

# Curriculum Vitae

## Dr. Stephanie Kelley

Assistant Professor, Management Science  
Sobey School of Business, Saint Mary's University  
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### FACULTY EXPERIENCE

- 2023 – Present      **Assistant Professor, Management Science**  
Sobey School of Business, Saint Mary's University
- 2022 – 2023        **Assistant Professor, Operations Management**  
Ivey Business School, The University of Western Ontario

### 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 (MMA)**  
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. (2023) Removing Demographic Data Can Make AI Discrimination Worse, Harvard Business Review, March 6, 2023.

**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, Special Issue on Responsible Research. 24(6):2797-3306

*Popular press articles about this publication:*

- AI Bias: When Antidiscrimination Laws Turn Sour, Smith Business Insight, June 28, 2022

*Publication awards and recognition:*

- International Research Centre on Artificial Intelligence under the auspices of UNESCO 2022-2023 Top 100 AI solutions for reaching the 17 SDGs
- Semi-finalist in the 2022 MSOM Responsible Operations competition

**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. (178): 871-893

*Popular press articles about this publication:*

- The Route to Trusted AI: What the financial services sector can teach us about preparing for the age artificial intelligence. Smith Business Insight, May 12, 2021

## **WORKS UNDER PEER REVIEW**

Schiff, D., **Kelley, S.**, Camacho Ibanez, J. The Emergence of Artificial Intelligence Ethics Auditing. Under Review at Journal of Business Ethics

## **WORKS IN PROGRESS**

**Kelley, S.**, Ovchinnikov, A., Ramolete, G.I., Sureshababu, K.K., Heinrich, A. Tailoring Explainable Artificial Intelligence: User Preferences and Profitability Implications for Firms.

Jenkin, T., **Kelley, S.**, Ovchinnikov, A., Ying, C. Explanation Seeking and Recommendation Adherence in Human-to-Human versus Human-to-Artificial Intelligence Interactions.

## **INVITED CONFERENCE PRESENTATIONS** (\*presenter)

Jenkin, T., **Kelley, S.\***, Ovchinnikov, A., Ying, C. (2023, October) Explanation Seeking and Recommendation Adherence in Human-to-Human versus Human-to-Artificial Intelligence Interactions. Scheduled to Present at the INFORMS 2023 Annual Meeting, Phoenix, AZ, US.

Jenkin, T., **Kelley, S.**, Ovchinnikov, A., Ying, C\*. (2023, June) Explanation Seeking and Recommendation Adherence in Human-to-Human versus Human-to-Artificial Intelligence Interactions. Presented at the 16<sup>th</sup> Annual Behavioural Operations Management Conference, Baltimore, MD, US.

**Kelley, S.\***, Ovchinnikov, A., Heinrich, A (2022, December) *Tailoring Explainable Artificial Intelligence in Practice*. Presented at the 2022 Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Harvard Business School, Boston, MA, US.

**Kelley, S.\***, Ovchinnikov, A., Heinrich, A (2022, November) *Using Analytics to Develop Explainable Artificial Intelligence Solutions for Lenders*. Presented 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*. Presented 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*. Presented at the Visiting Scholars Research Seminar, American University, Washington, D.C, US.

**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.stephaniekelleyresearch.com/a-code-of-conduct-for-ethical-ai>

#### **RESEARCH FUNDING**

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

2023 Nominee – 2023 INFORMS Frederick D. Lanchester Prize for the best contribution to operations research and management sciences in the past five years (results announced in October 2023)  
2023 Nominee – George B. Dantzig Dissertations Award for best dissertation in any area of operations research and management science that is innovated and relevant to practice (results announced in October 2023)  
2023 “Excellent” Ranking (Top 30) and Global Top 100 AI Solutions for the UN SDGs by the International Research Center on Artificial Intelligence under the auspices of UNESCO (<https://ircai.org/top100/entry/how-data-science-and-ai-can-reduce-gender-bias-and-concurrently-increase-profitability/>)  
2022 Outstanding Reviewer Award, Technology Innovation Management Division, Academy of Management Annual Meeting  
2021 Rising Stars in AI Ethics, Women in AI Ethics (<https://womeninaiethics.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

- 2023
  - Business and Society Review
  - Production Operations Management
  - Academy of Management Annual Meeting
- 2022
  - Management Information Systems Quarterly
  - Academy of Management Annual Meeting

### OTHER RESEARCH COMMUNITY INVOLVEMENT

- **Panelist**, MSOM DEI Conversation, 2023 INFORMS AGM
- **Session chair**, human-AI collaboration stream, 2023 INFORMS AGM
- **Session chair**, DEI, 2022 DSI AGM

### OTHER RESEARCH EXPERIENCE

2021 **Research Assistant**, Smith School of Business, Queen's University

- 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

- Worked with Dr. Kathryn Brohman, Associate Professor, Distinguished Faculty Fellow of Digital Technology on “IT Execution”
- Contributed to literature review

## TEACHING EXPERIENCE

2023

**Assistant Professor**, Ivey Business School, Western University

- Developed and delivered 25 case-learning-style lectures for 2 classes of 78 HBA1 undergraduate students, created assessments, managed daily contribution grades, team of 2 teaching assistants, hosted office hours
- HBA1 3304: “Operations Management” (Teaching evaluations: TBD)

2022-2023

**Adjunct Lecturer**, Smith School of Business, Queen’s University

- Designed curriculum, prepared course syllabus, developed and delivered lectures, created assessments, managed in-person classroom environment, hosted office hours, managed grading
- MBA: MBAS 862: “Topics in Analytics” (Teaching evaluations: 6.5/7)
- Executive MBA: MBUS 865 – “Big Data & AI” (2022 Teaching evaluations: 6.6/7, 2023 6.6/7)

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)

2016-2021

**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 **R Programming Tutorial Lead**, 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

2022 Teaching with Cases, Ivey Business School, Western University

- Complete a two-day course on the case teaching methodology

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**

- 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**

- 2022-2023 AI Model Risk Management for Financial Institutions, *CIO Strategy Council*
- 2022 Financial Industry Forum on AI (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**

- 2023 (July) *Ethical and Intellectual Property Implications of Generative AI Technologies*. IPIIC-McGill Copyright Master Class, McGill University, Montreal, Canada.
- 2023 (May) *McCarthy Tétrault Cross-country AI Summit*. McCarthy Tétrault, Toronto, Canada.
- 2023 (April) *Gender Analytics: Possibilities Conference*, Rotman School of Management, University of Toronto, Toronto, Canada.
- 2022 (Sept) *AI Ethics Implementation*, 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.

## TEACHING COMMUNITY INVOLVEMENT

2023 **Faculty Judge**, Deloitte Innovation Forum, Ivey Business School  
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 Operations Research Management Science (WORMS) at INFORMS
  - Registered mentor

## EDII TRAINING

- LGBTQIA+ Ally Training, Ivey Business School, Western University
- 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  
Statistical Data Analytics  
Qualitative Data Analysis  
Marketing Research  
Sales Analytics

R, Python  
STATA, SPSS, SAS, gretl, SIMUL-8, Palisade@RISK, Excel  
NVivo  
Google Analytics, Incite, IMS Health, Nielsen BASES  
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