	Personal	M 100 Data Form RT I			Date 201	3/06/19
Family name	Given name		Initial(s) of all give	en names	Personal ide	ntification no. (PIN
Gasevic	Dragan		D		Valid	310987
I hold a faculty position at an eligible (complete Appendices B1 and C)	e Canadian college					
I do not or will not hold an academic Canadian postsecondary institution	appointment at a		mployment other th		•	condary
APPOINTMENT AT A POSTSECONDA	ARY INSTITUTION					
Title of position Associate Professor		Tenured or te		Yes	\mathbf{X}	No
Department Computing & Information System Campus	ns, School of	Part-time app		enure-tracl		
Canadian postsecondary institution Athabasca			ne Emeritus Profes			ions, complete

Degree	Name of discipline	Institution	Country	Date yyyy/mm
Bachelor's	Computer Science	University of Belgrade	SERBIA AND MONTENEGRO	2000 / 09
Master's	Software Engineering	University of Belgrade	SERBIA AND MONTENEGRO	2002 / 12
Doctorate	Computer Science	University of Belgrade	SERBIA AND MONTENEGRO	2004 / 07

TRAINING OF HIGHLY QUALIFIED PERSONNEL

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

	Curr	Currently		Over the past six years (excluding the current year)			
	Supervised	Co-supervised	Supervised	Co-supervised	Total		
Undergraduate			4	1	5		
Master's	5	1	13	8	27		
Doctoral		9		9	18		
Postdoctoral	1		4	1	6		
Others			1	3	4		
Total	6	10	22	22	60		



Valid 310987

Family name

Gasevic

ACADEMIC, RESEARCH AND INDUSTRIAL EXPERIENCE (use one additional page if necessary)					
Position held (begin with current)	Organization	Department	Period (yyyy/mm to yyyy/mm)		
Associate Professor	Athabasca	Computing & Information Systems, School of	2009/07		
Visiting Professor	University of South Australia	Advanced Computing Research Centre	2013/03 to 2013/06		
Vice-President	Society for Learning Analytics Research		2012/06		
Founder	ProSolo Technologies Inc		2012/05		
Faculty Fellow	IBM Canada	Centre for Advanced Studies	2011/05		
Canada Research Chair-Tier II in Semantic Technologies	Athabasca University	Sch. of Computing & Information Systems	2009/01 to 2014/01		
Assistant Professor	Athabasca University	Sch. of Computing & Information Systems	2007/01 to 2009/06		
Adjunct Professor	Simon Fraser University	Sch. of Interactive Arts and Technology	2007/02 to 2012/02		
Postdoctoral Fellow	Simon Fraser University	Sch. of Interactive Arts and Technology	2005/03 to 2007/01		
Lecturer	Military Technical Academny	Department of Computer Science	2002/10 to 2005/03		

Personal iden	tification no. (PIN)	Family name		
Valid	310987		Gasevic	

Position held (begin with current)	Organization	Department	Period (yyyy/mm to yyyy/mm)
Consultat	Serbian Object Laboratories, VenLogic LLC, and EU Commission		2000/10
Research and Teaching Assistant	Military Technical Academny	Department of Computer Science	2000/10 to 2002/10

PROTECTED WHEN COMPLETED

Version française disponible



Family name

Valid 310987 Gasevic

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)
	ERC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in the Use additional pages as required.		
a) Support held in the past 4 ye	ars		
D. Gasevic	Athabasca University University start-up fund	10,000(100%) 10,000(100%) 10,000(100%)	2007 2008 2009
M. Hatala, D. Gasevic	Deriving Semantics from Learning Contexts Canadian International Development Agency Partnerships for Tomorrow Program Phase II (PTP II) 15 hours/month	10,000 (50%)	2007
T. Calvert	Learning Object Repositories Network (LORNET) NSERC Research Network 20 hours/month	234,573 (20%)	2007
D. Gasevic	Towards Ontology Development Tools for E-Learning Systems: A Survey Athabasca University Mission Critical Research Fund 15 hours/month	6,810(100%)	2007

Valid 310987

Family name

Gasevic

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)
	SERC grants and university start-up funds) held as an applicant or a consumple of support currently held, and c) support applied for. For group grants, incred.		
a) Support held in the past 4 y	ears		
Dragan Gasevic	Towards Semantic Web-Enhanced Model-Driven Engineering NSERC Discovery-Individual 20 hours/month	15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%)	2008 2009 2010 2012 2013
D. Gasevic	Semantically-enabled e-Learning Canadian International Development Agency Partnerships for Tomorrow Program Phase II (PTP II) 20 hours/month	9,900(100%)	2008
J. Dron	Ontology-based Development of Ubiquitous Software Systems Athabasca University Mission Critical Research	6,991 (50%)	2008
Dr. Dragan Stokic (ATB Bremen)	Intelligent Learning Extended Organisation: IntelLEO European Commission Framework Program 7 - STREP Project 15 hours/month	900,000 (7%) 900,000 (7%) 900,000 (7%)	2009 2010 2011

Family name

Valid 310987

Years of

Gasevic

Family name and initial(s) of applicant	Title of proposal, funding source and program, and time commitment (hours/month)	Amount per year	tenure (yyyy)
	ERC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in the Use additional pages as required.		
a) Support held in the past 4 ye	ars		
D. Gasevic	Model-Driven Development of Families of Semantically-enabled Service-oriented Architectures Alberta Innovates Technology Futures New Faculty Award	94,888(100%) 96,986(100%) 96,986(100%)	2009 2010 2011
D. Gasevic	An Interchange and Reasoning Framework for Policy Models Athabasca University Mission Critical Research 15 hours/month	7,000(100%)	2009
D. Gasevic	Semantic Technologies for Integrating Environments used in Learning of Programming Languages Athabasca University Mission Critical Research Fund 15 hours/month	6,000(100%)	2010
E. Bagheri	Dynamic Learning Content Adaptation using a Software Product Line Approach Athabasca University Mission Critical Research Fund 10 hours/month	6,000 (40%)	2010

Family name

Valid 310987

Gasevic

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)
	ERC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in the Use additional pages as required.		
a) Support held in the past 4 ye	ars		
D. Gasevic, E. Bagheri	Test Case Generation for Service Oriented Architectures NSERC Engage 15 hours/month	24,978 (60%)	2010
D. Gasevic	Sematic technologies for adaptive training systems Alberta Innovates Technology Futures Alberta Innovation Voucher 10 hours/month	66,667(100%)	2010
D. Gasevic, E. Bagheri, M. Hatala	Semantic Technologies for Enterprise 2.0 Collaboration NSERC Engage	24,961 (40%)	2011
M. Hatala, D. Gasevic, E. Bagheri	Requirements and verification engineering for workflows based on event-driven architectures NSERC Engage 10 hours/month	25,000 (40%)	2011

Valid 310987

Family name

Gasevic Gasevic

Family name and initial(s)	Title of proposal, funding source and program,	Amount	Years of tenure
of applicant	and time commitment (hours/month)	per year	(yyyy)
	ERC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in h. Use additional pages as required.		
a) Support held in the past 4 ye	ars		
E. Bagheri, D. Gasevic. R. Lea	Structured knowledge aggregation from the Web NSERC	24,507 (33%)	2011
	Engage 10 hours/month		
O. Lin, E. Bagheri, D. Gasevic	Intelligent Product Lifecycle Management NSERC Engage 10 hours/month	24,507 (33%)	2012
E. Bagheri, D. Gasevic	Semantic Web-enabled e-commerce cataloguing NSERC Engage 10 hours/month	24,915 (50%)	2012
D. Gasevic, G. Siemens, M. Hatala	Analytics for Social Learning Environments NSERC Engage 15 hours/month	24,993 (75%)	2012

Valid 310987

Family name

Gasevic

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					
Dragan Gasevic	Infrastructure for Research in Semantic Technologies Canada Foundation for Innovation Leaders Opportunity Fund, Stream-Canada Research Chairs	74,918(100%)	2009 2010 2011 2012 2013		
Dragan Gasevic	Research incentive grant for CRC in Semantic Technologies Athabasca University Research Incentive Grants	15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%)	2010 2011 2012		
E. Bagheri, D. Gasevic, R. Lea	Knowledge-Driven Information Extraction from the Web NSERC Collaborative Research and Development Grant 25 hours/month	282,341 (33%) 280,141 (33%)			
Sendelj, Djuric, Gasevic	Development of adaptive service-oriented architectures based on non-functional requirements and historical data Ministry of Science, Government of Montenegro Science & Research Grants 10 hours/month	15,824 (33%) 15,824 (33%) 15,824 (33%)	2013		

Valid 310987

Family name

Gasevic

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 (уууу)
	ERC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in the Use additional pages as required.		
b) Support currently held			
D. Gasevic	Learning Analytics for Adaptive Systems supporting Self-regulated Social Learning NSERC Discovery Grants - Individual	15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%) 15,000(100%)	2014 2015 2016
D. Gasevic	Adaptive platforms for personalized Web based learning NSERC Engage 15 hours/month	25,000(100%)	2013
Du, Ghorbani, Bhavsar, Bagheri, Gasevic	Integrating business vocabularies, rules, and process models for engineering enterprise systems Atlantic Canada Opportunities Agency Atlantic Innovation Fund 15 hours/month	917,000 (20%) 856,700 (20%) 831,035 (20%)	2014
D. Gasevic, P.H Winne, J. Nesbit, M. Hatala	Tools and Methods to Help Learners Self-Regulate Learning and Increase Learning Success Social Sciences and Humanities Research Council of Canada Insight Grants 25 hours/month	108,760 (37%) 114,650 (43%) 94,730 (45%) 94,730 (45%) 82,250 (40%)	2014 2015 2016

Valid 310987

Family name

Gasevic

	and time commitment (hours/month)	per year	tenure (yyyy)
ast four (4) years but now completed; b) sunding directly applicable to your research	RC grants and university start-up funds) held as an applicant or a support currently held, and c) support applied for. For group grants, in h. Use additional pages as required.		
) Support currently held			
	Multimedia Object Research Platform Host for Adaptive and Mobile Learning (CFI funding approved, under provincial review) Canada Foundation for Innovation Leaders Opportunity Fund 10 hours/month	619,305 (33%) 177,949 (33%) 185,749 (33%)	2014
	Using Video Annotation Software to Develop Student Self-Regulated Learning Australian Office for Learning and Teaching Innovation and Development 20 hours/month	85,328 (20%) 122,672 (20%)	l .

RESEARCH SUPPORT

PROTECTED WHEN COMPLETED

Version française disponible



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)	amily name	
			Valid 310987	Gasevic	
Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis Present Position		
Aniruddha Ghosh	Doctoral (Completed)	Co-supervised 2012 -	Ontology learning from unstructured text	PhD Student at École Polytechnique de Montréal	
Glen Brand	Master's (In Progress)	Supervised 2011 -	Knowledge-based event-driven architecture in health workflow	CEO & Chief Architect at EMRlogic Systems Inc.	
Vitomir Kovanovic	Doctoral (In Progress)	Co-supervised 2011 -	Learning analytics for social learning	PhD Student (SFU)	
Faezeh Ensan	Postdoctoral (In Progress)	Supervised 2010 -	Semantic Technologies for Knowledge Extraction	Postdoctoral Fellow	
Robert Jenzen	Master's (In Progress)	Supervised 2010 -	Semantics in sequence pattern mining for distributed learn.	Master's student, Systems Engineer at Government of Canada	
Liaqat Ali	Doctoral (In Progress)	Co-supervised 2009 -	Motivation and semantic technologies in learning	PhD student (SFU)	
Mohsen Asadi	Doctoral (In Progress)	Co-supervised 2009 -	Technologies for Families of Service-oriented Architectures	PhD student (SFU)	
Bardia Mohabbati	Doctoral (In Progress)	Co-supervised 2008 -	Modeling and Configuration of Service-oriented SPLs	PhD Student	
Alan Savjord	Master's (Completed)	Supervised 2007 -	Metadata Schema Framework Structure for Ontology Integrati	System Manager at FortisAlberta on	
Nuno Ferreira	Doctoral (In Progress)	Co-supervised 2007 -	Multi-staged Domain Specific Modeling for Soft. Prod. Lines	PhD student at U of Minho/Carnegie Mellon U	
Timmy Eap	Doctoral (In Progress)	Co-supervised 2006 -	Identity Management in SOAs	PhD Student (SFU) and Research Ass. (AU)	
Ivana Ognjanovic	Doctoral (Completed)	Co-supervised 2009 - 2013	Optimizations in software produline configuration	PhD Student (U of Belgrade)	
Melody Siadaty	Doctoral (Completed)		Semantic Technologies for Self-regulated Workplace Learn	Postdoctoral fellow at Simon Fraser University	
Jelena Jovanovic	Postdoctoral (Completed)	Supervised 2011 - 2012	Semantic Technologies for Collaborative Enterprise 2.0	Postdoctoral fellow	
Ross Barret	Master's (Completed)	Supervised 2009 - 2012	Relating Declared and Discover Data by Semantic Tech.	red Master's student, Security Engineering Manager @ Rapid7	
Amal Zouaq	Postdoctoral (Completed)	Supervised 2010 - 2011	Service-oriented architecture for ontology learning	r Assistant Professor at RMC	
Esan Murugesupilla	Master's (Completed)	Supervised 2010 - 2011	A Qualitative Survey of Bridgin between SOA & SPLs	Project Coordinator at Canada Revenue Agency	
Ghislain Hachey	Master's (Completed)	Supervised 2010 - 2011	Semantic Web User Interfaces	Technical Manager @ Computer and Network Services Ltd	
John Cuzzola	Master's (Completed)	Supervised 2010 - 2011	Machine learning for test case generation	IT Director@School District #73, Research Assoc.@Athabasca	
Lisa Cox	Master's (Completed)	Supervised 2010 - 2011	Feature-oriented domain Analystor semantic Web services	Sis Systems Analyst at Alberta Health Services	
Form 100 (2009 W) page 4 of 4 Per	sonal information c	ollected on this form and appendices will	be Version française disponible	



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)	amily name	
			Valid 310987	Gasevic	
Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis Present Position		
Zoran Jeremic	Postdoctoral (Completed)	Supervised 2010 - 2011	Semantic Technologies in Adaptive Workplace Learning	Assistant Professor at University of Belgrade	
Marko Boskovic	Postdoctoral (Completed)	Supervised 2009 - 2011	Feature modeling and semantic technologies	Senior Researcher at Research Studios Austria	
Luis Rocha	Master's (Completed)	Supervised 2008 - 2011	Rule-enhanced Business Process Modeling of SOAs	Staff Software Engineer at Intuit (USA)	
Dominic Renaud	Undergraduate (Completed)	Supervised 2009 - 2010	NSERC USRA (Summer 2009), Model-driven development	Undergrad student at SFU	
Vid Prezel	Master's (Completed)	Supervised 2009 - 2010	Repres. analysis of process and rule modeling languages	Business Process Sales Manager	
Florian Lautenbacher	Doctoral (Completed)	Co-supervised 2008 - 2010	Semantic Business Process Modeling	Enterprise Architect at Softplant GmbH	
Milan Milanovic	Doctoral (Completed)	Co-supervised 2007 - 2010	Model-Driven Development of Policy-Based SOAs	Software Architect at EPS (Serbia)	
Sasa Nesic	Doctoral (Completed)	Co-supervised 2006 - 2010	Semantic models of collaborativ authoring	Postdoctoral Fellow at IDSIA (Lugano, Swiss)	
Liaqat Ali	Master's (In Progress)	Supervised 2008 - 2009	Semantic Wikis in Requirements Engineering	S PhD student (SFU)	
(Name withheld)	Master's (Completed)	Supervised 2008 - 2009	Aspect Oriented Modeling for SOAs	System Developer, Agriculture Financial Services Corporation	
Jeff Rusk	Master's (Completed)	Supervised 2007 - 2009	Semantic Web Services for Software Prod. Lines	Software Engineering & Team Lead, IBM Canada	
Shahin Sheidaei	Master's (Completed)	Co-supervised 2007 - 2009	Policy conflict detection using Alloy: an explorative study	Software Developer at Syscon Justice Systems	
Zoran Jeremic	Doctoral (Completed)	Co-supervised 2007 - 2009	Collaborative-based Learning supported by Semantic Tech.	Assistant Professor at University of Belgrade	
Carlo Torniai	Postdoctoral (Completed)	Co-supervised 2007 - 2008	Semantic Web for e-learning	Assistant Professor at Oregon Health and Science University	
Serguei Zamjitski	Master's (Completed)	Supervised 2007 - 2008	Model-Driven Semantic Web Service Development	Systems Analyst at TELUS	
Marko Ribaric	Master's (Completed)	Co-supervised 2006 - 2007	Rule-based modeling of Web Services	Researcher at Mihajlo Pupin Instutute	
Milan Milanovic	Master's (Completed)	Co-supervised 2006 - 2007	Modeling Rules on the Semantic Web	Software Architect at EPS (Serbia)	
Nima Kaviani	Master's (Completed)	Co-supervised 2006 - 2007	Integrating Semantic Web Polici and Rules	ies PhD student at UBC	
(Name withheld)	Doctoral (Completed)	Co-supervised 2005 - 2007	Adaptive Learning on the Semantic Web	Assistant Professor	
(Name withheld) Form 100 (2009 W	Doctoral (Completed)	2004 - 2006	Models of the Semantic Web	Associate Professor at University of Belgrade be Version française disponible	



1. Most Significant Contributions to Research and Practical Applications

I research novel artificial intelligence-based techniques and methods that enhance (automate, verify, motivate, adopt, visualize) design principles for adaptive systems for collaborative work and learning.

- 1. Automated Software Development, Configuration, and Analysis. Building upon our pioneering work on bridging semantic technologies and software modeling, which influenced the OMG's Ontology Definition Metamodel standard [B1][J21], the focus of my team has been on researching methods and algorithms for automated software development, configuration and analysis. This work resulted in several contributions: 1) Capturing and ranking user functional and non-functional requirements and conditional preferences. We proposed, implemented, and empirically validated configuration algorithms [J3][J10] building on formalisms such as analytical hierarchy process (AHP), integer and genetic programming, fuzzy logics and planning. 2) Configuration and analysis of software systems – leveraging our algorithms for ranking user requirements, we proposed methods for their integration into wellknown software languages (goal-oriented and feature models) [C1] to enable automated configuration of software product lines, service oriented architectures, and business process families. We also proposed formally sound and empirically tractable algorithms which assure that every derived configuration by our formalisms is correct and that user requirements are satisfied in business process families [C4]. 3) Software quality and tools – we proposed a method for aggregation of quality properties in families of service-oriented systems [C3] and an empirically validated set of metrics for quality of software product lines [J9]. We also developed research prototypes implementing our configuration algorithms with advanced interactive visualization techniques and automated extraction of user requirements for textual documents (using name entity recognition) [J7]. For this work, I received Alberta Innovates' 2008 New Faculty Award, was invited to give several (keynote) talks [T2], and my team received best paper awards (SWESE 2007, AOM 2010, SPLC 2012). I have also been active in building a new research community (software language engineering)[O2], chaired and served on program committees of conferences[O4][O6][E6][E9][E12][E7], and edited special issues in top-tier journals [E2][E4][E5].
- 2. Learning Analytics Methods. Recognizing that SRL is a complex process with dynamic feedback loops in its core, I have set a long term research agenda for developing new learning analytics methods based on advanced computing methods and techniques for analysis of trace data. Such methods are needed to triangulate research on SRL, which is presently mainly based on (static) self-reports. In the core are semantic technologies that offer fine grained ontological models [J20][J24] of trace data the LOCO framework about content, learners, teams, competences, cognitive operations and flows, and learning design. Leveraging such models, our research offered methods for automated and seamless integration of trace data logged by different Web-based learning software. Such integrated data are then analyzed by natural language processing [J11], data mining [J16][J22], social network analysis and graph-theoretic statistics to offer research insights in SRL, social learning, and academic performance [J1] [J4]. For our work on the LOCO framework [J24], we received the best paper award at ICALT 2006. The LOCO framework was used as a foundation of the recently completed IntelLEO project.
- **3. Learning Analytics Tools and Acceptance.** Funded by NSERC, I led a team to develop **LOCO-Analyst**, a learning analytics tool that analyzes trace data logged in an online learning environment. It provides educators with context-specific analytics describing various aspects of learning processes, including visualizations of (a) students' interactions with learning content using a timeline of types of cognitive operations such as reading, highlighting, or search in relation to specific course concepts and (b) social ego-networks based on chat-room interactions among students. LOCO-Analyst instantiates semantic technologies, text mining, machine learning, and interactive information visualizations. To enable broader and sustainable use of LOCO-Analyst, we extended LOCO-Analyst to support ontology evolution based on student-generated collaborative tags [J13]. As well, we developed a method and tool for ontology learning based on deep parsing and graph theory [J10] and empirically validated available ontology learning tools in experiments with instructors [J5].

We proposed a learning analytics acceptance model [J2] by building upon the theory of resonated action-based technology acceptance model. The model posits that intentions to accept learning analytics tools are primarily predicted by attitudes towards ease-of-use and usefulness; antecedents of usefulness attitudes are associated with analytics for students' concept comprehension derived from cognitive oper-

ations on information (e.g., searching phrases, reading, tags, highlights, discussions, chats) and interactions in students' social networks; and antecedents of ease-of-use are interactive visualizations and user interfaces. We also developed and empirically validated coding schemes for quantitative content analysis of educators' observations about learning analytics tools [J8].

Our work on LOCO and LOCO-Analyst received considerable industrial attention – our project with Desire2Learn builds on results of research on LOCO-Analyst. Wipro Ltd., a multinational IT company, has recently adopted LOCO for implementation of learning analytics, which are all inspired by our work on LOCO-Analyst. I am also one of the co-founders of the Society for Learning Analytics Research (SoLAR) [O1] and the Learning Analytics and Knowledge (LAK) conference [O3][O5]. I am also a founding editor of the peer-reviewed Journal of Learning Analytics [E1]. Our work has been published in the major journals (e.g., IEEE TLT, Computers & Education) and conferences (AIED, EC-TEL, ICALT, UMAP). I am on the editorial board of three international journals, edited books and special issues[E3], chaired and served on the program committees of leading conferences [E10][E11][E13], advisory boards (e.g., Spanish ACM SIGCSE) and gave invited talks/keynotes [T1][T3].

- 4. Adaptive System for Self-Regulated Social Learning. Funded by European Commission, NSERC, and CRCs, I led the development of the Learn-B system [J4] in the scope of the IntelLEO project. Learn-B is a semantic web-based application that embodies several features for enhancing SRL: individualized recommendations originating from the institutional, social, or workplace contexts that help users identify gaps in their competences and find suitable learning paths; matching learning strategies (extracted from the social memory) to individual needs relative to partially achieved competences; monitoring progress, sharing and documenting learning experiences and, comparing self-observed performances to organizational benchmarks and/or peers' performance; following peers' activities (in relation to shared competences or documents); building social networks with colleagues; and bookmarking documents and web resources. Learn-B incorporates state-of-the-art recommender and search engines built upon principles of collaborative and content filtering, and machine learning. In a recent field study at two sites in Europe, 53 knowledge workers used Learn-B for two months in day-to-day activities. We found recommendations about competences, learning paths through curricula and social streams of activities significantly enhanced SRL practices in the workplace. For our research on Learn-B, we received the best paper ward at ICALT 2011. Working with the university and TEC Edmonton, we set up a new spinoff company (ProSolo Technologies) that offers a commercial version of Learn-B, named ProSolo.
- **5. Software Tools to Support Learning And Education.** Over the past decade, I have been working on the software research instruments which facilitate research of social learning, SRL and technology adoption by educators. For example, we developed Learn-B for research of novel social media in SRL [J4], DEPTHS for research of project-based communities of inquiry [J6], and TANGRAM [C6] and DEPTHS-Tutor [J12] for adaptation of learning plans based on individual differences. We also developed software instruments for researching how educators adopt learning analytics (LOCO-Analyst) [J17] and collaborative content authoring technology (SDArch) [J14]. For our research on SDArch, we received the best paper award ICLAT 2010 and a regional innovation award by the ATED ICT agency of the Swiss state Ticino. We also integrated some of these results into an adaptive learning system for corporate training of Corridor Interactive through an Alberta Innovation Voucher.

2. Refereed Publications (selected)

Full list: http://goo.gl/F9Fl7; Google Scholar Citations: 2892 and h-index: 26 (June 19, 2013) Legend: C – number of citations, Google Scholar as of Nov 1st, 2012; A – acceptance ratio

- 2.1 Book monographs (selected)
- [B1] Gašević, D., **Djurić**, **D**., Devedžić, V.; Selic, B. & Bezivan J. (foreword), *Model Driven Architecture and Ontology Development*, Springer, 2006, (2nd edition 2009) (C: 310).
- 2.2 Refereed Journal Contributions (selected)
- [J1] Gašević, D., Zouaq, A., Jenzen, R., "Choose your Classmates, your GPA is at Stake!" The Association of Cross-Class Social Ties and Academic Performance" American Behavioral Scientist, in press
- [J2] Ali, L., Asadi, M., Gašević, D., Jovanović, J., Hatala, M. "Factors Influencing Beliefs for Adoption of a Learning Analytics Tool: An Empirical Study," *Computers & Edu.*, 62, 2013, 130-148.

- [J3] **Ognjanović, I.**, Gašević, D., Bagheri, E., "A Stratified Framework for Handling Conditional Preferences: an Extension of the Analytic Hierarchy Process," *Expert Sys. w Apps*, 40, 2013, 1094-115.
- [J4] **Siadaty, M.**, Gašević, D., Jovanović, J., Pata, K., **Milikić, N.**, Holocher-Ertl, T., Jeremić, Z., **Ali, L.**, **Giljanović, A.**, Hatala, M., "Self-regulated Workplace Learning: A pedagogical framework and Semantic Web-based environment," *Educational Technology & Society*, 15(4), 2012, pp. 75-88
- [J5] Hatala, M., Gašević, D., **Siadaty, M.**, **Jovanović, J.**, Torniai, C. "Ontology Extraction Tools: an Empirical Study with Educators," *IEEE Trans. Learn. Tech.* 5(3), 2012, pp. 275-289.
- [J6] **Jeremić, Z.**, **Jovanović, J.**, Gašević, D., "Personal Learning Environments on the Social Semantic Web," *Semantic Web Journal*, 4(1), 2013, pp. 23-51 (C:6).
- [J7]Bagheri, E., Ensan, F., Gašević, D., "Decision support for the software product line domain engineering lifecycle," *Autom. Softw. Eng.* 19(3), 2012, pp. 335-377 (C:3).
- [J8] **Ali, L.**, Hatala, M. Gašević, D., Jovanović, J., "A Qualitative Evaluation of Evolution of a Learning Analytics Tool," *Computers & Education*, 58(1), 2012, pp. 470-489 (C: 15).
- [J9]Bagheri, E., Gašević, "Assessing the Maintainability of Software Product Line Feature Models using Structural Metrics," *Software Quality Journal*, 19(3), 2011, pp. 579-612 (C:26).
- [J10] Bagheri, E., Di Noia, T., Gašević, D., Ragone, A., "Formalizing Interactive Staged Feature Model Configuration," *J. of Software: Evolution and Process*, Vol. 24, No. 4, 2012, pp. 375–400 (C:22).
- [J11] **Zouaq, A.**, Gašević, D., Hatala, M., "Towards Open Ontology Learning and Filtering," *Information Systems* 36(7), 2011, pp. 1064-1081 (C:14)
- [J12] **Jeremić, Z.**, Jovanović, J., Gašević, D., "Student Modeling and Assessment in Intelligent Tutoring of Software Patterns," *Expert Systems with Applications*, 39(1) 2012, pp. 210-222 (C:7).
- [J13] Gašević, D., **Zouaq, A.**, Torniai, C., Jovanović, J., Hatala, M., "An Approach to Folksonomy-based Ontology Maintenance for Learning Environments," *IEEE Trans. Learn. Tech.* 4(4), 2011, 301-314 (C:8).
- [J14] **Nešić, S.**, Gašević, D., Jazayeri, M., Landoni, M., "A Learning Content Authoring Approach based on Semantic Technologies and Social Networking: an Empirical Study," *Educational Technology & Society*, 14(4), pp. 35-48, 2011 (C:1).
- [J15] Obrenović, Ž., Gašević, D., "End-User Service Computing: Spreadsheets as a Service Coordination Interface," *IEEE Trans. Services Computing*, 1(4), 2008, pp. 229-242 (C:22).
- [J16] **Jovanović, J.**, Gašević, D., Brooks, C., Devedžić, V., Hatala, M., **Eap, T.**, Richards, G., "Using Semantic Web Technologies for the Analysis of Learning Content," *IEEE Internet Comp*, 11(5), 2007, pp. 45-53 (C:57).
- [J17] **Jovanović**, **J.**, Gašević, D., **Knight**, **C.**, Richards, G., "Ontologies for effective use of context in elearning settings," *Educational Technology & Society*, 2007, vol. 10, no. 3, pp. 47-59 (C:64).
- [J18] Devedžić, V., **Jovanović**, **J.**, Gašević, D., "The pragmatics of current e-learning standards," *IEEE Internet Computing*, Vol. 11, No. 3, 2007, pp. 16-24 (C: 38).
- [J19] **Djurić**, **D.**, Gašević, D., Devedžić, V., "The Tao of Modeling Spaces," *Journal of Object Technology*, Vol. 5, No. 8, 2006, pp. 125-147 (C:28).
- [J20] Gašević, D., **Jovanović**, **J.**, Devedžić, V., "Ontology-based Annotation of Learning Object Content," *Interactive Learning Environments*, Vol. 15, No. 1, 2007, pp. 1-26 (C:38).
- [J21] Gašević, D., **Djurić, D.**, Devedžić, V., "MDA-based Automatic OWL Ontology Development," *Int'l J. Software Tools for Technology Transfer*, Vol. 9, No. 2, 2007, pp. 103-117 (C:29).
- [J22] **Jovanović, J.**, Gašević, D., Devedžić, V., "Ontology-based Automatic Annotation of Learning Content," *Int'l J. on Semantic Web and Inf. Systems*, Vol. 2, No. 2, 2006, pp. 91-119 (C:71).
- [J23] Gašević, D., Hatala, M., "Ontology mappings to improve learning resource search," *British Journal of Educational Technology*, Vol. 37, No. 3, 2006, pp. 375-389 (C:70).
- [J24] **Knight,** C., Gašević, D., Richards, G., "An Ontology-Based Framework for Bridging Learning Design and Learning Content," *Educ. Tech. & Society*, Vol. 9, No. 1, 2006, pp. 23-37 (C:100).
- [J25] Verbert, K., **Jovanović**, **J.**, Duval, E., Gašević, D., Meire, M., "Ontology-based Learning Content Repurposing: The ALOCoM Framework," *Int'l J E-Learning*, 5(1), 2006, pp. 67-74 (C: 59).
- [J26] Gašević, D., Devedžić, V., "Petri net ontology," Knowledge Based Systems, 19(4), 2006, pp. 220-234 (C: 34).

NSERC Form 100 PIN 310987 Dragan Gasevic

2.3 Refereed Conferences (selected)

- [C1] **Soltani, S.**, **Asadi, M.**, Gašević, D., Hatala, M., Bagheri, E., "Automated Planning for Feature Model Configuration based on Functional and Non-Functional Requirements," *In Proc. 16th International Software Product Line Conference*, pp. 56-65 (A: 33%, C: 1, best paper award).
- [C2] **Gröner, G., Asadi, M., Mobabbati, B.**, Gašević, D., **Bošković, M.**, Silva Parreiras, F., "Validation of User Intentions in Process Models," *In Proceedings of the 24th International Conference on Advanced Information Systems Engineering*, 2012, pp. 366-381 (A: 14%, selected as one of the best papers by the conference chairs for the special issue of Inf. & Software Tech. journal)
- [C3] **Mohabbati, B.**, Gašević, D., Hatala, H., **Asadi, A.**, Bagheri, E., **Bošković, M.**, "A Quality Aggregation Model for Service-Oriented Software Product Lines based on Variability and Composition Patterns," *In Proc. 9th Int'l Conf. Service Oriented Computing*, pp. 436-451 (A:15%, C:8).
- [C4] **Gröner, G.**, Wende, C., **Bošković, M.**, Silva Parreiras, F., Walter, T., Heidenreich, F., Gašević, D., Staab, S., "Validation of Families of Business Processes," *In Proc. 23rd Int'l Conf. Advanced Information Systems Engineering*, pp. 551-565 (A: 15%, C: 5).
- [C5] Torniai, C., Jovanović, J., Gašević, D., Batemen, S., Hatala, M., "E-learning meets the Social Semantic Web," *In Proc.* 8th *IEEE Int'l Conf. Adv. Learn. Tech.*, 2008, pp. 389-393 (A: 29%, C: 31).
- [C6] **Jovanović**, **J.**, Gašević, D., Devedžić, V., "Dynamic Assembly of Personalized Learning Content on the Semantic Web," *In Proc.3*rd *European Semantic Web Conf.*, pp. 544-558 (A: 26%, C: 36)

3. Other Evidence of Impact and Contributions

3.1 Awards

- 1. Canada Research Chair in Semantic Technologies, 2009-2013.
- 2. Best paper awards at 16th Int'l Software Product Line Conf., 2012; 6th, 10th, 11th IEEE Int'l Conf. Advanced Learning Tech, 2006/2010/2011, 3rd Int'l WSh Semantic Web Enabled Soft. Eng., 2007
- 3. Best reviewer award 9th Int'l Conference on Service Oriented Computing (ICSOC), 2012
- 4. New Faculty Award Alberta Innovates Technology Futures, 2008
- 5. IFIP TC12 Best PhD thesis award 2004 (runner-up, winner was not announced)
- 6. Best paper award runner-up at 4th Int'l WSh on Semantic Web Enabled Software Eng., 2008

3.2 Conference/Workshop Chair and Research Organization Leadership (selected)

Summary: Steering Committee: 2; General conf. chair: 2; Program conf. chair: 5; Workshops organization:18; Publicity chair: 2.

- [O1] Executive committee member, Society for Learning Analytics Research (SoLAR), 2011 present
- [O2] Steering committee co-chair, SLE conference, 2010 present
- [O3] Steering committee member, LAK conference, 2010 present
- [O4] Program and General Chair, 16th and 17th IEEE International EDOC Conference, 2012/2013
- [O5] Program Chair, 1st-2nd Int'l Conference on Learning Analytics & Knowledge (LAK), 2011/2012.
- [O6] Program Chair and General Chair, 1st & 2nd Int'l Conf. on Soft. Language Eng. (SLE), 2008/9.
- [O7] Int'l WSh on Learning and Education with the Web of Data at Extended Semantic Web and Int'l WWW Conferences, 2011-2012.
- [O8] Int'l WSh on Evolutionary Business Processes (EVL-BP) at IEEE Int'l EDOC Conf., 2008-12.
- [O9] Int'l WSh on Vocab., Ontologies, & Rules for the Enterprise at IEEE EDOC Conf., 2007/09/11.

3.3 Keynotes, Invited Talks, Panels, Tutorials (selected)

Summary: Keynotes: 5; Invited talks: 14; Panels: 3; Conference tutorials: 14

- [T1] Gašević, D., "Keynote: Evidence-based Semantic Web: Just a Dream or the Way to Go?," 3rd Canadian Semantic Web Symposium (CSWS2011), Vancouver, BC, Canada 2011.
- [T2] Gašević, D., "Keynote: Development and Configuration of Flexible Business Processes," IFIP 2.6 2.12 First International Symposium on Data-Driven Process Discovery and Analysis, 2011
- [T3] Gašević, D., "Keynote: Semantic Technologies for Learning Environments: Promises and Challenges," Ibero-American Joint Conference on Learning Technologies, 2009.
- [T4] Gašević, D., "Invited talk: Personal Information Management for Software Engineering Researchers, CASCON 2009 Workshop on Software Engineering 2.0 and Research 2.0, 2009.

3.4 Journal Editorial and Committee Work (selected)

Summary: Editor–E: 1; Ass. Editor–AE: 1; Edit. Board–EB: 6; Guest editor–GE: 12; PC member: 146.

- [E1] E: Journal of Learning Analytics; AE: Program; EB: Interactive Learning Environments; EB: Int'l J of Technology Enhanced Learning; Int'l J of Learning Technology;
- [E2] GE, "Vocabularies, Ontologies, and Rules for Business Process Management," *Information Systems*, 35(4), 2010 (top information systems journal).
- [E3] GE, "Learning and Knowledge Analytics," Educational Tech. & Society, 15(3), 2012
- [E4] GE, Semantics-enabled Software Engineering, IEEE Trans. SMC, Part C, 42(1), 2012.
- [E5] GE, "Software Language Engineering", IEEE Trans. Soft. Eng., 35(6), 2009 (top SE journal).
- [E6] PC, International World Wide Web Conference (WWW), 2008-10, 2012.
- [E7] PC, Extended Semantic Web Conference (ESWC), 2010.
- [E8] PC, Int'l Conf. Knowledge Eng. and Knowledge Management (EKAW), 2010, 2012.
- [E9] PC, International Conference on Service Oriented Computing (ICSOC), 2009-2012.
- [E10] PC, International Conference on Artificial Intelligence in Education, 2009.
- [E11] PC, IEEE International Conference on Advanced Learning Technologies, 2007-2013.
- [E12] PC, International Conference on Web Engineering, 2007-2013.
- [E13] PC, European Conference on Technology Enhanced Learning (EC-TEL), 2009-2012

3.5 Journal Reviews (Selected)

ACM Comp. Surv., ACM TWeb, IEEE TKDE, IEEE TLT, IEEE TSE, IEEE Trans. Educ., Information Systems, Educational Technology & Society, J. Web Semantics, Computers & Education.

3.6 Project Reviews and PhD Thesis Examination

- 1. External examiner of PhD dissertations: Massey University (New Zealand), University of Koblenz (Germany), KTH Royal Institute of Technology (Sweden), and University of Belgrade (Serbia)
- 2. Ad hoc grant review for Natural Sciences and Engineering Research Council of Canada, Estonian Science Foundation, European Commission (Framework Program 7), and Mitaes.
- 4. Delays in Research Activity: No.

5. Contributions to the Training of Highly Qualified Personnel

I treat my students as equal research partners with whom we make joint decision throughout the entire research lifecycle from the early literature reviews, to formulation of research questions and experimental designs, and to drafting research reports and papers. Having a culture of collaborative work in our research group, students are encouraged to collaborate with other students and faculty members on joint projects and publications. In addition to the students I (co-)supervise at AU and SFU, I am also involved in co-supervision at École Polytechnique de Montréal, U of Lugano (Swiss), U of Augsburg (Germany), U of Minho (Portugal), and U of Belgrade (Serbia). I always strive to initiate the collaboration among my students from all these different institutions, which has already resulted in numerous productive results, collaborative projects, research visits, and even employment opportunities. Given my strong focus on the training of HQP, most of my publications are co-authored with my students. Since 2006, with my students, I have co-authored 37 journal papers, 20 book chapters, and 114 conference/workshop papers (primarily presented by the students), which are all peer-reviewed. In joint publications, I motivate the students to take the leading roles and to be the first authors. I believe that taking the full responsibility in paper authoring is an effective way to learn how to write research papers independently; it also effectively prepares students to coordinate research teams. I also encourage more senior PhD students and PDFs to take part in advising their younger colleagues with the goal to get them prepared for their future careers, which will involve supervision of research teams. We organize rehearsals of presentations where other students are encouraged to offer their feedback. Here, I list some awards that my students (and I jointly) received: Best paper awards – S. Soltani & M. Asadi (SPLC2012), J. Jovanović (ICALT 2006), M. Milanović (SWESE 2007), S. Nesic (ICALT 2010), M. Siadaty (ICALT 2011), M. Boskovic (AOM 2010); N. Kaviani & M. Mohabatti (SWESE 2008, runner-up); A. Zouag -FQRNT postdoc award; V. Kovanovic – C.D Nelson Memorial Graduate Entrance Scholarship (only six annual admission awards at SFU); L. Rocha – provincial graduate scholarship; J. Rusk & L. Ali–AU Grad. Student Disciplinary Research Award; K. Sakai, M. Chang, D. Renaud – NSERC USRA awards.

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 b	e used by NSERC prima	arily to contact applicants and	award holders. It mav als	o be	Date		
	ective reviewers and con	nmittee members, and to gene			201	3/06/19	
Family name		Given name Initial(s) of all given name			Personal identification no. (PII		N
Gasevic		Dragan D			Valid	310987	
		r primary place of employmen ailing address is temporary	t is not a Canadian		If address is indicate:	temporary,	
Sch. of Com.	and Inf. Sys. Atha	ıbasca U.					
1 University l	Drive						
Athabasca Al	B T9S3A3						
CANADA							
					Starting date	e	
					Leaving date	2	
					Leaving date	-	
Telephone number		Facsimile number	E-mail address				
1 (866) 5687	205	(778) 7827488	dragang@athabas	scau.ca	l		
` ′		(176) 1627466				npletion optional	<u> </u>
Telephone number (alternate) Give an alternate telephone number only if you can be reached at that number during business hours.				X Male	· — '	•	
LANGUAGE CAP							
English	Read X	Write	X	Spe	eak X		
		L					
French	Read	Write		Spe	зак		
I wish to receive n	ny correspondence:	in English	X	in Frer	nch		
AREA(S) OF EXP							
		scribe your area(s) of expertise particular instruments and tec		Resea	rch subject c	ode(s)	
				Prima	nry		
					2800		
Software langauge engineering, Software product lines			Seco	Secondary			
					2706		

Form 100, Appendix A (2009 W)

PROTECTED WHEN COMPLETED

Version française disponible





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 Recei	ved 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 O	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 Gasevic, Dragan D		
Department	Postsecondary Institution	
Computing & Information Systems, School of	Athabasca	
I hereby allow the above-named applicant to include limit consideration to NSERC for the next six years. This limit status, years supervised or co-supervised, title of the proposition title and company or organization at the time the this data in accordance with the <i>Privacy Act</i> , and that it contributions to the training of highly qualified personnel	ted data will only include my name, type of pject or thesis and, to the best of the appl e application is submitted. I understand the will only be used in processes that asses	of HQP training and icant's knowledge, my hat NSERC will protect s the applicant's
Trainee's signature	Date	
Note: This form must be retained by the applicant and ma	ade available to NSERC upon request.	
Form 100, Appendix D (2009 W) PROTEC	TED WHEN COMPLETED	Version française disponible

