Bridging the Rational and Behavioral Worlds: Rationally Inattentive Decision Making and Implications on Business Operations

Tamer Boyaci is professor of management science and the first holder of the Michael Diekmann Chair in Management Science at ESMT Berlin. He served as the dean of faculty and research between September 2019 and August 2022 and as the director of research between January 2017 and August 2019. He was the inaugural academic director of the Future Institute for Sustainable Transformation in 2022, and previously the Center for Sustainable Business and Leadership after its founding in 2019. Before joining ESMT Berlin in 2015, Tamer was a professor of operations management and a Desautels Faculty Scholar at McGill University, Canada. Tamer received his PhD, MPhil, and MSc from Columbia University, New York, USA. Tamer Boyaci's research is wide in scope and cross-disciplinary in nature, often cutting across supply chain operations, marketing, economics, and sustainability. His most recent work focuses on behavioral decision-making, rational inattention, and applications to business operations. Another major research interest of Tamer links operations to sustainability. His latest works in this domain dwell on circular economy, sustainable product design and innovation. Tamer's scholarly work has appeared in the most prestigious international journals of his discipline, including *Management Science*, *Operations Research*, *Manufacturing & Service Operations Management*, *Production and Operations Management*, among others.

April 19, 2023
11:00 am EST
(2 hrs in length)

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Chair: Laurette Dubé (Scientific Director of MCCHE)

Co-Chair & Moderator: John G. Keogh (Professor of Practice, MCCHE; Founder, Shantalla Inc.)

ABSTRACT: We live in an attention economy. Every decision we take as individuals require our time, mental engagement and cognitive effort, all of which are limited resources. The theory of rational inattention (RI), originated by the 2011 Nobel Laurate Christopher Sims, provides a compelling framework to model decisions under scarce attention. It assumes that agents cannot attend to all information due to limited capacity but can choose what type and extent of information to acquire and process. It captures the flexible, adaptive, yet constrained ability of human agents in a tractable manner. In this webinar, we deliberate how rationally inattentive agents form judgements and make decisions, with examples focusing on purchasing decisions in retail, access of services, among others. We will discuss the subsequent implications on information provisioning strategies and operational decisions (e.g. pricing) of firms serving agents with limited attention. Utilizing RI as the foundational model of human agents, we will also analyze human-machine collaboration in the age of AI, and demonstrate the impact on decision accuracy, error rates, as well as cognitive effort. The seminar will draw on models and results from several published papers of the presenter.

PANEL DISCUSSION: A panel with scientists, business and policy leaders will discuss how scientific and technological developments and ontologies bridging farm, food and human behavior, can accelerate the design and long-term performance of convergence platforms ecosystems targeting achievable and time-bound real-world solutions placing human and environmental health at the core. This will advance the design of integrative digital architecture and governance framework to scale up how real-world data generated by individuals and institutions within and across disciplines and sectors can contribute to a World reset on convergence economy, building upon the challenges and possibilities reviewed above. Capitalizing on digital transformation of science and society, convergence economy takes a person-centered approach to bridging organizations and systems across sectors and jurisdictions, fully acknowledging that developed and developing worlds share the same planet, for world-scale transformation toward sustainable prosperity and affordable nutrition and health.

ABOUT THE SERIES: The Convergent Innovation Webinar Series features cutting edge science, technology and innovation in agriculture, food, environment, education, medicine and other domains of everyday life where grand challenges lie at the convergence of health and economics. Powered by data science, artificial intelligence, and other digital technologies, this disciplinary knowledge bridges with behavioural, social, humanities, business, economics, social, engineering, and complexity sciences to accelerate real-world solution at scale, be it in digital or physical contexts. Initiated in the agri-food domain, the series is now encompassing other grand challenges facing modern and traditional economies and societies, such as ensuring lifelong wellness and resilience at both the individual and population levels.

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Chair: Laurette Dubé, initially trained as a nutritionist, also holds degrees in finances (MBA), marketing (MPS), and behavioral decision-making/consumer psychology (PhD). Dr. Dubé is Full Professor at the Desautels Faculty of Management, McGill University. Her research focuses on the study of affects, behavioral economics, and neurobehavioral processes underlying consumption, lifestyle, and health behavior. Her translational research examines how such knowledge can inspire effective interventions. She is also the founder and scientific director of the McGill Centre for the Convergence of Health and Economics, a unique initiative to push the boundaries of science to tackle societal and economic challenges and foster individual and collective health and wealth.

Moderator: John G. Keogh is a strategist, C-level advisor and academic researcher with 25 years of executive leadership roles as Director, VP and SVP in global Supply Chain Management, Information Technology, Technology Consulting and global Supply Chain Standards. He advises the public and private sectors worldwide and is a regular subject matter expert on TV and Radio. Mr. Keogh is managing principal at Toronto-based, niche advisory and research firm Shantalla Inc. Mr. Keogh holds a PG diploma and an MBA in Management and an MSc in Business and Management Research in transparency and trust. He is currently completing doctoral research on transparency and trust in food chains at Henley School of Business, University of Reading.

Panellists:

Peter Schelstraete is co-founder and CEO of Ubuntoo, an Environmental Solutions Platform at the crossroads of AI and Human Expertise. Ubuntoo's mission is to help achieve the Sustainable Development Goals by scaling the most impactful and promising solutions. Previously, Peter was at The Coca-Cola Company. In his 19 years' tenure, he held a variety of high profiles roles, including Global VP Digital & Assets and CMO for Asia Pacific. Peter holds Master's degree in Commercial Engineering at the University of Leuven, Belgium and a Postgraduate Master's degree in Business Management from the University of Montpellier, France.

Sanjith Gopalakrishnan is an assistant professor of operations management at the Desautels Faculty of Management, McGill University. His primary research interests are in environmental and socially sustainable operations management. He is also interested in the interplay of information, incentives, and fairness in multi-agent systems. He is fortunate to have been associated with White Box Analytics based in Vancouver and has handled data science consulting projects for several Canadian businesses such as Best Buy Canada, Lululemon, Procurify, and Lighthouse Labs. In other previous engagements, his interests in sustainable urban transport planning have led him to serve on the Transportation Advisory Committee to the City of Vancouver.

Daniel Zantedeschi is an assistant professor in the School of Information Systems and Management, joining the full-time faculty in August, 2019. He comes from the Fisher College of Business at The Ohio State University, where he was an assistant professor in marketing and logistics. Prior to that, he was an assistant professor in the Muma College of Business where he was affiliated with the Center for Analytics and Creativity and the Interdisciplinary Consortium for Data Sciences. His research interests include digital multichannel Attributi9on, Advertising, Pricing and promotions management and various topics in statistical methodology, data science and computer skills.Zantedeschi earned a PhD in information risk and Operations management and a masters' degree in economics from the University of Texas, Austin. He received a master's degree in statistics and stochastic modeling from the University of California, Santa Cruz

Sandeep Saxena heads the Data Marketplace & Monetization program at TCS, globally. As part of this business responsibility, he has developed the TCS Dexam™ platform, which helps in democratizing, monetizing and commercializing data in a business ecosystem. Sandeep is a TOGAF certified enterprise architect and has managed customer relationships and delivery in his journey through TCS. He has been part of and led several high-end architecture consulting assignments as an architect and lead consultant. Sandeep is associated with the Smart City missions of the Ministry of Housing & Urban Affairs, Govt of India (MoHUA), has represented TCS in the ASSOCHAM's National Council for FinTech, Digital Assets & Blockchain Technology and also sits on CII's (Confederation of Indian Industry) committee on AI. He is also a member of the BIS (Bureau of Indian Standards) committee on data exchange standards and is an active participant from TCS in the privacy framework and legislation definition by govt of India. He was part of the NASSCOM task force which advised the Ministry of electronics and IT (MeiTY), GoI on their open data initiative. Sandeep is a certified Yoga instructor and has a passion for hiking and sports.