

CURRICULUM VITAE: Ann SÉROR

## CONTACT INFORMATION :

eResearch Collaboratory PO Box 97 Bureau de Poste - Haute Ville Quebec City, QC Canada GIR 4M8

*E-mail* : annseror@eresearchcollaboratory.com annseror@gmail.com

Tel. +1 418 525 5102; Cell. +1 418 561 4933

### **EDUCATION**

Ph.D.	Krannert Graduate School of Management PURDUE UNIVERSITY (Specialization: Administrative Sciences)	12/1980
<b>M.B.A.</b>	<i>IMEDE: Institut pour l'Étude des Méthodes de Direction de l'Entreprise</i> ( <i>Now IMD</i> ) Lausanne, Switzerland (Specialization : Organizational Behavior)	12/1975
B.A.	MOUNT HOLYOKE COLLEGE (degree with Distinction)	6/1969

#### **PROFESSIONAL CAREER**

Founding Director, 6/2004-Present eResearch Collaboratory: Research on Organizational Systems

Visiting Expert, 5-6/2006 WTO Studies School, Wuhan University

Visiting Expert, 9/2004-6/2005 Department of Management School of Business, Wuhan University, Hubei Province, People's Republic of China

Professor of Management, 6/1993-12/2004 Associate Professor, 6/88-5/93 Assistant Professor, 1/85 -6/88 Faculty of Administrative Sciences, Université Laval

Courses taught include: <u>Undergraduate</u> Organizational Behavior Senior Management Seminar <u>Masters' Level</u> Organizational Behavior Theories of Power and Politics in Organizations Research Methodology for Management <u>Doctoral Level</u> Theories of Management Research Methodology for Management

Assistant Professor of Management, Owen Graduate School of Management, Vanderbilt University.	1/81-12/84
Instructor in Management, Owen Graduate School of Management, Vanderbilt University.	9/80-12/80
Instructor in Management, Krannert Graduate School of Management, Purdue University.	9/77-8/80
Research Assistant, Department of Administrative Sciences, Krannert Graduate School of Management, Purdue University: Feasibility Study and Evaluation of Opportunities and Risks for Management of the <i>Electric and Hybrid Vehicle Development Program</i> funded by the United States Department of Energy.	9/77-8/80

#### **PROFESSIONAL ASSOCIATIONS**

Academy of Management Association for Computing Machinery American Medical Informatics Association Indian Association for Medical Informatics (Life membership) Physicians for a National Health Plan (Associate membership) Purdue University Alumni Association

#### **RESEARCH INTERESTS**

#### Virtual Health Care Infrastructures: Telecommunications, the Internet and Grid Computing

The objective of this research is to develop a framework for analyzing the future development of virtual infrastructures in ideologically diverse health care systems using a qualitative scenario methodology. Market dynamics and system control mechanisms define the logic of system structures, processes and ideologies. Ideology, defined as the integrated theories and values that constitute a coherent socio-political system, is expressed in patterns of stakeholders' participation in the financing, administration, and regulation of health care, including the roles of government, health care professionals, and patients. Four configurations describe how telecommunications technologies, the Internet, and grid computing shape virtual health care infrastructures in a context of ideological diversity. These configurations are motivated by professional, citizenship, consumer, and managerial values. The contributions of medical informatics and bioinformatics are discussed to show how they enhance evidence based health care service delivery and system management as well as the integration of genomic research in these health care models. Critical trends identified include (1) increasing focus on basic research, (2) interdisciplinary integration, (3) participation of patients in decision making and governance, (4) convergence of telecommunications networks and Internet, (5) open source software and health grids, and (6) commoditization of information technology. Preliminary analyses suggest that the powerful open source software movement may influence ideologies of health care systems, particularly through grid infrastructures.

# **Decentralizing National Health Care Systems: The Role of Virtual Infrastructures in Developing Countries**

In the last decade international development organizations including the World Bank and the World Health Organization have promoted decentralization of government institutions in developing countries as well as privatization of public services including health care. The objectives of this research are to describe national health care systems using a qualitative research methodology and to critically examine the roles of ICT's and virtual institutional infrastructures in health care system decentralization as well as in integration of diverse stakeholders in service delivery. Particular attention is focused on the process of restructuring public institutions and the role of virtual health care infrastructures in integration of diverse public and private system stakeholders in service delivery, education and research. Virtual institutional infrastructures contribute to national system coordination and control as health care service delivery is decentralized through governance mechanisms for local community participation. International, regional, and local nongovernmental organizations contribute to health care service market dynamics by soliciting online and allocating financial contributions, human resources including volunteers, and corporate participation. Of critical importance is the effective management of public health priorities financed to a significant degree by diverse private donors. Case analyses serve as a basis to formulate recommendations for future research on health care systems and development policy.

#### **Qualitative Research Methodologies for Study of Virtual Infrastructures**

Research in science policy, institutional economics, telecommunications, and organization theory has contributed to the growing literature on health care system performance, management and control. The premise of this program of research is that study of configurations of virtual institutional health care infrastructures is critical to understanding global and regional health care ideologies and market dynamics. Little research has considered the effects of telecommunications and internet infrastructures on these dynamics, largely because theory, methods and tools have not been adapted adequately to analysis of these structures and processes profoundly transformed by new technologies at every system level.

Such analysis requires qualitative research strategies because of increasing system complexity and high rates of social, cultural and technological change. First, case analysis facilitates validation of patterns identified in data collected from diverse sources and construction of comparative frameworks from grounded theory principles. Historical analysis exposes the logic of system evolution as in the phases of system creation through local unit design, control through centralization, and integration through horizontal coordination. Another promising approach is system mapping for sociometric analysis of virtual infrastructures and their contributions to health care services markets and hierarchies. System configurations reflect institutional patterns of information management and control in public and private sector activities, including free market and centralized social medicine dynamics. Institutional maps of virtual infrastructures also reveal how health care information and services are offered and what business and governance models motivate systems. Recently social networking services including Facebook and Twitter promote communication among citizens and health care service users across institutional and national boundaries. Extended maps of virtual infrastructures maintained online serve as live databases showing linkages within national health care systems as well as structures for governance and global integration.

Configurations may be interpreted as complex systems or as cases embedded in a broader context. Taken together, case analysis, grounded theory, historical analysis and system mapping offer strategies to approach study of the important coherence between underlying ideologies and virtual health care infrastructures. These methods may also serve to diagnose problems in complex systems, such as lack of integration between traditional and modern medical information and services.

#### SELECTED PUBLICATIONS

Website: eResearch Collaboratory: <u>http://eresearchcollaboratory.blogspot.com/</u> This blog addresses some policy issues, particularly regarding efforts in U.S. health care system reform such as adoption and meaningful use of electronic health records (EHRs) as well as development of national institutions for health information exchange including regional health information organizations (RHIOs) and the Nationwide Health Information Network (NHIN).

Séror, A., <u>Designing Sustainable Open Source Systems: The Cuban National Health Care</u> <u>Network and Portal (INFOMED)</u>, Proceedings of the IFIP WG 8.6 International Working Conference on Transfer and Diffusion of IT, Bangalore, India, 6/2013.\*

Séror, A., <u>Collaboration for Research and Education in Health Care: The Latin American and</u> <u>Caribbean Health Sciences System (BIREME)</u>, Proceedings of the 25th IEEE International Symposium on Computer-Based Medical Systems, Rome, Italy, 6/2012.\*

Séror, A., Virtual Health Information Infrastructures: A Scalable Regional Model (Short Paper), Proceedings of the 7th International Conference on Open Source Systems, <u>IFIP Working Group</u> on Open Source Software, Salvador, Brazil, 10/2011.\*

Séror, A., <u>Virtual Health Care Infrastructures: Markets and Hierarchies</u>, <u>Proceedings of the 24th</u> <u>International Symposium on Computer-Based Medical Systems</u>, University of the West of England, Bristol, U.K., 6/2011.\*

Séror, A., <u>Design of Virtual Infrastructures for Public and Private Services: The Indian Health</u> <u>Care System</u>, <u>Proceedings of the 44th Hawaii International Conference on System Sciences</u>, Kauai, 1/ 2011, pp.1-9.\*

Séror, A., Integrating Health Care Communities Of Practice: The Case Of Uruguay, <u>Journal of</u> <u>Continuing Education in the Health Professions, Vol. 28 (S1)</u> Abstracts from the CME Congress, Vancouver, 5/2008, p. S39.\* (Abstract only.)

Séror, A., <u>(with Jeannette Murphy, Editor: International Perspectives and Initiatives) Unique</u> <u>Lessons from the Cuban National Health Care Network and Portal – INFOMED</u>, <u>Health</u> <u>Information and Libraries Journal</u>, Vol. 24(3), 2007, pp. 216-221.

Séror, A., Emerging Virtual Infrastructures In Service Delivery: Scenarios For Health Care, <u>Chapter 7</u> in the <u>Handbook of Information Technology in Organizations and Electronic</u> <u>Markets</u>, A. Salazar and S. Sawyer (eds.), World Scientific Press, 2007, pp, 137-160.\*

Séror, A., <u>The role of virtual infrastructures in the Ugandan National Health Care System: A case</u> <u>study</u>, *les actes de la conférence HELINA*, la Société Malienne d'Informatique Médicale, Biomédicale et de Santé (SOMIBS), International Medical Informatics Association (IMIA), Bamako, Mali, 1/2007.\*

Li Yan-ping, Wu Huan-wei, Séror, A., <u>Strategic Human Resource Management and Social</u> <u>Capital: Evidence from People's Republic of China, Proceedings of the 2006 13<sup>th</sup> International</u> <u>Conference on Management Science and Engineering</u>, Lille, France, 2006, pp.1250-1255.\*

Séror, A. <u>A Case analysis of INFOMED: The Cuban National Health Care Telecommunications</u> <u>Network and Portal</u>, <u>Journal of Medical Internet Research</u>, Vol. 8(1), e1, 2006.\*

Séror, A., I.Neuman, E-publishing in Science and Healthcare: Alternative Models for Development, <u>Electronic Journal on Information Systems in the Developing Countries</u>, Special Issue on the the United Nations Conference on Trade and Development (UNCTAD) E-Commerce

and Development Report, Vol. 11, 2003. See also a letter to the British Medical Journal (2003;326 :1 February ) in response to an editorial, Closing the digital divide, by Richard Smith.

Séror, A., <u>Internet infrastructures and health care systems: A qualitative comparative analysis on</u> <u>networks and markets in the British National Health Service and Kaiser Permanente</u>, <u>Journal of</u> <u>Medical Internet Research</u>, Vol. 4(3), 2002.\*

Séror, A., Telecommunications technologies, global healthcare management systems, and sustainable development : future scenarios, Electronic Journal on Information Systems in the Developing Countries, Special Issue on Healthcare, Vol. 5, 2001.\*

Séror, A., J.-M. Fach Arteaga, <u>Telecommunications technology transfer and the development of institutional infrastructure : the case of Cuba</u>, <u>Telecommunications Policy</u>, Vol. 24 (3), 2000, pp. 203-221. \*

Séror, A., <u>A model of institutional dynamics and a comparative case analysis of information</u> <u>technology transfer</u>, <u>Journal of Technology Transfer</u>, Vol. 23(3), 1998, pp. 39-50.\*

Séror, A., <u>The Institutional Dynamics of Information Technology Transfer: A Comparative Case</u> <u>Analysis</u>, Proceedings: <u>Innovation in Technology Management - The Key to Global Leadership</u>. <u>Portland International Conference on Management and Technology</u>, 1997, pp 908-911.\*

Séror, A., and S. Rejeb, Information technology transfer: the case of a Tunisian research center (*Étude de cas de transfert des nouvelles technologies de l'information: l'Institut Régional des Sciences Informatiques et des Télécomunications de Tunis, Tunisie*), *Technologies de l'Information et Société*, Vol. 8(3), 1996, pp. 243-274.\*

Séror, A., <u>Action research for international information technology transfer: a methodology and a network model</u>, <u>Technovation</u>, Vol. 16(8), 1996, pp. 421-429.\*

Séror, A., Closed systems in conflict, antecedents and consequences: the case of ecological catastrophy, <u>Homeostatics and its Application</u>, Vol. 1, World Organization of Systems and Cybernetics (WOSC) International Yearly Seminar, Siberian Branch of the Russian Academy of Sciences, Siberian Energy Institute, Irkutsk, 1996, pp. 67-74.

Séror, A., The simulation of complex social processes: a survey of methods and their applications. Chapter in <u>Simulating Societies: the Computer Simulation of Social Processes</u>, J. Doran and G. Nigel Gilbert, editors, University College London Press, 1994, pp.19-40. \*

Séror, A., fourth author with R.W. Blanning, D.R. King, and J.R. Marsden, Intelligent models of human organizations: the state of the art, <u>Journal of Organizational Computing</u>, Vol. 2 (2), 1992, pp. 123-130.

Séror, A., fourth author with R.W. Blanning, J.R. Marsden, and D.E. Pingry, Intelligent models of economic systems, Chapter in the <u>Handbook of Cybernetics and Systems</u>, Constantin Negoita, editor, Marcel Dekker,1992, pp. 163-172.

Séror, A., R&D project management and controle: expert systems for technological innovation (*Gestion et contrôle des projets de R & D: Des systèmes experts pour l'innovation* technologique), Technologies de l'Information et Société, vol. 3 (2 - 3), 1991, pp. 163-193.\*

Séror, A., Observations of the impact of a computerized communication network on upper managerial roles, chapter 2 in <u>Desktop Information Technology</u>: <u>Organizational Worklife in the 1990's</u>, K. Kaiser et H. Oppelland, editors, Elsevier/North Holland, 1990, pp. 109-124.\*

Séror, A., second author with T.H. Nguyen and T.M. Devinney, Diversification strategy and performance in Canadian manufacturing firms. <u>Strategic Management Journal</u>, vol. 11 (5), 1990, pp. 411-418.\*

Séror, A., Decision making for innovation: management of research and development. Chapter in <u>Foundations of Expert Systems for Management</u>, Robert Blanning, editor, Verlag Tur Rheinland Koln, 1990, pp. 223-264.

Séror, A., A comparative empirical analysis of managerial strategies for control: the United States and Japan. <u>Advances in International Comparative Management</u>, vol.4,1989,pp.19-24.\*

Séror, A., A study of individual boundary-spanning communication patterns in a research and development setting. <u>Engineering Management International</u>, vol. 5, 1988, pp. 279-290.\*

Séror, A., <u>Cross-cultural organizational analysis: research methods and the Aston Programme</u>, <u>International Studies of Management and Organization</u>, (Special Issue: Designing and Conducting International Management Research Projects - Some Examples and Suggestions), vol. 18 (3), 1988, pp. 31-43.\*

Séror, A. A cultural contingency framework for the comparative analysis of Japanese and American organizations. Chapter in <u>Management by Japanese Systems</u>, S.M. Lee and G. Schwendiman, editors, Praeger, 1982, pp. 239-255.\*

\* Refereed publication.

#### SELECTED PRESENTATIONS

Séror, A., <u>Virtual Health Information Infrastructures: Scale and Scope</u>, <u>Greater China eHealth</u> <u>Forum</u>, Hong Kong, China, 10/2011.

Séror, A., Virtual Health Care Structures of Latin America, International Conference on Advanced Management Perspectives in Asia, Suzhou, China, 10/2010.

Séror, A., <u>Biomedical Informatics and Computing: A Paradigm Shift</u>, American Medical Informatics Association Summit on Clinical Research Informatics, San Francisco, 3/2010.

Séror, A., Creating Scalable Health Information Infrastructures: The Latin American Region, Seventh International Conference on Medical Informatics, Indian Association for Medical Informatics, Hyderabad, India, 11/2009. (Talk given by audio-link)

Séror, A., <u>Public Health Informatics for a National Infrastructure: The Case of the U.S. Health</u> <u>Care System</u>, American Medical Informatics Association Symposium, San Francisco, 11/2009.

Séror, A., Communities of Practice for Collaborative Health Information Systems: Uruguay and the Latin American Region, American Medical Informatics Association Spring Congress, Orlando, 5/2009.

Séror, A., INFOMED and the Virtual Infrastructures of Latin America, Informal presentation given to the staff of INFOMED, Havana, Cuba, 2/2009.

Séror, A., Integrating research, education and evidence-based practice in health care infrastructures: Cuba and the Latin American Region, MOPAN – 15<sup>th</sup> Annual Conference on Multi-Organizational Partnerships, Alliances and Networks, Suffolk University, Boston, 6/2008

Séror, A., National Health Care Systems: A Research Program on Globalization and Virtual Infrastructures, Spring Congress, American Medical Informatics Association, Orlando, 5/2007.

Séror, A., Virtual infrastructures in health care delivery: Integrating complex systems, VI Congreso Internacional de Informática en Salud, Havana, Cuba, 2/2007.

Séror, A., <u>Designing universal access to health care : The role of virtual infrastructures in India</u>, MedNet 2006, Society for the Internet in Medicine (SIM), Toronto, 10/2006.

Séror, A., Donor contributions to national health care systems: The role of virtual infrastructures in Uganda, Seventh International Conference on Ethics and International Development: "Accountability, Responsibility, and Integrity in Development: The Ethical Challenges in Sub-Saharan Africa and Beyond", Makerere University, Kampala, Uganda, 7/2006.

Séror, A., Virtual health care infrastructures and biotechnology: Integrating complex systems, Workshop on Strategies for IT-Enabled Knowledge Transfer and Innovation in Biotechnology, Manchester Metropolitan University Business School, 5/2006.

Séror, A., <u>International Trade in Health Care Services: The Role of Virtual Infrastructures in</u> <u>India</u>, National Seminar on WTO: India and Emerging Areas of Trade, Indian Institute of Management Kozhikode (IIMK), India, 4/2006:

Séror, A., The Cuban National Health Care System, Fourth Conference of the Indian Association for Medical Informatics, Sri Guru Ram Dass Institute of Medical Sciences, Amritsar, Punjab State, India, 10/2005.

Séror, A., Virtual health care infrastructures: Telecommunications, the Internet and grid computing, Academy of Management National Meetings, Technology and Innovation Management Division, Honolulu, 8/2005.

Séror, A., Virtual infrastructures for evidence-based health care system management: The case of Cuba, The 3<sup>rd</sup> Asia Pacific Conference on Evidence-Based Medicine: Bridging Developed and Developing Countries, Chinese University of Hong Kong and the Hong Kong Branch of the Cochrane Collaboration, Hong Kong, 11/2004.

Séror, A., Decentralizing national health care systems: The role of virtual infrastructures in Uganda, Academy of Management National Meetings: Creating Actionable Knowledge, Technology and Innovation Management Division, New Orleans, 8/2004.

Séror, A., <u>Modeling virtual healthcare systems: Methods for qualitative case analysis and</u> <u>sociometry of institutional infrastructures</u>, American Medical Informatics Association Symposium- Biomedical and Health Informatics: From Foundations to Applications, Washington, D. C., 11/2003.

Séror, A., Integrating virtual infrastructures : a sociometry of the Cuban National Healthcare System, Academy of Management National Meetings: Democracy in a Knowledge Economy, Technology and Innovation Management Division, Seattle, 8/2003. (This paper was nominated for the Carolyn Dexter Award in recognition of methodological innovation and contribution to internationalizing the Academy of Management.)

Séror, A., Health care markets and hierarchies: a methodology for evaluating telecommunications and Internet infrastructures, Sixth Annual Conference of the Society of Operations Management, Indian Institute of Management Kozhikode, Kozhikode, Kerala, India, 12/2002.

Séror, A., Internet infrastructures and health care systems: networks and markets, Academy of Management National Meetings: Building Effective Networks, Technology and Innovation Management Division, Denver, 8/2002.

Séror, A., Telecommunications technologies, global healthcare management systems, and sustainable development : future scenarios, China-Canada University Industry Partnership Program, McGill University, Fourth International Conference on Management, Xi'an Jiaotong University, Xi'an, China, 5/2001

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