



FORM 100
Personal Data Form
PART I

Date

2012/08/16

Family name Fels	Given name Sidney	Initial(s) of all given names S	Personal identification no. (PIN) 102370
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☐ 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 Professor	Tenured or tenure-track academic appointment	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Department Electrical and Computer Engineering	Part-time appointment <input type="checkbox"/>	Full-time appointment <input checked="" type="checkbox"/>
Campus	<ul style="list-style-type: none">For all non-tenured or non tenure-track academic appointment and Emeritus Professors, complete Appendices B & CFor life-time Emeritus Professor and part-time positions, complete Appendix C	
Canadian postsecondary institution British Columbia		

ACADEMIC BACKGROUND

Degree	Name of discipline	Institution	Country	Date yyyy/mm
Bachelor's	Electrical Engineering (Co-op)	University of Waterloo	Canada	1988 / 04
Master's	Computer Science	University of Toronto	Canada	1990 / 04
Doctorate	Computer Science	University of Toronto	Canada	1994 / 04

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)		Total
	Supervised	Co-supervised	Supervised	Co-supervised	
Undergraduate			35	18	53
Master's	3	1	16	5	25
Doctoral	4	5	4	5	18
Postdoctoral	3		8		11
Others	5		8		13
Total	15	6	71	28	120

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

Position held (begin with current)	Organization	Department	Period (yyyy/mm to yyyy/mm)
Professor	British Columbia	Electrical and Computer Engineering	1998/01
Visiting Professor	Advanced Telecommunication Research Laboratories, Japan	Media Information Science (MIS)	2002/08 to 2002/09
Director	University of British Columbia	Media and Graphics Interdisciplinary Ctr	2001/07 to 2006/07
Visiting Professor	ATR MI&C Research Laboratory	2	2000/06 to 2000/08
Visiting Professor	ATR MI&C Research Laboratories, Japan	2	1999/05 to 1999/07
Visiting Professor	ATR MI&C Research Laboratories, Japan	2	1998/05 to 1998/08
Visiting Researcher	ATR MI&C Research Laboratories, Japan	2	1996/03 to 1998/02
Research and Development	Virtual Technologies, Inc.		1995/02 to 1996/01
Post-doctorate	University of Toronto	Computer Science	1994/09 to 1994/12

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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			
Sidney Fels	Advanced Human Communication Technologies	25,000(100%)	2006
	NSERC	25,000(100%)	2007
	Discovery	25,000(100%)	2008
	30 hours/month	25,000(100%)	2009
Sidney Fels and 2 others	Using a Parallel Distributed Camera Array for On-Demand User-Selected Video	102,000 (60%)	2006
	NSERC	104,000 (60%)	2007
	Collaborative Research and Development	105,000 (60%)	2008
	10 hours/month		
Sidney Fels and 4 others	Dynamic Modeling of the Oral, Pharyngeal and Laryngeal Complex for Biomedical Applications	197,400 (50%)	2007
	NSERC	205,400 (50%)	2008
	Strategic Grants Program	203,900 (50%)	2009
	40 hours/month		
Rodger Lea and 2 others	Large Public Display Interaction	95,000 (33%)	2008
	NSERC	95,000 (33%)	2009
	Strategic Projects		
	5 hours/month		

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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			
Sidney Fels	Evaluation of a hand-held interactive 3D multiscreen display NSERC Strategic Projects 10 hours/month	100,000(100%)	2008
		100,000(100%)	2009
T. Salcudean	Magnetic resonance elastography system NSERC RTI 5 hours/month	98,600 (15%)	2009
Sidney Fels	Diving experiences: wayfinding and sharing experiences with large, semantically tagged video NSERC CRD 15 hours/month	64,600 (50%)	2010
		64,600 (50%)	2011
		64,600 (50%)	2012
Sidney Fels	VideoDiver: Using Tagged Multi-Quality Video for Advanced Media Wayfinding, Browsing and Sharing Bell Canada Inc. Bell University Labs 15 hours/month	32,300 (50%)	2010
		32,300 (50%)	2011
		32,300 (50%)	2012

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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			
M. Ansermino	eVENT: An expert system for detecting ventilatory events during anesthesia CIHR Operating grant 5 hours/month	114,529 (17%) 114,529 (17%) 114,529 (17%)	2009 2010 2011
K Booth	Graphics, Animation and New Media (GRAND) Networks of Centres of Excellence (NCE) NCE 5 hours/month	4,600,000 (2%) 4,600,000 (2%) 4,600,000 (2%) 4,600,000 (2%) 4,600,000 (2%)	2010 2011 2012 2013 2014
Kendall Ho	Digital Access through Web2.0 Networking (DAWN) Public Health Agency of Canada Public Health Agency of Canada Open proposal 2 hours/month	75,000 (3%)	2011
Kendall Ho	LAWSON Foundation LAWSON Foundation grant 2 hours/month	80,000 (3%) 80,000 (3%)	2011 2012

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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			
J. Anacleto	A Culturally-Sensitive Environment for Flexible Natural Interaction to Support Transitioning from a Chronic Care Hospital Context Microsoft-FAPESP (Brazil) Microsoft-FAPESP (Brazil) 8 hours/month	100,000 (10%) 100,000 (10%)	2011 2012

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) 102370	Family name Fels
Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis	Present Position
Sanchez, Antonio	Doctoral (In Progress)	Co-supervised 2011 -	not yet determined	PhD Student
Al Hajri, Abir	Doctoral (In Progress)	Supervised 2010 -	interaction with non-linear video	in progress
Andrew Ho	Doctoral (In Progress)	Supervised 2010 -	biomechanical modeling	student
Negar Mohaghegh	Doctoral (In Progress)	Co-supervised 2010 -	biomedical image processing	student
Tsou, Ling	Master's (In Progress)	Supervised 2010 -	oral, pharyngeal and laryngeal modeling	in progress
Yichen Tang	Master's (In Progress)	Supervised 2010 -	perspective viewing for 3D	in progress
Calderon, Roberto	Doctoral (In Progress)	Co-supervised 2009 -	technology in the third place	in progress
Larkin, Andrew	Master's (Not Completed)	Supervised 2009 -	simulation of faces	in progress
Lenters, Allison	Master's (Not Completed)	Supervised 2009 -	articulatory speech synthesis	switched fields
Tsao, Vincent	Master's (In Progress)	Supervised 2009 -	mobile phone and large screen display interaction	in progress
Wang, Johny	Master's (In Progress)	Supervised 2009 -	digital ventriloquized actors	in progress
Anderson, Peter	Doctoral (In Progress)	Co-supervised 2008 -	airflow simulation for OSA	in progress
Flores, Edgar	Doctoral (In Progress)	Supervised 2008 -	robotic face	in progress
Gregor Miller	Postdoctoral (In Progress)	Supervised 2008 -	Multi-camera object tracking	Post-doctorate
Tricia Pang	Master's (Not Completed)	Supervised 2008 -	Medical image analysis of the upper airway	student
Zoe McDougall	Doctoral (In Progress)	Co-supervised 2007 -	Study of Artist and Scientist collaboration	student
Rodger Lea	Res. Associate (In Progress)	Supervised 2005 -	media and graphics	adjunct professor
John Lloyd	Res. Associate (In Progress)	Supervised 2004 -	articulatory speech synthesis	lead programmer
Lam, Billy	Master's (Completed)	Supervised 2009 - 2011	interactive 3D display	in progress
Steve Oldridge	Doctoral (Completed)	Supervised 2003 - 2011	Multi-capture, single imaging.	student

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) 102370	Family name Fels
Name	Type of HQP Training and Status	Years Supervised or Co-supervised	Title of Project or Thesis	Present Position
(Name withheld)	Postdoctoral (Completed)	Supervised 2009 - 2010	media and graphics interdisciplinary centre	working in Japan
Ian Stavness	Doctoral (Completed)	Supervised 2006 - 2010	Inverse modeling of the upper airway	student
Amir Afrah	Master's (Completed)	Supervised 2007 - 2009	A general framework for vision data management	working at business s/w company
Ilich, Michael	Master's (Completed)	Supervised 2007 - 2009	interaction with non-linear video	working in industry
Roberto Calderon	Master's (Completed)	Co-supervised 2007 - 2009	S.P.A.C.E.S.: architecture as a first-class citizen	student
Dupuis, Donna	Master's (Completed)	Co-supervised 2006 - 2009	Improving manufacturing robots	Ph.D. student
Matt Finke	Postdoctoral (Completed)	Supervised 2006 - 2009	Large public displays	Post-doctorate
Tony Tang	Doctoral (Completed)	Supervised 2005 - 2009	ubiquitous computing	student
Phillip Jeffrey	Master's (Completed)	Co-supervised 2004 - 2009	folksonomies	student
Florian Vogt	Doctoral (Completed)	Supervised 2000 - 2009	3D Articulatory Speech Synthesizer	post-doctoral studies
Anderson, Peter	Master's (Completed)	Co-supervised 2006 - 2008	simulation of aeroacoustics	Ph.D. student
Wang, Yifei	Master's (Completed)	Co-supervised 2006 - 2008	technology in education	unknown
You, Amy Wei	Master's (Completed)	Supervised 2006 - 2008	large screen interaction in the home	Ph.D. student
Meghan Deutscher	Master's (Completed)	Supervised 2004 - 2008	Studying Participant Experience of Interactive Artworks	employee at business s/w company
Ian Stavness	Master's (Completed)	Supervised 2004 - 2006	3D articulatory speech synthesis.	student
Tim Chen	Master's (Completed)	Supervised 2002 - 2005	Whole-hand Input Sensing	industry position (game developer)
Graeme McCaig	Master's (Completed)	Supervised 2001 - 2005	Human Communication Technologies	student
Ashley Gadd	Master's (Completed)	Supervised 2000 - 2005	Metaphors for Musical Interaction	software programmer
Edgar Flores	Master's (Completed)	Supervised 1999 - 2004	Constellation Puppet:	research associate

1) MOST SIGNIFICANT CONTRIBUTIONS TO RESEARCH**Human Computer Interaction**

1. Published over 175 peer reviewed articles in main HCI related venues with large presence at ACM SIGCHI, ACM SIGGRAPH, UIST, ACM Multimedia, and NIME.
2. I created the Cubee and pCubee interactive, perspective corrected display that has become one of the most significant advances in interactive 3D technology with over 300K views of the technology on YouTube. The work won best demonstration prize at ACM Multimedia, 2009 and won 2nd prize in the 3D User Interface Grand Challenge in 2011. Commercialization efforts are being pursued.
3. In collaboration with Fiona Bowie, our work, *Flow*, was recognized in the Top 40 Public Artworks for 2009 by the Americans for the Arts.
4. I am one of the founders of the: "New Interfaces for Musical Expression (NIME)" conference. This conference deals with the creation of new interface frameworks for musical expression based on theoretical foundations from Human Computer Interaction community. The conference started as a workshop at the Special Interest Group for Computer Human Interaction and continued annually (2001-present), growing to over 300 participants with nearly 500 submissions/year. I co-chaired the conference in Vancouver in 2005 with 170 participants.
5. I created the Glove-TalkII system that is now the basis of the Visual Voice/DIVA and biomechanical modeling of the upper airway projects. Glove-TalkII is a system that adaptively maps hand gestures into speech, much like a musical instrument transforms hand gestures into sounds. This influential work continues to greatly influence the neural network and human-computer interaction communities. Glove-TalkII represents an important milestone in the evolution of research conceived by two of the fathers of telecommunication: Alexander Graham Bell and Homer Dudley. (Fels and Hinton, "Glove-TalkII, A neural network interface which maps gestures to parallel formant speech synthesizer controls", IEEE trans. on NN, 1998)
6. I created the Iamascope in 1996/7, internationally recognized as one of the most important developments in interactive multimedia art and musical instruments. Recognition has come in the form of many invited presentations and exhibitions, UK Millenium Dome celebrating the year 2000, 2 years at ARS Electronica in Linz, Austria, and first prize at the Petrobras Virtual Reality exhibition (1998) in Brazil. The Venetian Ministry of Culture declared the Iamascope "the best example of the combination of music, images and new technology" (Nov. 98). (Fels and Mase, "Iamascope: A Graphical Musical Instrument", Computers and Graphics, 1998.).

Biomechanical Modeling and Simulation

7. I am the principal investigator on the 3D Articulatory Speech Synthesizer project (www.artisynth.org) that is now being used by groups around the world including: USA, Japan, Korea, Spain, Czech Republic, France, and Brazil and used for modeling the upper airway. We have published 6 journal papers from this work, 13 peer reviewed conference/workshop papers, one book chapter in submission and an additional 2 papers in progress.
8. Co-Chair of Research Committee for the International Society for Maxillofacial Rehabilitation (ISMR): my research efforts in modeling the oral, pharyngeal and laryngeal complex provides new scientific and technologies to this society that have a high likelihood of ground-breaking impact in the field to improve patient outcomes and lower health care costs.

General Research

1. I played a leading role in defining and writing a \$22.1M Canadian Foundation for Innovation infrastructure grant proposal that was awarded in Aug. 2000. I contributed to the Human Communication Technology (HCT) component of the proposal as well as to the conceptualization of the institute. In addition, I also contributed significantly to the financial planning and design of the facility. The \$22.1 million was awarded to construct a new building and create a research infrastructure to support advanced multi-disciplinary information technology research.

2) RESEARCH CONTRIBUTIONS (all items listed are refereed unless noted otherwise)

Note: I publish in all areas of my expertise including, Human-Computer Interaction, Biomechanics, Interactive Arts and Music, and Computer Vision.

Selected Journals (since 2005)

1. **Expression of Nonconscious Knowledge via Ideomotor Actions**, Gauchou, H., Rensink, R. and Fels, S., *Consciousness and Cognition*, 2012: <http://dx.doi.org/10.1016/j.concog.2012.01.016>.
2. **Investigating a Design Space for Multi-Device Environments**, Kaviani, N., Finke, M., Lea, R., and Fels, S., *International Journal of Human Computer Interaction*, (in press), 2012.
3. **DreamThrower: An Audio/Visual Display for Influencing Dreams**, Kamal, N., Al Hajri, A. and Fels, S., *Journal of Entertainment Computing*, Dec, 2011; in press, DOI=<http://dx.doi.org/10.1016/j.entcom.2011.11.002>.
4. **Local Image Descriptors Using Supervised Kernel ICA**, Yamazaki, M. and Fels S. *Advances in Image and Video Technology, Lecture Notes in Computer Science*, Vol 5414, pp. 94-105, 2009.
5. **Optimizing Multiple Object Tracking and Best View Video Synthesis**, Jiang, H., Little, J., and Fels, S., *IEEE Transactions on Multimedia*, vol 10(6), pp. 997—1012, 2008.

Patents

1. **A Local Positioning System**, Fels, S., Casas, E., Ng., J. and Tang, D., filed in Canada and USA, March. 2001.
2. **Real-Time Multimedia Automatic Improvisation System**, Nishimoto, K., Fels, S. and Mase, K. 3117413, granted Oct. 6, 2000. (I invented the video and audio interface component)
3. **Electronic Kaleidoscope Apparatus Capable of Forming Kaleidoscopic Image Containing in situ Image of Observer Himself**, Fels, S. and Mase, K., filed in Japan, Nov. 1996; filed internationally Nov, 1997. 1991085 Granted, Dec 17, 1999.

Selected Conference and Workshop Proceedings (since 2009)

1. **Determining the Determinants of Health Behaviour Change Through an Online Social Network**, Kamal, N. and Fels, S., *Proceedings of Persuasive 2012*, to appear.
2. **An End-to-End Framework for Multi-View Video Content: Creating Multiple-Perspective Hypervideo to View on Mobile Platforms**, Miller, G., Fels, S., Ilich, M., Finke, M., Bauer, T., Wong K. and Mueller, *Proc. of the International Conference on Entertainment Computing (ICEC2011)*, to appear, 2011.
3. **VivoSpace: Towards Health Behavior Change using Social Gaming**, Kamal, N., Fels, S., and Blackstock, M., *Proc. of the International Conference on Entertainment Computing (ICEC2011)*, to appear, 2011.
4. **ZenTrader, an Emotion-Reactive Interface**, Dang, T, Liu S., and Fels, S., *Proc. of the International Conference on Entertainment Computing (ICEC2011)*, to appear, 2011.
5. **Tippy the Telepresence Robot**, Wang, J., Tsao, V., Fels, S. and Chan, B., *Proc. of the International Conference on Entertainment Computing (ICEC2011)*, to appear, 2011.
6. **†Towards a Computer-Vision Shader Language**, Miller, G., Oldridge, S. and Fels, S., *Proc ACM SIGGRAPH 2010 Posters (Extended Abstracts)*, electronic proceedings, 2011. Doi:10.1145/2037715.2037761
7. **†Kinect-Based Augmented Reality Projection with Perspective Correction**, Tang, Y., Lam, B., Stavness, I. and Fels, S., *Proc ACM SIGGRAPH 2010 Posters (Extended Abstracts)*, electronic proc, 2011. Doi: 10.1145/2037715.2037804
8. **Inverse-dynamics Simulation of Muscular-Hydrostat FEM Models**, Stavness, I, Fels, S., and Lloyd, J., *Proceedings of the International Society of Biomechanics (ISB2011)*, to appear, 2011.

9. ***Moving Target Selection in 2D Graphical User Interfaces***, Al Hajri, A., Miller, G., Ilich, M., and Fels, S., INTERACT 2011, Part II, LNCS 6947, pp. 141-161, 2011.
10. ***Biomechanical modeling of English /r/ variants***, Gick, B., Stavness, I., Derrick, D., and Fels, S., International Symposium on Speech Sciences (ISSP'2011), Montreal, PQ, pp. 211-218, 2011.
11. ***Biomechanical Modeling of the External Laryngeal Structures***, Tsou, L., and Fels, S., International Symposium on Speech Sciences (ISSP'2011), Montreal, PQ, pp. 133-138, 2011.
12. ***Bringing Bio-Mechanical Modelling of the OPAL Complex as a Mapping Layer for Performative Speech Synthesis***, d'Alessandro, N., Wang, J., Pritchard, B. and Fels, S., International Symposium on Speech Sciences (ISSP'2011), Montreal, PQ, pp. 111-118, 2011.
13. ***Towards Speech Articulation Simulation with a Dynamic Coupled Face-Jaw-Tongue Model***, Stavness, I., Lloyd, J., Payan, Y., and Fels, S., International Symposium on Speech Sciences (ISSP'2011), Montreal, PQ, pp. 119-124, 2011.
14. ***Mapping the Problem Space of Image Registration***, Oldridge, S., Miller, G., and Fels, S., 8th Canadian Conference on Computer and Robotic Vision, to appear, 2011.
15. ***A Conceptual Structure for Computer Vision***, Miller, G., Fels, S., and Oldridge, S., 8th Canadian Conference on Computer and Robotic Vision, to appear, 2011.
16. ***SQUEEZY: Extending a Multi-touch Screen with Force Sensing Objects for Controlling Articulatory Synthesis***, d'Alessandro, N., Wang, J. and Fels, S., Proceedings of the 11th New Interface for Musical Expression (NIME'2011), pp 531-532, 2011.
17. ***Personal Health Informatics: What is the role for online social networks?***, Kamal, N., Fels, S., and Blackstock, M., Proc. of the SIGCHI Workshop on Personal Informatics & HCI: Design, Theory, & Social Implications, online proc (<http://personalinformatics.org/chi2011/kamal>), May, 2011.
18. ***MediaDiver: Viewing and Annotating Multi-View Video***, Miller, G., Fels, S., Al Hajri, A., Ilich, M., Foley-Fisher, Z., Fernandez, M., and Jang, D., Proc. of ACM SIGCHI'2011, Extended Abstracts, 2011.
19. ***Ubiquitous Voice Synthesis: Interactive Manipulation of Speech and Singing on Mobile Distributed Platforms***, d'Alessandro, N., Pritchard, B., Wang, J., and Fels, S., Proc. of ACM SIGCHI'2011, Extended Abstracts, pp. to appear, 2011.
20. ***A cultural knowledge-based method to support the formation of homophilous online communities***, Anacleto, J., Balbino, F., Astolfi, A., Fels, S., and Bueno, A., Proc. of ACM SIGCHI'2011, Extended Abstracts, pp. to appear, 2011.
21. ***Leveraging Trust Relationships in Digital Backchannel Communications***, Nobarany, S., Haraty, M., Fels, S., and Fisher, B., Proc. of ACM SIGCHI'2011, Extended Abstracts, pp. to appear, 2011.
22. ***Light Reallocation for High Contrast Projection Using an Analog Micromirror Array***, Hoskinson, R., Stoeber, B., Heidrich, W., Fels, S., Proc of ACM Siggraph Asia'2010, article 165, 2010.
23. ***Using Temporal Video Annotation as a Navigational Aid for Video Browsing***, Mueller S., Miller, G. and Fels, S., User Interface Software and Technology (UIST'2010), poster session, Oct. pp. (in press), 2010.
24. ***Flow: An Interactive Public Artwork***, Bowie, F., Fels, S., and Hibbert, M., ACM Multimedia, in press, 2010. (Best Interactive Art paper)
25. ***Online Social Networks for Personal Informatics to Promote Positive Health Behavior***, Kamal, N., Fels, S., and Ho, K., 2nd SIGMM Workshop on Social Media in Conjunction with ACM MM, in press, 2010.
26. ***Cultural Probes in the Design of Communication***, McDougall, Z. and Fels, S., in Proc of the ACM International Conference on Design of Communication (SIGDOC'2010), pp. 57-64, 2010.
27. ***Using cultural knowledge to assist communication between people with different cultural background***, Sugiyama, B., Anacleto, J., Fels, S., and Caseli, H. in Proc of the ACM International Conference on Design of Communication (SIGDOC'2010), pp. 183-190, 2010.

28. ***Uniform Access to the Cameraverse***, Miller, G. and Fels, S., IEEE Conference on Distributed Smart Cameras (ICDSC), in press, 2010.
29. ***DreamThrower: Creating, Throwing and Catching Dreams for Collaborative Dream Sharing***, Kamal, N., Tsou, L., Al Hajri, A., Fels, S., Entertainment Computing - ICEC 2010, LNCS Vol 6243/2010, pp. 20-31, 2010.
30. ***Everyone Can Do Magic: An interactive game with speech and gesture recognition***, Wang, C., Liu, Z. and Fels, S., Entertainment Computing - ICEC 2010, LNCS Vol 6243/2010, pp. 32-42, 2010.
31. ***The Video Cube Puzzle: On Investigating Temporal Coordination***, Yim, E., Gaudet, J., and Fels, S., Entertainment Computing - ICEC 2010, LNCS Vol 6243/2010, pp. 193-204, 2010.
32. ***Culturally Sensitive Computer Support for Creative Co-authorship of a Sex Education Game***, Anacleto, J Villena, J., Silva, M. and Fels, S., Entertainment Computing - ICEC 2010, LNCS, Vol 6243/2010, pp. 302-307, 2010.
33. ***NetPot: Easy Meal Enjoyment for Distant Diners***, Foley-Fisher, Z., Tsao, V., Wang, J., Fels, S., Entertainment Computing - ICEC 2010, LNCS, Vol 6243/2010, pp. 446-448
34. ***Dynamic hard-soft tissue models for orofacial biomechanics***. Stavness, I., Lloyd, J. E., Fels, S., and Payan, Y., Proc ACM SIGGRAPH 2010 Talks, SIGGRAPH '10, 2010
35. ***Investigating Distributed User Interfaces across Interactive Large Displays and Mobile Device***, Finke, M., Kaviani, N., Wang, I., Tsao, V., Fels, S., and Lea, R., Workshop on coupled display visual interfaces at AVI'2010, Rome, Italy, May, 2010, pp. 413.
36. ***Developing vowel mappings for an interactive voice synthesis system controlled by hand motions***, Nordstrom, K., Fels, S., Hassall, C. and Pritchard, B., J. Acoust. Soc. Am. Volume 127, Issue 3, pp. 2021-2021, abstract, 2010.
37. ***Ouija and the Ideomotor Effect: When Implicit Memory Turns Explicit***, Gauchou, H., Fels, S. and Rensink, R., 14th annual meeting of the Association for the Scientific Study of Consciousness (ASSC 14), electronic proceedings, Toronto, ON, Jun., 2010.
38. ***Design of a web-based therapist tool to promote emotional closeness***, Rosas, J., Anacleto, J. and Fels, S., ACM SIGCHI '10: Auxiliary Proceedings of the SIGCHI conference on human factors in computing systems, WIP, pp. 3565-3570, April, 2010.
39. ***pCubee: A Perspective-Corrected Handheld Cubic Display***, Stavness, I., Lam, B. and Fels, S., ACM CHI '10: Proceedings of the SIGCHI conference on human factors in computing systems, full paper. To appear, April. 2010.
40. ***Interacting with a Personal Cubic 3D Display***, Lam, B., Stavness, I., Barr, R. and Fels, S., ACM Multimedia Technical Demonstration. Pages 959-960. October. pp. 959-960. 2009. (best demo award).
41. ***Hyolaryngeal Biomechanics Modeling with Intramuscular Stimulation Data***, Stavness, I., Ludlow, C., Chung, B., and Fels, S., 1st Workshop on the Modeling the Oral, Pharyngeal and Laryngeal Complex for Biomedical Applications, Pages 73-78. 2009. (invited)
42. ***Progress Towards Semi-Automated Segmentation of Soft-Tissue Structure in the OPAL Complex***, Pang, T, Abugharbieh, R. and Fels, S., 1st Workshop on the Modeling the Oral, Pharyngeal and Laryngeal Complex for Biomedical Applications, Pages 51-55. 2009. (invited)
43. ***Extraction of Tongue Shapes from Magnetic Resonance Images***, Vogt, F., Wilson, C., Chander, R., and Fels, S., 1st Workshop on the Modeling the Oral, Pharyngeal and Laryngeal Complex for Biomedical Applications, Pages 83-86. 2009. (invited)
44. ***Local Image Descriptors Using Supervised Kernel ICA***, Yamazaki, M. and Fels S. Proceedings of the IEEE Pacific-Rim Symposium on Image and Video Technology (PSIVT2009). In LNCS 95-104 2009.
45. ***Uniform Image and Camera Access***, Miller, M. and Fels, S., 2009 IEEE Workshop on Applications of Computer Vision (WACV 2009), 2009.

46. ***Vision System Development Through Separation of Management and Processing***, Miller, G., Afrah, A. and Fels, S., Fifth IEEE International Workshop on Multimedia Information Processing and Retrieval (MIPR2009), to appear, pp. 612-617, 2009.
47. ***What goes where? Designing interactive large public display applications for mobile device interaction***, Finke, M., Kaviani, N., Fels, S., Lea, R., Wang, H. 2009, 1st International Conference on Internet Multimedia Computing and Service (IMICS), Kunming, Yunnan, China, November 23-25, 2009.
48. ***MiniDiver: A Novel Mobile Media Playback Interface for Rich Video Content on an iPhone***, Miller, G., Fels, S., Finke, M., Motz, W., Eagleston, W. and Eagleston, C., ICEC LNCS Vol. 5709, pp. 98-109, 2009.
49. ***Automatic Classification of Image Registration Problems***, S. Oldridge, G. Miller and S. Fels, International Conference on Vision Systems, pp. 215-224, 2009.
50. ***Three-dimensional Tongue Complex Modeling from Magnetic Resonance Imaging Data***, Chen, H, Fels, S, Pang, T. ,Combe, C, Teixeira, B, Fleetham, J, Almeida, F, Lowe, A, SLEEP 2009, abstract.
51. ***ForTouch: A Wearable Digital Ventriloquized Actor***, Fels, S., Pritchard, B., and Lenters, A., Proceedings of the New Interfaces for Musical Expression (NIME09), pp. 274-275. 2009.
52. ***Advanced Tools for Biomechanical Modeling of the Oral, Pharyngeal, and Laryngeal Complex***, S. Fels, I. Stavness, A.G. Hannam, J. E. Lloyd, P. Anderson, C. Batty, H. Chen, C. Combe, T. Pang, T. Mandal, B. Teixeira, S. Green, R. Bridson, A. Lowe, F. Almeida, J. Fleetham, R. Abugharbieh. International Symposium on Biomechanics Healthcare and Information Science. Pages electronic proceedings. February. 2009 (invited).
53. ***Supporting Transitions in Work: Informing Large Display Application Design by Understanding Whiteboard Use***, Tang, T, Lanir, J., Greenberg, S., and Fels, S., Proceedings of GROUP09, pp. 149-158.
54. ***Local Image Descriptors Using Supervised Kernel ICA***, Yamazaki, M. and Fels, S., Pacific-Rim Symposium on Image and Video Technology (PSIVT'09), 2009, pg 94-105.

3) OTHER RESEARCH CONTRIBUTIONS

1. Chair of 1st Workshop on the Modeling the Oral, Pharyngeal and Laryngeal (OPAL) Complex for Biomedical Applications (2009), Co-Chair of International Conference on Entertainment Computing (ICEC 2011), 2011, co-Chair of ACM SIGCHI Interactivity, served on Siggraph General Submission Jury 2010-2011, Chair of ACM SIGCHI alt.chi (2005), Exhibited 3 different projects at ACM SIGGRAPH Emerging Technologies (1997, 2004, 2006).
2. Created the concept of the “Forklift Ballet” which was produced collaboratively with two co-artists for a performance in Acqui Terme, Italy, 1999.
3. Created the performance work, “Waking Dream”; produced collaboratively with two co-artists and performed at Nadine Theatre, Brussels, Belgium, Nov. 8, 9 and 10, the International Symposium on Electronic Arts (ISEA'2002) in Nagoya, Japan, Oct. 2002 and appeared on CBC television program Zed, March 17, 2004.
4. Created collaborative artworks: Laika Space Program, Sound Weave, Sound Room and PlesioPhone exhibited at the Heart of Prague Quadriennale Exposition on Sceneography (June, 2003).



**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 2012/08/16			
Family name Fels	Given name Sidney	Initial(s) of all given names S	Personal identification no. (PIN) 102370
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 2332 Main Mall Vancouver BC V6T1Z4 CANADA			If address is temporary, indicate: Starting date Leaving date
Telephone number 1 (604) 822-5338	Facsimile number (604) 822-5949	E-mail address ssfels@ece.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) <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female
LANGUAGE CAPABILITY			
English	Read <input checked="" type="checkbox"/>	Write <input checked="" type="checkbox"/>	Speak <input checked="" type="checkbox"/>
French	Read <input type="checkbox"/>	Write <input type="checkbox"/>	Speak <input type="checkbox"/>
I wish to receive my correspondence:		in English <input checked="" type="checkbox"/>	in French <input type="checkbox"/>
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). human computer interaction, virtual reality, neural networks, inverse modelling, 3D interaction, electronic art, electronic music, speech synthesis, biomechanical modeling			Research subject code(s) Primary 2700 Secondary 2716



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 Fels, Sidney S	
Department Electrical and Computer Engineering	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 <i>Privacy Act</i> , 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.	