## Curriculum Vitae Maurice L. McNaughton

Mona School of Business and Management University of the West Indies, Mona maurice.mcnaughton@uwimona.edu.jm

## Summary

Over 20 years senior management and leadership experience in the planning and direction of enterprise-level Information Technology in organizations. Strong practitioner orientation and emphasis on the integration of extensive industry experience with focused academic research to make a significant contribution to the development of new knowledge and thinking about the strategic use of ICTs as an enabler of business innovation in the enterprise, both small and large, as well as a growth-enabler for developing economies.

## **Tertiary Education**

- Ph.D. Georgia State University, Robinson College of Business, Atlanta, Georgia Doctor of Philosophy in Business Administration, August 2005 Department of Managerial Sciences (Decision Sciences)
- M.Sc. Philips International Institute, Eindhoven, Holland Master of Science Degree in Electronic Engineering, May 1985
- **B.Sc.** University Of The West Indies, St Augustine, Trinidad Batchelor of Science Degree in Electrical Engineering, June 1981

## **Academic Interests**

- *Research Areas*: Emerging Open ICT Ecosystems including open source software, open data, mobile and cloud computing; Organizational strategy in the Digital economy and the strategic use of ICT as an enabler of business innovation in the enterprise and a driver of national development;
- *Teaching Areas*: Strategic Use of ICT; IT Governance & Policy; Business Analytics Modeling & Decision Support Systems; Business Systems Engineering and IT Economics;

Dissertation Topic & Summary: Deregulation, Uncertainty, and Information Technology In the Electric Utility Industry: A Transaction Cost Interpretation of the Drivers and Consequences of Vertical Disintegration

This study examines the incidence and drivers of vertical disintegration arising from the recent restructuring of the US electric utility industry. An integrated theoretical framework drawn from the Transaction Cost Economics, Information Processing, Coordination and Capabilities literatures is synthesized. This is used to interpret vertical disintegration in an empirical domain that manifests institutional heterogeneity, high levels of uncertainty, intense coordination requirements, and a variety of competing market and organizational institutions in transition. Multi-level modeling techniques are employed to account for firm heterogeneity and time-variant institutional parameters in longitudinal panel data, thus allowing for a richer analysis of institutional effects.

## **Academic Publications (Recent)**

## **REFEREED RESEARCH BASED/SCHOLARLY PUBLICATIONS**

## BOOKS

Rao-Graham, L., **McNaughton, M. L.**, & Mansingh, G. (2019). Business Intelligence for Small and Medium-Sized Enterprises: An Agile Roadmap toward Business Sustainability. CRC Press.

## CHAPTERS IN BOOKS

**McNaughton, M. L.**, & Rao-Graham, L. (2019). Collaborative Development of an Open Knowledge Broker for Disaster Recovery Planning. In L. Chan, A. Okune, R. Hillyer, A. Posada, & D. Albornoz (Eds.), *Contextualizing openness: situating open science* (p. 352). University of Ottawa Press. Retrieved from <u>https://www.idrc.ca/en/book/contextualizing-openness-situating-open-science</u>

Fumega, S. & **McNaughton**, M. (2019) Open Data Around the World - Latin America and the Caribbean. In T. Davies, S. Walker, M. Rubinstein, & F. Perini (Eds.), The State of Open Data: Histories and Horizons. Cape Town and Ottawa: African Minds and International Development Research Centre. http://stateofopendata.od4d.net

**McNaughton M.,** Rao L., Parker D., Lewis D. (2017) Big Data Analytics and Customs Throughput: The Case of Jamaica. In: Rocha Á., Correia A., Adeli H., Reis L., Costanzo S. (eds) Recent Advances in Information Systems and Technologies. WorldCIST 2017. Advances in Intelligent Systems and Computing, Vol 570, pp. 512-517, Springer International Publishing.

Mansingh G., Rao L., **McNaughton M.** (2017) Discovering Knowledge Nuggets in Financial Data: The Case of a Financial Services Institution. In: Rocha Á., Correia A., Adeli H., Reis L., Costanzo S. (eds) Recent Advances in Information Systems and Technologies. WorldCIST 2017. Advances in Intelligent Systems and Computing, Vol. 570, pp. 518-527, Springer International Publishing.

**McNaughton, M. L.,** McLeod, M. T. and Boxill, I. (2016) 'Tourism Open Data in Jamaica: An Actor-Network Perspective', in Kozak & Kozak (ed.) Tourism and Hospitality Management: Advances in Culture, Tourism and Hospitality Research. Emerald Group Publishing Limited, pp. 47–60.

**McNaughton, Maurice**, S. Thompson, E. W. Duggan. (2012) "Adoption & Diffusion Patterns of FOSS in Jamaican SMEs: A Study of Perceptions, Attitudes & Barriers" In Free and Open Source Software for Sustainable Development in Developing Countries, United Nations University Institute for Advanced Studies (UNU-IAS), 2012 (Summer).

Sowe, Sulayman K. and **McNaughton**, **M**. (2012). Using Multiple Case Studies to Analyse Open Source Software Business Sustainability in Sub-Saharan Africa. In I. Hammouda, B. Lundell, T. Mikkonen, & W. Scacchi (Eds.), Open Source Systems: Long-Term Sustainability (pp. 160–177).

## **JOURNAL ARTICLES**

**McNaughton**, M., Rao, L., & Verma, S. (2020). Building smart communities for sustainable development. Worldwide Hospitality and Tourism Themes.

Rao, L., & **McNaughton**, M. (2018). A knowledge broker for collaboration and sharing for SIDS: the case of comprehensive disaster management in the Caribbean. *Information Technology for Development*, 1-23.

McNaughton, M., & Rao, L. (2017). Governing knowledge commons in Caribbean disaster management: A comparative institutional analysis. *Information Services & Use*, *37*(4), 437-449.

**McNaughton**, M., Rao, L., & Mansingh, G. (2017). An agile approach for academic analytics: a case study. Journal of Enterprise Information Management, 30(5), 701-722.

Minto-Coy, I. and **McNaughton**, **M. L.** (2016) 'Barriers to Entrepreneurship and Innovation: An Institutional Analysis of Mobile Banking in Jamaica and Kenya', Social and Economic Studies, 65(2), p. 71—104.

McLeod, M. T. and **McNaughton, M. L**. (2016) 'Mapping an emergent Open Data eco-system', Journal of Community Informatics, 12(2), p. 20 pages. Available at: <u>http://www.ci-journal.net/index.php/ciej/article/view/1261</u>.

Whyte, S., **McNaughton, M**., Chevers, D. and McLeod, M. (2016) 'Measuring Software Quality in Open Source Communities Through the Lens of Social Capital', Revista Cubana de Ciencias Informáticas (RCCi). Havana: UCI, 10.

François van Schalkwyk, Willmers, M., & **McNaughton**, M. (2015). Viscous Open Data: The roles of intermediaries in an open data ecosystem. Journal of Information Technologies for Development, (Special Issue).

Rao, Lila, **M. L. McNaughton**, K. M. Osei-Bryson, and Manley Haye. "An Approach to Using Ontologies for the Development of High Quality Disaster Recovery Plans." International Journal of Information Systems for Crisis Response Management 2, no. 2 (2010): 36-54.

## **REFEREED CONFERENCE PROCEEDINGS**

**McNaughton, M.**, & Rao, L. (2017). Governing Knowledge Commons: Applications of an Open Knowledge Broker in Caribbean Disaster Management. In *Expanding Perspectives on Open Science: Communities, Cultures and Diversity in Concepts and Practices: Proceedings of the 21st International Conference on Electronic Publishing* (p. 245). IOS Press.

**McNaughton, M. L.**, McLeod, M. T., McNaughton, M. and Walcott, J. (2016) 'Open Data as a Catalyst for Problem Solving: Empirical Evidence from a Small Island Developing States (SIDS) Context', in 2016 Open Data Research Symposium. Madrid, Spain. Available at: <u>https://drive.google.com/open?id=0B4TpC6ecmrM70EN60VIIUXh1d1U</u>.

Mansingh, G., Rao, L. and **McNaughton, M. L.** (2016) 'Data Preparation: Art or Science?', in Proceedings of the IEEE International Conference on Data Science and Engineering (ICDSE),. Cochin, India, August 23 – August 25, 2016.

Mansingh, G., Osei-Bryson, K-M., Rao, L., & **McNaughton, M.** Market Basket Analysis in the Financial Sector – A Customer Centric Approach, SIGDSA/IFIP WG8.3 Symposium Innovations in Data Analytics, Dublin, Ireland, Dec. 10<sup>th</sup> - 11<sup>th</sup>, 2016.

Mansingh, G., Rao, L. & **McNaughton, M.** Discovering Knowledge Nuggets in Financial Data: The Case of a Financial Services Institution, World Conference on Information Systems and Technologies (WorldCist'17), Madeira, Portugal, 11 - 13 April 2017.

McLeod, M. T., **M. L. McNaughton** (2015). A methodological approach for understanding an emergent Caribbean Open Data ecosystem. In Open Data Research Symposium, International Open Data Conference, Ottawa.

McLeod, M. T. and **McNaughton, M. L.** (2015) 'Knowledge-based tourism policy formulation as an Application of Open Data in Caribbean tourism', in *ICOT 2015*. University of Westminster London. doi: ISSN 2241-9314.

**McNaughton, M. L.**, McLeod, M. T., & Boxill, I. (2014). Tourism Open Data in Jamaica: An Actor-Network Perspective. In 3rd Interdisciplinary Tourism Research Conference, 3-8 June, 2014. Istanbul, Turkey.

Rai, Arun, Ilgaz Arikan, **M. L. McNaughton**, and Johnathan Wareham.(2010) "Explaining Efficient Boundary Shifts: Integration of Organizational Economics and Capabilities." In 30th SMS Annual Conference (Strategic Management Society). Rome, Italy, 2010.

Rao L., **M. L. McNaughton**, K. M. Osei-Bryson, and Manley Haye. (2009) *The Role of Ontologies in Disaster Recovery Planning*. 15th Americas Conference on Information Systems, San Francisco, California, August 6 - 9, 2009.

## **OTHER PUBLICATIONS**

**McNaughton, M. L.** (2016) *Engaging the private sector in the open data value-chain: An innovation imperative.* 

**McNaughton, M. L**. (2016) *How Open Data Can Improve Tourism in the Caribbean, IADB - Abierto al Público.* 

**McNaughton, M. L.**, Brown, T., Minto-Coy, I. and Perue, C. (2016) *Mobile PATH Payments: Efficient Social Support through a National Mobile Money Ecosystem*. Kingston. Available at: <u>http://www.capricaribbean.com/documents/mobile-path-payments-efficient-social-support-through-national-mobile-money-ecosystem</u>.

**McNaughton, M**. (2015). Making sense of US\$3 trillion – Estimating the value of Open Data for Small Developing Economies. In International Open Data Conference. Ottawa.

**McNaughton, M. L.,** & Minto-Coy, I. (2015). Legal & Regulatory Barriers to Entrepreneurship & Innovation in the Mobile Banking Sector: Institutions Matter. MSBM Business Review, 3(2).

Innis, S., & **McNaughton**, M. L. (2014). New services development: An imperative for Jamaica's Logistics Hub. MSBM Business Review, 3(1).

McNaughton, M. (2012) Fuel The Power That Drives Economy", Jamaica Gleaner, December 21, 2012.

McNaughton, M., & Clarke, B. (2012). Springboard for crowdsourcing. ICT Update, (69) 8-9.

**McNaughton**, **M**. (2012). Olympics Village in Birmingham: A Microcosm for Enhancing Cultural and Economic Possibilities in the Jamaican Diaspora". MSB Business Review, 1(4)

Duggan, E., **McNaughton**, M., & Donaldson, O. (2012). Retail Banking Consumer Attitudes and Behavior: Implications and Insights for Business Strategy and IT Governance. Paper presented at the GIFS/MSB Caribbean Executive Leadership Series, Kingston, Jamaica.

**McNaughton, M**. (2011). Creating Systemic Innovation - Lessons from OpenSource Software. MSBM Business Review, 1(3)

**McNaughton, M**. (2011). Fuelling the Energy Debate: Comparative Study on the Generation and Distribution of Electricity. MSBM Business Review, 1(3)

#### PRESENTATIONS AND INVITED LECTURES

Panel - "Building Capacity for the Coming Era of Connectivity: The Next Billions", at IEEE Global Humanitarian Technology Conference, Oct 18 – 21st, 2018 - San Jose

"Strengthening Partnerships: Building Belize's Public Services through Digital and Open Government" and "Open Government in the Caribbean: Lessons Learned" at *Belize Open Week*, Oct 30th to Nov 2<sup>nd</sup>, 2018 - Belize City, Belize

"Digital Skills Capacity Building in Resource-Constrained Environments: Perspectives from the Ayitic Goes Global project in Haiti", at ITU Global ICT Capacity Building Symposium, June 18 – 19<sup>th</sup>, 2018 - Santo Domingo, Dominican Republic

"Regulation and Cryptocurrencies: Essential, Incidental or Irrelevant?", at Mona Law 4th Annual Symposium on Law, Governance & Society, June 16th, 2018 - Spanish Court Hotel

"Transparency, Open Data and Good Governance", at Wilton Park Caribbean 2030 Leaders Network IV, May 30 –June 1, 2018 - Port of Spain, Trinidad & Tobago

"Pedagogical approaches to delivering quality e-learning in resource-constrained environments using the Adapt Open Source Framework", *Keynote Address at 8<sup>th</sup> International FOSS Workshop*, INFORMATICA 2018 at UCI, Havana, Cuba – March 19-23, 2018

'Open Data as a Platform for Collaboration: A Caribbean Perspective', in *CTU 14th Caribbean Ministerial Strategic ICT Seminar, Sep 21, 2016*. St. Philip, Barbados.

'Open Data and Development - A Caribbean Perspective', in *Open Government Series - Global Affairs Canada, Ottawa, June 21, 2016* 

'Open data and community tourism - A strategy for empowering local communities', in 6th IDB Group- Caribbean Civil Society meeting, Nassau, Bahamas, June 1, 2016

'Mobile wallet – The future of money services: Research findings & prospects for mobile financial services in Jamaica', in *Financial Services Commission Micro-insurance Seminar, May 5, 2016* 

'Caribbean Mobile Market & Business Models', Keynote at 6th International FOSS workshop, Informatica Habana 2016, Havana, Cuba, March 14 - 18, 2016

'Open data and interactive community mapping: empowering local community tourism', in *MapStLucia, the Ministry of Public Service, St. Lucia, February 28, 2016* 

'Will the emergence of big data accelerate the demise of the scientific method as we know it?', in *MSBM Brown-Bag Research Session. February 11, 2016* 

Prospects for Mobile Payments in the Caribbean: A Public-Private-Partnership Perspective, *Business Seminar hosted by the Barbados Public Workers Co-operative Credit Union Ltd and the UWI Cave Hill Office of Business & Internationalization*, Cave Hill, UWI Nov 19, 2015.

'Open data and the private sector – Business models, business opportunities', Jamaica Computer Society Conference at the Hyatt Ziva Rose Hall, , Montego Bay, October 29-31

'Open Source Adoption in the Public Sector - The illusion and hazards of desktop migration', in *International Research Society for Public Management (IRSPM) Regional Conference, October 1, 2015.* UWI Mona

Presented at ConDatos Regional Open Data Conference on the topic "Open Data Impact in the Caribbean: In Search of Evidence" - Santiago Chile Sep 9-10<sup>th</sup>, 2015

Presented at the Canada-Caribbean Twinning Initiative Conference on Open Government and Open Data on the topics: *Open data and the Caribbean - New models of engagement, collaboration and innovation, and (ii) Open data in the Caribbean - sector opportunities & experiences -* Ottawa, Canada April 26 - 29, 2015.

Keynote Address at 1<sup>st</sup> International Scientific Conference, UCIENCIA 2014 at UCI, Havana, Cuba on the topic: "*Adoption of FOSS in the Jamaican Public Sector: Value beyond Substitutes*" - April 24-26, 2014

Delivered a University Lecture at the University of Ilorin, Nigeria on the topic: "Innovation at the Periphery - A Caribbean Perspective" – April 6-11, 2014

Presented at Regional Conference on Freedom of Information in The Commonwealth Caribbean on the topic "Open Government Data and FOI: Philosophical Differences and Institutional Synergy – Crafting a Roadmap towards Convergence" - March 20-21, 2013

## FUNDED RESEARCH

Google Foundation (Google.org) – "**Caribbean School of Data (CSOD**)"; November 2018 – Jan 2020 – US\$500,000

International Development Research Centre – "**Open Data for Development: Caribbean Open Institute**", November 2018 – Dec 2019 - CA\$317,900

UWI New Initiative Grant - " **Big Data Analytics and Customs Throughput: Improving efficiency and effectiveness of Customs Operations in developing countries** "; Aug 2017 – J\$1.5M

International Development Research Centre – "Going Global: Digital Jobs and Gender in Haiti" in collaboration with partners LACNIC and the l'École Supérieure d'Infotronique d'Haïti (ESIH), December 2016 – Sep 2019 - CA\$285,100

International Development Research Centre – "Harnessing Open Data to Achieve Development Results in Latin America and the Caribbean" in collaboration with partners Fundacion Avina, ECLAC and the OAS, March 2014 – Aug 2016 - CA\$329,500

Caribbean Policy Research Institute Research Grant – Estimating the Potential Economic Value of Open Data to the Jamaican Economy with specific emphasis on Tourism, Education and Agriculture; Feb – May, 2014

World Wide Web Foundation - Designated Mentor in the Open Data Research project "**From Data to Development: Exploring the Emerging Impact of Open Government Data in Developing Countries (ODDC)**", funded by the International Development Research Centre (IDRC). Research mentoring two country case studies (April 2013 – March 2014):

- An Investigation of the use of the Online National Budget of Nigeria (by University of Ilorin)
- The use of open data in the governance of South African higher education (by University of Cape Town)

International Development Research Centre - **Open Data in the Caribbean: Creating Possibilities and Opportunities for increased Access, Collaboration and Innovation**, Jan 2012 – Sep 2013 - CA\$257,200

Economic Commission for Latin America and the Caribbean (ECLAC) – **Research study: Open Data in The Caribbean Tourism Sector: A Catalyst For Improved Service Delivery And Market Visibility;** Nov 2012 – April 2013 – US\$8,000

FirstCaribbean International Bank (FCIB)/UWI Research Grant - Modeling the Potential Macro-Economic Impact of Mobile Financial Services in delivering Path / Pension Payments in Jamaica; Aug 2011 – US\$8,900

Multi-lateral funded Industry Study and Research - Technical Considerations and the Economic Potential for the Broad-based Introduction of Mobile Financial Services in Jamaica, conducted during the period Dec 2011 – Dec 2012

IDRC-funded feasibility study **"Open Agricultural Data in Jamaica";** Dec 2010 – CA\$10,000

UWI New Initiative Funding - "Enabling the Adoption and Diffusion of Free and Open Source Software (FOSS) among SMEs in Jamaica"; Sep 2009 – J\$1.5M

## POSTGRADUATE RESEARCH SUPERVISION

## DOCTORAL DISSERTATION COMMITTEE

- Steve Whyte Software Quality In Open Source Communities: The Influence Of Group Cohesion
- Donald Farquharson. Strategic use of ICT Investments in Jamaica 2014

## Ph.D. DEGREES EXAMINED

- Oral Examination Panel Chair Christine Charlton-Laing: Towards a Framework for National E-Learning Implementation: A Jamaican Case Study, Nov 20, 2012
- Oral Examination Panel Chair Corlane Barclay: The Evaluation of Information Systems (IS) Project Performance: A Multiple Perspective Approach to Improved Understanding. July 3, 2009

## **TEACHING EXPERIENCE**

# Mona School of Business & Management, UWI, Mona Campus, Jamaica, 2001-Present Senior Lecturer

- Business Systems Engineering, course in the MBA MIS Concentration.
- Software Engineering & IT Economics, core courses in the Computer-based Management Information Systems Program and elective in the Part-time MBA program
- Decision Support Systems, core course in the Computer-based Management Information Systems Program
- Contemporary Telecommunications Networks and Technologies, core course in the MSc in Telecommunications Policy And Technology Management
- IT Governance, core course in the Computer-based Management Information Systems Program
- Strategic Use of ICT, Research seminar, DBA

## Georgia State University

## Graduate Teaching Assistant, 1999-2002

- Business Statistics and Data Analysis using Excel, Undergraduate Level (6 semesters)
- Analysis & Presentation of Business Data using SAS, Undergraduate level (1 semester)
- Generalized Modeling Techniques with Applications using Excel, Undergraduate (1 semester)
- Introductory Workshop to Empirical Research using SAS & SPSS, Graduate Level (3 semesters)
- Business Intelligence Laboratory (Spring, 2002) provide undergraduate business students with hands-on workshops in data manipulation, statistical analysis and modeling techniques using Excel, as a complement to the core Decision Sciences quantitative courses

## **CONTRIBUTIONS TO UWI SERVICE**

- UWI representative on the National ICT Advisory Council
- UWI representative on Board of Commissioners Overseas Examination Commission, 2015-
- Chair of FSS IT Governance Committee and Member of Campus ICT Steering Committee
- Active mentor in the annual UWI Venture competition coordinated by MSBM;
- Member of the UWI Energy Think Tank and contributed to several articles and commentaries on the state of the Electricity sector in Jamaica

## **Corporate Experience**

## **Professional Qualification Highlights**

- Strategic Information Systems Planning and experience in the co-ordination and direction of an integrated portfolio of Information Systems projects including all related activities from capital budgeting, justification and approval, business process re-engineering, requirements definition, package selection & consulting engagements, through project management and implementation.
- Formal & Practiced Project Management skills through the training and adoption of formal project management methodologies and the direction of several large-scale IT systems implementation
- Entrepreneurial experience and involvement in the assessment of a range of Internet start-up ventures and business plan evaluation for prospective venture capitalists
- Strong technical foundation in communications engineering, networking and Internet technologies, computer systems and management information systems
- **Professional experience** in the design, development, implementation and support of Corporate Voice and Data Networks
- **Director-Centre of Excellence for IT-enabled Innovation**, Dec 2008 Present, Mona School of Business & Management. Development of an Application-oriented Research Agenda around the use of ICTs to enable Business Innovation in the Small Medium Enterprise sector in Jamaica and the Caribbean. Executive responsibility for Information Technology strategic planning, deployment and use within the Business School.
- Chief Technology Officer, Feb 2007 Dec 2008, Paymaster Jamaica Ltd. Executive responsibility for Technology & Business Development. Oversee the strategic planning, deployment and use of Information Technology to enable Paymaster's dynamic business model, sustain its competitive advantage and enhance the efficiency & effectiveness of all aspects of the company's operations. Also responsible for strategic business development, geared at the creation, growth and development of existing and new lines of business for Paymaster.
- **Chief Information Officer**, 1993-Nov 2006, Jamaica Public Service Co. Overall Responsibility for the Management of the Information Systems & Telecommunications Division and provide strategic leadership and vision to the Information Systems enterprise in JPSCo, the national electric utility company.
- Head Of Marketing Department, 1991-1993, Telecommunications Of Jamaica. Overall responsibility for the full spectrum of Marketing activities for all domestic products and services offered by TOJ, including voice, data communications and networking support for corporate information systems
- Alcan Jamaica Co., 1987-1991. Last position: Senior Engineer, Information Services. Responsible for managing Technical Support and Communications functions for all corporate computing platforms including an IBM 4381 mainframe, an AS400 B45 and a VAX 6400 as well as Office Systems

## **Professional Affiliation / National Service**

- Chairman of the National Information Systems for Health Steering Committee
- Member of Board of Directors Victoria Mutual Building Society, 2013 -
- Member of Board of Commissioners Overseas Examination Commission, 2015-
- UWI representative on the National ICT Advisory Council, 2013 2019