

Overview

A curious, motivated, and collaborative doctoral candidate with transdisciplinary training at the nexus of management, science, and technology. I also bring diverse experience having held industry, research, and teaching positions. My primary research focus is food marketing. My projects typically leverage big data to study how consumers behave when shopping for groceries or talking about food on social media.

Education

Doctor of Philosophy (PhD), specialization in Marketing with an Information Systems (IS) support field
Desautels Faculty of Management, McGill University
2020 - Present

Master of Health Informatics (MHI)
Institute of Health Policy, Management, and Evaluation (IHPME), Dalla Lana School of Public Health (DLSPH)
University of Toronto
2016 - 2018

Graduate Certificate in Business Administration (GCBA)
John Molson School of Business (JMSB), Concordia University
2014 - 2015

Bachelor of Science (BSc), major in Pharmacology and Therapeutics
Faculty of Medicine and Health Sciences, McGill University
2010 - 2014

Fellowships

McRae, C. (2022). Walter J. Stenason Fellowship. Desautels Faculty of Management, McGill University.

McRae, C. (2021-2024). SMART Healthy Cities Training Platform Doctoral Fellowship.

McRae, C. (2021). Marcel A. Desautels Doctoral Fellowship. Desautels Faculty of Management, McGill University.

Research Grants

McRae, C. (2022-2023). *Healthy Eating and Environment Tool (HEET)*. Dissertation grant from the McGill Institute of Marketing (MIM). CAD \$4,000

Dubé, L. & **McRae, C.** (2021-2022). *Precision retailing in the supermarket environment: An experimental investigation into decision-making pathways in support of adaptive real-world behavior and lifelong wellness*. Seed grant from the McGill Institute of Marketing (MIM). CAD \$4,000

McRae, C. (2021-2024). *Precision Retailing in Grocery and Supermarket Environments: Navigational Pathways to Support Adaptive Real-World Behavior and Lifelong Wellness*. Joseph-Armand Bombardier Canada Graduate Scholarship (CGS) Doctoral Scholarship, Social Sciences and Humanities Research Council (SSHRC). CAD \$105,000

Awards

McRae, C. (2023). National Top 25 Finalist for SSHRC Storytellers Challenge. CAD \$3,000.

McRae, C. (2022). Industrial Alliance (iA) Financial Indigenous bursary, INDSPiRE program. CAD \$1,300.

McRae, C. (2022). Graduate Mobility Award, McGill University. CAD \$4,000.

McRae, C. (2021). Graduate Excellence Award, Desautels Faculty of Management, McGill University. CAD \$2,725

Lan, A., Kaleis, L., Lee, A., **McRae, C.**, Munroe, K., Zavar, A. & Keshavjee, K. (2017). *Are mHealth apps effectively delivering cognitive behavioural therapy techniques?*. G.B. Rosenfeld Best Poster Award. Institute of Health Policy, Management and Evaluation Research Day, University of Toronto.

Research Experience

Tampere University

Visiting Researcher | May 2022 - July 2022

- Led a research project comparing price sensitivities across socioeconomic status (SES) groups for plant- and animal- based protein foods.
- Cross-country comparison using large-scale loyalty program data from Canada and Finland.

McGill Centre for the Convergence of Health and Economics

Senior Research Assistant | December 2017 - August 2018

- Conducted and published a study using social media to predict consumer behaviours to inform food innovation.
- Assisted with the development of the 'precision retailing' course (MRKT705) with Prof. Laurette Dubé.

McGill Centre for the Convergence of Health and Economics

Research Assistant | 2014 - 2017

- Managed grant applications, research projects, and partnerships to accelerate research on food innovation and marketing.
- Assisted with the launch of global and national innovation platforms for plant-based proteins.

McGill University Health Centre (MUHC) - Lorenzo Ferry

Research Assistant | 2011

- Assisted with cell- and animal- based experiments to study mechanisms of cancer metastasis.

Teaching Experience

Institute de tourisme et d'hotellerie du Québec (ITHQ) à Montréal

Lecturer | January 2023 - Present

- MKGF2103: Hospitality Establishments and Tourist Destinations (online asynchronous), Winter 2024
- MKGF2103: Hospitality Establishments and Tourist Destinations (online asynchronous), Winter 2023

Desautels Faculty of Management, McGill University

Teaching Assistant | September 2021 - April 2022

- MRKT438: Brand Management, Master of Business Administration (MBA) program, Winter 2022
- RETL611: 360 Degree Customer Insight, Master of Management of Retailing (MMR) program, Fall 2021

First Nations Technical Institute and Toronto Metropolitan University

Lecturer | Fall 2018, Fall 2020

- Led curriculum development and delivery of a course on the topic of health and society (CSOC506) to Bachelor of Social Work (BSW) students at the First Nations Technical Institute in Tyendinaga, Ontario.

Professional Experience

Neuroalign Technologies

Product Manager | March - July 2020

- Started product management and new product innovation programs.
- Led the design, development, marketing, and commercial implementation of a VR headset and neuro-informatics platform used to aid in the diagnosis of neurological conditions.

Excelleris Technologies at LifeLabs Medical Laboratories

Product Manager, Platform & Insights | June 2019 - March 2020

- Led strategy and end-to-end product development for the commercialization of laboratory and health information.
- Managed pilots with external partners to test product use-cases and implement a data consent management solution.

LifeLabs Medical Laboratories

Senior Insights Analyst | August 2018 - June 2019

- Led program strategy and development of an enterprise-wide market and competitive intelligence program.
- Conducted evaluations of strategic markets and competitors and monitored global health and laboratory trends.

InfoClin Inc.

Research Associate | 2017 - 2018

- Collaborated on a research project to evaluate digital mobile technologies used to deliver cognitive behavioural therapy (CBT).

LifeLabs Medical Laboratories

Business Insights Analyst | May - December 2017

- Led market evaluations, surveillance, and KPI reporting for business and market/competitive intelligence for genetics and B2B business lines.

CSSS Cavendish Richardson Hospital

Rehabilitation Assistant | 2011 - 2014

- Assisted physical and occupational therapists with the delivery of care plans for stroke rehabilitation patients.

Journal Publications

Ma, Y., **McRae, C.**, Wu, Y. H., & Dubé, L. (2021). Exploring Pathways of Socioeconomic Inequity in Vegetable Expenditure Among Consumers Participating in a Grocery Loyalty Program in Quebec, Canada, 2015-2017. *Frontiers in Public Health*, 9, 1-19. <https://doi.org/10.3389/fpubh.2021.634372>

Wu, Y.H., Moore, S., **McRae, C.** & Dubé, L. (2021). Tracing the single and combined contributions of home-grown supply and health literacy on fruit and vegetable consumption: An empirical exploration in rural India. *Frontiers in Public Health*, 9(449): 1-11. <https://doi.org/10.3389/fpubh.2021.591439>

Dubé, L., **McRae, C.**, Wu, Y.H., Ghosh, S., Allen, S., Ross, D., Ray, S., Joshi, P.K., McDermott, J., Jha, S.K. & Moore, S. (2020). Impact of the eKutir ICT-enabled social enterprise and its distributed micro-entrepreneur strategy on fruit and vegetable consumption: a quasi-experimental study in rural and urban communities in Odisha, India. *Food Policy*, 90:101787. <https://doi.org/10.1016/j.foodpol.2019.101787>

Lan, A., Lee, A., Munroe, K., **McRae, C.**, Kaleis, L., Keshavjee K. & Guergachi, A. (2018). Review of cognitive behavioural therapy mobile apps using a reference architecture embedded in the patient-provider relationship. *BioMedical Engineering OnLine*, 17:183. <https://doi.org/10.1186/s12938-018-0611-4>

Dubé L., Du, P., **McRae, C.**, Jayaraman, S. & Nie, J.Y. (2018). Enabling convergent innovation through an artificial intelligence social media platform: the case of food. *Technology Innovation Management Review*, 8(2): 49-65. <http://doi.org/10.22215/timreview/1139>

Working Papers

McRae, C., Annossi, M., Pinsoneault, A. & Dubé, L. (2023). Tracing Digital Transformation Pathways Through the Emergence and Institutionalization of New Practices.

McRae, C., Saarijärvi, H., Nevalainen, J., Fogelholm, M., Ma, Y., & Dubé, L. (2023). Accelerating the Sustainability Transition through Mainstream Marketing.

Fogelholm, M., Vepsäläinen, H., Meinilä, J., **McRae, C.**, Saarijärvi, H., Erkkola, M., Nevalainen, J. (2023). The dynamics in food selection stemming from price awareness and perceived income adequacy: a study using loyalty-card data.

Conference Proceedings

McRae, C. & Dubé, L. (2023). Reshaping Loyalty Programs for Sustainability: Harnessing the Power of Mobile Marketing. 2023 International Conference on Information Systems (ICIS). *[forthcoming]*

McRae, C. & Dubé, L. (2023). A machine learning approach for the prediction of individual and market level demand from retail loyalty program data: Analytic models and discussion of possible behavioral and business practice mechanisms. Association for Consumer Research (ACR) conference 2022. *[forthcoming]*

McRae, C., Nie, J.Y., & Dubé, L. (2022). Heterogeneity in feature importance and prediction performance for sales at the market and store levels: the case of branded yogurt products in Quebec. 2022 IEEE International Conference on Big Data (Big Data). 4078-4086. <https://doi.org/10.1109/BigData55660.2022.10020567>

McRae, C., Anosi, M.A., & Dubé, L. (2022). Tracing Digital Transformation Pathways from Subsistence Farming to Equitable and Sustainable Modern Society: Revisiting the eKutir ICT Platform-Enabled Ecosystem as an Interstitial Space. 2022 International Conference on Information Systems (ICIS). 8. https://aisel.aisnet.org/icis2022/soc_impact_is/soc_impact_is/8

Dubé, L., Jha, S., Brown, S., Faik, I., London, T., Schillo, S., Annosi, M.C., Gandhi, A., Keogh, J., **McRae, C.**, Ramezankhani, A., Moore, S. & Struben, S. (2021). Imagining Management Research in Human-Centered & Digital-Powered Convergence Science and Innovation. Academy of Management Annual Meeting Proceedings 2021. <https://doi.org/10.5465/AMBPP.2021.13197symposium>

Dubé, L., Ghosh, S., **McRae, C.**, Wu, Y.H., Talukder, B., Allen, S., Jha, S.K., Joshi, P.K., Ray, S., Ross, D., & Moore, S. (2019). Quasi-experimental evaluation of a dietary behavior change intervention delivered through an ICT-enabled fruit and vegetable retail channel. *Annals of Behavioural Medicine*, 53(3):299-308. <https://doi.org/10.1093/abm/kay086>

Conference Presentations

McRae, C. & Dubé, L. (2023). Reshaping Loyalty Programs for Sustainability: Harnessing the Power of Mobile Marketing. 2023 International Conference on Information Systems (ICIS), Hyderabad, India, December 10-13, 2023.

Elhaffar, G., Dubé, L. **McRae, C.**, Belkhiria, F., & Paquet, C. (2023). Seeking Environmental Justice in a Developed City: How Does Citizen's Carbon Footprints Compare Between Favored and less Favored Boroughs in the City of Montreal. 18th International Conference on Computational Urban Planning and Urban Management (CUPUM), Montreal, Canada, June 20-22, 2023.

Belkhiria, F., Nie, J.Y., Zhu, T., **McRae, C.**, & Dubé, L. (2023). EATS: A next-generation adaptive recommender system for healthy food purchase nudges. 18th International Conference on Computational Urban Planning and Urban Management (CUPUM), Montreal, Canada, June 20-22, 2023.

McRae, C. (2023). Precision Retailing in Grocery and Supermarket Environments. Federation for the Humanities and Social Sciences Congress 2023, Toronto, Canada, May 27 - June 2, 2023.

McRae, C. (2023). Accelerating the Sustainability Transition through Mainstream Marketing. Out Loud: The Queer Voices in Research Symposium at McGill University, Montreal, Canada, May 23, 2023.

McRae, C., Saarijärvi, H., Nevalainen, J., Fogelholm, M., Ma, Y., & Dubé, L. (2023). Evaluating price sensitivity for plant and animal protein foods by socioeconomic status: A study of grocer loyalty program data from Quebec and Finland. Green Food Tech 2023, Montreal, Canada, May 18-19, 2023.

McRae, C., Nie, J.Y., & Dubé, L. (2022). Heterogeneity in feature importance and prediction performance for sales at the market and store levels: the case of branded yogurt products in Quebec. 4th International Workshop on Big Food, Nutrition and Environment Data Management and Analysis, 2022 IEEE International Conference on Big Data (Big Data), Osaka, Japan, December 17-20, 2022.

McRae, C., Anosi, M.A., & Dubé, L. (2022). Tracing Digital Transformation Pathways from Subsistence Farming to Equitable and Sustainable Modern Society: Revisiting the eKutir ICT Platform-Enabled Ecosystem as an Interstitial Space. 2022 International Conference on Information Systems (ICIS), Copenhagen, Denmark, December 9-14, 2022.

McRae, C. & Dubé, L. (2022). A machine learning approach for the prediction of individual and market level demand from retail loyalty program data: Analytic models and discussion of possible behavioral and business practice mechanisms. Association for Consumer Research (ACR) conference, Denver, Colorado, October 20 - 23, 2022.

McRae, C. & Talukder, B. (2021). Co-creation of convergent value in ecosystems through behavioral visibility and digital affordances within and across social and commercial enterprises: The case of the FCI (Food Convergence Innovation) Platforms in Canada. Academy of Management (AOM) Annual Meeting, Virtual, July 29 – August 4, 2021.

Anosi, M.A., **McRae, C.**, & Dubé, L. (2021). Multilevel institutional change within and through digitally-enabled field-level transformations in rural development for poverty alleviation: Revisiting the eKutir case. 37th European Group for Organizational Studies (EGOS) Colloquium, Amsterdam, The Netherlands, July 8-10, 2021.

McRae, C. (2020). How to maximize the efficiency of your competitive/market intelligence unit in the face of COVID-19. ScaleUp360: Competitive Intelligence in Pharma and Life Science (Europe), Berlin, Germany, August 27-28, 2020.

McRae, C., Shih, R., & Chevallier, F. (2020). Implementing electronic community laboratory requisitions: a pilot study in Ontario. eHealth 2020 Annual Conference and Tradeshow, Vancouver, BC, May 31 - June 3, 2020.

McRae, C. (2019). Intelligent value chains – how to ensure growth is achieved? A tale from the practice. Pharma CiMi.CON 2019, Boston, MA, November 7-8, 2019.

Dubé, L., **McRae, C.**, Wu, Y.H., Ghosh, S., Allen, S., Ross, D., Ray, S., Joshi, P.K., McDermott, J., Jha, S.K. & Moore, S. (2019). Digital ecosystems and on-the-ground farm and retail support in vulnerable communities: a quasi-experimental study of the societal outcomes of eKutir Social Enterprises. 2019 European Triple Helix Congress on Responsible Social Innovation and Entrepreneurship, Thessaloniki, Greece, September 30 - October 1, 2019.

McRae, C., Dubé, L., Wu, Y.H., Ghosh, S., Allen, S., Ross, D., Ray, S., Joshi, P.K., McDermott, J., Jha, S.K. & Moore, S. (2019). Digital platforms for more inclusive agri-food innovation and value chains: A quasi-experimental study of Ekutir's microentrepreneur-led digital ecosystem and its societal outcomes in Odisha, India. Munk School of Global Affairs & Public Policy, Technology Transfer Society Conference, Toronto, ON, September 27-28.

McRae, C. (2018). Pathways to the convergence of health and wealth: leveraging integrated intelligence and the case of pharmacogenetic testing in Canada. Pharma CiMi.CON 2018, Chicago, IL, November 29-30, 2018.

McRae, C. & Hillier, S. (2018). Exploring mobile health applications to support the mental health and wellbeing of Canadian Indigenous populations. 2018 Annual Canadian Mental Health Association (CMHA) Conference, Montreal, QC, October 22-24, 2018.

McRae, C., Nie, J.Y., Du, P., Jayaraman, S. & Dubé, L. (2017). Building an artificial intelligence platform to understand and predict consumer behaviour: the case of food. NYU Stern School of Business Conference on Digital, Mobile Marketing, and Social Media Analytics, New York, NY, December 8-9, 2017.

Lan, A., Kaleis, L., Lee, A., **McRae, C.**, Munroe, K., Zavar, A. & Keshavjee, K. (2017). An evaluation of the effectiveness of mobile health apps in delivering cognitive behavioural therapy. University of Paris - Ryerson University Denis Diderot Symposium, Toronto, ON, May 23-25, 2017.

Invited Presentations

McRae, C. (2022). Demand prediction for branded food products at the brand and individual levels. Tampere University, Seminar on Artificial Intelligence and Machine Learning, Tampere, Finland, June 28, 2022.

McRae, C., Anosi, M.A., & Dubé, L. (2022). Tracing Digital Transformation Pathways from Subsistence Farming to Equitable and Sustainable Modern Society: Revisiting the eKutir ICT Platform-Enabled Ecosystem as an Interstitial Space. Wageningen University & Research, Business Management & Organization group seminar, Wageningen, The Netherlands, December 1, 2022.

McRae, C. (2022). The Business of Food (In)Security: Considerations for the Transformation of Food Systems. Virtual panel co-hosted by the Laidley Centre for Business Ethics and the McGill Desautels Equity, Diversity and Inclusion (EDI) team, Montreal, Quebec, November 15, 2022.

McRae, C. (2022). Exploring the impact of price on demand for plant- and animal-based proteins segmented by socioeconomic segment: An empirical analysis of consumer loyalty program data in Canada and Finland, 2015-2018. Desautels Research in Sustainability Symposium, Montreal, Quebec, September 9, 2022.

Guest panelist, "Multidimensional perspectives on health policy, power, and politics from the field." Panel, HLST2020: Health Policy, Power, and Politics (Prof. Sean Hillier), School of Health Policy and Management, York University, March 2019, 180 minutes.

Guest lecturer, “Beyond clinical diagnostics: diversifying LifeLabs’ product and service portfolio to meet the needs of patients and providers in a digital age.” Seminar, HLST4320: eHealth (Prof. Farah Ahmed), School of Health Policy and Management, York University, December 2018, 90 minutes.

Poster Presentations

McRae, C., Saarijärvi, H., Nevalainen, J., Fogelholm, M., Ma, Y., & Dubé, L. (2023). Revisiting price sensitivity and the product adoption lifecycle: Evaluating the impact of socioeconomic status at the individual and neighborhood levels. Society for Judgement and Decision Making (SJDM) Annual Conference, San Francisco, USA, November 17-20, 2023.

McRae, C. & Dubé, L. (2023). Reshaping loyalty programs for sustainable and healthy diets through omnichannel marketing. 2023 International Conference on Information Systems (ICIS). 2nd Annual SMART Training Platform conference, Virtual, November 1-3, 2023.

McRae, C. (2023). Revisiting Price Sensitivity under Hedonic Contexts: Uncovering Heterogeneity using Big Data from the Field. Southern Ontario Behaviour and Decision Research (SOBDR) Conference 2023, Toronto, Ontario, May 5, 2023.

McRae, C., Saarijärvi, H., Nevalainen, J., Fogelholm, M., Ma, Y., & Dubé, L. (2022). Revisiting price sensitivity and the product adoption lifecycle: Evaluating the impact of socioeconomic status at the individual and neighborhood levels. 1st Annual SMART Training Platform conference, Ottawa, Ontario, November 17-18, 2022.

McRae, C., Li, M., Dumi-Leslie, B., & Dubé, L. (2022). Segmentation of consumers participating in a grocery loyalty program and drivers of their fruit expenditure across Quebec, Canada, 2015–2017. 24th International Union for Health Promotion and Education (IUHPE) World Conference, Montreal, Quebec, May 15-19, 2022.

Wu, Y.H., Moore, S., **McRae, C.**, & Dubé, L. (2020). Tracing single and combined contribution of home grown supply and nutrition/health education on fruit and vegetable consumption: An empirical exploration in rural India. 4th International Conference on Global Food Security, Montpellier, France, December 7-9, 2020.

Dubé, L., Ghosh, S., **McRae, C.**, Wu, Y.H., Talukder, B., Allen, S., Jha, S.K., Joshi, P.K., Ray, S., Ross, D., & Moore, S. (2018). Quasi-experimental evaluation of a dietary behavior change intervention delivered through an ICT-enabled fruit and vegetable retail channel. 2018 International Behavioral Trials Network Conference, Montreal, QC, May 24-26, 2018.

McRae, C., Dubé, L., Jayaraman, S., Du, P. & Nie, J.Y. (2018). Harnessing the power of artificial intelligence for convergent innovation: from precision retailing to healthcare transformation. Institute of Health Policy, Management and Evaluation Research Day, Toronto, ON, May 2, 2018.

Lan, A., Kaleis, L., Lee, A., **McRae, C.**, Munroe, K., Zavar, A. & Keshavjee, K. (2017). Are mHealth apps effectively delivering cognitive behavioural therapy techniques?. Institute of Health Policy, Management and Evaluation Research Day, Toronto, ON, May 3, 2017.

Academic Community Involvement

University Service

Desautels Indigenous Initiatives Working Group

EQUIS recertification - Ethics, Responsibility, and Sustainability (ERS) chapter

Reviews for Scientific Journals and Conferences

Ad hoc reviewer for *International Conference on Information Systems (ICIS 2023)*

Ad hoc reviewer for *California Management Review*

Ad hoc reviewer for *Review of Marketing Science*

Professional Memberships

Association for Information Systems (AIS), 2022 - Present

Association for Consumer Research (ACR), 2022 - Present

Academy of Management (AOM), 2021 - 22

Digital Health Canada, 2016 - 18

Academic Supervision

Supervision of undergraduate and masters research projects:

McGill Centre for the Convergence of Health and Economics (MCCHE)

Christina Zha (Master of Science in Public Health)

Claire Burgoyne (Master of Management in Retailing)

Julia Zimmer (Bachelor of Arts, Major Economics)

Léa Vitale (Bachelor of Commerce, Major Marketing)

Master of Management in Analytics (MMA) Gives

Steven Liang (Master of Management in Analytics)

Sebastian Salazar (Master of Management in Analytics)

Integrated Management Student Fellowship (IMSF)

Julian Knight (Bachelor of Commerce, Major Managing for Sustainability and Finance)

Yudi Su (Bachelor of Commerce, Major Business Analytics)

Zhixuan Ren (Bachelor of Commerce, Major Statistics and Business Analytics)

Reda Ouazzani Touhami (Bachelor of Commerce, Major Finance and Operations Management)

Yue Zhong (Bachelor of Commerce, Major Finance and Operations Management)