Natural Sciences and Engineering Research Council of Canada | Conseil de recherches en sciences naturelles et en génie du Canada

FORM 100
Personal Data Form
PART I

Date: 2010/10/26

Family name	Given name	Initial(s) of all given names	Personal identification no. (PIN)
Pottinger	Rachel	RA	290625

☐ I hold a faculty position at an eligible Canadian college (complete Appendices B1 and C)

☐ I do not or will not hold an academic appointment at a Canadian postsecondary institution

Place of employment other than a Canadian postsecondary Institution (give address in Appendix A)

APPOINTMENT AT A POSTSECONDARY INSTITUTION

Title of position: Assistant Professor

Department: Computer Science

Campus: Vancouver

Canadian postsecondary institution: British Columbia

Tenured or tenure-track academic appointment — Yes [X] No [ ]

Part-time appointment [ ] Full-time appointment [X]

- For all non-tenured or non tenure-track academic appointment and Emeritus Professors, complete Appendices B & C
- For life-time Emeritus Professor and part-time positions, complete Appendix C

ACADEMIC BACKGROUND

Degree	Name of discipline	Institution	Country	Date yyyy/mm
Bachelor's	Computer Science	Duke University	UNITED STATES	1997 / 05
Master's	Computer Science and Engineering	University of Washington	UNITED STATES	1999 / 12
Doctorate	Computer Science and Engineering	University of Washington	UNITED STATES	2004 / 8

TRAINING OF HIGHLY QUALIFIED PERSONNEL

Indicate the number of students, fellows and other research personnel that you:

	Currently		Over the past six years (excluding the current year)		
	Supervised	Co-supervised	Supervised	Co-supervised	Total
Undergraduate	1		7	1	9
Master's	3	2	6	2	13
Doctoral	2				2
Postdoctoral		1			1
Others					
Total	6	3	13	3	25

Personal information collected on this form and appendices will be stored in the Personal Information Bank for the appropriate program.
PROTECTED WHEN COMPLETED

Version française disponible

Completed

ACADEMIC, RESEARCH AND INDUSTRIAL EXPERIENCE (use one additional page if necessary)

Position held (begin with current)	Organization	Department	Period (yyyy/mm to yyyy/mm)
Assistant Professor	British Columbia	Computer Science	2004/09
Research Intern (summers only)	Microsoft	Database Research Group	2001/06 to 2003/09
Research Intern	Hewlett-Packard Labs	Storage Systems Program	1998/06 to 1998/09
Research Assistant	University of Washington	Computer Science and Engineering	1998/04 to 2004/08
Teaching Assistant	University of Washington	Computer Science and Engineering	1998/04 to 1999/12
Research Intern	Lucent Technologies	Information Sciences Research Center	1997/06 to 1997/08
Undergraduate Teaching Assistant	Duke University	Computer Science	1994/09 to 1997/05

Personal identification no. (PIN)	Family name
290625	Pottinger

RESEARCH SUPPORT

Family name and initial(s) of applicant	Title of proposal, funding source and program, and time commitment (hours/month)	Amount per year	Years of tenure (yyyy)

List all sources of support **(including NSERC grants and university start-up funds)** held as an applicant or a co-applicant: a) support held in the past four (4) years but now completed; b) support currently held, and c) support applied for. For group grants, indicate the percentage of the funding directly applicable to your research. Use additional pages as required.

a) Support held in the past 4 years

Rachel Pottinger	Extending, Verifying, and Applying Metadata NSERC RGPIN (Discovery) 60 hours/month	22,000 22,000 22,000	2005 2006 2007
Jose Marti and 12 others	Decision coordination for critical linkages in a national network of infrastructures NSERC-PSEPC Joint Infrastructure Interdependencies Research Program	226,664 (0%) 339,996 (5%) 339,996 (5%) 113,332 (5%)	2005 2006 2007 2008
Rachel Pottinger	Data management techniques for unmanaged data NSERC Discovery Grant 40 hours/month	20,500 20,500	2008 2009

b) Support currently held

Rachel Pottinger	n/a University of British Columbia Startup Grant 0 hours/month	60,000	2004

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Personal identification no. (PIN)	Family name
290625	Pottinger

RESEARCH SUPPORT

Family name and initial(s) of applicant	Title of proposal, funding source and program, and time commitment (hours/month)	Amount per year	Years of tenure (yyyy)

List all sources of support **(including NSERC grants and university start-up funds)** held as an applicant or a co-applicant: a) support held in the past four (4) years but now completed; b) support currently held, and c) support applied for. For group grants, indicate the percentage of the funding directly applicable to your research. Use additional pages as required.

b) Support currently held

Sheryl Staub-French and 3 others	ARTIFACT: Advanced Research, Techniques, and Informatics for Future Advantages in Construction NSERC Strategic 25 hours/month	147,500 (25%) 147,500 (25%) 147,500 (25%)	2007 2008 2009
Renée Miller and 14 others	NSERC Strategic Network on Business Intelligence Natural Sciences and Research Council of Canada (NSERC) Stra Strategic Network 25 hours/month	1,000,000 (5%) 1,000,000 (5%) 1,000,000 (5%) 1,000,000 (5%) 1,000,000 (5%)	2009 2010 2011 2012 2013
Iluju Kiringa and 2 others	Requirements-Driven Data Warehousing: A Preliminary Proof-of-Concept Study NSERC and Business Objects Collaborative Research Grant 20 hours/month	82,956 (20%) 54,356 (33%)	2009 2010

PROTECTED WHEN COMPLETED

Highly Qualified Personnel (HQP)

Provide personal data about the HQP that you currently, or over the past six years, have supervised or co-supervised.

Personal identification no. (PIN)	Family name
290625	Pottinger

Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis	Present Position
Chen, Charles Z.	Master's (In Progress)	Supervised 2010 -	Query processing in a top down data warehouse	MSc student, University of British Columbia
Li, Tianyu	Master's (In Progress)	Co-supervised 2010 -	Creating ontologies from text data	MSc student, University of British Columbia
Lou, Yun	Undergraduate (In Progress)	Supervised 2010 -	Integrating spatial and non spatial data on building designs	Undegraduate student, University of British Columbia
Salari, Jamila	Master's (In Progress)	Supervised 2010 -	Query processing in a top down data warehouse	MSc student, University of British Columbia/Maternity Leave
Moosavi, Ali	Master's (In Progress)	Co-supervised 2009 -	Automatically building an ontology from text data	Master's Student, Computer Science, UBC
Rizzolo, Flavio	Postdoctoral (In Progress)	Co-supervised 2009 -	Creating a top down datawarehouse	Postdoc
Shakya, Dibesh	Master's (In Progress)	Supervised 2009 -	Creating a prototype top-down data driven data warehouse	Master's Student , Computer Science, UBC
Lawrence, Michael	Doctoral (In Progress)	Supervised 2007 -	Managing Data for Future Advantages in Construction	PhD Student, Computer Science, UBC
Xu, Jian	Doctoral (In Progress)	Supervised 2006 -	Managing Disaster Management Data	PhD Student, Computer Science, UBC
Salari, Jamila	Undergraduate (Completed)	Supervised 2009 - 2010	Managing and Querying Unstructured Data in AEC	Undergraduate, Computer Science, UBC
Webster, April	Master's (Completed)	Supervised 2008 - 2010	Integrating Spatial and Relational Data	IBM Research
Kiarostami, Piam	Undergraduate (Completed)	Supervised 2009 - 2009	Improving creation of biomedical web services workflows	Software developer, Fotomoto
Zhang, Jiemin	Master's (Completed)	Supervised 2007 - 2009	Managing Data for Future Advantages in Construction	Master's Student , Computer Science, UBC
Carbonetto, Andrew	Master's (Completed)	Co-supervised 2006 - 2008	Matching Biomedical Ontologies using a meta ontology	MDA
DiBernardo, Michael	Master's (Completed)	Supervised 2007 - 2007	Assistive Workflow Assembly for Web Service Composition	PlateSpin/Novell
(Name withheld)	Undergraduate (Completed)	Supervised 2007 - 2007	Understanding architecture data	Real estate
Webster, April	Undergraduate (Completed)	Supervised 2007 - 2007	Integrating Spatial and Relational Data	IBM Research
Chang, San	Undergraduate (Completed)	Supervised 2006 - 2006	Extracting data from Building Information Models	Freelance web designer and web host
Kwan, Clarence	Undergraduate (Completed)	Co-supervised 2006 - 2006	Improving display of integrated biological data in Bio-Moby	Unknown
Sun, Xun	Master's (Completed)	Supervised 2005 - 2006	Schema Reintegration Using Generic Schema Manipulation	Software Design Engineer at Microsoft

Highly Qualified Personnel (HQP)

Provide personal data about the HQP that you currently, or over the past six years, have supervised or co-supervised.

Personal identification no. (PIN)	Family name
290625	Pottinger

Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis	Present Position
Wang, Shuan	Master's (Completed)	Co-supervised 2005 - 2006	Access Control in XML PDMS Query Answering	Microsoft Corporation
Wang, Ting	Master's (Completed)	Supervised 2005 - 2006	SeMap: A Generic Schema Matching System	PhD student, Geogia Institute of Technology
Zhao, Jie	Master's (Completed)	Supervised 2005 - 2006	Schema Mediation and Query Processing in Peer Data Mgt.	Barclays Capital (Singapore)
Irmscher, Kevin	Undergraduate (Completed)	Supervised 2005 - 2005	Implementing MiniCon: a Query Reformulation Algorithm	Undergraduate, Computer Science, Universitat Passau
Shyr, Alex	Undergraduate (Completed)	Supervised 2005 - 2005	Schema Matching	PhD student, University of California at Berkeley

1 Most Significant Contributions to Research (last 6 years)

Data, local or on the web, is more useful when combined with data from other sources. For example, allowing users to access all their bank and credit card information simultaneously allows them to better see their full financial situation. My contributions the last six years are all related to various aspects of semantically integrating data. My top five contributions address merging and mapping of schemas in semantic integration (Section 1.1), increasing the usability and understandability in semantic integration (Section 1.2), dealing with change in schemas and their semantic integration (Section 1.3), integrating data semantically in Peer Data Management Systems (Section 1.4) and mentoring students (Section 1.5).

1.1 Mapping, Merging and Integration

Integrating a set of schemas requires first knowing how they are related. This consists of two sub-problems: *schema matching* creates correspondences between the schemas; *schema mapping* takes the initial correspondences and creates something detailed enough to translate queries.

Merging schemas takes as input a set of schemas and mappings between them, and creates a merged schema describing their duplicate-free union. Philip Bernstein and I analyzed the associativity and commutativity of one generic merge formulation [PB09]. We then looked at how in data integration the relationships between source schemas impact the merged schema and how the merged schema can be related to the sources [PB08]. This showed that the architectures traditional used for relating merged schemas to the sources are more complex than generally needed, regardless of how the merged schema is created; others have since independently validated that this occurs in practice. Separately, my students Xun Sun and Michael Lawrence and I characterized when additional supporting structures (beyond mappings) are required to merge schemas [SPL10].

Ontologies allow the modeling of richer semantic relationships and constraints than schemas. My contributions to mapping schemas include a system, SeMap, for discovering the rich semantic mappings needed to relate heterogeneous ontologies and other complex schemas [WP08]. This work was motivated by my work in applying integration and mapping to biological and anatomical ontologies. In [MPB04], we created mappings between two large anatomy ontologies which were more expressive than any previously existing mapping. From this exercise, we understood where schema mappings fail to capture the necessary semantics of ontological mappings. Separately, student Andrew Carbonetto, bio-informatician Frances Ouellette, and I created mappings between biological ontologies [COP07] using a domain ontology (a separate ontology that defines the terms used) to create a more complete mapping.

In this work (and in my ARTIFACT project discussed below), I have found that working directly with application and domain experts can lead to new insights on how current data management solutions are failing to meet real-world needs.

1.2 Increasing Usability and Understandability in Semantic Integration

Dealing with many complex schemas simultaneously can be confusing and overwhelming. My students, colleagues, and I have begun investigating how to make this data more accessible and comprehensible in a number of contexts.

The ARTIFACT Strategic Project Grant aims to allow construction practitioners and building designers to better use their data so that their design and construction process can be more flexible. My part of this project primarily focused on the design data while considering the larger context of all the data involved [LP07]. The design data is commonly stored in an application that exports to XML via a standard schema which the practitioners have agreed upon. Unfortunately, the standard schema is very large and complex in order to accommodate the tremendous variation in data across the industry. This complexity makes it very hard to understand and use, and yet we show that this complexity is common

in standards, not only in the design community [ZWL+11]. To allow the construction practitioners to deal with the complexity of the data, we created an ontology of the data [NSFZ+08] and an application that allows the users to query the data based on that ontology [NZW+09], which improves the ability of the user to ask desired question. This in turn allows construction practitioners to explore more options when designing a building, which allows for a better resulting building design.

Data warehouses are typically created bottom up; users look at the data, decide how it fits together, and then create a warehouse on which the user can ask questions. This requires a huge effort by data management specialists – the business users who need the data cannot create the data warehouse on their own, because they may not understand the details of all the sources. Colleague Iluju Kiringa, postdoc Flavio Rizzolo, and a number of students and I have created a Conceptual Integration Modeling (CIM) framework to allow users to raise the level of semantic integration abstraction by specifying their needs at a high conceptual level which is then implemented in a multidimensional platform [RKPW11].

Finally, I worked with student Michael DiBernardo and bio-informatician Mark Wilkinson to help life scientists choose which web service to use to transform their data [DPW08]. This is complex when there are many alternatives; our method helped users complete their tasks much more efficiently.

1.3 Change in Schemas and Their Integration

Coping with change of schemas and data is a common problem, both in integration and without. Dealing with change in schemas individually is a problem called *schema evolution*. In one project, student Hassina Bounif, colleague Stefano Spaccapietra and I investigated how to plan for schemas to efficiently evolve over time [BP06,BSP06] by creating a system where likely spots for evolution were identified and suggestions were made for efficient evolution.

Separately, starting from the ARTIFACT data, student Michael Lawrence and colleague Sheryl Staub-French and I have been exploring how to handle changing data and schemas that must be coordinated [LPSF10]. We are building from the example of having building designs and cost estimates; we assume that two sources need to be kept up to date with each other, but they have little coordination. A similar problem happens in many other areas, e.g., a bus company must update its schedules to reflect changes in road openings. The problem abstracts as follows: given a schema I and a schema J, update J as I changes. Updating J automatically would drastically increase efficiency whenever such coordination occurs. Recently, we showed when it is more efficient to create a new instance of J instead of updating the existing J instance [LPSF11]. This work sheds new light on existing view maintenance work by showing when updates are necessary or when the views should be recomputed from scratch.

1.4 Integrating Data in Peer Data Management Systems

A Peer Data Management System (PDMS) is an ad-hoc set of autonomous, heterogeneous sources, each with its own database, that want to exchange data. Exchanging data is more complex than in a conventional peer to peer system since we assume that each database has its own schema. Exchanging data between the sources requires mappings such as the ones in Section 1.1; these mappings translate a query over one schema into a query over a different schema. My colleagues Laks Lakshmanan, Angela Bonifati, and a number of students and I created new ways to automatically generating XML query translation mappings [BCL+05,BCH10] from simple correspondences. This frees users from needing to understand the intricate details of the mappings and thus extends the usefulness of PDMSs.

Starting from a motivation of managing responses to a disaster [MSV+06], my student Jian Xu and I determined which new mappings will best improve query answering [XP]; this allows PDMSs to be set up more quickly, which is especially important in an emergency. An additional question is how to handle aggregation in PDMSs. Most existing PDMSs assume non-aggregation queries; however, this is often not the case. For example, simulating a disaster may require determining how much damage is

likely to happen to a set of buildings by aggregating a number of sources. Jian and I determined how to break aggregation into a novel three-role structure [XP11a] and then which source to use [XP11b]; together, these techniques allow novel queries to be answered with less user input.

1.5 Student Mentoring

I count my students as my finest research contribution; I am very pleased that they nominated me for UBC's Killam Award for Excellence in Mentoring in 2009.

I have graduated 8 MSc students, all of whom have found employment within the field or continued in graduate school. Michael DiBernardo, April Webster, Andrew Carbonetto (co-supervised with Francis Ouellette), Xun Sun, and Shuan Wang (co-supervised with Laks Lakshmanan) are working in software development at IBM Research, Novell, MDA, and Microsoft. Jiemin Zhang, showed that her work on CAD models transfers to financial documents. Jie Zhao recently completed an MBA. Ting Wang is working on a PhD at the Georgia Institute of Technology. I have concentrated on MSc students more than PhD students because my grant funding has all been short term, and I only started my faculty position in 2004. My first PhD student, Jian Xu, will graduate in 2011.

I have supervised nine undergraduate projects. Two of the students (Jamila Salari and April Webster) have become my MSc students. I am currently working with 5 MSc students and 2 PhD students. Two of the MSc students are co-supervised. I meet with all of them (co-supervised or not), an average of twice a week. I encourage my students to do internships to learn valuable skills and approach their research with a fresh perspective; both of my PhD students and five MSc students have done so.

In the past six years I have published twelve refereed papers and three refereed posters with students and have an additional four refereed papers under review. Two students have published student posters on our work at the Grace Hopper Celebration of Women in Computing.

I bring my research into the classroom. At the undergraduate level, I always describe the current semantic integration research. At the graduate level, I describe my research in papers that we read, class discussions, and class projects. Combining teaching with research works; a number of students not previously interested in data management research have joined the lab after both classes, my ratings are consistently high in both classes, and my students nominated me for UBC's Killam Teaching Prize for Graduate Instruction. Students incorporate the ideas from my class into their own theses, which is partially why I am or have been members of four PhD committees (from Computer Science, Electrical and Computer Engineering, and Civil Engineering) and been on an additional five MSc committees.

2 Research Contributions and Practical Applications (last 6 years)

Authors are generally in the order of the primary student, other students, then faculty in alphabetical order. In publications marked with an *, the final author appears out of order because they were less involved than those appearing earlier.

Refereed Journal Papers

[XP] **Jian Xu** and Rachel Pottinger. Optimizing acquaintance selection in a PDMS. International Journal on Cooperative Information Systems, To Appear (44 pages).

[ZWL+11]* **Jiemin Zhang**, **April Webster**, **Michael Lawrence**, **Madhav Nepal**, Rachel Pottinger, Sheryl Staub-French, and Melanie Tory. Usability of XML standards: A call to action. Information Systems, To Appear (13 pages).

[BCH+10]* **Angela Bonifati**, **Elaine Chang**, **Terence Ho**, Laks V. S. Lakshmanan, Rachel Pottinger, and **Yongik Chung**. Schema mapping and query translation in heterogeneous P2P XML databases. VLDB Journal, 19(2):231-256, 2010.

[HTSFP09]* **Dandan Huang**, Melanie Tory, Sheryl Staub-French, and Rachel Pottinger. Visualization techniques for schedule comparison. Computer Graphics Forum, 28(3):951-958, 2009.

[DPW08] **Michael DiBernardo**, Rachel Pottinger, and Mark Wilkinson. Assisted workflow assembly for life-sciences web service composition in the biomoby semantic web framework. Journal of Biomedical Informatics, 41(5):837-847, 2008.

Refereed Conference Papers

[SPL10]* **Xun Sun**, Rachel Pottinger, and **Michael Lawrence**. Support elements in graph structured schema reintegration. In CIKM, To Appear, 2010 (4 pages).

[LPSF10] **Michael Lawrence**, Rachel Pottinger, and Sheryl Staub-French. Coordination of data in heterogeneous domains. In Workshop on New Trends in Info Integration at ICDE, 2010 (4 pages).

[NZW+09] **Madhav Nepal**, **Jiemin Zhang**, **April Webster**, Sheryl Staub-French, Rachel Pottinger, and **Michael Lawrence**. Querying ifc-based building information models to support construction management functions. In Construction Research Congress, 2009 (10 pages).

[PB08] Rachel Pottinger and Philip A. Bernstein. Schema merging and mapping creation for relational sources. In EDBT, pages 73-84, 2008.

[WP08] **Ting Wang** and Rachel Pottinger. SeMap: a generic mapping construction system. In EDBT, pages 97-108, 2008.

[NSFZ+08]* **M. P. Nepal**, S. Staub-French, **J. Zhang**, **M. Lawrence**, and R. Pottinger. Deriving construction features from an IFC model. In Canadian Society for Civil Engineering (CSCE) Annual Conference, 2008 (11 pages).

[BP06] **Hassina Bounif** and Rachel Pottinger. Schema repository for database schema evolution. In Second International Workshop on Data Management in Global Data Repositories, 2006 (5 pages).

[BSP06]* **Hassina Bounif**, Stefano Spaccapietra, and Rachel Pottinger. Requirements ontology and multi-representation strategy for database schema evolution. In VLDB Workshop on Ontology-Based Techniques for Databases and Information Systems, 2006 (17 pages).

[MPB04] Peter Mork, Rachel A. Pottinger, and P. A. Bernstein. Challenges in precisely aligning models of human anatomy. In American Medical Informatics Assoc. Annual Symposium, 2004 (5 pages).

Submitted Conference Papers

[RKPW11]* **Flavio Rizzolo**, Iluju Kiringa, Rachel Pottinger, and **Kwok Wong**. The conceptual integration modeling framework: Abstracting from the multidimensional model. In submission to the Conference on Innovative Database Research (CIDR), 2011.

[LPSF11] **Michael Lawrence**, Rachel Pottinger, and Sheryl Staub-French. View differencing in data coordination. In submission to EDBT, 2011.

[XP11a] **Jian Xu** and Rachel Pottinger. Integrating domain heterogeneous data sources using decomposition aggregation queries. In submission to ICDE, 2011.

[XP11b] **Jian Xu** and Rachel Pottinger. Source selection for aggregation queries in semantic integration. In submission to ICDE, 2011.

Refereed Conference Posters

[COP07] **Andrew Carbonetto**, Francis Ouellette, and Rachel Pottinger. Ontology alignment on biological systems using domain taxonomy. In Canadian Genetic Diseases Network (CGDN) Annual Scientific Meeting, 2007.

[LP07] **Michael Lawrence** and Rachel Pottinger. A system for integration of lossy and unstructured data in large building projects. In The 20th Canadian Artificial Intelligence Conference, 2007.

[BCL+05]* **Angela Bonifati**, **Elaine Qing Chang**, Laks V. S. Lakshmanan, **Terence Ho**, and Rachel Pottinger. HePToX: marrying XML and heterogeneity in your P2P databases. In VLDB, 2005.

Invited Publications

[Pot11] Rachel Pottinger. Mapping-based merging of schemas. In Angela Bonifati, Zohra Bellashene, and Erhard Rahm, editors, *Schema Matching and Mapping*, To Appear. Springer, 2011.

[PB09] Rachel Pottinger and Philip A. Bernstein. Associativity and commutativity in generic merge. In Alex Borgida, Vinay Chaudhri, Paolo Giorgini, and Eric Yu, editors, Conceptual Modeling: Foundations and Applications, pages 254-272. Springer, 2009.

[Pot07] Rachel Pottinger. Database schema integration. In S. Shekhar and H. Xiong, editors, *Encyclopedia of Geographic Information Science*. Springer, 2007.

Other Publications

[Pot04] Rachel A Pottinger. Processing Queries and Merging Schemas in Support of Data Integration. PhD thesis, University of Washington, 2004.

[MSV+06] Marti, Srivastava, Ventura, Jatskevitch, Pottinger, Beznosov, Poole, Klinkenberg, Woo, Kruchten, Booth, Rosenberg, Bartram, **Hollman**, **Thibert**, **Xu**, **Cervantes**, **Armstrong**, **Li**, **Han**, **Juarez**, **Ozog**, **Rahman**, **Jiang**, **Sotoodeh**, **Monu**, **Clarkson**, and **Ilich**. The I2Sim simulator for disaster response coordination in interdependent infrastructure systems. Technical Report to British Columbia Transmission Corporation, Telus Corporation, Greater Vancouver Regional District, and Vancouver International Airport Authority, 2006.

3 Other Evidence of Impact and Contributions (Last 6 years)

Awards: The Anita Borg Institute for Women and Technology's Inaugural Denice Denton Emerging Leader Award, 2007. This award recognizes a scientist who has demonstrated a significant leadership capability and positive impact of the lives of women through technology

Review Boards: Proceedings of the VLDB Endowment.

Journal Reviewer: ACM Computing Surveys; ACM Transactions on Database Systems; ACM Transactions on the Web; AI Communications; Communications of the ACM; Data & Knowledge Engineering; IBM Systems Journal; IEEE Transactions on Knowledge and Data Engineering; Information Systems Frontiers; Information Systems Journal; Journal of Computer Science Education; Journal of Data Management Research; Theoretical Computer Science; Very Large Databases Journal.

Conference Program Committee Member: In the past six years I have been a member of 13 conference program committees, including top database conferences VLDB and ICDE five times each and SIGMOD 2011. I have also been a member of ten workshop PCs, including three PhD workshops.

Leadership: Co-chair of Next Generation Business Intelligence (BI) Tools Workshop at CASCON (2010); Co-creator and co-moderator of lists for pre-tenure and job hunting PhD women in Computer Science (2005-present); Co-chair of DB Me – Database Mentoring Workshop for Women and Underrepresented Minorities at SIGMOD 2010; Registration Co-Chair SIGMOD 2008; Academic Advisory Committee Member, Grace Hopper Celebration of Women in Computing, 2007; Technical Posters co-chair, Grace Hopper Celebration of Women in Computing, 2005.

Invited talks: University of Alberta (2009); CRA-W Grad Cohort for Women Workshop (2005); Joint meeting of Society for Technical Communicators, Canada West Coast Chapter and Content Management Professionals, Canada West Community (2005).

4 Delays in Research Activity

I was on maternity leave for half a year from October 27, 2007 to April 26, 2008.

Natural Sciences and Engineering Research Council of Canada | Conseil de recherches en sciences naturelles et en génie du Canada

SEND ONE ORIGINAL ONLY DO NOT PHOTOCOPY

APPENDIX A
Personal Data
(Form 100)

Complete this appendix (i) if you are an applicant or co-applicant applying for the first time; (ii) if you need to update information submitted with a previous application; or (iii) if you do not hold an appointment at a Canadian postsecondary institution. For updates, include only the revised information in addition to the date, your name and your PIN.

This information will be used by NSERC primarily to contact applicants and award holders. It may also be used to identify prospective reviewers and committee members, and to generate statistics. It will not be seen or used in the adjudication process.

Date: 2010/10/26

Family name	Given name	Initial(s) of all given names	Personal identification no. (PIN)
Pottinger	Rachel	RA	290625

Position and complete mailing address if your primary place of employment is not a Canadian postsecondary institution or if your current mailing address is temporary

201-2366 Main Mall

Vancouver BC V6T1Z4

If address is temporary, indicate:

Starting date

Leaving date

Telephone number	Facsimile number	E-mail address
1 (604) 822-0436	(604) 822-5484	rap@cs.ubc.ca

Telephone number (alternate)

Give an alternate telephone number only if you can be reached at that number during business hours.

Gender (completion optional): [ ] Male [X] Female

LANGUAGE CAPABILITY

English	Read [X]	Write [X]	Speak [X]
French	Read [ ]	Write [ ]	Speak [ ]

I wish to receive my correspondence: in English [X] in French [ ]

AREA(S) OF EXPERTISE

Provide a maximum of 10 key words that describe your area(s) of expertise. Use commas to separate them. If you have expertise with particular instruments and techniques, specify which one(s).

databases, data integration, metadata management, data management

Research subject code(s)

Primary: 2711

Secondary: 2800

Appendix D (Form 100)
Consent to Provide Limited Personal Information About Highly Qualified Personnel (HQP) to NSERC

NSERC applicants are required to describe their contributions to the training or supervision of highly qualified personnel (HQP) by providing certain details about the individuals they have trained or supervised during the six years prior to their current application. HQP information must be entered on the Personal Data Form (Form 100). This information includes the trainee's name, type of HQP training (e.g., undergraduate, master's, technical etc.) and status (completed, in-progress, incomplete), years supervised or co-supervised, title of the project or thesis, and the individual's present position.

Based on the federal *Privacy Act* rules governing the collection of personal information, applicants are asked to obtain consent from the individuals they have supervised before providing personal data about them to NSERC. In seeking this consent, the NSERC applicant must inform these individuals what data will be supplied, and assure them that it will only be used by NSERC for the purpose of assessing the applicant's contribution to HQP training. To reduce seeking consent for multiple applications, applicants will only need to seek consent one time for a six-year period. If the trainee provides consent by e-mail, the response must include confirmation that they have read and agree to the text of the consent form.

When consent cannot be obtained, applicants are asked to not provide names, or other combinations of data, that would identify those supervised. However, they may still provide the type of HQP training and status, years supervised or co-supervised, a general description of the project or thesis, and a general indication of the individual's present position if known.

An example of entering HQP information on Form 100 (with and without consent):

Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis	Present Position
Consent Received from Marie Roy				
Roy, Marie	Undergraduate (Completed)	Supervised 1994 - 1997	Isotope geochemistry in petroleum engineering	V-P (Research), Earth Analytics Inc., Calgary, Alberta
Consent Not Obtained from Marie Roy				
(name withheld)	Undergraduate (Completed)	Supervised 1994 - 1997	Isotope geochemistry	research executive in petroleum industry - western Canada

Consent Form

Name of Trainee	
Applicant Information	
Name Pottinger, Rachel RA	
Department Computer Science	Postsecondary Institution British Columbia

I hereby allow the above-named applicant to include limited personal data about me in grant applications submitted for consideration to NSERC for the next six years. This limited data will only include my name, type of HQP training and status, years supervised or co-supervised, title of the project or thesis and, to the best of the applicant's knowledge, my position title and company or organization at the time the application is submitted. I understand that NSERC will protect this data in accordance with the *Privacy Act*, and that it will only be used in processes that assess the applicant's contributions to the training of highly qualified personnel (HQP), including confidential peer review.

Trainee's signature _____ Date _____

Note: This form must be retained by the applicant and made available to NSERC upon request.