

U. Ottawa, School of Electrical Engineering and Computer Science

January 2018

COMPLETE LIFETIME CURRICULUM VITAE

a) NAME:

LETHBRIDGE, Timothy C., Full Professor, P.Eng, I.S.P

b) DEGREES:

Ph.D. Computer Science, University of Ottawa, 1994

M.Sc.(CS), University of New Brunswick, 1987

B.Sc.(CS), University of New Brunswick, 1985

c) EMPLOYMENT HISTORY:

- 2010-17 and 19-23 Vice-Dean (Governance), Faculty Secretary and Member of Senate, Faculty of Engineering, University of Ottawa
- 2005- Full Professor, School of Electrical Engineering and Computer Science, University of Ottawa
- 2005 Acting Associate Dean (Academic Affairs), Faculty of Engineering, University of Ottawa (12 month appointment)
- 2001-05 Associate Professor, School of Information Technology and Engineering, University of Ottawa
- 1997-01 Assistant Professor (tenure track), *ibid.*
- 1994-97 Assistant Professor (non tenure-track) Department of Computer Science, University of Ottawa
- 1990-95 Consultant: Various research contracts
- 1987-89 Member of Scientific Staff, Bell-Northern Research
- 1986 Sessional Lecturer, Computer Science, University of New Brunswick
- 1984-87 Consultant: Various contracts performing software development and writing
- 1982-85 Province of New Brunswick, Data Processing Division, Programmer and Programmer-analyst (full-time co-op and part-time)

d) HONOURS:

- 2016 [IEEE Computer Society TCSE Outstanding Educator Award](#)
- 2010 Gary Hadford Professional Achievement Award, Canadian Information Processing Society, “[to] CIPS members ... recognized by their peers for their integrity, high degree of competence, and outstanding achievements in fields related to information technology.”
- 2010 Cascon High Impact Paper Award for one of best 14 out of 425 papers published in the first decade of Cascon, for C16. Singer, J., Lethbridge, T.C., Vinson, N, and Anquetil, N (1997) "An Examination of Software Engineering Work Practices",
- 2009 WCRE Award for Best Paper from 10 years before for C22. Anquetil, N., and Lethbridge, T.C. (1999), “Experiments with Clustering as a Software Remodularization Method”, Working Conference on Reverse Engineering, pp 235-255
- 2006 Outstanding Contribution Award, IEEE, For contributions to the development of SE-2004
- 2004 The Mather Premium: £500 prize given once a year for a paper published in an IEE Journal on computing. For J11. Anquetil, N., and Lethbridge,

- T.C. (2003), "A Comparative Study of Clustering Algorithms and Abstract Representations for Software Remodularization", IEE Proceedings - Software, pp. 185-201
 2001 Senior member IEEE.

e) SCHOLARLY AND PROFESSIONAL ACTIVITIES:

- Ongoing Senior Member of IEEE, Member of IEEE Computer Society, Member of ACM, Member of CIPS
- 2013- General Chair for 2015, IEEE/ACM Models Conference, and member of the Steering committee
- 2010-17 Member, Senate, University of Ottawa
- 2013-17 and 18-19 Member, Senate Executive, University of Ottawa
- 2009-17 Member, Council on Undergraduate Studies, University of Ottawa
- 2008- Professional Engineer, Ontario (Software Engineering)
- 2008-14 Chair, Computer Science Accreditation Council (CSAC), Canadian Information Processing Society (CIPS)
- 2008-09 Chair, Collective Bargaining Committee, APUO
- 2008- Teaching Evaluator for formal Teaching Evaluations, University of Ottawa
- 2007-10 Program coordinator, Software Engineering Program, University of Ottawa
- 2007-14 Member of the program committee, International Conference on Program Comprehension
- 2007-10 Member, FTPC, Faculty of Engineering, University of Ottawa
- 2006- Information Systems Professional (ISP)
- 2006-07 Software Engineering Education program co-chair, ICSE 2007
- 2005- Member of the Board, Computer Science Accreditation Council
- 2005-14 Member of the Committee for the CSDP (Certified Software Development Professional) and the CSDA (Certified Software Development Associate) designations; IEEE Computer Society
- 2005- Program visitor, Computer Science Accreditation Council (CSAC), Canadian Information Processing Society (CIPS).
- 2005-09 Member of the Collective Bargaining Committee, APUO
- 2005-07 Chair, CACS/AIC Committee on Software Engineering, Accreditation and Professionalism
- 2004-05 Program coordinator, Computer Science Program, University of Ottawa.
- 2004-05 Member of Faculty Executive, Faculty of Engineering, University of Ottawa & 09-17 & 18-23 Ottawa
- 2004-05 Member, Committee on Special Cases, Faculty of Graduate and Postdoctoral Studies, University of Ottawa
- 2004-10 Chair, Steering Committee, Conference on Software Engineering Education and Training, IEEE Computer Society
- 2004 Co-Chair, Workshop on Predictive Software Models, in conjunction with International Conference on Software Maintenance, Chicago
- 2004 Co-Chair, Workshop on Knowledge-Oriented Maintenance, in conjunction with, the Conference on Software Engineering and Knowledge Engineering, Banff
- 2003-13 Member of the program committee, MoDELS/UML Conference
- 2002-05 General Chair, Conference on Software Engineering Education and Training, Ottawa, 2005 (Sponsored by the IEEE Computer Society)
- 2002-05 Curriculum co-chair SE-2004: IEEE-CS/ACM Computing Curriculum / Software Engineering Volume (effort to create an international standard

- for software engineering curricula)
- 2002- Member of the program and steering committees, Conference on Software Engineering Education and Training
- 2002 Member of the program committee, WSE 2002 (Web Site Evolution conference)
- 2001- Certified Software Development Professional (CSDP), IEEE Computer Society
- 2001-02 Program Chair, Conference on Software Engineering Education and Training (Sponsored by the IEEE Computer Society)
- 2000-01 Member of the case studies program committee, ICSE 2001
- 1999-2010 Member of the board, Association of Professors of the University of Ottawa
- 1999-03 Member of the Health Science and Science Research Ethics Committee, University of Ottawa.
- 1997-2002, 2000-05 and 2007-17 Member, Faculty Council, Faculty of Engineering, University of Ottawa
- 1997, 2000, 2002-05, 2007- Member of the program committee, CASCON, IBM Toronto.
- 1997-00 Supervisor of Students, Ovitesse Program
- 1996-2005, 2007- Member of Software Engineering Program Committee (School of Information Technology and Engineering, University of Ottawa
- 1996 Consulted by PEO at round-table session about Software Engineering as an Engineering subdiscipline
- 1995- Journal Reviewer (12-15/year) : Softw. & Syst. Modeling (Ed. Board 2015-), J. Syst, and Softw., Empirical Softw. Engg., Softw. Practice & Experience, Info. & Softw. Tech., Softw. Quality J., ACM Trans. Comput. Educ., J. Softw. Evolution & Process, IEEE Trans. Educ., IEEE Softw., IEEE Comput., IET Trans Softw. others.
- 1993-96 Member of Software Engineering Curriculum Council (Developer of courses), Institute for Government Informatics Professionals, Federal Government of Canada
- 1992-94 Member, Council, School of Graduate Studies and Research, University of Ottawa
- 1989-91 Member, Board of Governors, University of Ottawa
- 1985-87 Member, Board of Governors, University of New Brunswick
- 1982-86 Member, Senate, University of New Brunswick

f) GRADUATE SUPERVISIONS:

Completed: 10 Ph.D, 4 Ph.D. co-supervision,
11 M.Sc. thesis, 7 M.Sc. co-supervision, 3 M.Sc. Projects
In progress: 4 Ph.D

NAMES OF STUDENTS:

PhD Theses (E-Business)

- Robert Weisman, "A unified management framework for knowledge-based enterprises", Sep 2014; Expected 2018
- Aliaa Alghamdi, "Agile Enterprise Modeling", Sept 2015; Expected 2019

PhD Theses (OCICS – Computer Science)

- Abdulaziz Algablan, Thesis topic TBD, Sept 2016 Expected Late 2020

- Sultan Eid Almagthawi, “Generation of Testcases in Model-Oriented Programming”, Sep 2013 Expected 2019
- Mahmoud Orabi, “Facilitating the Representation of Composite Structure, Active objects, Code Generation, and Software Component Descriptions in the Umple Model-Oriented Programming Language”, Jan 2012- **July 2017**
- Ahmed Orabi, “Multi-Modal Technology for User Interface Analysis including Mental State Detection and Eye Tracking Analysis”, Jan 2012- **July 2017**
- Hamoud Aljamaan, “Model-Oriented Tracing: Specifying trace cases and tracing for UML associations and state machines”, Jan 2010- **November 2015**
- Miguel Garzon, “Umplification: Incremental reverse engineering from source code to model-oriented programs in Umple”, Direct transfer from Masters, Sept 2010- **July 2015**
- Omar Bahy Badreldin, “A Manifestation of Model-Code Duality: Facilitating the Representation of State Machines in the Umple Model-Oriented Programming Language”, Dec 2007- **March 2012**
- Andrew Forward, “The Convergence of Modeling and Programming: Facilitating the Representation of Attributes and Associations in the Umple Model-Oriented Programming Language”, Sept 2006- **October 2010**
- Adam Murray, “Discourse Structure of Software Explanation: Snapshot Theory, Cognitive Patterns and Grounded Theory Methods”, Sept 2000 - **Sept 2006**
- Abdelwahab Hamou-Lhadj, “Techniques to Simplify the Analysis of Execution Traces for Program Comprehension”, Direct transfer from Masters, January 2000 – **Oct 2005**
- Iyad Zayour, “Reverse Engineering: A Cognitive Approach, a Case Study and a Tool”, January 1999 - **March 2002**

PhD Thesis – (OCIECE – Electrical and Computer Engineering)

- Vahdat Abdelzad, “Promoting Traits into Model-Driven Development”, May 2013 – **July 2017**

PhD Thesis Co-supervisions (OCICS)

- Adesina Opeyemi, co-supervised with Stéphane Somé, “Integrating Formal Methods with Model-Driven Engineering”, September 2013, **July 2017**
- Ali Fatollahi, co-supervised with Stéphane Somé, “An Abstract Meta-Model for Model Driven Development of Web Applications Targeting Multiple Platforms”, May 2006 – **August 2012**
- Edna Braun, co-supervised with Daniel Amyot, “Reverse engineering behavioral models by filtering out utilities from execution traces”, Sept 2002 – **September 2013**
- Jelber Sayyad-Shirabad, co-supervised with Stan Matwin, “Learning Usage Patterns to Assist Source Code Browsing”, Sept 1994 –**2003**

Masters Theses (OCICS)

- Amid Zakariapour, “Distributed Systems in Umple”, Co-supervised with Gregor Boehmann, Sept 2015- **January 2018**
- Sultan Eid Almagthawi, “Generation of C++ From the Umple Model-Oriented Programming Technology”, Sept 2010-**Sept 2013**
- Jenya Levin, “System Generation for Time and Activity Management Product Lines”, Sept 2008-**Dec 2009**

- Dusan Brestovansky, “Exploring Textual Modeling Using the Umple Language”, Sept 2007-**Oct 2008**
- Mehrdad Nojournian, “Document Engineering of Complex Software Specifications”, Oct 2005-**June 2007**.
- Max Nozin, “A Privacy Framework to Provide Users with Control, Accuracy and Audit”, co-supervised with Liam Peyton, April 2004 - **Jul 2005**
- Rana Khartabil, “User-Centered Design and Evaluation of a Dynamic Biochemical Pathway Visualization Tool”, Jan 2003 – **Apr 2005**
- Eric Fu, “Exploration and Visualization of Large Execution Traces”, Jan 2003 – **April 2005**.
- Xuyen On, “Interactive Web Charts for Visualizing Large Data Sets”, co-supervised with Liam Peyton, Sept 2002 - **Mar 2005**
- Andrew Forward, “Software Documentation: Building and Maintaining Artefacts of Communication”, Sept 2001 – **Oct 2002**
- Huixiang Liu, “Intelligent Search Techniques for Large Software Systems”, January 2000 - **Nov 2001**
- Francisco Herrera, “A Usability Study of the "TkSee" Software Exploration Tool”, Sept 1997 - **Sept 1999**

Masters Theses (OCIECE)

- Hanna Farah, “Applying Cognitive Patterns to Support Software Tool Development”, Sept 2005 - **Dec 2006**

Masters Theses (Systems Science)

- Aliaa Alghamdi (M.Sc. Systems Science), “Extensions to Umple for Interconnected State Machines”, Co-supervised with Gregor Bochmann, Jan 2012 – **Jan 2015**.
- Julian Solano (M.Sc. Systems Science), “Exploring How Model Oriented Programming Can Be Extended to the User Interface Level”, Jan 2008- **March 2010**
- Bo Zhao (M.Sc. Systems Science), “An Enriched Web Services Client Architecture for Management and Sharing of Context”, co-supervised with Liam Peyton, Jan 2004-**May 2005**.
- LiQun Wang (M.Sc. Systems Science), “Animated Exploring of Huge Software Systems”, Sept 1998 – **Jan 2003**

Masters Projects (Computer Science)

- Priya Ramalingom, “Adding A Generic Debugger to a Source Code Exploration Environment”, Sept 1995 - **Dec 1997**
- Lisa Borgia, “Performance Comparison of Memory-Mapped C++ Objects with a Commercial Database”, Sept 1996 - **Dec 1998**
- Mohammad Mtairek, “Object-Oriented Abstractions of Non Object-Oriented Software”, Sept 1998 – **April 2002**

g) COURSES TAUGHT

<u>Course Taught</u>	<u>Yr Times Taught</u>
Software Usability	G 10 (W99, W00, W01, W03, W04, F08,
F10,	

OO Anal & Des/Advanced SW Design (S/F94,W95,F95*2,F96,W/F97,F98,F99,	W12, W16, W17) 3/4 18
Software Design I, Intro to SE	2 19 (F98, F99, F00, F01*2, F02*2, F03*2, F04*2, W07, W08, F09, F10, F11, F12,F13, F14)
Professional Practice	2 3 (W10,W13, W14)
Capstone project in Software Engineering	4 10 (00-01, 01-02 10-11, 11-12, 12-13, 13-14, 14-15, 15-16, 2016, 16-17)
Software Evolution & Re-engineering	4 5 (W/S93, F94, W/F96)
User Interface Analysis & Design	3/4 8 (S95, W96, S/F97, W/S00, W/S01)
Analyse et Conception Orientées Objet	4 1 (W96 in French)
Software Engineering	3/4 8 (W91, F93, W/F94, W/F95, W98, W99)
Data Structures	2 1 (W96)
Smalltalk Programming Lab	2 1 (W90)
Interactive Programming in APL	2 1 (S86)
Computer Science Concepts in Fortran	1 1 (S86)

h) EXTERNAL RESEARCH FUNDING:

<i>Year</i>	<i>Source</i>	<i>Type</i>	<i>Amount per year</i>	<i>Purpose</i>
16-21	NSERC	C	\$23,000 per yr	Research
5 yrs	Discovery grant			Principal investigator: self
11-16	ORF and IBM and GM	C	\$50,000 per yr	Research
11-16	NSERC	C	\$29,000	Research
5 yrs	Discovery grant			Principal investigator: self
09-11	NSERC and Ericsson (CRD)	C/O	\$26450 per yr	Research
				Principal investigator: Michel Dagenais
				The above is my portion; total is \$215104
07-10	IBM	O	\$30,000 per yr	Research
06-11	NSERC	C	\$27,800 per yr	Research
5 yrs	Discovery grant			Principal investigator: self
05-06	NSERC	C	\$36,000 per yr	Research
1 yr	Matching the following			Principal investigator: self
04-07	IBM/CSER	O	\$28,000 (2004-05)	Research
3 yrs			\$36,000 (2005-07)	
				Principal investigator: self
03-04	NCIT/QNX	G/O	\$42,000	Research
18 months				Principal investigator: self
02-06	NSERC	C	\$29,500/yr	Research
4 yrs	Discovery grant			Principal investigator: self
99	SSHRC	C	\$5,000	Research
1 yr				Principal investigator: Gail Crombie, School of Psychology
99-02	CSER with Mitel and NSERC	C	\$180,000/yr	Research

3 yrs	Continuation of below		Principal investigator: self
98-01	NSERC	C \$11,000	Research
4 yrs			Principal investigator: self
96-98	Consortium for Software Engineering Research (CSER) with Mitel and NSERC	C/O \$183,678 (1998) \$170,970 (1997) \$169,650 (1996)	Research
3 yrs			Principal investigator: self
These funds are my portion of the total CSER spending of \$2,660,590 granted to Universities of Waterloo, Acadia, Toronto, Montreal, Victoria and Ottawa.			
96	Mitel	O \$60,000	Research
			Principal investigator: self

i) INTERNAL RESEARCH FUNDING:

15-17	Stipend	\$7500/yr	Research
08-14	Stipend	\$2500/yr	Research
95-97	From professional fees	O \$14,105 total	Research

j) PUBLICATIONS:

Life-time summary

Papers in refereed journals	23
Papers in refereed conference proceedings	116
Refereed chapters in books	9
Books authored	2
Books edited	2
Major invited contributions	1
Technical Reports	10
Papers in non-refereed conference proceedings	7
Patents pending	1

Papers in refereed journals (Graduate student and postdoc co-authors highlighted)

- J23. **Adesina, O**, Lethbridge, T.C., Somé, S., **Abdelzad, V.**, and **Boaye Belle, A.**, (2018) "Improving Formal Analysis of State Machines with Particular Emphasis on And-Cross Transitions", *Computer Languages, Systems and Structures*, Elsevier.
- J22. **Boaye Belle, A**, Lethbridge, T.C., Garzón, M., **Adesina, O** (2017) "Design and implementation of distributed expert systems: on a control strategy to manage the execution flow of rule activation", *Expert Systems and Applications*, 96, <https://doi.org/10.1016/j.eswa.2017.11.033> pp.129–148.
- J21 **Abdelzad, V**, and Lethbridge, T.C. (2015) "Promoting Traits into Model-Driven Development", *Software and Systems Modeling*, 16:997–1017 <http://rdcu.be/v7BV>
- J20 **Forward, A., Badreddin, O.**, Lethbridge, T.C., **Solano, J.**, (2011) "Model-Driven Rapid Prototyping with Umple", *Software Practice and Experience*, 42: pp. 781-797 DOI: 10.1002/spe.1155
- J19 **Fatollahi, A.** Somé S. and Lethbridge, T.C. (2011) "A Meta-Model for Model-Driven Web Development", *Int. J. Software and Informatics* 6(2):125~162, http://www.ijsi.org/ch/reader/view_abstract.aspx?file_no=i117

- J18 **Nojournian, M.** and Lethbridge T.C. (2011) “Automatic Conversion of Complex PDF Documents into Multilayer Hypertexts”, *Int. J Knowledge and Web Intelligence*, 2, 4, DOI: 10.1504/IJKWI.2011.045165 pp. 292-319.
- J17 **Fatollahi, A.** Somé S. and Lethbridge, T.C. (2011) "Model-Driven Web Development for Multiple Platforms", *J. Web Engineering*, Vol 10, No. 2, pp. 109-152.
<http://www.rintonpress.com/xjwe10/jwe-10-2/109-152.pdf>
- J16. **Hamou-Lhadj, A.**, Lethbridge, T.C., (2010), “A Metamodel for the Compact but Lossless Exchange of Execution Traces:”, *Software and Systems Modeling*, Springer, DOI 10.1007/s10270-010-0180-x, 22pp.
- J15. **Hamou-Lhadj, A.**, Lethbridge, T.C., (2010), “Understanding the Complexity Embedded in Large Routine Call Traces with a Focus on Program Comprehension Tasks”, *IET Software*, 4 (2), pp. 161-177.
- J14. Lethbridge, T.C., LeBlanc, R., Sobel, A., Hilburn, T and Díaz-Herrera, J. (2006), “SE 2004: Recommendations for Undergraduate Software Engineering Curricula”, *IEEE Software*, Nov-Dec 2006, pp. 19-25.
- J13. Lethbridge, T.C., Sim, S., and Singer, J. (2005), “Studying Software Engineers: Data Collection Methods for Software Field Studies”, *Empirical Software Engineering*, 10 (3), July 2005, pp. 311-341.
- J12. Lethbridge, T.C., Singer, J and **Forward, A.**, (2003) “How software engineers use documentation: the state of the practice”, *IEEE Software* special issue: The State of the Practice of Software Engineering, Nov/Dec 2003, pp 35-39.
- J11. **Anquetil, N.**, and Lethbridge, T.C. (2003), “A Comparative Study of Clustering Algorithms and Abstract Representations for Software Remodularization”, *IEE Proceedings - Software*, pp. 185-201. Winner of the Mather Premium award.
- J10. **Liu, H.**, and Lethbridge, T. (2002), “Intelligent Search Methods for Software Maintenance”, *Information Systems Frontiers*, 4, 4, pp. 409-423.
- J9. Lethbridge, T.C. (2001), “Mixing Software Engineering Research and Development – What Needs Ethical Review and What Does Not?”, *Empirical Software Engineering*, 6 pp. 319-322.
- J8. Lethbridge, T.C. (2000), “What Knowledge is Important to a Software Professional?”, *IEEE Computer*, May, pp. 44-50.
- J7. Lethbridge, T.C. (2000), "Evaluating a Domain-Specialist Oriented Knowledge Management System", *International Journal of Human-Computer Studies.*, 52,6, June, pp. 961-990.
- J6. Lethbridge, T. (2000), “Priorities for the Education and Training of Software Engineers”, *Journal of Systems and Software.*, 53,1, pp. 53-71.
- J5. **Anquetil, N.**, and Lethbridge, T.C. (1999), “Recovering Software Architecture from the Names of Source Files”, *Journal of Software Maintenance: Research and Practice*, 11, pp. 201-221.
- J4. Lethbridge, T. (1998), “The Relevance of Software Education: A Survey and Some Recommendations”, *Annals of Software Engineering*, 6, pp. 91-110.
- J3. Lethbridge, T.C. (1998). “Metrics for Concept-Oriented Knowledge Bases”, *International Journal of Software Engineering and Knowledge Engineering*, June 1998, 8 (2), pp. 161-188.

- J2. Skuce, D. and Lethbridge, T.C. (1995). "CODE4: A Unified System for Managing Conceptual Knowledge". *International Journal of Human-Computer Studies* 42, pp. 413-451.
- J1. Lethbridge, T.C. and Ware, C. (1989). "A Simple Heuristically-Based Method for Expressive Stimulus-Response Animation", *Computers and Graphics: an International Journal* 13 (3), pp. 297-303.

Papers in refereed conference proceedings

- C116. **Husseini-Orabi, M., Husseini-Orabi, A.,** and Lethbridge, T.C. (2018) "Concurrent Programming using Umple", *Modelsward 2018*, to appear
- C115. **Husseini-Orabi, M., Husseini-Orabi, A.,** and Lethbridge, T.C. (2018) "Component-Based Modeling in Umple", *Modelsward 2018*, to appear
- C114. Lethbridge, T.C., Peyton, L., Amyot, D., Somé, S, (2017) "The University of Ottawa Undergraduate Software Engineering Program: Leading and Innovative", *Conference on Software Engineering Education and Training, Savannah GA, IEEE*, pp. 5-6
- C113. **Agner, Luciane T. W.** and Lethbridge, T.C., (2017) "A Survey of Tool Use in Modeling Education", *Models 2017, IEEE Computer Society*, pp 303-311.
- C112. Badreddin, O., **Abdelzad, V.,** Lethbridge, T.C., and Elaasar, M., (2016) "fSysML: Foundational Executable SysML for Cyber-Physical System Modeling", *Gemoc 2016, Models 2016, France, CEUR 1731*, pp. 38-51 http://ceur-ws.org/Vol-1731/paper_3.pdf
- C111. **Adesina, O.,** Somé, S., and Lethbridge, T., (2016) "Modeling State Diagrams with And-Cross Transitions", *MoDeVVa 2016, Models 2016, France, CEUR*
- C110. Lethbridge, T.C., **Abdelzad, V., Husseini Orabi, M., Husseini Orabi, A., Adesina, O.,** (2016) "Merging Modeling and Programming using Umple", *ISOLA 2016, Corfu, Springer LNCS 9953*, pp. 187-197.
- C109. **Adesina, O.,** Lethbridge, T., and Somé, S., (2016) "A fully automated approach to discovering non-determinism in state machine diagrams", *10th Int. Conf. On the Quality of Information and Communications Technology, Portugal*.
- C108. De Castro Lima, E., Resende, A., Lethbridge T.C. (2016), "The Uncomfortable Discrepancies of Software Metric Thresholds and Reference Values in Literature", *ICSEA 2016, Rome*
- C107. George, A., Lethbridge, T.C., Peyton, L. (2016), "Graduate Attribute Assessment In Software Engineering Program At University Of Ottawa – Continual Improvement Process", *Canadian Engineering Education Conference, Halifax NS June*.
- C106. **Abdelzad, V.,** Lethbridge, T.C., Hosseini, M. (2016) "The Role of Semiotic Engineering in Software Engineering", *5th International Workshop on Theory-Oriented Software Engineering, ICSE 2016*, pp. 15-21.
- C105. **Husseini Orabi, A., Husseini Orabi, M.,** Lethbridge, T.C. (2016), "Psychophysiological Observing and Analysis Tool for User Experience", *SEMotion: 1st International Workshop on Emotion Awareness in Software Engineering, ICSE 2016*, pp. 22-25.
- C104. **Husseini Orabi, M., Husseini Orabi, A.,** Lethbridge, T.C. (2016) "Umple as a component-based language for the development of real-time and embedded applications", *Modelsward 2016*, pp. 282-291

- C103. Badreddin, O, Sturm, A, Hamou-Lhadj, A., Lethbridge T.C., Dixon, W., Simmons, R., (2015) “The Effects of Education on Student Perceptions of Modeling in Software Engineering”, HuFaMo Workshop, Models 2015 Ottawa, CEUR, pp 39-46.
- C102. **Aljamaan, H.** Lethbridge T.C., **Garzon, M.** (2015) “UmpleRun: a Dynamic Analysis Tool for Textually Modeled State Machines using Umple”, EXE 2015, CEUR, pp. 16-20.
- C101. **Aljamaan, H.**, Lethbridge T.C. (2015) “MOTL: a Textual Language for Trace Specification of State Machines and Associations”, Cascon 2015, ACM, 101-110.
- C100. **Abdelzad, V.**, Amyot, D., Lethbridge, TC. (2015) “Adding a Textual Syntax to an Existing Graphical Modeling Language: Experience Report with GRL”, 17th International System Design Languages Forum, Springer, LNCS 9369, Oct 2015, pp. 159-174
- C99. **Braun, E.**, Amyot, D., Lethbridge, TC. (2015) “Generating Software Documentation in Use Case Maps from Filtered Execution Traces”, 17th International System Design Languages Forum, Springer, LNCS 9369, Oct 2015, pp 177-192 (Winner of best paper award)
- C98. **Abdelzad, V.**, Amyot, D., Alwidian, S., Lethbridge, TC, (2015) “A Textual Syntax with Tool Support for the Goal-oriented Requirement Language”, International iStar Workshop, Ottawa, Canada, CEUR 978, August 2015, pp. 61-66
- C97. **Garzon, M.**, **Aljamaan, H.**, Lethbridge, T., (2015) “Umple: A Framework for Model Driven Development of Object-Oriented Systems”, 22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER), pp 494-498
- C96. **Abdelzad, V.**, **Aljamaan, H.**, **Adesina, O.**, **Garzon, M.**, Lethbridge, T., (2014) “A Model-Driven Solution for Financial Data Representation Expressed in FIXML”, Proc, Transformation Tool Contest 2014, York, UK, CEUR 1305
- C95. Lethbridge, T., (2014) “Umple: An Open-Source Tool for Easy-To-Use Modeling, Analysis, and Code Generation”, Models 2014 Demonstrations Track, Valencia Spain, CEUR, <http://ceur-ws.org/Vol-1255/paper6.pdf>
- C93. **Garzon, M.**, Lethbridge, T.C., **Aljamaan, H.**, and Badreddin, O. (2014) “Reverse Engineering of Object-Oriented Code into Umple using an Incremental and Rule-Based Approach”, Cascon 2014, ACM.
- C92. Badreddin, O., Sturm, A. and Lethbridge, T.C. (2014) “Requirement Traceability: A Model-Based Approach”, Model-Driven Requirements Engineering Workshop, RE 2014, Stockholm, Sweden, IEEE, pp 87-91.
- C91. Lethbridge, T.C. (2014), “Teaching Modeling Using Umple: Principles for the Development of an Effective Tool”, CSEE&T 2014, IEEE Computer Society, Austria, pp 23-28.
- C90. **Badreddin, O.**, Lethbridge, T.C., **Forward, A.** (2014), “Investigation and Evaluation of UML Action Languages”, MODELSWARD 2014, Portugal, INSTICC, pp. 264-273
- C89. **Badreddin, O.**, Lethbridge, T.C. and **Forward, A.** (2014), “A Novel Approach to Versioning and Merging Model and Code Uniformly”, MODELSWARD 2014, Portugal.

- C88. **Badreddin, O.**, Lethbridge, T.C., **Forward, A.**, Elasaar, M. **Aljamaan, H.**, **Garzon, M.** (2014), “Enhanced Code Generation from UML Composite State Machines”, MODELSWARD 2014, Portugal, INSTICC, pp. 235-245
- C87. **Badreddin, O.**, **Forward, A.**, and Lethbridge, T.C. (2014), “A Test-Driven Approach for Developing Software Languages”, MODELSWARD 2014, Portugal, INSTICC, pp. 225-234.
- C86. **Aljamaan, H.**, Lethbridge, T.C., **Badreddin, O.**, **Guest, G.**, and **Forward, A.** (2014), “Specifying Trace Directives for UML Attributes and State Machines”, MODELSWARD 2014, Portugal, INSTICC, pp 79-86
- C85. Lethbridge, T.C. (2013) “Key Properties for Comparing Modeling Languages and Tools: Usability, Completeness and Scalability”, Comparing Modeling Approaches 2013, Miami, FL, CEUR, <http://ceur-ws.org/Vol-1076/paper3.pdf>
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- TR9. **A. Forward**, T.C. Lethbridge, "A Taxonomy of Software Types", University of Ottawa, School of Information Technology and Engineering Technical Report TR-2008-06, <http://www.site.uottawa.ca/eng/school/publications/techrep/2008/TR-2008-06-Taxonomy-Forward-Lethbridge.pdf>
- TR8. **A. Fatolahi**, S. Some, T.C. Lethbridge, "Automatic Generation of Abstract Web Applications using QVT Relations", University of Ottawa, School of Information Technology and Engineering Technical Report TR-2008-02, <http://www.site.uottawa.ca/eng/school/publications/techrep/2008/FatohaliSomeLethbridge.pdf>
- TR7. Lethbridge, T., and Port, D., "A Brief Guide to Researching and Writing for CSEE&T", www.site.uottawa.ca/cseet2005/
- TR6. Lethbridge, T. (1999), "The Relevance of Education to Software Practitioners: Data from the 1998 Survey", University of Ottawa, Computer Science Technical report TR-99-06, 81 pages.
- TR5. **Anquetil, N.**, and Lethbridge, T. (1999), "Combination of Different Clustering Algorithms for Reverse Engineering", University of Ottawa, Computer Science Technical report TR-99-02

- TR4. **Anquetil, N.**, and Lethbridge, T. (1998), "Design Quality of Subsystems Extracted from File Names", University of Ottawa, Computer Science Technical report TR-98-06
- TR3. Lethbridge, T. (1998), "Industrial Needs for Software Engineering Education: Report from the 1997 CASCON Workshop", IBM Technical Report
- TR2. Lethbridge, T. and Anquetil, N., (1997) "Architecture of a Source Code Exploration Tool: A Software Engineering Case Study", University of Ottawa, Computer Science Technical report TR-97-07.
- TR1. Nash, J and Lethbridge T. (1997), "A Synchronous Teamwork Approach to SoftwareDevelopment" Technical Report, Faculty of Administration, University of Ottawa, Working paper 97-50

See also lists of papers for cases where a longer version of a paper exists as a technical report.

Other Invited Presentations

- June, 1997 "Java: Where Does it Best Fit?", Association of Public Sector Information Professionals, Ottawa
- April, 1997 "Java: Looking Beyond the Hype", Faculty of Administration, University of Ottawa
- June, 1996 "Java: The Next Major OO Language?" Data Processing Institute, Professional Development Week.
- June 1996 "Software Engineering: Keys to Success." Presentations in Moncton, Halifax and Charlottetown to industrial software engineering practitioners interested in furthering their education.