

Bill Kapralos, Ph.D

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EDUCATION

- **Doctor of Philosophy in Computer Science.** *The Sonel Mapping Acoustical Modeling Method.* Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada. September 2006.
- **Master of Science in Computer Science.** *Eyes 'n Ears: A System for Attentive Teleconferencing.* Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada. April 2001.
- **Bachelor of Science in Computer Science** (*graduated with honours and first class with distinction*). Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada. May 1999.
- **Electronics Engineering Technician Diploma.** Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada (two more courses required).
- **Electronics Basics Program** (*graduated with honours*). Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada. June 1994.

EMPLOYMENT HISTORY

- **Assistant Professor (August 2006 - present).** Faculty of Business and Information Technology (Game Development and Entrepreneurship Program), University of Ontario Institute of Technology. Oshawa, Ontario, Canada.
 - INFR 4350: Virtual Reality and User Interaction (Fall 2008, 2009, 2010).
 - INFR 2350: Intermediate Computer Graphics (Winter 2007, 2008, 2009, 2010).
 - INFR 2370: Sound and Audio for Games (Winter 2007, 2008, 2009, 2010).
 - INFR 1350: Introduction to Computer Graphics (Fall 2006, 2007, 2008, 2009).
 - INFR 2810: Computer Architecture (Fall 2007, 2008).
- **Adjunct Professor (May 2007 - present).** Faculty of Graduate Studies, Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
- **Course Director (Contract Faculty, January 2001 – August 2006).** Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
 - CSE 6002: Directed Reading: Auditory Perception and Virtual Audio (Fall 2008).
 - CSE 1020: Introduction to Computer Science I (Summer 2006).
 - CSE 1030: Introduction to Computer Science II (Summer 2006).
 - CSE 3301: Programming Language Fundamentals (Summer 2006).
 - CSE 1530: Computer Use II: Programming (Winter 2006).
 - COSC 2011: Fundamentals of Data Structures (Winter 2001).
- **Course Director (Contract Faculty, April 2005 – August 2005).** Department of Computer Science, University of Toronto. Toronto, Ontario, Canada.
 - CSC 320: Introduction to Visual Computing (Summer 2005).

Curriculum Vitae

- **Course Director (Contract Faculty, January 2005 – May 2006).** School of Applied Technology, Humber College of Applied Arts and Technology. Etobicoke, Ontario, Canada.
 - ELIC 629: Digital Image Processing (Winter 2005, Fall 2005, Winter 2006).
 - ELIC 413: Introduction to Programming - C Programming (Fall 2005).
- **Teaching Assistant (January 1999 – August 2006).** Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
- **Research Assistant (May 1996 – April 1999).** Department of Computer Science and Engineering, York University. Toronto, Ontario, Canada.
- **Pinball and Video Game Technician (May 1993 – August 1996).** Seven Star Amusements. Toronto, Ontario, Canada.

ACADEMIC HONORS AND AWARDS

- IBM Center for Advanced Studies (CAS) Faculty Award. June 2009.
- Joseph Liu Thesis Award, Department of Computer Science and Engineering, York University. June 2007.
- York University President's Dissertation Scholarship. September 2004 – August 2005.
- Ontario Graduate Scholarships in Science and Technology (OGSST). May 2003 – April 2004.
- Institute for Robotics and Intelligent Systems (IRIS) Student Fellowship. June 2003.
- Gold (first place) poster. 12th Annual Canadian Conference on Intelligent Systems, Calgary, Alberta, Canada. May 29 - June 1, 2002.
- Natural Sciences and Engineering Research Council of Canada (NSERC), Post Graduate Scholarship (PGS B). May 2001 – April 2003.
- Ontario Graduate Student Scholarship (OGS). April 2001 (declined in favor of NSERC).
- Joseph Liu Thesis Award, Department of Computer Science and Engineering, York University. June 2001.
- Center for Research in Earth and Space Technology (CRESTech), Graduate Student Award. May 2001.
- Center for Research in Earth and Space Technology (CRESTech), Graduate Student Award. October 2001.
- Allen S. Berg Award (in memory of Nancy Waisbord) for consistently demonstrating excellence in Computer Science. Department of Computer Science and Engineering. York University. June 1999.
- Natural Sciences and Engineering Research Council of Canada (NSERC), Post Graduate Scholarship (PGS A). May 1999 – April 2001.
- Ontario Graduate Student Scholarship (OGS). April 1999 (declined in favor of NSERC).
- York University Continuing Student Scholarship. September 1998.
- York University Science Undergraduate Research Award. May 1998 – August 1998.
- York University Science Undergraduate Research Award. May 1997 – August 1997.
- York University Continuing Student Scholarship. September 1996.
- York University Continuing Student Scholarship. April 1996.

RESEARCH

Past and Current Research Grants and Funding

- K. Collins, **B. Kapralos**, A. Hogue, and J-M. Trivi. *Experimenting with Distributed Audio Applications on Mobile Phones*. Google Faculty Research Award. July 2010 – July 2011 (\$45,000 US).

Curriculum Vitae

- A. Hogue, J. Friedlan, and B. Kapralos. *Development of an Interactive Accounting Game*. Certified General Accountants of Ontario (CGAO). June 2010 – March 2011 (\$66,500).
- A. Dubrowski, J. Pirie, **B. Kapralos**, L. Grierson, and H. Carnahan. *Testing the effectiveness of an Internet mediated, video based, educational networking instrument in preparing trainees for simulation-based teaching of fundamental technical skills: A randomized control study*. The Royal College of Physicians and Surgeons of Canada, (RCPSC). April 2010 – April 2011 (\$23,882).
- C. Conati, J. Jensen, R. Biddle, E. Lank, L. Hughes, A. Antle, **B. Kapralos**, and R. Wakkary. *Digital Games for Learning and Training*. A project in the \$23M GRAND Graphics Animation and New Media Network of Centres for Excellence pan-university research project December 2009 – December 2014.
- **B. Kapralos**, A. Dubrowski, M. Hogan, C. Mallette, A. Hogue, W. Shi, S. Goldsworthy. Inukshuk Wireless Content Development Projects. *Development of a virtual learning environment for interprofessional education in critical care*. November 2009 – November 2010 (\$132,727).
- **B. Kapralos**. IBM Center for Advanced Studies (CAS) Faculty Award. *Streaming knowledge, sharing, and advanced interfaces* June 2009 – June 2010 (\$10,000).
- K. Collins, and **B. Kapralos**. Social Sciences and Humanities Research Council of Canada (SSHRC), Research Development Initiative. *Sound on smart tables: An pilot study of methods in sonic interaction design*. July 2009 – July 2011 (\$37,162).
- N. Matsuda, T. Hirashima, J. Vassileva, **B. Kapralos**, K. Collins, M. Yoneya, K. Kanev, and H. Inokawa. *Multimedia interaction interfaces in collaborative e-Learning environments*. Cooperative Research Project at Research Institute of Electronics (RIE), Shizuoka University, Japan. July 2009 (\$11,962).
- M. Jenkin, L. Harris, R. Herpers, R. Allison, and **B. Kapralos**. Alexander von Humboldt Foundation (Transcoop Program, Canada-Germany). *The perception of self-motion in virtual environments*. July 2009 – July 2012 (\$54,967 EUR).
- **B. Kapralos**, A. Hogue, and W. Shi. University of Ontario Institute of Technology Teaching Innovation Fund. *WildMagic+: A high-quality industry-standard open-source game engine framework*. Awarded March 2009 (\$7,100).
- A. Hogue, **B. Kapralos**, and W. Shi. University of Ontario Institute of Technology Teaching Innovation Fund. *Generalized framework for interactive learning objects with application to linear algebra and physics*. Awarded March 2009 (\$7,100).
- M. Vargas-Martin, and **B. Kapralos**. University of Ontario Institute of Technology Teaching Innovation Fund. *Using sonification to enhance teaching and learning of network intrusion detection*. Awarded March 2009 (\$7,100).
- **B. Kapralos**, M. Hogan, B. Muirhead, and A. Dubrowski. Social Sciences and Humanities Research Council of Canada (SSHRC) Image, Text, Sound, and Technology (ITST). February 2009 – February 2010. *Interactive community simulation environment for public health curriculums* (\$47,404).
- A. Dubrowski, M. Barry, H. Carnahan, **B. Kapralos**, J. MacDonald-Jenkins, D. Rose, O. Safir, and D. Backstein. The Network of Excellence in Simulation for Clinical Teaching and Learning, Innovations and Evaluation Projects 2009-2010. *Effectiveness of an internet mediated, networked learning instrument in simulation based training of clinical tasks*. (\$37,128).
- **B. Kapralos**. National Science and Engineering Research Council (NSERC) Discovery Grant. July 2008 – July 2013. *Computational acoustics for virtual environments*. (\$15,900/year).
- **B. Kapralos**, and M. Hogan. University of Ontario Institute of Technology Teaching Innovation Fund. *Interactive community simulation environment for public health curriculums*. Awarded April 2008 (\$7,000).
- A. Hogue, **B. Kapralos**, and J. Friedlan. University of Ontario Institute of Technology Teaching Innovation Fund. *Interactive simulation environment for accounting education*. Awarded April 2008 (\$7,000).

PUBLICATIONS (Names in bold denote students)**Journal Articles Currently Under Review**

1. K. Collins, B. Kapralos, and K. Kanev. Smart table computer interaction interfaces with integrated sound. *Journal of Three Dimensional Images*. Submitted July 2010.
2. **B. Cowan**, and B. Kapralos. A real-time, GPU-based method to approximate acoustical reverberation effects. *Journal of Graphics, GPU, and Game Tools*. Submitted January 2010.

Refereed Journal Publications

- 1 M. Hogan, B. Kapralos, S. Cristancho, K. Finney, and A. Dubrowski. Bringing community health nursing to life with serious games. *International Journal of Nursing Education Scholarship*. To appear 2010.
- 2 **B. Cowan**, **H. Sabri**, B. Kapralos, M. Porte, D. Backstein, S. Cristancho, and A. Dubrowski. A serious game for total knee arthroplasty procedure education and training. *Journal of Cybertherapy and Rehabilitation*. To appear 2010.
- 3 **B. Cowan**, and B. Kapralos. GPU-based real-time acoustical occlusion modeling. *Virtual Reality*. To appear 2010.
- 4 **B. Cowan**, and B. Kapralos. GPU-based one-dimensional convolution for real-time spatial sound generation. *Loading... Feature Issue: FuturePlay 2008 Edition*. 3(9), 2009.
- 5 **F. Hamidi**, and B. Kapralos. A review of spatial sound for virtual environments and games with graphics processing units. *The Open Virtual Reality Journal*, 1(1):8 – 17, 2009.
- 6 B. Kapralos, M. Jenkin and E. Miliotis. Sonel mapping: A probabilistic acoustical modeling method. *Building Acoustics*, 15(4):289-313, 2008.
- 7 B. Kapralos, M. Jenkin, and E. Miliotis. Virtual audio systems. *Presence: Teleoperators and Virtual Environments*. 17(6):527-549, 2008.
- 8 B. Kapralos, M. Jenkin and E. Miliotis. Audio-visual localization of multiple speakers in a video teleconferencing setting. *International Journal of Imaging Systems and Technology*. 13(1):95 – 105, 2003.
- 9 E. Miliotis, B. Kapralos, A. Kopinska and S. Stergiopoulos. Sonification of range information for 3D space perception. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 11(4):416 – 421, 2003.

Refereed Book Chapters

- 10 Miguel A. Garcia-Ruiz, Arthur Edwards, Raul Aquino-Santos, J. Tashiro, and B. Kapralos. *Towards usable collaborative virtual reality environments for promoting listening comprehension*. G. Vincenti, and J. Braman (ed.) *Multi-User Virtual environments for the Classroom: Practical Approaches to Teaching in Virtual Worlds* (to appear 2010).
- 11 M. A. Garcia-Ruiz, J. Tashiro, B. Kapralos, and M. Vargas Martin. *Crouching tangents, hidden danger: Assessing developments of dangerous misconceptions within serious games for healthcare education*. Shalin Hai-Jew (ed.) *Virtual Immersive and 3D Learning Spaces: Emerging Technologies and Trends* (to appear, 2010).

Refereed Conference and Workshop Publications

- 12 B. Kapralos, M. Hogan, C. Mallette, A. Wood, K. Finney, A. Hogue, and A. Dubrowski. Serious games for Interprofessional education for critical care response teams. *Group Awareness in Online Work, Learning, and Games Workshop at HCI 2010*. Abertay, Dundee, Scotland, September 7, 2010.
- 13 **H. Sabri**, **B. Cowan**, B. Kapralos, F. Moussa, S. Cristancho, and A. Dubrowski. Off-pump coronary artery bypass surgery procedure training meets serious games. In *Proceedings of the International Symposium on Haptic Audio-Visual Environments and Games*. October 16-17, Phoenix, AZ. USA.

Curriculum Vitae

- 14 **J. Lam**, B. Kapralos, K. Collins, A. Hogue, and K. Kamen. Amplitude Panning-Based Sound System for a Horizontal Surface Computer: A User-Based Study. In *Proceedings of the International Symposium on Haptic Audio-Visual Environments and Games*. October 16-17, Phoenix, AZ. USA.
- 15 A. Monclou, S. Cristancho, B. Kapralos and A. Dubrowski. Serious games for analog telecommunications education. In *Proceedings of the ACM FuturePlay 2010 International Conference on the Future of Game Design and Technology*. May 6-8 2010, Vancouver, British Columbia, Canada. pp. 251-252.
- 16 K. Collins, B. Kapralos, A. Hogue and K. Kanev. An exploration of distributed mobile audio and games. In *Proceedings of the ACM FuturePlay 2010 International Conference on the Future of Game Design and Technology*. May 6-8 2010, Vancouver, British Columbia, Canada. pp. 253-254.
- 17 **J. Lam**, C. Collins, B. Kapralos, A. Hogue and M. A. Garcia-Ruiz. Wiimote-controlled stereoscopic MRI visualization with sonic augmentation. In *Proceedings of the ACM FuturePlay 2010 International Conference on the Future of Game Design and Technology*. May 6-8 2010, Vancouver, British Columbia, Canada. pp. 261-262.
- 18 M. A. Garcia-Ruiz, M. Vargas Martin, B. Kapralos, J. Tashiro, and R. Acosta-Diaz. Best practices for applying sonification to support teaching and learning of network intrusion detection. In *Proceedings of the World Conference on Educational Multimedia, Hypermedia & Telecommunications (ED-MEDIA 2010)*. June 28 – July 2 2010, Toronto, Ontario, Canada. pp. 752-757.
- 19 W. Shi, G. Lee, **J. Hinchley**, J. Corriveau, B. Kapralos, and A. Hogue. Using a virtual learning environment with highly interactive elements in Second Life to engage millennial students. In *Proceedings of the 2010 International Conference on e-Education, e-Business, e-Management and e-Learning (IC4E 2010)*. January 22-24, 2010, Sanya, China. pp. 255-259.
- 20 J. Macgregor, S. Meng, B. Kapralos, H. Carnahan, and A. Dubrowski. Internet mediated, peer-to-peer feedback for learning of patient transfer skills: Prototype development and testing. *World Conference on Educational Sciences (WCES) 2010*. February 4-8, 2010, Istanbul, Turkey. Appears in *Procedia - Social and Behavioral Sciences* 2(2):1670-1674.
- 21 **H. Sabri**, **B. Cowan**, B. Kapralos, M. Porte, D. Backstein, and A. Dubrowski. Serious games for knee replacement surgery procedure education and training. *World Conference on Educational Sciences (WCES) 2010*. Istanbul, Turkey, February 4-8, 2009. Appears in *Procedia - Social and Behavioral Sciences* 2(2):3483-3488.
- 22 **C. Albuquerque**, **T. Brown**, B. Kapralos, M. Hogan, and A. Dubrowski. The use of virtual simulations in a laptop-based university. *World Conference on Educational Sciences (WCES) 2010*. February 4-8, 2010, Istanbul, Turkey. Appears in *Procedia - Social and Behavioral Sciences* 2(2):1694-1698.
- 23 **A. Brown**, M. Vargas Martin, B. Kapralos, M. A. Garcia-Ruiz, and M. Green. Using sonification to enhance teaching and learning of network intrusion detection. In *Proceedings of the 12th International Conference on Humans and Computers (HC 2009)*. December 9-10 2009, Hamamatsu, Japan.
- 24 K. Collins, B. Kapralos, and K. Kanev. Sound interface design for smart table computer interaction. In *Proceedings of the 12th International Conference on Humans and Computers (HC 2009)*. December 9-10, 2009, Hamamatsu, Japan.
- 25 **B. Cowan**, and B. Kapralos. Real-time acoustical diffraction and first order specular reflection modeling using the GPU. In *Proceedings of the 10th Western Pacific Acoustics Conference*. Beijing, China, September 21-23 2009.
- 26 B. Kapralos, A. Hogue, A. Kopinska, and **S. Khattak**. The Interaction of Visual and Auditory Cues to Linear Self-Motion Perception. In *Proceedings of the 10th Western Pacific Acoustics Conference. Invited paper: Special Session on Sound Technologies for Multimodal Communication*. Beijing, China. September 21-23, 2009.
- 27 **B. Cowan**, and B. Kapralos. Real-time GPU-based convolution: A follow-up. In *Proceedings of the ACM FuturePlay @ GDC Canada 2009 International Conference on the Future of Game Design and Technology*. Vancouver, British Columbia, Canada, May 12-13 2009, pp. 25-26.

Curriculum Vitae

- 28 **A. Brown**, M. Vargas Martin, B. Kapralos, Mark Green, and M. Garcia-Ruiz. Towards music assisted intrusion detection. In *Proceedings of the IEEE Symposium on Security and Privacy*. Oakland, CA, USA, May 17-20, 2009.
- 29 B. Kapralos, N. Mekuz, A. Kopinska, and **S. Khattak**. Dimensionality reduced HRTFs: A comparative study. In *Proceedings of the ACM Advancements in Computer Entertainment (ACE) 2008*. Yokohama, Japan, December 3-5, 2008, pp 59-62.
- 30 **B. Cowan**, and B. Kapralos. Spatial sound for video games and virtual environments utilizing real-time GPU-based convolution. In *Proceedings of the ACM FuturePlay 2008 International Conference on the Future of Game Design and Technology*. Toronto, Ontario, Canada, November 3-5 2008, pp 166-172.
- 31 **A. Milner**, A. Hogue, B. Kapralos, and J. Friedlan. Interactive accounting simulation environment for accounting education and training. In *Proceedings of the ACM FuturePlay 2008 International Conference on the Future of Game Design and Technology*. Toronto, Ontario, Canada, November 3-5 2008, pp 258-259.
- 32 **B. Cowan, M. Shelley, H. Sabri**, B. Kapralos, A. Hogue, M. Hogan, M. Jenkin, S. Goldsworthy, L. Rose and A. Dubrowski. Interprofessional care simulator for critical care education. In *Proceedings of the ACM FuturePlay 2008 International Conference on the Future of Game Design and Technology*. Toronto, Ontario, Canada, November 3-5 2008, pp 260-261.
- 33 M. Guennoun, **S. Khattak**, B. Kapralos, and K. El-Khatib. Augmented reality-based audio/visual surveillance system. In *Proceedings of the 2008 IEEE International Workshop on Haptic Audio Visual Environments and their Applications (HAVE 2008)*. Ottawa, Canada, October 18-19 2008, pp 70-74.
- 34 **Y. Gahi, M. Lamrani, A. Zoglat**, M. Guennoun, B. Kapralos, and K. El-Khatib. Biometric identification system based on electrocardiogram data. In *Proceedings of the 2nd IEEE International Conference on New Technologies, Mobility and Security (NMTS 2008)*. Tangier, Morocco, November 5-7, 2008, pp 1-5.
- 35 **L. Qi**, M. Vargas Martin, B. Kapralos, M. Garcia-Ruiz, and M. Green. Toward sound-assisted intrusion detection systems. In *Proceedings of the 2nd International Symposium on Information Security (IS '07)*, Vilamoura, Algarve, Portugal, November 26-27, 2007, pp 1634-1645.
- 36 M. Hogan, **H. Sabri**, and B. Kapralos. Interactive community simulation environment for community health nursing. In *Proceedings of the ACM FuturePlay 2007 Academic Games Conference*, Toronto, Ontario, Canada, November 15-17, 2007, pp. 237-240.
- 37 B. Kapralos, D. Zikovitz, and **S. Khattak**. Auditory motion perception threshold. In *Proceedings of the 2007 IEEE International Workshop on Haptic Audio Visual Environments and their Applications (HAVE 2007)*, Ottawa, Canada, October 12-14, 2007, pp. 1-4.
- 38 **H. Sabri, S. Khattak**, B. Kapralos, K. El-Khatib, and M. Guennoun. Virtual reality-based interface for the control of multiple surveillance cameras. In *Proceedings of the 2007 IEEE International Workshop on Haptic Audio Visual Environments and their Applications (HAVE 2007)*, Ottawa, Canada, Oct. 12-14, 2007, pp. 76-79.
- 39 B. Kapralos, M. Jenkin, and E. Milios. Acoustical modeling with sonel mapping. In *Proceedings of the 19th International Congress on Acoustics (ICA 2007)*, Madrid, Spain, September 2-7, 2007.
- 40 D. C. Zikovitz, and B. Kapralos. Decruitment of the perception of changing sound intensity for simulated self-motion. In *Proceedings of the 13th International Conference on Auditory Display (ICAD 2007)*. Montreal, Canada, June 26-29, 2007, pp. 120-125.
- 41 B. Kapralos, and N. Mekuz. Application of dimensionality reduction techniques to HRTFs for interactive virtual environments. In *Proceedings of the ACM International Conference on Advances in Computer Entertainment Technology (ACE 2007)*. Salzburg, Austria, June 13-15, 2007, pp. 256-257.
- 42 B. Kapralos, A. Hogue, and **H. Sabri**. Automatic recognition of hand raising gestures for a remote learning application. In *Proceedings of the 8th International Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS 2007)*. Santorini, Greece, June 6-8, 2007. pp. 38-41.
- 43 M. A. Garcia-Ruiz, M. Vargas Martin, and B. Kapralos. Toward multimodal human-computer interfaces for network intrusion detection: A sonification prototype. In *Proceedings of the 122nd Convention of the Audio Engineering Society*, Vienna, Austria. May 5-8 2007, preprint no: 7066.

Curriculum Vitae

- 44 **A. Shupo**, B. Kapralos and, M. Vargas Martin. Statistical-based skin classifier for omni-directional images. In *Proceedings of the 2nd International Conference on Computer Vision Theory and Applications (VISAPP 2007)*. Barcelona, Spain, March 8-11 2007, pp. 11-17.
- 45 B. Kapralos, M. Jenkin, and E. Miliios. Acoustical diffraction modeling for interactive virtual environments. In *Proceedings of the 2nd International Conference on Computer Graphics Theory and Applications (GRAPP 2007)*. Barcelona, Spain, March 8-11 2007, pp. 241-248.
- 46 B. Kapralos, M. Jenkin, and E. Miliios. Sonel mapping: A stochastic acoustical modeling system. In *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2006)*. Toulouse, France, May 14 - 19 2006, pp. V421-V424.
- 47 B. Kapralos, M. Jenkin, and E. Miliios. Acoustical modeling using a Russian roulette strategy. In *Proceedings of the 118th Convention of the Audio Engineering Society*, Barcelona, Spain. May 28 - 31 2005, preprint no: 6497.
- 48 B. Kapralos, M. Jenkin, and E. Miliios. Acoustical diffraction modeling utilizing the Huygens-Fresnel principle. In *Proceedings of the 2005 IEEE International Workshop on Haptics Audio Visual Environments and their Applications (HAVE 2005)*. Ottawa, Canada. October 1 - 2, 2005, pp. 39-44.
- 49 B. Kapralos, M. Jenkin, and E. Miliios. Sonel mapping: Acoustical modeling with an acoustical version of photon mapping. In *Proceedings of the 2004 IEEE International Workshop on Haptics Audio Visual Environments and their Applications (HAVE 2004)*. October 2 - 3, 2004, pp. 1-6.
- 50 B. Kapralos, D. Zikovitz, M. Jenkin and L. R. Harris. Auditory cues in the perception of self-motion. In *Proceedings of the 116th Convention of the Audio Engineering Society*. Berlin, Germany. May 8 - 11, 2004, preprint no: 6078.
- 51 B. Kapralos, **A. Barth, J. Ma** and M. Jenkin. A system for synchronous distance learning. In *Proceedings of the 16th International Conference on Vision Interface (VI 2003)*. Halifax, Nova Scotia, Canada. June 11 -13, 2003.
- 52 B. Kapralos, M. Jenkin, E. Miliios and J. Tsotsos. Eyes 'n ears face detection. In *Proceedings of the IEEE International Conference on Image Processing (ICIP 2001)*. Thessaloniki, Greece. October 7 - 10, 2001, pp. 66-69.
- 53 B. Kapralos, M. Jenkin, E. Miliios and J. Tsotsos. Eyes' n ears: face detection utilizing audio and video cues. In *Proceedings of the 2nd International Workshop on Recognition, Analysis and Tracking of Faces and Gestures in Real-time Systems (RATFG-RTS 200, in conjunction with ICCV 2001)*. Vancouver, Canada. July 13, 2001, pp. 106-112.
- 54 E. Miliios, B. Kapralos, S. Stergiopoulos: Sonification of range information for 3D space perception. In *Proceedings of the International Conference on Auditory Displays (ICAD) - Joint ICAD/ASA/EAA Workshop on Auditory Display*. Berlin, Germany. March 20, 1999.

Refereed Abstracts

1. L. E. M. Grierson, M. Barry, H. Carnahan, B. Kapralos, and A. Dubrowski. Effectiveness of an internet mediated educational networking instrument in the simulation-based training of clinical tasks. *The Royal College 2010 Simulation Summit*, Toronto, Ontario, September 27-29, 2010.
2. A. Dubrowski, B. Kapralos, S. Cristancho, A. Kotsakis, E. Ng, J. Pirie, S. Reeves, M. Barwick, B. Fleming-Carroll, A. Cheng, G. Bird, D. Quintero, A. Monclou, and A. Hogue. Interactive serious game simulation for critical care response team education. *3rd International Paediatric Simulation Symposium and Workshops (IPSSW) 2010*. Madrid, Spain, September 29-30, 2010.
3. L. R. Harris, R. Herpers, M. Jenkin, R. Allison, H. Jenkin, B. Kapralos, D. Scherfgen, and S. Boronas. The perception of linear self motion induced by a virtual reality display while viewing eccentrically. *11th International Multisensory Research Forum*. Liverpool, UK, June 16-19, 2010.
4. B. Kapralos, M. Hogan, K. Finney, and A. Dubrowski. Modular synthetic training research evaluation and extrapolation tool (mSTREET). *2nd Annual HETRU Conference on What really Works: Strategies to Improve Teaching and Learning*. Oshawa, Canada, November 21-22, 2009.
5. T. Pierce, A Hogue, and B. Kapralos. Getting Serious about Knowledge and Learning in Second Life: Moving Intercultural Business Communication Beyond 'Bow, Kiss, & Shake'. *Building*

Curriculum Vitae

Bridges: 96th National Communication Association National Convention. San Francisco, CA, USA, November 17, 2010.

6. M. Hogan, B. Kapralos, B. Muirhead, and A. Dubrowski. Community health nursing comes to life. *Third Annual Conference of the Canadian Game Studies Association.* Ottawa, Canada. May 23-24 2009.
7. M. Hogan, B. Kapralos, B. Muirhead, and A. Dubrowski. Bringing community health nursing education to life. *Health Professionals Education (HPE) – Global Best Practices in Simulation 2009.* Toronto, Ontario, Canada. May 21-23, 2009.
8. M. Hogan, and B. Kapralos. The use of simulations in community health nursing curriculums. *26th Annual International Nursing Computer and Technology Conference.* Las Vegas, Nevada, USA. June 4-7 2008.
9. M. Hogan, and B. Kapralos. Simulations in community health nursing. *2nd National Community Health Nurses Conference.* Toronto, Ontario, Canada. May 29-31 2008.
10. B. Kapralos, M. Jenkin, E. Milios, and J. Tsotsos. Eyes 'n ears sound localization. In *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2001.* Salt Lake City, Utah, USA. May 7-11, 2001.
11. B. Kapralos, M. Jenkin, E. Milios, and J. Tsotsos. Eyes 'n ears: A system for attentive teleconferencing. In *Proceedings of the 39th Meeting of the Acoustical Society of America.* Atlanta, Georgia USA. May 30 - June 3, 2000. Appears in *Journal of the Acoustical Society of America*, 107(5):2790, 2000.

Technical Reports

1. B. Kapralos, M. Jenkin, and E. Milios. The sonel mapping acoustical modeling method. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report. CS-2006-10.* September, 2006.
2. B. Kapralos, D. Zikovitz, M. Jenkin, and L. R. Harris. Auditory cues in the perception of self-motion for linear translation. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report. CS-2004-04.* November, 2004.
3. B. Kapralos, M. Jenkin, and E. Milios. Audio-visual localization of multiple speakers in a video teleconferencing setting. Department of Computer Science and Engineering, York University, Toronto, Ontario, Canada. *Technical Report CS-2002-02.* July 2002.

Published Reviews in ACM Computing Reviews

- Completed a summary and a review of the following paper (December 5, 2008): K. Bormann. Visuals are not what they look, *Virtual Reality* 12(2): 115-123, 2008.

Invited Talks and Presentations in since 2008 (Presented by Bill Kapralos)

1. B. Kapralos, M. Hogan, and A. Dubrowski. Serious games for Interprofessional education for critical care response teams. *Group Awareness in Online Work, Learning, and Games Workshop at HCI 2010.* Invited keynote speaker. Abertay, Dundee, Scotland, September 7, 2010.
2. B. Kapralos. Serious games = serious opportunities. *Seminario Internacional de Ingenieria Electronica, Universidad Pontificia Bolivariana–Bucaramanga.* Invited keynote speaker. Bucaramanga, Colombia. April 30, 2010.
3. B. Kapralos. Serious games for knee replacement surgery procedure education and training. *Health Education Technology Research Unit (HETRU) Rounds,* Oshawa, Ontario, Canada. March 11, 2010.
4. **Brent Cowan** and Bill Kapralos. Real-time spatial sound for virtual environments and games utilizing the GPU. Queens University. January 22, 2009.
5. Participant at the Ontario *Video Game Roundtable Meeting* with the Honorable Minister of Economic Development and Trade, Sandra Pupatello, September 10 2008.

Curriculum Vitae

6. Bill Kapralos, and Michelle Hogan. Serious games: an overview. *2008 Canadian Conference on Medical Education*. Montreal, Quebec, Canada. May 3-7, 2008.
7. Michelle Hogan, **Hamed Sabri**, **Saad Khattak**, and Bill Kapralos. Interactive simulation for community health education and training. Poster presentation at the *Health Education Technology Research Unit (HETRU) Official Launch*. Oshawa, Ontario, Canada. April 7 2008.
8. Michelle Hogan and Bill Kapralos. Interactive simulation for community health education and training. *Health Education Technology Research Unit (HETRU) Rounds*. Oshawa, Ontario, Canada. March 13 2008.
9. Bill Kapralos, and Daniel Zikovitz. Self-motion perception with changing sound source intensity. *CIRMMT Workshop on Multimodal Influences on Perceived Self-Motion*. Montreal, Quebec, Canada. February 4, 2008.

SCHOLARLY AND PROFESSIONAL ACADEMIC ACTIVITIES

- **Conference Chair**
 - *ACM FuturePlay @ GDC 2010*, Vancouver, British Columbia, Canada. May 6-7, 2010 (<http://futureplay.org>).
 - *ACM FuturePlay @ GDC 2009*, Vancouver, British Columbia, Canada. May 12-13, 2009.
 - *ACM FuturePlay 2008 International Conference on the Future of Game Design and Technology* Toronto, Ontario, Canada. November 3-5, 2008.
 - *ACM FuturePlay 2007 International Conference on the Future of Game Design and Technology* Toronto, Ontario, Canada. November 15-17, 2007.
- **Conference/Workshop/Seminar Coordinator/Organizing Committee**
 - Workshop Chair: *10th International Conference on Entertainment Computing* in 2011. Vancouver, British Columbia, Canada. September 2011.
 - *Introduction to Computer Graphics for Games*. Held as part of the *Seminario Internacional de Ingenieria Electronica*, Universidad Pontificia Bolivariana –Bucaramanga, Bucaramanga, Colombia. April 26-30, 2010.
 - *Introduction to Sound and Audio for Games*. Held as part of the *Seminario Internacional de Ingenieria Electronica*, Universidad Pontificia Bolivariana –Bucaramanga, Bucaramanga, Colombia. April 26-30, 2010.
 - *CIRMMT Workshop on Multimodal Influences on Perceived Self-Motion*. Montreal, Quebec, Canada. February 4, 2008.
 - *Health Education Technology Research Unit (HETRU) and McGraw-Hill Ryerson 2nd Annual Conference: What Really Works: Strategies to Improve Teaching and Learning*. Oshawa, Ontario, Canada. November 21-22, 2009.
- **Panel Participation/Organization**
 - **Bill Kapralos**, Jay Tahsiro, Michelle Hogan, Ken Finney, Adam Dubrowski. Serious games: video game-based learning for health education and training. *Health Professionals Education (HPE) – Global Best Practices in Simulation 2009*. Toronto, Ontario, Canada, May 21-23, 2009
 - Karen Collins and **Bill Kapralos**. Panel: An overview of interactive audio: Where are we currently and where are we heading? Digital Kung-Fu: Interactive Workshop at the Centre for Digital Media. Vancouver, British Columbia, Canada, May 14 2009.
 - Adam Dubrowski, Jay Tashiro, Ken Finney, and **Bill Kapralos**. Games for health education and training. *FuturePlay @ GDC Canada 2009*. Vancouver, British Columbia, Canada, May 12-13, 2009.
 - Karen Collins, **Bill Kapralos**, David Kerr, and Leonard Paul. Panel: Game audio education: Adding audio to your game courses, and games to your audio courses. *FuturePlay @ GDC Canada 2009*. Vancouver, BC, Canada, May 12-13, 2009.
 - LauraJo Gunter, Gerri Sinclair, Steve Engels, and **Bill Kapralos**. Ontario's got talent. *GameON Finance*. Toronto, Ontario, October 28-29, 2008.

Curriculum Vitae

- Adam Dubrowski, **Bill Kapralos**, and Michelle Hogan. Blogs, podcasts and serious games: What should educators know about the learning needs of their students? *Health Professions Education (HPE) – Global Best Practices in Simulation 2009*. Toronto, Ontario, Canada, May 21-23, 2009.
- **Committees**
 - Program Development Advisory Committee (PDAC) for Algoma University's Bachelor of Computer Games Technology Degree Program.
- **Journal Editorial Boards**
 - Journal of Health Professions Education
 - The Open Virtual Reality Journal
- **Grant Reviewer**
 - Ontario Centres of Excellence.
 - Natural Sciences and Engineering Research Council of Canada (NSERC).
 - United States National Science Foundation.
 - UOIT Teaching Innovation Fund Review Committee.
- **Journal Reviewer**
 - IEEE Transactions on Instrumentations and Measurement.
 - Ageing International.
 - Institution of Engineering and Technology Computer Vision
 - Transactions on Haptics.
 - Institution of Engineering and Technology Computer Vision.
 - Motor Control.
 - ACM Transactions on Applied Perception.
 - Journal of Autonomous Robots.
 - International Journal of Computer Games Technology.
 - Journal of the Acoustical Society of America.
 - Journal of Image and Vision Computing.
 - Journal of Sound and Vibration.
- **Conference Program Committees**
 - International Conference on Computer Supported Education (CSEDU) 2011. Noordwijkerhout, The Netherlands, May 6-9, 2011.
 - IEEE 2010 International Workshop on Haptic Audio Visual Environments and Games. Phoenix, AZ. USA, October 16-17, 2010.
 - Developments in E-Systems Engineering (DeSE) 2010. London, UK, September 6-8, 2010.
 - ACM Futureplay 2010 International Conference on the Future of Game Design and Technology. Vancouver, British Columbia, Canada, May 6-8 2010.
 - The 5th International Conference on E-Learning and Games / Edutainment 2010. Changchun, China, August 16-18, 2010.
 - Computer Graphics International 2010 (CGI 2010). Nanyang, Singapore, June 8-11, 2010.
 - Graphics Interface 2010. Ottawa, Ontario, Canada, May 31-June2, 2010.
 - Canadian Conference on Computer and Robot Vision (CRV 2010). Ottawa, Ontario, Canada, May 31-June2, 2010.
 - International Conference on Computer Supported Education (CSEDU) 2010. Valencia, Spain, April 7-10, 2010.
 - HETRU What Really Works: Strategies to Improve Teaching and Learning Conference '09. Oshawa, Ontario, Canada, November 20-21, 2009.

Curriculum Vitae

- IEEE 2009 International Workshop on Haptic Audio Visual Environments and Games. Lecco, Italy, November 7-8, 2009.
- IEEE/RSJ International Conference on Intelligent Robots and Systems 2008. St. Louis, MO. USA, October 11-15, 2009.
- Graphics Interface 2009. Kelowna, British Columbia, Canada, May 25-27, 2009.
- Canadian Conference on Computer and Robot Vision (CRV 2009). Kelowna, British Columbia, Canada, May 25-27, 2009.
- IEEE 2008 International Workshop on Haptic Audio Visual Environments and their Applications. Ottawa, Ontario, Canada, November 4-5, 2008.
- IEEE/RSJ International Conference on Intelligent Robots and Systems 2008. Nice, France, September 22-26, 2008.
- Third International Conference on E-learning and Games (Edutainment) 2008. Nanjing, China, June 25-27, 2008.
- IEEE International Workshop on Digital Entertainment and Creative Technology. Las Vegas, NV. USA, January 10-12, 2008.
- Serious Games Canada Symposium. Montreal, Quebec, Canada, November 27-28, 2008.
- International Conference on Computer Vision Theory and Applications (VISAPP 2007). Barcelona, Spain, March 8-11, 2007.
- ACM International Conference on Advances in Computer Entertainment 2007. Salzburg, Austria, June 13-15, 2007.
- International Conference on Computer Vision Theory and Applications (VISAPP 2008).
- IEEE 2007 International Workshop on Haptic Audio Visual Environments and their Applications. Ottawa, Ontario, Canada, October 12-14, 2007.
- Canadian Conference on Computer and Robot Vision (CRV 2007). Montreal, Quebec, Canada, May 28-30, 2007.
- 3DUI 2006 - The First IEEE Symposium on 3D User Interfaces. Alexandria, VA. USA, March 25-26, 2006.
- International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision (WSCG 2003). Bory, Czech Republic, February 3-7, 2003.

Student Supervision

Graduate Student Supervision

- Jonathan Lam (MSc)
- Brent Cowan (MSc, Natural Sciences and Engineering Research Council of Canada (NSERC) PGS M, Scholarship recipient)
- David Rojas Gaudron (MSc)

Current Undergraduate Student Supervision

- Hamed Sabri
- Derek Mitchell
- David Kirk
- Ryan Wang
- Veronica Cole
- Alex Gubert

Graduate Supervisory Committees

- **Student Supervisory Committee**
 - Masters of Health Sciences. Carmina Vica. Faculty of Health Sciences, University of Ontario Institute of Technology. Oshawa, Ontario, Canada.

Curriculum Vitae

- **External Member**

- PhD Defense. Jeremy Mogk, “An MRI Based Biomechanical Model of the Wrist and Carpal Tunnel”. Department of Kinesiology and Health, York University. Toronto, Ontario, Canada.

University Service and Administrative Positions

University Service (UOIT)

- UOIT-First Lego League (FLL) Committee (April 2010 – present).
- Search Committee, Faculty of Criminology, Justice, and Policy Studies (March 1 2010 – present).
- Teaching Award Committee (July 2010).
- Search Committee, Faculty of Business and IT (March 2010 – April 2010).
- Graduate Admissions Committee, Faculty of Business and Information Technology (September 2008 – present).
- Search Committee, Faculty of Business and IT (September 2009 – January 2010).
- University Life sub-committee, Faculty of Business and Information Technology (August 2009).
- UOIT-First Lego League (FLL) Committee (April 2009 – January 2010).
- UOIT Staff Award of Excellence Committee (Summer 2008).
- Master of Science, PhD graduate Program Committee (Spring 2008 – present).
- Search Committee, Faculty of Business and IT (Summer 2007 – Winter 2008).
- Faculty of Science, Computing Science Curriculum Review Committee (Fall 2008).