

Curriculum Vitae

Dr. Stephanie Kelley

Assistant Professor, Operations Management
Ivey Business School, The University of Western Ontario

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EDUCATION

- 2017 – 2022 **Ph.D., Management Analytics**
Smith School of Business, Queen's University
Thesis title: Understanding and Preventing Artificial Intelligence
Ethics Challenges in Financial Services Organizations
Supervisors: Dr. Yuri Levin & Dr. Anton Ovchinnikov
- 2017 **Masters of Management Analytics**
Smith School of Business, Queen's University
- 2012 **Bachelor of Commerce (with Honours)**
Smith School of Business, Queen's University
- 2011 *Exchange Program: University of Strathclyde, Glasgow, Scotland*

PEER-REVIEWED PUBLICATIONS

Kelley, S., Ovchinnikov, A., Hardoon, D., Heinrich, A. (2022) Antidiscrimination Laws, AI, and Gender Bias: A Case Study in Nonmortgage Fintech Lending. Manufacturing & Service Operations Management, Articles in Advance.

Kelley, S. (2022) Employee Perceptions of the Effective Adoption of AI Principles. Journal of Business Ethics, Special Issue on Business Ethics in the Era of Artificial Intelligence.

WORKS IN PROGRESS

Jenkin, T., **Kelley, S.**, Ovchinnikov, A., Ying, C. When Do Explanations Matter? Targeting Management Science, Special Edition on The Human-Algorithm Connection (October 2022)

INVITED CONFERENCE PRESENTATIONS (*presenter)

Kelley, S.*, Heinrich, A., Ovchinnikov, A. (2022, November) *Using Analytics to Develop Explainable Artificial Intelligence Solutions for Lenders*. Scheduled to present at the 2022 Decision Sciences Institute Annual Conference, Houston, TX, US.

Kelley, S.* & Ovchinnikov, A. (2022, October) *Explainable AI for Employees: Loan Officer Preferences and Profitability Implications for Firms*. Scheduled to present at the INFORMS 2022 Annual Meeting, Indianapolis, IN, US.

Kelley, S.* & Ovchinnikov, A. (2021, November) *Anti-Discrimination Law, AI, and Gender Bias: A Case Study in Non-Mortgage Fintech Lending*. Presented at the 2021 Decision Sciences Institute Annual Conference (Virtual).

Kelley, S.* (2021, August) *Effective Adoption and Implementation of AI Principles*. Presented at the 2021 Academy of Management Annual Meeting (Virtual), Technology Innovation Management Section.

Kelley, S.* & Ovchinnikov, A. (2021, June) *Anti-Discrimination Law, AI, and Gender Bias: A Case Study in Non-Mortgage Fintech Lending*. Presented at the 2021 INFORMS MSOM Virtual Conference.

Kelley, S.* & Ovchinnikov, A. (2020, November) *Anti-Discrimination Law, AI, and Automated Gender Bias in Non-mortgage Fintech Lending*. Presented at the INFORMS 2020 Annual Meeting (Virtual).

PRESENTATIONS & POSTERS (*presenter)

Kelley, S.*, Heinrich, A., Ovchinnikov, A. (2022, November) *Explainable Artificial Intelligence: Methods over Models*. Scheduled to present at the Visiting Scholars Research Seminar, American University, Washington, D.C.

Kelley, S.* & Ovchinnikov, A. (2022, May) *Anti-discrimination Regimes & Credit Lending*. Presented at the Law, Society, & AI Seminar, Institut Polytechnique de Paris and HEC (Virtual).

Kelley, S.* (2021, May) *Analytics Research Illustration*. Presented at the Smith School of Business 2021 Doctoral Students “Get to Know You” Research Event, Queen’s University, Kingston (Virtual).

Kelley, S.* & Ovchinnikov, A. (2019, September) *(Anti-Discrimination) Laws, AI, and Gender Bias*. Poster presented at the 2019 Smith School of Business Graduate Consortium, Queen’s University, Kingston.

Kelley, S.*, Levin, Y., & Saunders, D.M. (2018, November) *A Code of Conduct for the Ethical Use of Artificial Intelligence in Financial Services*. Presented at the Scotiabank Conference on AI Ethics, The Bank of Nova Scotia, Toronto.

Kelley, S.*, Levin, Y., & Saunders, D.M. (2018, September) *A Code of Conduct for the Ethical Use of Artificial Intelligence in Financial Services*. Presented at the 2018 Smith School of Business Graduate Consortium, Queen’s University, Kingston.

PUBLICATIONS – REPORTS

Abdur-Rahman, P., Havens, J., **Kelley, S.** et al (2021) IEEE Finance Playbook Version 1.0: Trusted Data and Artificial Intelligence Systems (AIS) for Financial Services. IEEE Standards Association. Available at: <https://standards.ieee.org/industry-connections/ais-finance-playbook.html>

Kelley, S., Levin, Y. & Saunders, D.M. (2018) A Code of Conduct for the Ethical Use of Artificial Intelligence in Financial Services. Prepared for the Canadian Banks AI Ethics Working Group. Available at: <https://www.stephaniekelleysresearch.com/a-code-of-conduct-for-ethical-ai>

RESEARCH FUNDING

2022	NSERC Discovery Grant (applied, results announced Spring 2023)
2022	Queen's University Nominee, SSHRC Talent Competition (results Fall 2022, \$50,000)
2021	D.D. Monieson Doctoral Fellowship, Smith School of Business, Queen's University (\$5,000)
2020-2022	SSHRC Doctoral Fellowship (\$40,000)
2020	Graduate Dean's Doctoral Field Travel Grant, Queen's University (\$3,000)
2019-2020	Ontario Graduate Scholarship (\$15,000)
2018-2019	R.S. McLaughlin Fellowship, Queen's University (\$10,000)
2018	OCE TalentEdge Fellowship (\$15,000)

OTHER HONOURS & AWARDS

2022	Outstanding Reviewer Award, Technology Innovation Management Division, Academy of Management Annual Meeting
2021	Rising Stars in AI Ethics, Women in AI Ethics (https://womeninaethics.org/the-list/rising-stars/)
2021	PhD Student Research Excellence Award, Smith School of Business, Queen's University
2020	Alan R. Dennis Doctoral Award, Smith School of Business, Queen's University
2019	New PhD Student Research Excellence Award, Smith School of Business, Queen's University

PEER REVIEW ACTIVITIES

- Management Information Systems Quarterly
- Journal of Business Ethics
- Academy of Management Annual Meeting

OTHER RESEARCH EXPERIENCE

2021	Research Assistant , Smith School of Business, Queen's University <ul style="list-style-type: none">• Working with Dr. Tracy Jenkin, Associate Professor, Distinguished Faculty Fellow of Digital Technology on "Understanding Human-AI Collaborations"• Developed experimental design, ethics approval, experiment completion
2010	Research Assistant , Smith School of Business, Queen's University <ul style="list-style-type: none">• Worked with Dr. Kathryn Brohman, Associate Professor, Distinguished Faculty Fellow of Digital Technology on "IT Execution"• Contributed to literature review

TEACHING EXPERIENCE

2022	Adjunct Lecturer , Smith School of Business, Queen's University <ul style="list-style-type: none">• Designed curriculum, prepared course syllabus, developed and delivered lectures, created assessments, managed in-person classroom environment, hosted office hours, managed grading• Executive MBA: MBUS 865 – "Big Data & AI" (Teaching evaluations: 6.6/7)
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- 2021 **Teaching Fellow**, Smith School of Business, Queen's University
- Designed curriculum, prepared course syllabus, developed and delivered lectures, created assessments, managed virtual classroom environment, hosted office hours, managed grading
 - Executive MBA: MBUS 865 – “Big Data & AI” (Teaching evaluations: 6.6/7)
- 2016-Present **Teaching Assistant**, Smith School of Business
- Delivered occasional lectures, designed and led tutorials (on class materials & technical programs), set occasional assignments and exams, created solutions for assignments and quizzes, advised student projects, and graded assignments and exams
 - Undergraduate Courses:
 - COMM161- “Introduction to Mathematical Analysis for Management” (delivered virtually)
 - COMM350 – “Forecasting and the Business Environment”
 - COMM375 – “International Business”
 - COMM103 – “Business Management”
 - COMM132 – “Marketing 2”
 - Graduate Courses:
 - MMA/MMAI/GMMA804 – “Analytics Strategy & Change”
 - MMA867 – “Predictive Analytics”
 - MMA841 – “Supply Chain”
 - MMA860 – “Acquisition & Analysis of Data”
- 2019 **Online Course Design Assistant**, Smith School of Business, Queen's University
- Assisted in the development of the online textbook and online course delivery for MMA/MMAI/GMMA863 – “Statistics for Analytics and AI”
- 2019 **Head Teaching Assistant**, Smith School of Business, Queen's University
- Designed assignments, created assignment solutions, supervised two junior teaching assistants for MMA861 – “Analytical Decision Making”
- 2019 **Faculty Tutorial Leader**, R Programming Faculty Education Workshop, Smith School of Business, Queen's University
- 2013, 2019 **Guest Lecturer**, Smith School of Business, Queen's University
- Undergraduate Courses:
 - COMM434 – “Sales Management”
 - COMM493 – “Analytics and Artificial Intelligence for Business”

TEACHING DEVELOPMENT

- 2017 - 2021 **Teaching Course**, MGMT993 – “Teaching and Learning in Business”
Smith School of Business, Queen's University
- Completed a course on pedagogy and current trends in business education, covering topics including active learning strategies, learning styles,

- assessment, course design, active and case-based learning, and teaching philosophies
- Guest lectured in an undergraduate class and obtained feedback on teaching style and presentation material from an observer

WORK EXPERIENCE

- 2018 **Research Intern**, The Bank of Nova Scotia (Scotiabank)
Toronto, ON
- Completed a 2-month work term at Scotiabank as part of the TalentEdge Fellowship Program
- 2017 **Consultant**, Kingston Health Sciences Centre Genetics Consolidation Project
Kingston, ON
- Led proposal development for a project to consolidate the Medical Genetics research and clinical facilities across the Kingston Health Sciences Centre.
- 2012 - 2017 **Various Marketing and Sales Management Roles**, Reckitt Benckiser
Toronto, ON
- Developed and executed the national launch strategy for a new OTC pharmaceutical brand (Mucinex) in Canada; managed multiple direct reports and cross-functional teams (including medical, regulatory, and sales); reported directly to Chief Marketing & Trade Marketing Officers; frequently presented to VP/SVP/Exec. SVP roles; and conducted research and in-depth analysis of category data
 - Previous Roles at Reckitt Benckiser:
 - *Senior Brand & Trade Marketing Manager*, Healthcare Relief Portfolio
 - *Brand & Trade Marketing Manager*, Healthcare Expansion Portfolio
 - *Brand Manager*, Healthcare Portfolio
 - *Assistant Brand Manager*, Hygiene Portfolio
 - *Trade Marketing Analyst*, Hygiene Portfolio
 - *Retail Sales Representative*, All Brands

MEDIA COVERAGE

- 2021 The Route to Trusted AI: What the financial services sector can teach us about preparing for the age artificial intelligence. *Smith Business Insights*. May 12, 2021. <https://smith.queensu.ca/insight/content/the-route-to-trusted-ai.php>
- 2020 Data Futurology Podcast: AI Ethics with Stephanie Kelley. June 2, 2020. Available at: <https://www.datafuturology.com/podcast/2020/6/2/115-ai-ethics-with-stephanie-kelley-phd-candidate-in-ai-ethics-at-queens-university-ieee-ethically-aligned-design-for-finance-working-committee-member>
- 2018 The AI revolution needs a rulebook. Here's a beginning. *Globe and Mail*. December 6, 2018. Available at: <https://www.theglobeandmail.com/business/commentary/article-the-ai-revolution-needs-a-rulebook-heres-a-beginning/>

POLICY CONTRIBUTIONS

- 2022 AI Model Risk Management for Financial Institutions, *CIO Strategy Council*
- 2022 Financial Industry Forum on Artificial Intelligence (FIFAI), *Office of the Superintendent of Financial Institutions (OSFI) and the Global Risk Institute (GRI)*
- 2021 AI Ethics Principles, AI Ethics Framework, *Wellbeing.ai Digital Supercluster Project (Lululemon, Wysdom.AI, and Queen's University)*
- 2020 Developing Financial Sector Resilience in a Digital World: Selected Themes in Technology and Related Risks, Discussion Paper, *Office of the Superintendent of Financial Institutions Canada (OSFI)*
- 2018 AI Futures Policy Lab, *CIFAR & Brookfield Institute*
- 2018 Principles to Promote FEAT in the Use of AI and Data Analytics in Singapore's Financial Sector, *Monetary Authority of Singapore*

INVITED PRACTITIONER PRESENTATIONS

- 2022 (Sept) *AI Ethics Implementation*, To be Presented at Toronto Dominion Bank, Toronto, Canada
- 2021 (Nov) *The Next Evolution of AI Adoption*, Presented at The Canadian Regulatory Technology Association Annual Event, Toronto, Canada.
- 2021 (May) *AI Ethics: Navigating Guidelines and Regulation*, Presented at Fasken, Toronto, Canada.
- 2020 (Mar) *AI, Ethics, and Law*. Presented at the Conflict Analytics Lab, Queen's University, Kingston, Canada.
- 2019 (Oct) *Artificial Intelligence and Law*. Presented at Stewart McKelvey, Halifax, Canada.
- 2019 (Jan) *The Ethics of Artificial Intelligence in Financial Services*. Presented at Scotiabank Digital Discover Education Session, The Bank of Nova Scotia, Toronto, Canada.

ACADEMIC COMMUNITY INVOLVEMENT

- 2021 **Case Marker**, Inter-Collegiate Business Competition, MIS Stream
- 2021 **Doctor Consortium Participant**, Technology Innovation Management Doctoral Consortium, Academy of Management Annual General Meeting, Virtual
- 2021 **Committee Member**, Special Appointments Committee for Canada Research Chair in Responsible Use of AI, Queen's University
- 2020-2021 **Committee Member**, Smith School of Business Equity, Diversity, Inclusion, and Indigeneity (EDII) Teaching & Learning Subcommittee
- 2020 **Case Marker**, Inter-Collegiate Business Competition, MIS Stream
- 2020 **Panel Discussant**, Smith School of Business Social Impact Summit
- 2019 **Panel Discussant**, Queen's Smith School of Business Graduate Consortium, Ask Me Anything PhD Panel
- 2019 **Case Marker**, Inter-Collegiate Business Competition, MIS Stream
- 2019 **PhD Representative**, Smith School of Business Research Committee
- 2019 **Panel Discussant**, Queen's Smith School of Business Graduate Consortium, Ask Me Anything PhD Panel
- 2019 **Panel Discussant**, Queen's Smith School of Business Analytics Club

2018

Panel Discussant, Queen's Smith School of Business Social Impact Summit, AI Ethics Panel

MEMBERSHIPS

- Academy of Management
 - TIM: Technology & Innovation Management
- MSOM
- INFORMS
- Women in ORMS

EDII TRAINING

- Intercultural Awareness Certificate, Queen's University
- Accessible Instruction for Educators
- Lead, Include, Transform (Equity, Diversity, Inclusion, and Indigenization Training)
- Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS: CORE)

CERTIFICATE PROGRAMS

2020 edX Professional Education Certificate, LAW0001X: Comparative Equality and Anti-discrimination Law, Stanford Online

TECHNICAL SKILLS

Programming Languages	R, Python, SQL(foundational)
Statistical Data Analytics	STATA, SPSS, SAS, gretl, SIMUL-8, Palisade@RISK, Excel
Qualitative Data Analysis	NVivo
Marketing Research	Google Analytics, Incite, IMS Health, Nielsen BASES
Sales Analytics	Accelerate Sales Forecasting & Reporting, Nielsen Cross-Outlet Facts, Nielsen MarketTrack, Shiloh POS systems

LANGUAGES

- English (first language)
- French (intermediate)

PERSONAL INTERESTS

CrossFit, running, cycling, paddleboarding
Hiking (with my dog!)
Cooking