI**

# **Academic Experiences**

Non-tenured Associate Professor, Department of Management Science, School of Management, University of Science and Technology of China

2016.1–2017.7 ■ Visiting Scholar, Hong Kong University of Science and Technology

### **Education**

Ph.D. in Information Systems, School of Economics and Management, **Tsinghua University**Advisor: Sean Xin Xu

2014.7 R. Econ. in Finance, School of Economics, Nankai University

B. Mgt. in Management Information Systems, **Tianjin University** (*Ranked: 1/57*)

### **Research Interests**

Areas 📕 Online Learning, Gamification, Information Design, Peer Effect and Social Referral, AI Chatbot

Methodology | Field Experiment, Machine Learning, Game Theory, Econometrics

### **Research Publications**

### **Working Paper**

Andy Tao Li, De Liu, Sean Xin Xu, Cheng Yi. Should online learning be interleaved? Theory and evidence from a field experiment. *Major Revision at MIS Quarterly* 

Conference Proceedings: Proceedings of ICIS 2018 [Refereed]

Co-author presentations: National University of Singapore [Singapore, June 2019], Nanjing University [Nanjing, June 2020], Tsinghua University [Beijing, July 2020]

Andy Tao Li, De Liu, Sean Xin Xu. Re-engage low achievers: Effect of meaningful extrinsic rewards in gamified online learning. Reject & Resubmit at Management Science

Conference Proceedings: Proceedings of ICIS 2019 [Refereed]

Co-author presentations: Arizona State University [Virtual, Nov. 2020]

Andy Tao Li, De Liu, Sean Xin Xu. Exploring the challenge sensitivity in online learning: Insights from a large-scale field experiment. *In preparation to submit to MIS Quarterly* 

Conference Proceedings: Proceedings of ICIS 2020 (Best Paper Nominee) [Refereed]

Co-author presentations: Design & Anlaysis of Experiments Conference (DAE) [Knoxville, Oct. 2019]

Andy Tao Li, Jie Zheng. When does the platform tell you truth? Optimal design of persuasion policy in the two-sided market. *Under 1st round review at Information Systems Research* 

Co-author presentations: American Economic Association Annual Meeting (AEA) [San Diego, Jan. 2020], Asia Meeting of the Econometric Society (AMES) [Xiamen, June 2019], TongJi University [Shanghai, March 2021]

- Andy Tao Li, Chong Alex Wang, Sean Xin Xu, Michael Xiaoquan Zhang. Self-selection and polarization in e-learning: Evidence from a field experiment. *In preparation for submission*
- Andy Tao Li, Alex Chong Wang, Sean Xin Xu. Your diversified cohorts shape your unconscious thinking mode: Peer effect on critical thinking.
- Andy Tao Li, De Liu. Reward performance or participation? Incentive design for engaging users with self-control problems in online platforms.

### Work in progress

- Andy Tao Li, (with Scott Schanke, Radhika Santhanam, De Liu, Bodong Chen). Online STEM learning during Covid Testing an AI chatbot to support self-regulated learning and instruction.
- 9 Andy Tao Li, (with Ting Li). Impact of reward uncertainty on social referral.
- Andy Tao Li, (with Yue Qian, Yu Li). Breakthrough and social influence: Evidence from a quasi-experiment in a running app.
- Andy Tao Li, (with Radhika Santhanam, De Liu). Digital engagement Convergence of perspectives and toward a framework.

### **Refereed Conference Proceedings & Presentations**

- Andy Tao Li, De Liu, Sean Xin Xu. Design challenge levels in e-learning? Insights from a large-scale field experiment, in *ICIS* 2020 proceedings, Hyderabad, India (Virtual Conference), Dec. 13-16 2020.
- Andy Tao Li, De Liu, Sean Xin Xu. Does it Pay to Manage Challenge Levels in E-Learning? Insights from Designing and Analyzing a Large-Scale Field Experiment. Winter Conference on Business Analytics, Mar. 12-14, 2020, Snowbird, Utah, USA (Cancelled due to Covid-19).
- Andy Tao Li, De Liu, Sean Xin Xu. Re-engaging underachievers: toward a participation internalization approach to gamified online learning design. *Winter Conference on Business Analytics*, Mar. 12-14, 2020, Snowbird, Utah, USA (*Cancelled due to Covid-19*).
- Andy Tao Li, Jie Zheng. When does the platform tell you truth? Optimal design of persuasion policy in the two-sided market, *American Economic Association Annual Meeting*, Jan. 3-5 2020, San Diego, USA (AEA 2020)
- Andy Tao Li, De Liu, Sean Xin Xu. Re-engaging underachievers: toward a participation internalization approach to gamified online learning design, in *ICIS* 2019 proceedings, Munich, Germany, Dec. 15-18 2019.
- Andy Tao Li, Jie Zheng. Optimal information design of persuasion policy in the platform with service differentiation, *Informs Annual Meeting*, Seattle, USA, Oct. 20–23 2019.
- Tao Li, De Liu, Sean Xin Xu. The Role of Optimal Challenge in Adaptive E-Learning: Evidence from an Online Field Experiment with Middle School Students, *Design and Analysis of Experiments Conference*, Knoxville, USA, Oct. 17-19 2019.(DAE2019)
- Andy Tao Li, Jie Zheng, 2019. When does the platform tell you truth? Optimal design of persuasion policy in the two-sided market, *Asia Meeting of the Econometric Society*, June 14-16 2019, Xiamen, China (AMES2019).
- Tao Li, De Liu, Yufang Wang, Sean Xin Xu. Interleaved learning: A design science approach and field experiment, in *ICIS* 2018 proceedings, San Francisco, USA, Dec. 13-16 2018.

### **Grants & Research Collabration**

#### **Grants & Projects in Academia**

2017 – 2019 ☐ Co-Investigator, Data-Driven Learning Pattern Recognition
The Ministry of Education of China (#15][D630005), RMB 200,000 (~ 28.5K USD).

# **Grants & Research Collabration (continued)**

2016 – 2017 ■ Research Assistant, STeP Project, HKUST

An adaptive learning system was developed and deployed in HKUST to help undergraduate students learn Calculus effectively. The current URL is www.classviva.org

Summer 2013 ■ Encrypted Instant Massaging System Development

An encrypted Instant Massaging System was developed to keep encryption of instant communications like message chat, video chat, and file transfer.

Study on Driver's Vision Recognition in Underground Road
Supported by China National Student Innovation Training Program, this program was to improve the identifiability of traffic signs for drivers in the underground road.

### Research Collaboration with Industry

2020.12 – present Project partner, Yue Cheng Network, Changsha

Autumn 2018 Research assistant, DIDI Research Institute

2017 – present Research partner, Beijing Xicheng Institute of Research and Training, Beijing

2016 – present Project partner, Shawntech Co., Beijing

Summer 2017 Practical training, Tibet Pilot Free Trade Zone

Winter 2015 Research partner, Tulip Sports, Beijing

2013.10 - 2014.7 ■ Project partner, Hitech Post-Doctoral Institute, Tianjin

### **Invited Talks**

Jan. 2020 Microsoft, Beijing

Title: Personalized Feedback and Incentive Design in E-learning Era

Dec. 2018 Reijing Xicheng Institute of Research and Training, Beijing

Title: Intelligent Personalized Feedbacks in E-learning: Interleaved Learning & Optimal Challenge

April 2018 China Information Economics Youth Scholar Workshop, Sun Yat-sen University, Guangzhou Title: Interleaved Learning: A Design Science Approach and Field Experiment

May 2017 China Intelligent Education Conference, Shanghai National Accounting Institute
Title: Learning Strategies and Learning Behaviors in the Context of Intelligent Education

# **Teaching**

#### Co-Lecturer

Fall, 2020 Rusiness Analytics

This course is for MBA students to learn the prevalent business analytical models and practical tools, such as text analysis, cluster analysis, decision trees, and so on.

#### **Guest Lecturer**

Spring, 2021 Rehavioral Economics

This course is provided by Prof. Tracy Xiao Liu for students to be familiar with the backbone of Behavioral Economics.

■ Human-Computer Interaction

This course is for students to be familiar with the design and use of computer technology.

Fall, 2019 Management Science and Engineering Seminar (I)

This is a seminar course for Ph.D. students to be familiar with methods/findings that form backbone of economics of IS.

# Teaching (continued)

### **Teaching Assistant**

Spring, 2021 Digital Experimentation and Data-driven Organization

This course is provided by Prof. Tianshu Sun for students to learn the cutting-edge Methodology, Industry Frontier, as well as the Key Toolkits and Implementation for the digital experiments.

Spring, 2019 Production and Operations Management

This course serves as a first introduction to the broad field of Operations Management, which would be prepared with tools necessary to solve real world problems.

Fall, 2018 | Financial Data Analytics

This course is for the **Master of Finance** program and provides a basic introduction to the field of data analytics and its applications in finance.

Fall, 2017 & 2018 📕 Data Analytics Strategy and Practice

This course is for **Tsinghua-Columbia Dual Master's Degree** program. Students will examine data analytical processes used in transforming data to knowledge and creating value for organizations.

Spring, 2017 Business Integration and Practice

This is a core course for **Tsinghua-Columbia Dual Master's Degree** program. We collaborate with some leading companies (e.g., DIDI and Renrendai) to demonstrate the applications of business analytics in the real business world.

Fall, 2017 Data, Model and Decisions

This course is for **Tsinghua-MIT Global MBA** students to leverage big data and learn analytical methods to offer business insights and support business decisions.

Fall, 2015 & 2016 Programming Language

This is undergraduate-level course on programming.

# **Analytics / Data Science Skills**

Statistical / AI Tools SAS, Stata, R, SPSS Modeler, Eviews, Python, Tensorflow, *Keras*, Google Analytics, Google Dialogflow (AI Chatbot)

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Scientific Computing Matlab, Java, C/C++, Python, Perl, C#, Visual Basic, Mysql, sqlite, SQL Server, Oracle, *Hadoop* 

Web / APP Dev. ■ HTML, CSS, JavaScript, PHP, JSP, Spring, Hibernate, Structs2, BootStrap, Ajax

### **Services**

#### Ad-hoc Reviewer

Journal Information Systems Research, Information & Management, Electronic Commerce Research

Conference | ICIS, PACIS, CSIM

### Services at Tsinghua University

2017 – 2020 ■ Program Assistant for the Second Degree, Tsinghua University

2020 − 2021 Research Assistant for Prof. Sean Xin Xu.

#### Services at HKUST

Summer 2016 Research Coordinator of UROP projects, HKUST, Hong Kong

Work with Professor Ji-shan Hu, and support 5 undergraduate students to finish their undergraduate research opportunity projects.

2016 – 2017 ■ Research Assistant in Department of Math, HKUST, Hong Kong

Work with Professor Ji-shan Hu and Professor Michael Xiaoquan Zhang, and be responsible of data analysis for online learning project.

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## Services (continued)

#### Other Services

Project partner at post-doctoral position, Hitech Investment Corp.

A Financial Crisis and Early Warning System was developed, in order to facilitate small and medium-sized enterprises of financing and risk control.

### Memberships

Information Systems Association of Information Systems (AIS), INFORMS, Youth Committee of China Information Economics Association

Economics American Economic Association (AEA)

### **Selected Awards**

Dec. 2020 Rest Student Paper Nominee

The paper "Design Challenge Levels in E-Learning? Insights from a Large-Scale Field Experiment" is selected as the Best Student Paper in Track in the International Conference on Information Systems.

Jan. 2020 Noverseas Graduate Studies Grant
Scholarship Supported by Professor Sean Xin Xu to continue overseas research collaborations. USD
24.7K.

Jan. 2019 Noverseas Graduate Studies Scholarship
Scholarship Founded by Tsinghua SEM to support excellent Ph.D. candidates to continue their overseas research collaborations. RMB 50K (~ 7.6K USD).

Nov. 2018 Tsinghua Scholarship for Overseas Graduate Studies
Scholarship Founded by the graduate school of Tsinghua university to support those who demonstrates excellent academic potentials for their overseas studies (~ 10K USD).

Nov. 2017 China Information Economics Wu Jiapei Award for Ph.D Team
Provided by China Information Economics Society to support excellent Ph.D. research teams.

Dec. 2017 Tsinghua Outstanding Practice Reward, the Second Prize Scholarship founded by Tsinghua University, to students who contributed in the social work.

Dec. 2016 Tsinghua's Friend – Zhang Mingwei Scholarship.

Scholarship given by Mr. Zhang Mingwei, to students who demonstrate excellent in academic.

Oct. 2015 Zeng Fancheng Scholarship in Tsinghua University
Scholarship given by Mr. Zeng Fancheng, TSMC, to postgraduates in school of economics and management who demonstrate excellent in academic.

2011 − 2014 SPDB Scholarship

Annual award given by the Shanghai Pudong Development Bank to students who demonstrate excellence in Academic.

April 2012 P&G Technical Challenge Award

A competition held by P&G to select and foster college students with leadership and management quality,
as well as creative thoughts and innovation ability.

May 2011 Outstanding League Cadres Honor

Annual award given by Tianjin University to league cadres who demonstrate outstanding contributions to serving students.