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GROWING THE BUSINESS TECHNOLOGY MANAGEMENT (BTM) PROGRAM: ENSURING BTM SUPPLY IS MEETING INDUSTRY DEMAND

Abstract

The panel will present research concerning demand for ICT related occupations/skills and discuss high school level ICT career awareness initiatives. Also present information on Business Technology Management (BTM) growth initiatives related to an Employment Skills Development Canada (ESDC) grant, and explore academic community engagement and existing BTM programs.

Relevance to the Field and Panel Focus

The Information and Communications Technology Council (ICTC), Nordicity (for Industry Canada), and others, indicate that "information systems analysts and consultants" comprise the largest category of ICT occupations, and one of the fastest growing over the 2000-2010 decade. These and other studies identify consistent, ongoing current and projected gaps in the supply of such professionals in all economic sectors and regions of Canada. Combining analyst/consultant and "manager" National Occupational Codes (NOC) yields about 200,000 jobs - a quarter to a third of the ICT labour market. Because these skills are the primary ones that IS programs in Canadian business schools supply to the

Canadian labour force, the ongoing demand for them augurs well for the continuing success of the IS academic community. However, focused programs and marketing needs to be in place to make organizations aware of the talents of IS graduates so they increasingly depend on them rather than expecting business orientation from traditional computer science graduates.

The Canadian Coalition for Tomorrow's ICT Skills (CCICT) is an association of employers founded in 2008 to address their need for technology educated business leaders. The Coalition launched the Business Technology Management (BTM) initiative in January 2009 to assist with revitalizing and rebranding of the field of IS, and to improve the quality and quantity of students who choose it. Thirteen universities now offer an undergraduate BTM. The schools have seen signs of improved enrollments, student quality, gender diversity and graduate placements. Another dozen programs are in development, including both universities and colleges. Although BTM programs launched under CCICT leadership have increased enrolments, they lack the capacity to meet current and anticipated demand. Expanding to more universities and other educational levels such as colleges and executive education levels will help address this issue. This, along with an accreditation program, stakeholder engagement (including a national student case competition, regional/national student/employer and faculty conferences), and a plan for a sustainable, professional BTM Association will provide a foundation for further expansion of the BTM professional labour force in the medium and long term.

Another current issue is the lack of common definitions and career paths for BTM team roles; this is causing organizations to struggle to recruit and retain, and restricts the organization's ability to deliver successful business outcomes. Gartner research shows that the lack of or unclear careers and development are the second most-common reason for staff leaving. Under CCICT's leadership, and with assistance of an Employment Skills Development Canada (ESDC) grant, a career structure with a prioritized list of occupational standards will be developed that will not only form the foundation of the overall BTM program, but provide a career and promotion path for individuals who work in core and extended BTM

teams. The occupational standards will identify critical skills for BTM workers, create the ability to communicate on the defined career structure and skills with HR, managers and staff, develop a career structure that provides a promotion path for the BTM workers, identify critical skills and help to identify training to assist workers to develop and progress in their careers.

Goals of the Panel

The broad goals of the panel are to: 1) update the community about fresh research on the demand for ICT related occupations and skills and report on initiatives aimed at increasing awareness of ICT careers at the high school level, 2) report on the BTM related activities and details covered by a \$1.6 million Employment Skills Development Canada (ESDC) grant; 3) explore various engagement opportunities with the MIS academic community related to the ESDC grant activities and scope an engagement action plan. A related goal is to report on the BTM programs that are in progress and discuss with schools that may not be currently planning to implement BTM programs about related activities that may strengthen their existing offerings.

The panel combines faculty from universities that have implemented the BTM and senior staff members from the CCICT. There are 3 parts to the proposed panel:

- 1) Chris Drummond (Managing Director, CCICT) will present fresh research on the demand for ICT-related occupations and skills and will report on the successes of the national *CareerMash* awareness campaign, launched in the fall of 2011. This initiative is communicating the nature of ICT careers to high school students, parents, teachers, guidance counselors and the media.
- 2) Faculty members at BTM schools will provide an update about their particular BTM programs. Panelists will discuss the how-tos, successes and challenges that they have experienced in the path to implementing the program. They will speak to BTM program and non-program activities that have encouraged students to take an interest in BTM programs

- 3) Gina van Dalen (BTM Program Manager, CCICT) will discuss the ESDC BTM grant proposal initiatives that will lead to a broader recognition of BTM-type careers as a distinctive, attractive and prestigious family of professions for Canadian students, career changes, educators, employers and families.

Moderator

Dr. Blaize Horner Reich

Dr. Horner Reich is the RBC Professor of Technology and Innovation in the Beedie School of Business, Simon Fraser University. Her research is in two streams – IT governance and IT project management. Her concern for students' careers and for productivity in Canada has led her to advocacy roles at the national level where she is a Board member of the Information and Telecommunications Council of Canada (www.ictc-ctic.ca), Chair of the academic team supporting the BTM initiative at the Canadian Coalition for Tomorrow's ICT Skills, and Board director of the Vancouver chapter of the CIO Association of Canada. The MIS group at SFU introduced a BTM certificate program in fall of 2011 and this program received BTM accreditation in 2013.

Panelists

Dr. Ron Babin

Dr. Babin is the Director of Corporate and Executive Education, and Professor at Ted Rogers School of Management, Ryerson University. Ron has extensive experience as a senior management consultant at two global consulting firms. As a partner at Accenture and prior to that at KPMG, he was responsible for IT Management and Strategy practices in Toronto. Prior to his 22 year consulting career, Ron was an IT professional at Abitibi-Price and at Imperial Oil in Toronto. He is an experienced educator and is committed to development of both students and client executives in the area of IT and business management. He teaches IT management courses at York University's Schulich Executive Education Centre and Ryerson University. He is an advisor to the IT program at the Richard Ivey School of

Business, to the IT program at Sheridan College. Ron also judges the MIS case competition at the annual Inter-Collegiate Business Competition at Queen's University. Ron co-edits the peer-reviewed Journal of Information Management and Computer Security. Mr. Babin holds a Bachelor of Arts (BA) degree in Computer Science and a Masters degree in Business Administration (MBA), both from York University. Mr. Babin is a Certified Management Consultant (CMC) and is a member of the Canadian Association of Management Consultants. Ryerson University was the first school in Canada to offer the BTM and has the largest BTM co-hort.

Dr. Anne Chartier

Dr. Chartier is MIS Department Chair and Associate Professor at FSA-Laval, Université Laval in Quebec City. Her main research topic is social and ethical issues linked to the use of Information Systems and Information Technologies in organizations. Holding a PhD from Université Laval, she is a researcher member of IDEA (Institut d'éthique appliquée de l'Université Laval) and of CERTAE (Centre de recherche et de transfert en architecture d'entreprises, Université Laval). She is also an international research associate of the CCSR (Center for Computing and Social responsibility, De Montford University, Leicester, U.K.). Under Anne's leadership, the MIS department at FSA-Laval introduced a BTM undergraduate program in fall of 2011 (Gestion des technologies d'affaires). She is regularly invited to consult with and speak in organizations. She has published various articles in journals such as *Systèmes d'information et management*, and *Canadian Journal of Administrative Science / Revue Canadienne des sciences de l'administration*.

Dr. Patricia Genoe McLaren

Dr. Genoe McLaren is the Area Coordinator, Business Technology Management at Wilfrid Laurier University. Her general research focus lies in the areas of management history in the Cold War era,

including the development of the business school, leadership, and the management of professionals. Most of her research is from a critical perspective, mainly conducted using critical discourse analysis and critical hermeneutic analysis based on interview and archival data. She does also, however, conduct more mainstream research using quantitative analysis of statistical data and positivist qualitative analysis of interview data. Her current work includes critical discourse analyses of the societal discourse of leadership, leadership undergraduate education, and leadership development for women, and a more positivist approach to leadership development for Certified Management Accountants. She is also studying the history of the Administrative Sciences Association of Canada, and its struggle for organizational legitimacy. She has recent publications in *Management & Organizational History*, *Journal of Management History*, and *Canadian Journal of Administrative Sciences*. Through her teaching and professional background, she has an interest and expertise in project management, organizational culture and change, organizational behaviour, and organizations and social change. Wilfrid Laurier University launched its Business Technology Management program in 2012.

Dr. Raul Valverde

Dr. Valverde is a Lecturer of Supply Chain Operations Management and Business Technology Management at the John Molson School of Business at Concordia University. He holds a Doctor of Business Administration in Information Systems from the University of Southern Queensland (Australia), a Master of Engineering in Electrical and Computer Engineering from Concordia University (Canada), a Post Master of Business Administration in Management Science from McGill University (Canada), a Master of Science in Accounting and Financial Management with specialization in Supply Chain Finance from the University of the West of England (England), and a Bachelor of Science in Mathematics and Management from Excelsior College of the University of New York (USA). He is also a registered professional engineer in Ontario and has several certifications in supply chain Management, information technology and forensics. His research interests include supply chain finance, supply chain fraud, supply chain systems, accounting and financial information systems, IT auditing, risk management,

reengineering and e-business. He has published in the International Journal of Business Performance and Supply Chain Modelling, Journal of Information Systems and e-Business Management, Journal of Theoretical and Applied Electronic Commerce Research and Journal of Intelligent Decision Technologies among others. Dr. Valverde is currently teaching in the areas of Business Technology Management and Operations Management for the undergraduate and MBA programs. He has consulted CGA Canada for its risk management curriculum, reviewed operations management books for different publishers, consulted Champlain College for the development of its curriculum for the transportation and logistics program, and has supervised research at the University of Liverpool in England where he holds an honorary lecturer status in the faculty of science and engineering. Dr. Valverde is also the academic director of the co-op undergraduate program in Supply Chain Operations Management and Business Technology Management. Concordia University offers a Bachelor of Commerce with a major in BTM.

Chris Drummond

Mr. Drummond is the Managing Director of the Canadian Coalition for Tomorrow's ICT Skills (CCICT), an industry led, not-for-profit organization that encourages young people across Canada to pursue ICT careers. Prior to joining CCICT, Chris spent ten years in the employment services sector. As Vice-President Corporate Strategy and Marketing, for CNC Global Limited from 2003 to 2008, Chris focused on developing and implementing Information Technology staffing solutions for many of Canada's largest employers. By 2007, CNC Global had become the country's largest provider of IT staffing solutions and was named one of "Canada's 50 Best Managed Companies". When CNC Global was acquired by Vedior Holdings in 2008 and then merged with Randstad Holdings in 2010, Chris led the Canadian integration processes and continued to develop new staffing solutions in areas such as general recruitment, contingent staffing, vendor management and recruitment process outsourcing. Throughout his career, Chris has focused on the changing nature of IT roles and the challenges that many organizations are experiencing as they attempt create viable workforce management strategies that maintain Canada's competitiveness in the global economy. Chris has been a member of the Association of Canadian Search, Employment and

Staffing Services (ACSESS), Ryerson's Information Technology Management (ITM) Program and the Information Communication and Technology Council (ICTC).

Gina van Dalen

Ms. van Dalen is the CCICT Project Manager for the Business Technology Management (BTM) program and the Manager Professional Standards for the Canadian Information Processing Society (CIPS), the association for Canada's information and communications technology (ICT) professionals. She also is the Chair of the Association of Accrediting Agencies of Canada (AAAC) and recently finished a term as the Chief Operating Officer of the International Professional Practice Partnership (IP3), which is leading the global development of a profession for ICT. She also serves on the IEEE-Computer Society IT Body of Knowledge project team and on the Federation of Enterprise Architecture Professional Organizations (FEAPO) steering committee.

Proposed Panel Timeline

Introduction by Moderator – BTM and CCICT history and panel	5 minutes
CCICT Presentation	15 minutes
Research on ICT job market	
Activities to attract and inform high school students (<i>CareerMash</i>)	
Update on BTM accreditation and certification, national co-op job board	
Questions and Discussion	
Panel of BTM Schools	30 minutes
Each school provide an outline of their program and the lessons learned in implementing BTM	
Questions and Discussion	
CCICT Presentation	40 minutes
Discuss the ESDC BTM grant proposal initiatives	
Explore opportunities for IS academic community engagement	
Questions and Discussion	

References

Information and Communications Technology Council, Outlook for Human Resources in the ICT Labour Market, 2011–2016 http://www.ictc-ctic.ca/Outlook_2011/index_en.html [March 2011]

Nordicity, Labour Supply/Demand Dynamics of Canada's Information and Communications Technology (ICT) Sector, <http://www.nordicity.com/media/20121112pnzutcbz.pdf> [March 2012]