

E-MAIL stcyr@yorku.ca

OLIVIER ST-CYR

EDUCATION

DEGREE	Year Obtained	Institution	Discipline
PhD	2006	University of Toronto	Human Factors Engineering
MASc	2002	University of Waterloo	Human Factors Engineering
BA	2000	York University	Computer Science

CURRENT FIELDS OF INTEREST

Professional	Ecological Interface Design Cognitive Engineering Learning and mental models User-Centred Design	Cognitive Work Analysis Dynamical Systems Theory Human-Computer Interaction Process Control Instrumentation
General	Political Science Social Impact of Science Post-Secondary Education	Energy Policies Philosophy of Science Evolution and Societies

PROFESSIONAL EXPERIENCE

TITLE	Institution	Dates	Supervisor/Manager
Adjunct Professor	York University	Nov. 2007 – Present	
User Interface Designer	IBM Canada Limited	Sept. 2007 – Present	Daniel Snoddy
Human Factor Specialist	Atomic Energy of Canada Limited (AECL)	Oct. 2005 – Aug. 2007	J. Scott Malcolm
Research Assistant	University of Toronto	2002 – 2005	Dr. Kim J. Vicente
	University of Waterloo	2000 – 2002	Dr. Catherine M. Burns
	York University	Summer 1999	Dr. Yves Lespérance
Defence Research Assistant	DRDC-Toronto	Summer 2002	Dr. Justin G. Hollands

TEACHING

A. COURSE

Institution	Course Name	Term	Enrolment	Rank
York University	Object-Based Programming (ITEC 1620)	Winter-10	50	TBD
		Fall-09 (A)	46	TBD
		Fall-09 (B)	50	TBD
		Fall-08	30	4.6/5.0
		Summer-08	33	4.8/5.0
		Winter-08	34	4.7/5.0
		Fall-07	32	4.5/5.0
		Summer-07	25	4.5/5.0
York University	Designing User Interfaces (ITEC 3230)	Winter-10	44	TBD
		Summer-09	21	4.7/5.0
		Winter-09	36	4.5/5.0
		Fall-08	41	4.8/5.0
		Summer-08	11	4.8/5.0
		Winter-08	68	4.5/5.0
		Fall-07	34	4.5/5.0
		Fall-06	56	4.4/5.0
University of Toronto	The Design of Interactive Computational Media (CSC 318)	Spring-07	20	5.8/7.0
University of Toronto	Introduction to Computer Programming (CSC 108)	Summer-05	63	6.2/7.0
University of Toronto	Introduction to Computer Fundamentals (APS 106)	Spring-04	110	6.0/7.0

B. ADVISING**Undergraduate Research Assistants**

CHUI, Jimmy (Summer 2003), University of Toronto

Undergraduate Theses

SANDIEGO, Kristianne (F/W 2006/07), MIE 496, University of Toronto

HOURIHAN, Maura (F/W 2006/07), MIE 496, University of Toronto

FLYNN, Kevin (F/W 2009/10), COGS 4750, York University

C. TEACHING ASSISTANTSHIPS

Institution	Term	Course Name
University of Toronto	Fall-2003, Fall-2004, Winter-2005	Engineering, Society, and the Environment I
University of Toronto	Winter-2003	Introduction to Computer Fundamentals
University of Toronto	Fall-2002	Human Centred Systems Design
University of Waterloo	Winter-2002	Data Structures and Algorithms
University of Waterloo	Fall-2001	Digital Computation
University of Waterloo	Summer-2001	Introduction to Human Systems Engineering
York University	Summer-2000	Introduction to Information Technology
York University	Summer-2000	Computers, Information, and Society
York University	Winter-2000	Intro to Computer Usage II
York University	Fall-1999	Intro to Computer Usage I

D. TEACHING TRAININGS

Year Obtained	Institution	Description
Fall-2004	University of Toronto	MIE 3002: Engineering Teaching and Learning
2003 – 2004	University of Toronto	Teaching Assistants' Training Programme
2000 – 2002	University of Waterloo	Certificate in University Teaching

RESEARCH

A. THESIS

1. *Sensor Noise and Ecological Interface Design: Effects of Noise Magnitude on Operators' Performance and Control Strategies*, PhD Dissertation, University of Toronto. Advisor: Kim J. Vicente.

2. *An Ecological Approach to Mental Models: Towards Assessing Ecological Compatibility*, MASc Thesis, University of Waterloo.
Supervisor: Catherine M. Burns.

**B. REFEREED
CONFERENCE
PAPERS**

1. ST-CYR, O., & KILGORE, R. (2008). *A Five-Phase CWA for Air Traffic Control: Example from a TRACON Microworld*. Proceedings of the Human Factors and Ergonomics Society 52nd Annual Meeting, pp. 272-276. New York, NY: USA.
2. ST-CYR, O. (2007) *Strategy Selection and Compliance: A case-study using a thermal-hydraulic process microworld*. Proceedings of the Human Factors and Ergonomics Society 51st Annual Meeting, pp. 387-391. Baltimore, MD: USA.
3. ST-CYR, O. (2006). *Impact of Sensor Noise Magnitude on Emergent Features of Ecological Interface Design*. Proceedings of the Human Factors and Ergonomics Society 50th Annual Meeting, pp. 319-323. San Francisco, CA: USA. Finalist for the HFES Alphonse Chapanis Best Student Paper Award.
4. KILGORE, R., & ST-CYR, O. (2006). *The SRK Inventory: A tool for structuring and capturing the execution of a Worker Competencies Analysis*. Proceedings of the Human Factors and Ergonomics Society 50th Annual Meeting, pp. 506-509. San Francisco, CA: USA.
5. ST-CYR, O., MALCOLM, J. S., & MCDONALD, A. (2006). *Human Factors on the Point Lepreau Refurbishment Project*. Proceedings of the 27th Annual Conference of the Canadian Nuclear Society, no pagination. Toronto, Ontario: Canada.
6. ST-CYR, O., & VICENTE, K. J. (2005). *Sensor Noise and Ecological Interface Design: Effects of increasing noise magnitude on operators' performance*. Proceedings of the Human Factors and Ergonomics Society 49th Annual Meeting, pp. 417-421. Orlando, FL: USA.
7. ST-CYR, O., & VICENTE, K. J. (2004). *Sensor Noise and Ecological Interface Design: Effects on operators' Control performance*. Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting, pp. 538-542. New Orleans, LA: USA.
8. ST-CYR, O., & HOLLANDS, J. G. (2003). *Judgments of proportion with graphs: Object-based advantages*. Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting, pp. 1659-1662. Denver, CO: USA.
9. NUNES, A., & ST-CYR, O. (2003). *Predictive Aids and Mental Models under Free Flight: Proceed with Caution*. Proceedings of the 12th Biennial International Symposium on Aviation Psychology, pp. 900-905. Dayton, OH: USA.

10. ST-CYR, O., & BURNS, C. M. (2002). *Mental Models and Ecological Interface Design: An Experimental Investigation*. Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting, pp. 270-274. Baltimore, MD: USA.
11. ST-CYR, O., & BURNS, C. M. (2001a). *Mental Models and the Abstraction Hierarchy: Assessing Ecological Compatibility*. Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting, pp. 297-301. Minneapolis, MN: USA.
12. BURNS, C. M., KUO, J., CHOW, R., GARABET, A., ST-CYR, O., & VICENTE, K. J. (2001). *Future networks: How will people manage?* Proceedings of the Workshop on New Visions for Large-Scale Networks: Research and Applications. Vienna, VA: USA.
13. ST-CYR, O., LESPÉRANCE, Y., & STUERZLINGER, W. (2000). *An Intelligent Assistant for Computer-Aided Design: Extended Abstract*. Smart Graphics – Papers from the 2000 AAAI Spring Symposium, Technical Report SS-00-04, pp. 24-28. AAAI Press, Menlo Park, CA: USA.

**C. BOOK
CHAPTER**

1. KILGORE, R. M., ST-CYR, O., & JAMIESON, G. A. (2008). *From work domains to worker competencies: a five-phase cognitive work analysis*. In A. M. Bisantz, & C. M. Burns (Eds.). Applications of Cognitive Work Analysis, pp. 15-47, Boca Raton, FL: CRC Press.

**D. MISC. NON-
REFEREED
PAPERS**

1. ST-CYR, O., & VICENTE, K. J. (2003). *Sensor Noise and Ecological Interface Design: Effects of Data Uncertainty in a Process Control Microworld*. The Brunswik Society Newsletter, 19, p. 29, October 2003.
2. ST-CYR, O. (2002). *Introduction to HCI (student guest editor)*. ACM Crossroads: Special issue on Human-Computer Interaction (Fall-2002), 9(1), p. 3. ACM Press.
3. ST-CYR, O., & BURNS, C. M. (2001b). *Designing interfaces for visualizing complex information*. Poster Proceedings – Graphics Interface 2001, pp. 6-7. Ottawa, Canada.
4. ST-CYR, O., LESPÉRANCE, Y., & STUERZLINGER, W. (2000). *A Knowledge-Based Agent for CAD systems*. Poster Proceedings – Graphics Interface 2000, pp. 14-15. Montréal, Canada.

E. POSTERS

1. *Designing interfaces for visualizing complex information*. Poster – Graphics Interface 2001, June 7-9, 2001. Ottawa Marriot, Ottawa, Canada.
2. *Mental Models and the Abstraction Hierarchy: Assessing Ecological Compatibility*. Poster – CHI 2001 SV Informal Poster Session, March 31 - 5 April, 2001. Seattle, WA: USA.
3. *A Knowledge-Based Agent for CAD systems*. Poster – Graphics Interface 2000, May 15-17, 2000. Palais des Congrès, Montréal, Canada.

F.
PRESENTATIONS

1. *The SRK Inventory: A tool for structuring and capturing the execution of a Worker Competencies Analysis.* 50th Annual Meeting of the Human Factors and Ergonomics Society, October 16-20, 2006. Hilton San Francisco, San Francisco, CA: USA.
2. *Impact of Sensor Noise Magnitude on Emergent Features of Ecological Interface Design.* 50th Annual Meeting of the Human Factors and Ergonomics Society, October 16-20, 2006. Hilton San Francisco, San Francisco, CA: USA.
3. *Human Factors on the Point Lepreau Refurbishment Project.* 27th Annual Conference of the Canadian Nuclear Society, June 11-14, 2006. Marriott Eaton Centre, Toronto, Ontario: Canada.
4. *Ecological Interface Design.* Human Factors Seminar Series, March 20, 2006. Atomic Energy of Canada Limited, Mississauga, Ontario: Canada.
5. *Sensor Noise and Ecological Interface Design: Effects of increasing noise magnitude on operators' performance.* 49th Annual Meeting of the Human Factors and Ergonomics Society, September 26-30, 2005. Royal Pacific at Universal Orlando, Orlando, FL: USA.
6. *Sensor Noise and Ecological Interface Design: Effects on Operators' Control Performance.* 5th Annual Inter-University Workshop on Human Factors Engineering, November 13, 2004. University of Waterloo, Waterloo, Canada.
7. *Sensor Noise and Ecological Interface Design: Effects on Operators' Control Performance.* 48th Annual Meeting of the Human Factors and Ergonomics Society, September 20-24, 2004. Sheraton New Orleans Hotel, New Orleans, LA: USA.
8. *Sensor Noise and Ecological Interface Design.* 4th Annual Inter-University Workshop on Human Factors Engineering, November 8, 2003. University of Toronto, Toronto, Canada.
9. *Judgments of proportion with graphs: Object-based advantages.* 47th Annual Meeting of the Human Factors and Ergonomics Society, October 13-17, 2003. Adams Mark Hotel, Denver, CO: USA.
10. *Mental Models and Ecological Interface Design: An Experimental Investigation.* 46th Annual Meeting of the Human Factors and Ergonomics Society, September 29 - 4 October, 2002. Baltimore Waterfront Marriott Hotel, Baltimore, MD: USA.
11. *An Ecological Approach to Mental Models: Towards Assessing Ecological Compatibility.* University of Waterloo Graduate Student Research Conference, April 3, 2002. University of Waterloo, Waterloo, Canada.

12. *The Importance of Human Factors Education in Undergraduate Engineering Curriculums*. TRACE Research Paper Presentation, December 5, 2001. University of Waterloo, Waterloo, Canada.
13. *Assessing Ecological Compatibility of Mental Models*. 2nd Annual Inter-University Workshop on Human Factors Engineering, November 3, 2001. University of Waterloo, Waterloo, Canada.
14. *Mental Models and the Abstraction Hierarchy: Assessing Ecological Compatibility*. 45th Annual Meeting of the Human Factors and Ergonomics Society, October 8-12, 2001. Minneapolis Convention Center, Minneapolis, MN: USA.
15. *Mental Models and Ecological Interface Design*. Inter-University Workshop on Human Factors Engineering, November 3-4, 2000. University of Toronto, Toronto, Canada.
16. *An Intelligent Assistant for Computer-Aided Design*. Smart Graphics – 2000 AAAI Spring Symposium, March 20-22, 2000. Stanford University, Palo Alto, CA: USA.

SERVICE

A. PROFESSIONAL ACTIVITIES

1. Chair of the volunteer committee and speaker's bureau of the Human Factors and Ergonomics Society: 2006 – 2007.
2. Chair of the Cognition and Perception in Displays technical session: Cognitive Engineering and Decision-Making Technical Group, Human Factors and Ergonomics Society 50th Annual Meeting.
3. Student Volunteer Program Chair: Human Factors and Ergonomics Society 49th Annual Meeting, September 26 – 30, 2005. Orlando, FL: USA.
4. Co-Chair of the Ecological Interface Design, Decision Biases, and Styles technical session: Cognitive Engineering and Decision-Making Technical Group, Human Factors and Ergonomics Society 49th Annual Meeting.
5. Student Volunteer Program Chair: Human Factors and Ergonomics Society 48th Annual Meeting, September 20 – 24, 2004. New Orleans, LA: USA.
6. Co-Chair of the Displays and Interface Design technical session: Cognitive Engineering and Decision-Making Technical Group, Human Factors and Ergonomics Society 48th Annual Meeting.
7. Student Volunteer Program Chair: Human Factors and Ergonomics Society 47th Annual Meeting, October 13 – 17, 2003. Denver, CO: USA.

8. Student Volunteer Program Chair: Human Factors and Ergonomics Society 46th Annual Meeting, September 30 – October 4, 2002. Baltimore, MD: USA.
9. Student Conference Organizer: 2nd Annual Inter-University Workshop on Human Factors Engineering, November 3, 2001. University of Waterloo, Waterloo, Canada.
10. Student Volunteer: GI 2001 Conference, June 7-9, 2001. Ottawa, Canada.
11. Student Volunteer: CHI 2001 Conference, March 31 - April 5, 2001. Seattle, WA: USA.
12. Student Volunteer: CHI 99 Conference, May 15-20, 1999. Pittsburgh, PA: USA.

**B. EDITOTIAL
AND REVIEWER
WORK**

1. Reviewer for *ACCELERATE Canada* internships program.
2. Reviewed and updated International Electrotechnical Commission (IEC) Standard 61227 on *Nuclear power plants - Control rooms - Operator controls*. (with J. Scott Malcolm)
3. Active participant in a new IEEE Standard on *Recommended Practices for Root Cause Analysis* in the Nuclear Industry.
4. Reviewer for *Human Factors*.
5. Reviewer for *International Journal of Human-Computer Studies*
6. Reviewer for *IEEE SMC: Systems, Man, & Cybernetics*.
7. Reviewer for *IEEE TNS: Transactions on Nuclear Science*.
8. Reviewer for *OMEGA: The International Journal of Management Science*.
9. Reviewer of conference papers for the Human Factors and Ergonomics Society Annual Meetings, Cognitive Engineering and Decision-Making Technical Group.
10. Student Guest Editor for Crossroads 9.1: A special edition of the ACM Crossroads Student Magazine on Human-Computer Interaction (Fall-2002 issue).

**C. INVITED
WORKSHOP**

1. *Change data capture - what is it and how it impacts solutions architecture?* CASCON 2009 Workshops, November 2, 2009. Hilton Suites Toronto/Markham Conference Centre, Markham, Canada (with Kris Kobylinski, Dan Snoddy, Mike Jory, and Mir Rupik).

2. *Real-time data integration through change data capture. CASCON 2008 Workshops*, October 29, 2008. Sheraton Parkway Toronto North Hotel and Convention Centre, Richmond Hill, Canada (with Kris Kobylinski and Dan Snoddy).
3. *User-Centered Design. SELF-ACE 2001 – Professional Workshops*, October 2, 2001. Bonaventure Hilton Hotel, Montréal, Canada (with Dr. Carolyn G. MacGregor).

D. INVITED PRESENTATION

1. *Design for Sociotechnical Systems: The Importance of Human Factors Engineering. Guest lecture at the Ontario College of Art & Design, Design Methodologies: Theories and Concepts (VISC 3B11) undergraduate class*, November 15 and 18, 2004; March 21, 2006.
2. *On the DUal REservoir Simulation System (DURESS). Online guest lecture for the University of Virginia, Cognitive Systems Engineering (SYS 623) graduate class*, April 1, 2004.

AWARDS RECEIVED

A. NATIONAL

1. NSERC Postgraduate Scholarship (PGS-B) National Research Award.
2. NSERC Postgraduate Scholarship (PGS-A) National Research Award.

B. INTERNAL

1. The Glynn Williams Doctoral Fellowship. Department of Mechanical & Industrial Engineering, University of Toronto.
2. The Mary H. Beatty Fellowship: PhD entrance scholarship. School of Graduate Studies, University of Toronto.
3. University of Waterloo Graduate Scholarship for Academic Excellence (Fall-2001 and Summer-2001).
4. Prestigious awards centre of York University: Academic Excellence Scholarship (Fall/Winter 1999/2000 and Fall/Winter 1998/1999).
5. Community Service Bursary Program – York University, Glendon College.
6. Prestigious awards centre of York University, residence scholarship.
7. Prestigious awards centre of York University, BA entrance scholarship.

C. HONOURS

1. First Class Graduation – B.A. York University, Glendon College.
2. Four times Member of the Principal's Honour Roll – York University, Glendon College.
3. R.A.P.: recognition diploma for extracurricular activities.

EXTRACURRICULAR ACTIVITIES

A. HUMAN FACTORS RELATED

1. 2004: HFES Student Chapter President for the Human Factors Interest Group (HFIG), Department of Mechanical and Industrial Engineering, University of Toronto.
2. 2000 – 2001: Chair of WatCHI (Waterloo Computer-Human Interaction student chapter – Association for Computing Machinery), University of Waterloo.

B. UNIVERSITY LIFE

1. 2004 – 2006: Non-Resident Junior Fellow of Massey College, University of Toronto.
2. 2000 – 2002: Residence DON for the University of Waterloo Housing Services. *A DON assist residents in adapting to university life, implement educational and social programs for residents, refer policies and regulations for the well being of residents.*

PROFESSIONAL MEMBERSHIPS

Society	Dates
Association of Canadian Ergonomists	2001 – 2006
Association for Computing Machinery (+SIGCHI)	1999 – Present
The Brunswik Society	2000 – Present
Human Factors and Ergonomics Society (+CEDM)	2000 – Present
Institute of Electrical and Electronics Engineers (+SMC +SA)	2000 – 2007
International Society for Ecological Psychology	2001 – 2006

LANGUAGES

Fluently bilingual: English and French.

Certificate of Bilingualism – French and English.
York University, June 2000.