Ryan Webb

PERSONAL INFORMATION	Room 568 - 105 St. George St. Rotman School of Management University of Toronto Toronto, Ontario, M5S 3E6	*Phone:* (416) 978-4418 *E-mail:* ryan.webb@utoronto.ca

RESEARCH FIELDS   Neuroeconomics, Discrete Choice Quantitative Methods

CURRENT
POSITIONS

University of Toronto, Toronto, Ontario
Associate Professor
Director, TD-Management Data and Analytics Lab
Rotman School of Management   **2021 - Current**

PREVIOUS
POSITIONS

University of Toronto, Toronto, Ontario
Assistant Professor
Rotman School of Management   **2014 - 2021**

California Institute of Technology, Pasadena, California
Visiting Associate
Department of Humanities and Social Sciences   **2017**

New York University, New York, NY
Postdoctoral Fellow at Center for Neuroeconomics   **2011 - 2014**

   Principal Investigator: Paul W. Glimcher

Queen's University, Kingston, Ontario
Teaching Fellow
Department of Economics   **2008 - 2010**

University of British Columbia - Okanagan, Kelowna, British Columbia
Lecturer
Department of Economics, Philosophy, & Political Science   **2006**

EDUCATION

Queen's University, Kingston, Ontario, Canada
Ph.D., Economics   **2006 - 2011**

   Thesis: Towards a Neural Measure of Value and the Modelling of Choice in Strategic Games
   Supervisors: Prof. Christopher Ferrall (Dept. of Economics)
                  Prof. Michael C. Dorris (Dept. of Physiology)

Master of Arts, Economics   **2005**

   Thesis: Payoff-Dependent Mutation Rates in Two-Person Games: Experimental Evidence
   Supervisors: Prof. Maxwell Pak (Dept. of Economics)

University of British Columbia, Vancouver, BC, Canada

   B.A. with Honours, Economics; June, 2004

GRANTS AND AWARDS	2021	Roger Martin Excellence in Research Award - Rotman School of Management
	2021	Teaching Award - Rotman School of Management
	2020	Teaching Award - Rotman School of Management
	2020	Early Career Award - Society for Neuroeconomics
	2019	SSHRC Insight Development Grant - $74,340, 2 years
	2019	Teaching Award - Rotman School of Management
	2018	Best Poster - International Society for Decision Neuroscience
	2017	Connaught New Researcher Award - University of Toronto
	2015	Teaching Award - Rotman School of Management
	2010	Best Paper - University of Amsterdam Summer School in Neuroeconomics

REFEREED
PUBLICATIONS

Daviet, R., Webb, R. (2023). "A Test of Attribute Normalization via a Double Decoy Effect." *Journal of Mathematical Psychology.*, Vol 113.

Chiong, K., Shum, M., Webb, R. and Chen, R. (2023). "Combining Choices and Response Times in the Field: A Drift-Diffusion Model of Mobile Advertisements." *Management Science.*

Landry, P. and Webb, R., (2021). "Pairwise Normalization: A Neuroeconomic Theory of Multi-Attribute Choice." *Journal of Economic Theory*, 193.

Webb, R., Glimcher, P.W., and Louie, K. (2020). "Divisive normalization does influence decisions with multiple alternatives." *Nature Human Behavior.* https://doi.org/10.1038/s41562-020-00941-5.

Webb, R., Mehta, N., and Levy, I. (2020). "Assessing Consumer Demand with Noisy Neural Measurements." *Journal of Econometrics.*

Webb, R., Glimcher, P.W., and Louie, K. (2020). "The Normalization of Consumer Valuations: Context-Dependent Preferences from Neurobiological Constraints." *Management Science.*

Kurtz-David, V., Persitz, D., Webb, R. and Levy, D. (2019). "The Neural Computation of Inconsistent Choice Behavior." *Nature Communications*, 10(1):1583.

Smith, S., Krajbich, I., Webb, R. (2019). "Estimating the dynamic role of attention via random utility." *Journal of Economic Science Association*, 3(1):97.

Webb, R. (2019). The (Neural) Dynamics of Stochastic Choice. *Management Science*, 65(1):230–255.

Webb, R., Levy, I., Lazzaro, S.C., Rutledge, R.B., Glimcher, P.W. (2019). Neural Random Utility: Relating Cardinal Neural Observables to Stochastic Choice Behaviour. *Journal of Neuroscience, Economics, and Psychology*, 12(1):45–72.

Louie, K., Glimcher, P.W., Webb, R. (2015). Adaptive neural coding: from biological to behavioral decision-making. *Current Opinion in Behavioral Science*, Vol. 5, 91–99.

Telpaz, A., Webb, R. Levy, D. (2015). Using EEG measurements to predict consumers' future choices. *Journal of Marketing Research*, Vol. 52, No. 4, 511–529.

Louie, K., LoFaro, T., Webb, R., Glimcher, P.W. (2014). Dynamic divisive normalization predicts time-varying value coding in decision-related circuits. *Journal of Neuroscience*, Vol. 34, No. 48, pp. 16046–16057.

LoFaro, T., Louie, K., Webb, R., Glimcher, P.W. (2014). The temporal dynamics of cortical normalization models of decision-making. *Letters in Biomathematics*, Vol. 1, pp. 209–220.

Thevarajah, D.*, Webb, R.*, Ferrall, C., and Dorris, M.C. (2010). Modelling the Value of Strategic Actions in the Superior Colliculus. *Frontiers in Behavioral Neuroscience*, Vol 3., No. 57, pp. 1–14.

BOOK CHAPTERS   Camerer, C. F., Landry, P., and Webb, R. (forthcoming). "The NeuroEconomics of Habit" In A. Kirman, M. Tedeschi (eds), The State of Mind in Economics (Oxford University Press).

WORKING PAPERS   Camerer, C., Landry, P., Osbourne, M., Webb, R., Zhao, C. "A Neuro-Autopilot Theory of Habit: Evidence from Canned Tuna."

Cross, L. Webb, R., Griggs, W., O'Doherty, John P. "Examining the prefrontal cortex gradient in complexity and attribute representation during bundle valuation", In Preparation.

Hoelzemann, J., Webb, R., Xie, E. "Non-Parametric Identification and Testing of Quantal Response Equilibrium."

Izaakson, L., Yoo, M., Webb, R., Krajbich, I., Levy, D. "Not only contrast: an assimilation effect of context on value-based decisions."

CONFERENCE AND SEMINAR PRESENTATIONS

2023	University of Michigan, Tel Aviv University, University of Pennsylvania (Wharton), McGill University
2022	Chicago Booth, University of Zurich, Virtual Quant Marketing Seminar, Society for Neuroeconomics Annual Meeting
2019	Berkeley (Haas), Penn (Wharton), Carnegie Mellon, Paris School of Economics - Roy Seminar, Erasmus, LMU Munich, Virginia Tech, McGill, Sloan-Nomis Workshop on the Cognitive Foundations of Economic Behavior, 11th Triennial Choice Symposium, 3rd Conference on Structural Dynamic Models (U Chicago), Economic Science Association (N.Am.) Choice Process Workshop
2018	Sloan-Nomis Workshop on Attention and Choice (NYU), Society for Neuroeconomics, Foundations of Utility and Risk, Economic Science Association (Berlin), Sloan-Nomis Workshop on the Cognitive Foundations of Economic Behavior
2017	Stanford GSB, CalTech, University of Zurich, Simon Fraser University, Maastricht University, Cosyne, Interdisciplinary Symposium on Decision Neuroscience (Stanford), Marketing Science (USC), Barcelona GSE Summer Forum, Brookings Institute Conference in Honor of Nobel Laureate Daniel McFadden (USC)
2016	McGill, 10th Triennial Choice Symposium, Society for Neuroeconomics, Economics Science Association (N.Am.)
2015	Paris School of Economics, Ohio State University, University of Toronto - Psychology, Canadian Economics Association, Marketing Science, French Experimental Economics Association, Economic Science Association (N.A.)
2014	Northwestern University, University of New South Wales, Maastricht University, Simon Fraser University, Aix Marseille University, Université Catholique de Louvain, University of Melbourne, University of Toronto, The 16th Conference of the Foundations of Utility and Risk, Canadian Economics Association
2013	Harvard University, Society for Neuroeconomics, Canadian Economics Association

2012	University of Zurich, Maastricht University, Economic Science Association (International), Society for Neuroeconomics, Society for Neuroscience, Economic Science Association (N.Am.)
2011	University of Victoria, Economic Science Association (N.Am.), Canadian Economics Association, Society for Neuroeconomics (poster)
2010	New York University, Canadian Economics Association, Society for Neuroeconomics (poster)
2009	Canadian Economics Association

"Consumer Choices: Predicting the Unpredictable". University of Toronto President's Circle. October 23, 2019

UofT Magazine, Winter (2018), <u>(Mind Games) Why Do We Make Bad Shopping Decisions?</u>

Rotman Insights (2018), <u>A Closer Look Into the Mind of the Consumer</u>

The Atlantic, August (2016), <u>What a Bad Decision Looks Like in the Brain?</u>

Teaching
- University of Toronto
  - RSM 8512 - Predictive Analytics (Course Developer)
  - RSM 313 - Foundations of AI for Management (Course Developer)
  - RSM 250 - Introduction to Marketing
- Queen's University
  - ECON 212 - Intermediate Microeconomics
- University of British Columbia - Okanagan
  - ECON 204 - Intermediate Microeconomics
- PhD Students Supervised
  - Erhao Xie, 2017. Placement: Economist at Bank of Canada.
  - Remi Daviet, 2018. Placement: Assistant Professor of Marketing at Wisconsin-Madison.

Service
- Rotman School of Management
  - Director, TD-Management Data and Analytics Lab 2021-Current
  - Rotman Executive Council, Elected Voting Member 2019-2021
  - Marketing Area Seminar, Organizer, 2016-2020
  - Behavioural Lab Advisory Committee, Member, 2016-2020
  - PhD Entrance Committee, Marketing Area, 2015-2020
  - PhD Thesis Committee, Ying Bao, 2019
- Faculty of Arts and Sciences
  - PhD Thesis Committee, Erhao Xie, 2017.
  - PhD Thesis Committee, Remi Daviet, 2018. Placement: Assistant Professor of Marketing at Wisconsin-Madison.
  - PhD Thesis Committee, Mohsen Foroughifar, 2022.
- Field
  - Editorial Board of PNASnexus
  - Guest Editor for the Proceedings of the National Academy of Sciences
  - Peer reviewer (past 5 years):
    * Proceedings of the National Academy of Sciences
    * Science Advances
    * Quarterly Journal of Economics,
    * Journal of Political Economy,
    * Management Science,

- ∗ Marketing Science,
- ∗ Journal of European Economic Association,
- ∗ Journal of Economic Behavior and Organization,
- ∗ Journal of Economic Theory,
- ∗ Journal of Economic Psychology
- ∗ Journal of Economic Science Association,
- ∗ Journal of Mathematical Psychology,
- ∗ Journal of Consumer Psychology,
- ∗ Journal of Consumer Research,
- ∗ Organizational Behaviour and Decision Processes,
- ∗ eLife,
- ∗ PLOS Computational Biology,
- ∗ PLOS1
- ∗ National Science Foundation (US),
- ∗ Israel Science Foundation,
- Co-chair for the Interdisciplinary Symposium for Decision Neuroscience (June 2021)
- Co-chair for the Symposium on Consumer Neuroscience (2017, held at Rotman School of Management, University of Toronto)