

School/Department:	Rotterdam School of Management Department of Technology & Operations Management
Project Title:	Artificial Intelligence and Individual Decision Making
Abstract:	<p>We are living in a highly connected world that is filled with digital technologies, social media, mobile devices, Internet-of-Things, smart cities, and connected cars. Growth of the information technologies has created new opportunities across different industries as companies innovate to meet changes in consumer demand, and has given rise to new challenges. In our Ph.D. program in Information Systems, you will be trained to conduct innovative research to address increasingly complex challenges facing digital society.</p> <p>Latest advances in AI provide abundant opportunities for modern businesses. AI-driven companies are likely to outperform traditional ones. However, this doesn't come easily. AI has started to show positive impacts on industries, it also comes with many risks. There are many challenges for businesses that embrace AI, spanning across operating models, data, algorithms and experiments. In this PhD position, you will be working on a variety of projects in this area centered on AI and individual decision making. You will be working with organizations that use AI to improve their decisions.</p>
PhD Trajectory	<p>We are seeking highly motivated students with demonstrated academic ability, those who possess a commitment to interdisciplinary research on significant information technology and management issues, and those who desire to pursue an academic research career in this field. You will be part of the Business Information Management (BIM) section within the Department of Technology & Operations Management at the Rotterdam School of Management, Erasmus University.</p> <p>Applicants must have strong quantitative training, with preference given to candidates who have earned an MSc, MPhil or Research Master in economics, computer science, econometrics, statistics, or a related field. Successful candidates have proficiency with R, SQL, Python, or other programming languages.</p> <p>As a Ph.D. student, you will gain the training and experience necessary to conduct independent research through course work in information systems, economics, econometrics, machine learning, and large-scale data analytics. You will work closely with the advisors to define, develop, and execute your own research. The Ph.D. dissertation will be defined by the student with inputs from the advisors, and thus requires creativity, self-direction, and a passion for</p>

	<p>scientific inquiry.</p> <p>During the Ph.D., you will work in close collaboration with the advisors to:</p> <ul style="list-style-type: none"> • Identify a consequential phenomenon that is relevant to managers or policy makers, and which has not been fully addressed in prior research; • Obtain data, primary or secondary, that are needed to better understand the phenomenon; • Use the scientific literature to understand and examine the theoretical foundations of the phenomenon; • Identify the fundamental variables and relationships that are most important to the phenomenon of interest, and formalize these mathematically while relating them to data; • Identify the main assumptions that need to be made in order to solve or estimate the model, and understand their implications; • Develop methods necessary to extract research results from data; • Present research findings at national and international conferences; • Document findings for publication in leading scientific journals, and ultimately, your dissertation. <p>To conduct research, you will be able to take advantage of our strong industry ties, institutional databases, and software development support to gain access to large-scale data sets and have the opportunity to collaborate with industry partners.</p>
Expected output	<p>Scholarly publications. You will develop research papers that can be published in top-tier information systems and management journals, such as Management Science, MIS Quarterly, and Information Systems Research. BIM faculty at RSM has a strong publication record in these journals. The final results of the Ph.D. are also published in a Ph.D. dissertation. Most BIM Ph.D. students will be able to publish multiple papers in these top journals.</p> <p>Placement record. In the past five years, our graduates have accepted faculty positions at top business schools all around the world, including MIT, Northwestern University, George Washington University, Copenhagen Business School, IE Business School, University of Amsterdam, and VU Amsterdam.</p>
Requirements of candidate:	<ul style="list-style-type: none"> • Passionate about understanding the impact of digital technologies on individuals, organizations, markets, system design, public policy, and society;

	<ul style="list-style-type: none"> • Enthusiasm for quantitative analysis, data, programming, and science; • Experience in conducting and completing a research project; • MSc or MPhil in Econometrics, Statistics, Computer Science, Economics or a related discipline; • Experience developing and estimating econometric or statistical models in R, SAS, Stata, and Python; • Programming skills, and in particular, prior exposure to or experience with scraping structured content structured web content (HTML, XPATH, CSS, etc.) from web sites; • Openness, intellectual curiosity, eagerness to learn, and a willingness to be proved wrong; • Ambition to work towards an academic career as a world-class researcher and instructor; • Willingness and motivation to formulate your own research projects and carry those through to the end (i.e., publication in a top journal); • Eagerness to ask and answer novel questions; • Experience in writing scientific papers. • EUR requirement: IELTS 7.5 (min 6.0 for all subs.); TOEFL: 100 (internet) or 600 (paper); GMAT or GRE: 85%
<p>Supervisor information:</p>	<p>The Ph.D. student will develop research topics in close collaboration with the advisor Prof. Dr. Ting Li.</p> <p>Prof. Ting Li tli@rsm.nl https://www.rsm.nl/people/ting-li/</p> <p>Prof. Ting Li is the professor of digital business and focuses on studying the economic impacts of digitization on consumer behavior and firm strategy. She is an expert in digitization and platforms, personalization, ecommerce, social media analytics, mobile marketing, and pricing and revenue management.</p> <ul style="list-style-type: none"> • A. Mehrdar & Ting Li (2020). An Optimal Pricing Strategy with Cannibalization. In Annual Meeting of the Academy of Management. Vancouver, Canada • A. Mehrdar & Ting Li (2020). An Optimal Pricing Strategy with Cannibalization. In Statistical Challenges in Electronic Commerce Research. Madrid, Spain • Ting Li, D. Tsekouras & Z. Cheng (2019). Free Shipping

	<p>Promotions: Leveraging Scarcity and Popularity Information. In Annual Meeting of the Academy of Management. Boston, MA, USA</p> <ul style="list-style-type: none"> • Z. Yang & Ting Li (2019). Digital Communication Channel Migration: A Field Experiment. In Proceedings of the International Conference on Information Systems. Munich, Germany • F.A.M. Balocco & Ting Li (2019). LemonAds: Impression Quality in Programmatic Advertising. In Proceedings of the International Conference on Information Systems. Munich, Germany • Ting Li, J. van Dalen & P.J. Rees (2018). More than just noise? Examining the Information Content of Stock Microblogs on Financial Markets. Journal of Information Technology, 33 (1), 50-69. doi: 10.1057/s41265-016-0034-2 • S. Yang, T. Li & E. van Heck (2015). Information Transparency in Prediction Markets. Decision Support Systems, 78, 67-79. doi: 10.1016/j.dss.2015.05.009 • Ting Li & T. Slee (2014). The Effects of Information Privacy Concerns on Digitizing Personal Health Records. Journal of the American Society for Information Science and Technology, 65 (8), 1541-1554. doi: 10.1002/asi.23068 • Ting Li, G.A.J.M. Berens & M. de Maertelaere (2014). Corporate Twitter Channels: The Impact of Engagement and Informedness on Corporate Reputation. International Journal of Electronic Commerce, 18 (2), 97-125. doi: 10.2753/JEC1086-4415180204 • L. Karl & Ting Li (2014). Introduction to the Special Issue: Business Value Co-Creation Enabled by Social Technologies. International Journal of Electronic Commerce, 18 (2), 5-10. doi: 10.2753/JEC1086-4415180200 • Ting Li, R.J. Kauffman, E. van Heck, P.H.M. Vervest & B.G.C. Dellaert (2014). Consumer Informedness and Firm Information Strategy. Information Systems Research, 25 (2), 345-363. doi: 10.1287/isre.2014.0521
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