

U. Ottawa, School of Electrical Engineering and Computer Science

July 2017

*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

- & 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, 3 Ph.D. co-supervision,  
 11 M.Sc. thesis, 4 M.Sc. co-supervision, 3 M.Sc. Projects  
 In progress: 5 Ph.D, 1 Ph.D. co-supervision, 1 M.Sc co-supervision

NAMES OF STUDENTS:

PhD Theses (E-Business)

- Robert Weisman, "A unified management framework for knowledge-based enterprises", Sep 2014; Expected Late 2017
- 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 Late 2017
- 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 Fatolahi, 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- Expected August 2017
- Sultan Eid Almagthawi, “Generation of C++ From the Umple Model-Oriented Programming Technology”, Sept 2010-**Sep 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</u>	<u>Times Taught</u>
Software Usability	G	10 (W99, W00, W01, W03, W04, F08, F10, W12, W16, W17)
OO Anal & Des/Advanced SW Design	3/4	18 (S/F94, W95, F95*2, F96, W/F97, F98, F99, W04, W05, W07, W08, W09, W10, W11, F15)
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	C/O	\$183,678 (1998)	Research
3 yrs Engineering Research (CSER)		\$170,970 (1997)	
with Mitel and NSERC		\$169,650 (1996)	

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
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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 .....	21
Papers in refereed conference proceedings .....	113
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)*

J21 **Abdelzad, V.** and Lethbridge, T.C. (2015) "Promoting Traits into Model-Driven Development", *Software and Systems Modeling*, <http://rdcu.be/mSAc>

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](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 **Fatolahi, 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*

- C113. Agner, Luciane T. W.. and Lethbridge, T.C., (2017) “A Survey of Tool Use in Modeling Education”, Models 2017, IEEE, in press.
- 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](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”, 10<sup>th</sup> 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: 1<sup>st</sup> 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>
- C84. Mussbacher, G. Alam, O., Alhaj, M., Ali, S., Amalio, N., Barn, B., Braek, R., Clark, T., Combarnale, B., Cysneiros, L., Fatima, U., France, R., Georg, G., Horkoff, J., Kienzle, J., Leite, J., Lethbridge, T.C., Luckley, M., Moreira, A., Mutz, F., Oliveira, A., Petriu, D., Schöttle, M., Troup, L and Werneck, V. (2013) “Assessing composition in modeling approaches”, CMA, ACM, DOI 10.1145/2459031.2459032
- C83. **Badreddin, O, Forward, A.,** and Lethbridge, T.C. (2013), “Exploring a Model-Oriented and Executable Syntax for UML Attributes”, SERA 2013, Springer SCI 496, pp. 33-53, DOI:10.1007/978-3-319-00948-3\_3
- C82. **Badreddin, O, Forward, A.,** and Lethbridge, T.C. (2013), “Improving Code Generation for Associations: Enforcing Multiplicity Constraints and Ensuring Referential Integrity”, SERA 2013, Prague, Czech Republic, Springer SCI 496, pp. 129-149, DOI: 10.1007/978-3-319-00948-3\_9
- C81. **Badreddin, O.**, Lethbridge, T.C. and Elassar, M. (2013), “Modeling Practices in Open Source Software”, International Conference on Open Source Systems, E. Petrinja et al. (Eds.): OSS 2013, IFIP AICT 404, Springer, pp. 127–139.
- C80. **Badreddin, O.**, and Lethbridge, T.C. (2013), “Model Oriented Programming: Bridging the Code-Model Divide”, Modeling in Software Engineering, in conjunction with ICSE 2013, pp. 69-75.

- C79. Lethbridge, T.C. (2012), “A Model of bCMS Using the Umple Model-Oriented Programming Approach”, Comparing Modeling Approaches 2012, Innsbruck Austria.
- C78. **Aljamaan, H.**, and Lethbridge, T.C. (2012), “Towards Tracing at the Model Level”, WCRE 2012, Kingson.
- C77. **Garzon, M.**, and Lethbridge, T.C. (2012), “Exploring how to Develop Transformations and Tools for Automated Umplification”, WCRE 2012, Kingston.
- C76. **Badreddin, O.**, **Forward, A.**, and Lethbridge, T. (2012), “Model Oriented Programming: An Empirical Study of Comprehension”, Cascon, ACM. Winner of Best Student Paper award.
- C75. **Badreddin, O.** and Lethbridge, T. (2012) “Combining Experiments and Grounded Theory to Evaluate a Research Prototype: Lessons from the Umple Model-Oriented Programming Technology”, 2012 First International Workshop on User evaluation for Software Engineering Researchers (USER 2012), in conjunction with ICSE 2012, pp 1-4. DOI: 10.1109/USER.2012.6226575.
- C74. Lethbridge, T., Mussbacher, G, **Forward, A.** and **Badreddin, O.** (2011) “Teaching UML Using Umple: Applying Model-Oriented Programming in the Classroom”, CSEE&T 2011, pp. 421-428.
- C73. **Fatolahi, A.**, Somé, S. and Lethbridge, T.C., (2011), “Towards Reusability in Web Modeling Using QVT Relations”, Webist 2011.
- C72. Lethbridge, T.C., **Forward, A.** and **Badreddin, O.** (2010), “Umplification: Refactoring to Incrementally Add Abstraction to a Program”, Working Conference on Reverse Engineering (WCRE), Boston, October 2010, pp. 220-224.
- C71. **Forward, A.**, **Badreddin, O.**, and Lethbridge T.C. (2010), “Perceptions of Software Modeling: A Survey of Software Practitioners”, 5th Workshop From code centric to model centric: Evaluating the effectiveness of MDD (C2M:EEMDD), Paris, June 2010, <http://www.esi.es/modelplex/c2m/papers.php>.
- C70. **Fatolahi, A.**, Somé, S. and Lethbridge, T.C., (2010), “Designing a Map of Mappings: Visualization of QVT Relations using Basic Petri-Nets”, 2nd International Workshop on Future Trends of Model-Driven Development (FTMDD 2010), Madeira, Portugal (Springer), pp.33-45.
- C69. **Forward, A.**, **Badreddin, O.**, and Lethbridge T.C. (2010), “Umple: Towards Combining Model Driven with Prototype Driven System Development”, 21st IEEE International Symposium on Rapid System Prototyping, Fairfax VA, June.
- C68. **Fatolahi, A.**, Somé, S. and Lethbridge, T.C., (2010), “Automated Generation of Use Case Descriptions from Problem Frames”, Software Engineering Research, Management & Applications (SERA 2010), pp 223-230.
- C67. **Forward, A.**, Lethbridge, T.C., and **Brestovansky, D.** (2009), “Improving Program Comprehension by Enhancing Program Constructs: An Analysis of the Umple language”, *International Conference on Program Comprehension (ICPC) 2009*, Vancouver, IEEE Computer Society, pp. 311-312.

- C66. **Fatolahi, A.**, Somé, S. and Lethbridge, T.C., (2008) “Towards a Semi-Automated Model-Driven Method for the Generation of Web-based Applications from Use-cases”, *MDWE 2008: Model Driven Web Engineering*, in conjunction with *Models 2008*, Toulouse, France, [http://mdwe2008.pst.ifi.lmu.de/accepted\\_papers\\_final/1\\_some\\_mdwe2008.pdf](http://mdwe2008.pst.ifi.lmu.de/accepted_papers_final/1_some_mdwe2008.pdf).
- C65. **Forward, A.** and Lethbridge, T.C. (2008) “A Taxonomy of Software Types to Facilitate Search and Evidence-Based Software Engineering”, *Cascon 2008*, IBM and ACM, pp. 179-191.
- C64. **Fatolahi, A.**, Somé, S. and Lethbridge, T.C., (2008) “A Model-Driven Approach for the Semi-Automated Generation of Web-based Applications from Requirements”, *SEKE 2008: Conference on Software Engineering and Knowledge Engineering*, Redwood City, CA, Knowledge Systems Institute, pp. 619-624.
- C63. **Forward, A.**, and Lethbridge, T.C. (2008), “Problems and Opportunities for Model-Centric Versus Code-Centric Software Development: A Survey of Software Professionals”, *Workshop on Modeling in Software Engineering*, in conjunction with *ICSE 2008*, Leipzig, ACM, pp. 27-32
- C62. **Farah, H.** and Lethbridge, T.C. (2007), “Temporal Exploration of Software Models: A Tool Feature to Enhance Software Understanding”, *WCRE 2007*, Vancouver, IEEE Computer Society, pp. 41-49.
- C61. **Forward, A.**, Lethbridge, T.C. and Deugo, D (2007), “CodeSnippets Plug-in to Eclipse: Introducing Web 2.0 Tagging to Improve Software Developer Recall”, *Software Engineering Research, Management and Applications (SERA) 2007*, August, IEEE Computer Society, pp. 451-460.
- C60. **Fatolahi, A.** Somé, S.S, and Lethbridge, T.C. (2007) “Enterprise Architecture using the Zachman Framework: A Model Driven Approach”, *Information Resources Management Association International Conference*, Vancouver, B.C., pp 65-69.
- C59. **Nojournian, M.**, and Lethbridge, T.C. (2007), “Extracting Document Structure to Facilitate a Knowledge Base Creation for The UML Superstructure Specification”, *4th International Conference on Information Technology : New Generations*, Las Vegas, IEEE Computer Society, pp 393-400.
- C58. **Nojournian, M.**, and Lethbridge, T.C. (2006), “A New Approach for the Trust Calculation in Social Networks”, *International Conference on E-Business*, Lisbon, Portugal, August, INSTICC, pp. 257-264. Updated version republished (2008) in *E-business and Telecommunication Networks*, Communications in Computer and Information Science, Vol. 9, Springer, pp. 64-77.
- C57. **Hamou-Lhadj, A.** and Lethbridge, T.C. (2006), “Summarizing the Content of Large Traces to Facilitate the Understanding of the Behaviour of a Software System”, *International Conf. on Program Comprehension*, Athens, Greece, 2006, IEEE Computer Society, pp. 181-190.

- C56. Thompson, J.B, and Lethbridge, T.C. (2006), “Software Engineering 2004 – A Jewel in the ACM/IEEE-CS Curricula Effort”, *Education for the 21st Century 2006, IFIP World Computer Congress*, Santiago, Chile, pp. 417-421.
- C55. **Murray, A.** and Lethbridge, T.C. (2005), “Cognitive Patterns for Program Comprehension: Temporal Details”, *Pattern Languages of Program Design (PLoP) 2005*, Allerton Park, IL, USA.
- C54. **Murray, A.** and Lethbridge, T.C. (2005), “On Generating Cognitive Patterns of Software Engineering” *CASCON 2005*, Toronto, October, IBM, in ACM Digital Library, pp. 129-139.
- C53. **Murray, A.** and Lethbridge, T.C. (2005), “Presenting Micro-Theories of Program Comprehension in Pattern Form”, *International Workshop on Program Comprehension (IWPC)*, St. Louis, May, IEEE Computer Society Press, pp. 45-54.
- C52. **Hamou-Lhadj, A.**, Lethbridge, T.C., and Fu, L. (2005), “SEAT: A Usable Trace Analysis Tool”, *International Workshop on Program Comprehension (IWPC)*, St. Louis, May, IEEE Computer Society Press, pp. 157-160.
- C51. **Hamou-Lhadj, A.** and Lethbridge, T.C. (2005) “Measuring Various Properties of Execution Traces to Help Build Better Trace Analysis Tools”, *10th International Conference on Engineering of Complex Computer Systems (ICECCS)*, Shanghai China, IEEE Computer Society, pp. 559-568.
- C50. Atlee, J.M., LeBlanc, R.J, and Lethbridge, T.C. (2005) “Software Engineering 2004: ACM/IEEE-CS Guidelines for Undergraduate Programs in Software Engineering”, *International Conference on Software Engineering (ICSE) 2005*, pp. 623-624.
- C49. **Hamou-Lhadj, A., Braun, E., Amyot, D** and Lethbridge, T.C. (2005) “Recovering Behavioral Design Models from Execution Traces”, *9th European Conference on Software Maintenance and Reengineering (CSMR)*, Manchester, UK, IEEE Computer Society, pp. 112-121.
- C48. **Murray, A.**, and Lethbridge, T.,C. (2004) “A Brief Summary of Cognitive Patterns for Program Comprehension”, *Working Conference on Reverse Engineering*, Delft, Netherlands, IEEE Computer Society, pp. 304-305.
- C47. **Hamou-Lhadj, A.**, and Lethbridge, T.C., (2004) “A Survey of Trace Exploration Tools and Techniques”, *CASCON 2004*, Toronto, October, IBM, in ACM Digital Library, pp. 42-55.
- C46. **Hamou-Lhadj, A.**, and Lethbridge, T.C. (2004) “Reasoning About the Concept of Utilities”, *1st ECOOP International Workshop on Practical Problems of Programming in the Large*, , Oslo, Norway, June, *Lecture Notes In Computer Science (LNCS)* volume 3344, Springer-Verlag, pp. 10-22.
- C45. **Hamou-Lhadj, A.**, Lethbridge, T.C., and **Fu, L.** (2004) “Challenges and Requirements for an Effective Trace Exploration Tool”, *International Workshop on Program Comprehension 2004*, Bari, Italy, June, IEEE Computer Society Press, pp 70-78.

- C44. Lethbridge, T.C. (2004) “Value Assessment by Potential Tool Adopters: Towards a Model that Considers Costs, Benefits and Risks of Adoption”, *ACSE 2004: 4th International Workshop on Adoption -Centric Software Engineering*, in conjunction with ICSE 2004, Edinburgh Scotland, May, IEE Press, ISBN 0-86341-421-4, pp 46-50.
- C43. **Sayyad Shirabad, J.**, Lethbridge, T.C. and Matwin, S. (2004) “Mining the Software of a Legacy Telephony System”, *MSR 2004: International Workshop on Mining Software Repositories*, in conjunction with ICSE 2004, Edinburgh Scotland, May, IEE Press, pp 53-57.
- C42. **Hamou-Lhadj, A.**, and Lethbridge, T.C., (2003) “A Metamodel for Dynamic Information Generated from Object-Oriented Systems”, *ATEM 2003, First International Workshop on Meta-Models and Schemas for Reverse Engineering*, in conjunction with WCRE, Victoria, B.C., revised version published in *Electronic Notes in Theoretical Computer Science*, Elsevier, Vol. 94, pp 59-69.
- C41. Lethbridge, T.C., Sander Tichelaar, and Erhard Ploedereder (2003) “The Dagstuhl Middle Metamodel: A Schema for Reverse Engineering” , *ATEM 2003, First International Workshop on Meta-Models and Schemas for Reverse Engineering*, WCRE, Victoria, B.C., in *Electronic Notes in Theoretical Computer Science*, Elsevier, Vol. 94, pp 7-18.
- C40. **Hamou-Lhadj, A.** and Lethbridge, T.C., (2003) “Techniques for Reducing the Complexity of Object-Oriented Execution Traces”, *VisSoft 2003*, Amsterdam, pp. 35-40.
- C39. **Sayyad Shirabad, J.**, Lethbridge, T.C. Matwin, S. (2003) “Applying Data Mining to Software Maintenance Records”, *proc CASCON 2003*, Toronto, October, IBM, in ACM Digital Library, pp. 136-148.
- C38. **Sayyad Shirabad, J.**, Lethbridge, T.C., Matwin, S., (2003) “Mining the Maintenance History of a Legacy Software System”, *International Conference on Software Maintenance (ICSM)*, Amsterdam, IEEE Computer Society, pp. 95-104.
- C37. Bagert, D, Barbacci, M., Budgen, D., Lethbridge, T.C, Suryan, W., and van Vliet, H., (2003) “Thoughts on Software Engineering Knowledge, and how to Organize it”, *STEP 2002 post-conference proceedings*, IEEE Computer Society, pp. 24-35.
- C36. Bourque, P., Robert, F., Lavoie, J-M., Lee, A., Trudel, S., and Lethbridge, T.C. (2003) “Guide to the Software Engineering Body of Knowledge (SWEBOK) and the Software Engineering Education Knowledge (SEEK) – A Preliminary Mapping”, *STEP 2002 post-conference proceedings*, IEEE Computer Society, pp. 8-23.
- C35. **Hamou-Lhadj, A.**, and Lethbridge, T.C. (2003) “An Efficient Algorithm for Detecting Patterns in Traces of Procedure Calls”, *ICSE Workshop on Dynamic Analysis*, Portland, Oregon, pp. 33-36
- C34. **Murray, A.**, Michaud, J., Lethbridge, T.C., (2003) “An Authoring Framework for Live Documents: Collaborative Writing with Infinite Persistent Annotated Change Tracking (ImPACT)”, *3<sup>rd</sup> Conference on Adoption-Centric Software Engineering*,



- ICSE 2003, Portland, Oregon, SEI Technical Report CMU/SEI-2003-SR-004, <ftp://ftp.sei.cmu.edu/pub/documents/03.reports/pdf/03sr004.pdf>, pp. 55-58
- C33. Hayes, J.H., Lethbridge T.C. and Port, D, (2003) "Evaluating Individual Contribution Toward Group Software Engineering Projects", *International Conference on Software Engineering (ICSE)*, Oregon, USA, pp. 248-250.
- C32. Williams, J.C., Bair, B., Lethbridge, T.C., Börstler, J, and Surandran, K, (2003) "Client Sponsored Projects in Software Engineering Courses", *SIGCSE (Conference of the ACM Special Interest Group on Computer Science Education)*, Reno, USA, pp. 401-402.
- C31. **Forward, A.** and Lethbridge, T.C. (2002), "The Relevance of Software Documentation, Tools and Technologies: A Survey", *DocEng 2002: The ACM Conference on Documentation Engineering*, pp 26-33.
- C30. **Somé, S.** and Lethbridge, T.C. (2002), "Enhancing Program Comprehension with recovered State Models", *International Workshop on Program Comprehension*, Paris, IEEE Computer Society, pp. 85-93..
- C29. **Hamou-Lhadj, A.** and Lethbridge, T.C. (2002), "Compression Techniques to Simplify the Analysis of Large Execution Traces", *International Workshop on Program Comprehension*, Paris, IEEE Computer Society, pp. 159-168.
- C28. **Liu, H.** and Lethbridge, T.C. (2001) "Intelligent Search Techniques for Large Software Systems", *CASCON 2001*, pp 40-54.
- C27. **Sayyad Shirabad, J.**, Lethbridge, T.C. and Matwin, S (2001). "Supporting Software Maintenance by Mining Software Update Records", *ICSM 2001*, pp. 22-31.
- C26. **Zayour, I.** and Lethbridge, T.C., (2001) "Adoption of Reverse Engineering Tools: a Cognitive Perspective and Methodology", *IWPC 2001*, Toronto, pp. 245-255.
- C25. **Sayyad Shirabad, J.**, Lethbridge, T. and Matwin, S . (2000), "Supporting Maintenance of Legacy Software with Data Mining Techniques", *CASCON 2000*, Toronto, November, pp. 137-151.
- C24. **Zayour, I.** and Lethbridge, T.C.. (2000), "A Cognitive and User Centric Based Approach For Reverse Engineering Tool Design", *CASCON 2000*, Toronto, November, pp. 16-30.
- C23. Lethbridge, T.C. (2000), "Integrated Personal Work Management in the TkSee Software Exploration Tool", *Second International Symposium on Constructing Software Engineering Tools (CoSET2000)*, in association with ICSE 2000, Limerick, Ireland, pp. 31-38.
- C22. **Anquetil, N.**, and Lethbridge, T.C. (1999), "Experiments with Clustering as a Software Remodularization Method", *Working Conference on Reverse Engineering*, pp 235-255. [Winner of the best paper award from 10 years before in 2009]
- C21. **Anquetil, N.**, and Lethbridge, T.C. (1998), "Assessing the Relevance of Identifier Names in a Legacy Software System", *CASCON 1998*, 213-222.

- C20. **Some, S.S.** and Lethbridge T.C. (1998), "Parsing Minimizing when Extracting information from Code in the Presence of Conditional Compilation", *6th IEEE International Workshop on Program Comprehension*, Italy, June, pp. 118-125. A longer version appears as University of Ottawa Computer Science Technical Report TR-98-01
- C19. Singer, J., and Lethbridge T.C. (1998), "Studying Work Practices to Assist Tool Design in Software Engineering", *6th IEEE International Workshop on Program Comprehension*, Italy, pp. 173-179. A longer version appears as: University of Ottawa, Computer Science Technical Report TR-97-08
- C18. Lethbridge T.C., (1998), "A Survey of the Relevance of Computer Science and Software Engineering Education", *11th IEEE Conference on Software Engineering Education and Training*, Atlanta, pp. 56-66.
- C17. Anquetil, N. and Lethbridge, T.C., (1998), "Extracting Concepts from File Names; a New File Clustering Criterion", *20th International Conference on Software Engineering*, Japan, April, pp. 84-93.
- C16. Singer, J., Lethbridge, T.C., Vinson, N, and Anquetil, N (1997) "An Examination of Software Engineering Work Practices", *CASCON '97*, Toronto, October, pp. 209-223. [Winner in 2010 of Cascon First Decade High Impact Paper award for one of the 10 best papers out of the 425 published in the first decade of Cascon].
- C15. **Anquetil, N.** and Lethbridge, T.C. (1997) "File Clustering Using Naming Conventions for Legacy Systems", *CASCON '97*, Toronto, October, pp. 184-195.
- C14. Lethbridge, T.C. and Singer J., (1997, October) "Understanding Software Maintenance Tools: Some Empirical Research", *Workshop on Empirical Studies of Software Maintenance (WESS 97)*, Bari Italy, pp. 157-162.
- C13. **Sayyad-Shirabad, J.**, Lethbridge, T.C. and Lyon, S, (1997, May), "A Little Knowledge Can Go a Long Way Towards Program Understanding", *5th International Workshop on Program Comprehension*, Dearborn, MI, pp. 111-117.
- C12. Lethbridge, T.C., Ionescu, D., Mili, A. and Gibbons, D. (1997, April). "An Undergraduate Option in Software Engineering: Analysis and Rationale", *10th Conference on Software Engineering Education and Training*, Virginia Beach. Software Engineering Institute, pp. 120-129.
- C11. Lethbridge, T.C. and Singer, J. (1996, November). "Strategies for Studying Maintenance", *Workshop on Empirical Studies of Software (WESS)*, Monterey, CA, Fraunhofer Institute for Experimental Software Engineering, ISBN 3-00-001337-7, pp. 79-84.
- C10. Singer, J. and Lethbridge, T.C. (1996, November). "Methods for Studying Maintenance Activities", *Workshop on Empirical Studies of Software (WESS)*, Monterey, CA, Fraunhofer Institute for Experimental Software Engineering, ISBN 3-00-001337-7, pp.105-110.

- C9. Bowker, L. and Lethbridge, T.C. (1994, October). "CODE4: Applications for Managing Classification Schemes", *5th ASIS SIG/CR Classification Research Workshop*, Alexandria, Virginia.
- C8. Bowker, L. and Lethbridge, T.C. (1994, June). "Terminology and Faceted Classification: Applications Using CODE4" *Advances in Knowledge Organization* (Third ISKO Conference), Copenhagen, pp. 200-207.
- C7. Lethbridge, T.C. and Skuce, D. (1994, January). "Knowledge Base Metrics and Informality: User Studies with CODE4". *8th Knowledge Acquisition for Knowledge-Based Systems Workshop*. Banff, Alberta, pp 10.1 - 10.19.
- C6. Skuce, D. and Lethbridge, T.C. (1994, January). "CODE4: A Multifunctional Knowledge Management System", *8th Knowledge Acquisition for Knowledge-Based Systems Workshop*. Banff, Alberta, pp 12.1 - 12.21.
- C5. Lethbridge, T.C. and Skuce, D. (1992, October). "Integrating Techniques for Conceptual Modeling", *7th Knowledge Acquisition for Knowledge-based Systems Workshop*. Banff, Alberta, pp 15.1-15.20.
- C4. Bradshaw, J., Holm, P., Boose, J., Skuce, D., and Lethbridge, T.C. (1992, October). "Sharable Ontologies as a Basis for Communicating and Collaborating in Conceptual Modeling", *7th Knowledge Acquisition for Knowledge-Based Systems Workshop*. Banff, Alberta, pp. 3.1-3.25.
- C3. Lethbridge, T. C., and Skuce, D. (1992, October). "Beyond Hypertext: Knowledge Management for the Technical Documenter", *SIGDOC 92*. Ottawa: ACM, pp. 313-322.
- C2. Lethbridge, T. C. (1991, October). "Creative Knowledge Acquisition: An Analysis". *Proc. 6th Knowledge Acquisition for Knowledge-Based Systems Workshop*, Banff, Alberta, pp 12.1-12.20.
- C1. Lethbridge, T.C. and Ware, C. (1987, September). "Animation Using Behaviour Functions", *Proc. Workshop on Visual languages*, Linköping, Sweden.

#### *Chapters in Books:*

- BC9. Lethbridge, T.C. (2015) "Usable Software Tools: Winding Paths of Involvement in Cascon and CAS", CAS 25<sup>th</sup> Anniversary Book
- BC8. Lethbridge, T.C., Lyon, S., and Perry, P.. (2007). 'The Management of University - Industry Collaborations Involving Empirical Studies of Software Engineering', Shull, F., Singer, J, and Sjøberg, D. Eds, *Guide to Advanced Empirical Software Engineering*, Springer, pp. 257-284
- BC7. Singer, J., Sim. S., and Lethbridge, T.C.. (2007). 'Software Engineering Data Collection for Field Studies', Shull, F., Singer, J, and Sjøberg, D. Eds, *Guide to Advanced Empirical Software Engineering*, Springer, pp. 9-34
- BC6. **Sayyad Shirabad, J.**, Lethbridge, T.C. and Matwin, S, (2007) "Discovering Relevance Relations in Software Systems Using Data Mining Techniques", *Advances*

*in Machine Learning Applications in Software Engineering*, D. Zhang and J Tsai eds., Idea Group, Jan 2007, pp. 168-207.

- BC5. Atlee, J., LeBlanc, R., Lethbridge T.C., Sobel, A., and Thompson, B.,(2006) “Reflections on Software Engineering 2004, the ACM/IEEE-CS Guidelines for Undergraduate Programs in Software Engineering”, *Software Engineering Education in the Modern Age, Lecture Notes in Computer Science, Vol. 4309/2006*, Springer Verlag, pp. 11-27.
- BC4. Lethbridge, T.C. and Anquetil, N (2001). “Evaluation of Approaches to Clustering for Program Comprehension and Remodularization”, in Erdogmus, H. and Tanir, O. Eds, *Advances in Software Engineering: Comprehension, Evaluation and Evolution*. Springer-Verlag, ISBN 0-387-95109-1, pp. 141-162.
- BC3. Lethbridge, T.C. and **Herrera, F.** (2001). “Towards Assessing the Usefulness of the TkSee Software Exploration Tool: A Case Study”, in Erdogmus, H. and Tanir, O. Eds, *Advances in Software Engineering: Comprehension, Evaluation and Evolution*. Springer-Verlag, ISBN 0-387-95109-1, pp. 77-98.
- BC2. Lethbridge, T.C. and Singer, J..(2001). “Experiences Conducting Studies of the Work Practices of Software Engineers”, in Erdogmus, H. and Tanir, O. Eds, *Advances in Software Engineering: Comprehension, Evaluation and Evolution*. Springer-Verlag, ISBN 0-387-95109-1, pp. 53-76.
- BC1. Lethbridge, T.C. and Ware, C (1990). “Animation Using Behaviour Functions”, in: Ichikawa et al, Eds, *Visual Languages and Applications*. Plenum: New York, pp 237-252

*Books authored:*

- BA2. Lethbridge, T.C. and Laganière, R. (2004). *Object Oriented Software Engineering: Practical Software Development Using UML and Java*, Second Edition, McGraw Hill: Maidenhead, UK. Major revision of the following.
- BA1. Lethbridge, T.C. and Laganière, R. (2001). *Object Oriented Software Engineering: Practical Software Development Using UML and Java*, First Edition, McGraw Hill: Maidenhead, UK, ISBN 0-07-709761-0 (UK Edition), ISBN 0-07-283495-1 (US Edition), ISBN 7-111-11905-5 (Chinese translation)

*Books edited:*

- BE2. Thompson, J. B., Edwards, H. M., and Lethbridge, T.C. (Eds.), (2004) *Post-Summit Proceedings: International Summit on Software Engineering Education*, University of Sunderland Press, Sunderland, UK, ISBN: 1-873757-34-4 (soft cover), ISBN 1-873757-89-1(CD).
- BE1. Lethbridge, T.C., McCracken, W.M., and Lutz, M. (Eds.) (2002) *Proceedings: 15<sup>th</sup> Conference on Software Engineering Education and Training*, IEEE Computer Society Press, ISBN 0-7695-1515-0.

*Major invited contributions*

IN1. Lethbridge, T.C., Díaz-Herrera, J., LeBlanc, R.J., and Thompson, J.B., (2007), “Improving Software Practice through Education: Challenges and Future Trends”, *Frontiers of Software Engineering*, Briand, L. Ed, International Conference on Software Engineering, IEEE Computer Society, pp. 12-28.

*Patents Pending*

Pat1. **Farah, M.** Antkiewicz, M. Mindel, **A. Murray** and T. Lethbridge (2007) “Systems, Methods and Computer Program Products for Tracking and Viewing Changes to Information Stored in a Data Structure”, Filed by IBM in Canada (2603490) and USA (20080072209).

*Papers in non-refereed conference proceedings*

CN9. Akayama, S., Demuth, B., Lethbridge, T.C., Scholz, M., Stevens, P., Stikkolorum, D.R. (2014), “Tool use in software modelling education”, *MODELS 2014 Educators’ Symposium*, Post-conference proceedings of workshops, *MoDELS 2013*, <http://ceur-ws.org/Vol-1134/paper6.pdf>.

CN7. Giese, H., Roques, P., and Lethbridge. T.C. (2006), “Summary of the Educator’s Symposium”, Post-conference proceedings of workshops, *MoDELS 2005*, Montego Bay Jamaica, *Lecture Notes in Computer Science 3844/2006*, Springer, pp. 302-305.

CN6. **Sayyad Shirabad, J.**, Matwin S., and Lethbridge, T.C. (2004), “Predictive Software Models”, *Software Technology and Engineering Practice, 2004. STEP 2004*, 10 pp.

CN5. Singer, J and Lethbridge, T.C. (1998) “Just-in-Time-Comprehension vs. the Full-coverage Strategy”, *Workshop on Empirical Studies of Software (WESS)*, Bethesda, Maryland.

CN4. Lethbridge, T., B. Probert, J. Raymond, D. Gibbons, D. Ionescu, L. Orozco-Barbosa, and S. Szpakowicz, (1998, July), “The University of Ottawa’s Software Engineering Program: Curriculum Design Issues for a New Subdiscipline”, *Canadian Conference on Engineering Education*, Halifax, pp. 551-560.

CN3. Lethbridge, T., and Skuce, D. (1992, July), “Informality in Knowledge Exchange”. *Proc. AAAI-92 Workshop on Knowledge Representation Aspects of Knowledge Acquisition*. San Jose pp 93-99.

CN2. Bradshaw, J., Boose, J., Shema, D., Skuce, D., & Lethbridge, T. (1992, July). “Steps Toward Sharable Ontologies for Design Rationale”. *Proc. AAAI-92 Design Rationale Capture and Use Workshop*. San Jose, pp. 29-38.

CN1. Lethbridge, T. C. (1991, May). “A Model for Informality in Knowledge Representation and Acquisition”. *Proc. DARPA-sponsored Workshop on Informal Computing*, Santa Cruz: Incremental Systems, pp.175-177.

*Technical reports*

- TR10. **A. Forward**, T.C. Lethbridge, "Perceptions of Software Modeling: A Survey of Software Practitioners", University of Ottawa, School of Information Technology and Engineering Technical Report TR-2008-07,  
<http://www.site.uottawa.ca/eng/school/publications/techrep/2008/TR-2008-07-Survey-On-Software-Modeling-Forward-Lethbridge.pdf>
- 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. Fatollahi**, 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/](http://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.