

back...upside down to fold like a calendar



# Video Gaming

AT UNIVERSITY OF TORONTO:  
Technical, Social and Legal Dimensions

TUESDAY MAY 13th 2008  
8:30am – 4:30pm  
UNIVERSITY OF TORONTO BAHEN CENTRE  
FOR INFORMATION TECHNOLOGY  
40 St. George Street, Room 1190,  
Toronto, Canada M5S 2E4



Bell University Laboratories

# welcome

On May 13th, 2008, the University of Toronto is holding its first interdisciplinary research symposium dedicated to video gaming research. Video gaming incorporates and impacts cutting edge research in the fields of computer science, engineering, sociology, management and law. We are delighted to present a broad array of research projects that are representative of the breadth of work underway at the University of Toronto.

Join us in the morning as we present new approaches to the development of massively multiplayer on-line games, 3D games engines, interactive visualization and the development of non-player characters.

Over lunch you will have an opportunity to network with UofT researchers and representatives from other academic institutions in the Greater Toronto Area (GTA). Government representatives will also be on hand with information about services that support the video gaming industry in Ontario.

In the afternoon, a wide-ranging program addresses issues as diverse as the use of cognitive training using video games to the legal implications of owning virtual property.

With over 150 video gaming companies in the GTA, the University of Toronto is well-positioned to support research activities in this area, and build linkages that will inform our academic and research programs.

We look forward to an exciting day and a collaborative future!

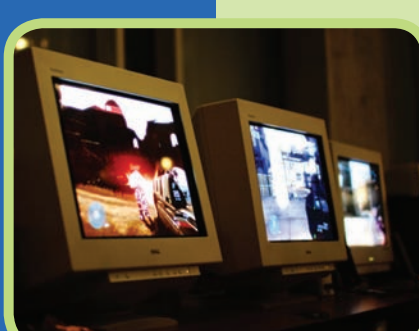
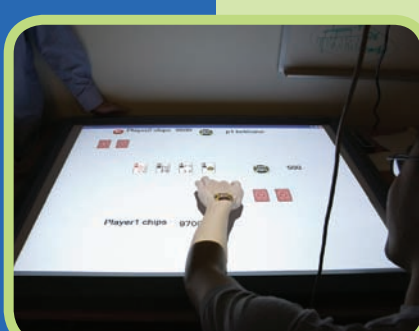
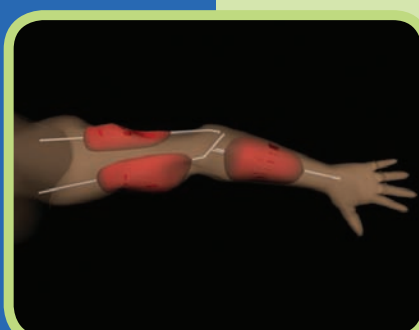
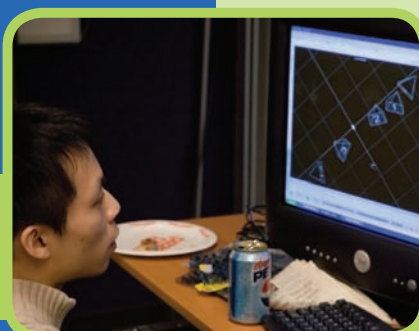


## Eugene Fiume

Event Chair, Professor,  
Department of Computer Science,  
University of Toronto

Eugene Fiume is Professor and past Chair of the Department of Computer Science at the University of Toronto, where he also co-directs the Dynamic Graphics Project. Eugene's

research interests include most aspects of realistic computer graphics, including computer animation, modeling natural phenomena, and illumination. He is also strongly interested in internet based imaging, image repositories, software systems and parallel algorithms. He has written two books and (co-)authored over 105 papers on these topics. His industrial interests include technology transfer in the Information Technology area, internet-based applications, digital media, wireless and multimedia systems, web-based services, large-scale computation, and the interaction of information technology and business.



# presenters

## Ian Spence

Professor, Department of Psychology, Faculty of Arts and Science, UofT  
Born in Scotland, Ian Spence's undergraduate education was in mathematics, physics, and psychology at the University of Glasgow and he did his graduate work in experimental psychology and mathematical statistics at the University of Toronto. His research interests include engineering psychology, color perception, psychophysics, psychometric methods with an emphasis on measurement and scaling, and statistics. Current research projects include individual differences in spatial cognition, the effective use of color in scientific visualization, the role of color in visual memory, and the navigation of very large websites.

## Stavros Vassos

PhD. Candidate, Department of Computer Science,  
Faculty of Arts and Science, UofT

Stavros Vassos received his B.Sc. at the Electrical and Computer Engineering Department of the National Technical University of Athens in Greece. His M.Sc is from Department of Computer Science Department at University of Toronto. His research interests lie mainly in the area of Artificial Intelligence; in particular, logic-based approaches for knowledge representation and reasoning, reasoning about action and change as well as intelligent agent design.

## Greg Steffan

Assistant Professor, The Edward S. Roger Sr. Department of Electrical and Computer Engineering, Faculty of Applied Science and Engineering, UofT  
Greg Steffan received his PhD from Carnegie Mellon University in 2003. His research is in the areas of compilers and processor architecture, and he is currently focusing on methods of automatically exploiting parallelism in multicore processors and FPGAs.  
steffan@eecg.toronto.edu <http://www.eecg.toronto.edu/~steffan>

## Jonathan Freedman

Professor, Department of Psychology, Faculty of Arts and Science,  
and Vice-Provost Students, UofT

Jonathan Freedman received his BA from Harvard and MA and PhD from Yale. He taught at Stanford and Columbia before coming to U of T as chair of the Psychology department. Most of his research has involved social influence, with some recent work on legal issues such as what affects juries and the role of pretrial publicity. He has also spent many years studying the literature on the effect of media violence on aggression.  
freed@psych.utoronto.ca

## Susan Abramovitch

Partner, Gowling Lafleur Henderson LLP, Toronto  
Adjunct Professor, Faculty of Law, UofT

Susan Abramovitch practices exclusively in entertainment law. Her practice covers all aspects of music industry transactions, as well as film, television, live theatre, multimedia, video gaming and book publishing. As well as being a regular panelist at major industry conferences, she has published in the Canadian Journal of Law and Technology, The Canadian Business Law Journal and Cahiers de droit. In the area of entertainment law, Ms. Abramovitch also lectures at Osgoode Hall Law School and IPIC/McGill.  
susan.abramovitch@gowlings.com.

## Tracy Kennedy

PhD. Candidate, Department of Sociology,  
Faculty of Arts and Science, UofT

In addition to pursuing her PhD, Tracy Kennedy is a research consultant in virtual and physical worlds. She has co-organized several virtual world events, and worked with the Community Technologies Group and Games User Research Group at Microsoft in Redmond. Currently Tracy is a research co-ordinator at NetLab, and a researcher at PEW Internet & American Life and the Annenberg School for Communication at USC. She also teaches at Brock University on topics such as 'Cultural Studies of Virtual Worlds'.  
tkennedy@netwomen.ca

## Steve Engels

Senior Lecturer, Department of Computer Science,  
Faculty of Arts and Science, UofT

Steve is active in research on video game design, but his main focus is on undergraduate teaching. He has won teaching awards both at the University of Toronto and at the University of Waterloo, and has been contestant in TV Ontario's Best Lecturer competition. Currently Steve is teaching 4th-year video game design courses in computer science, as well as a new first-year introduction course to video game design.  
sengels@cs.toronto.edu

## Patrick Coleman

Ph.D. candidate, Department of Computer Science,  
Faculty of Arts and Science, UofT

Patrick's current research is focused on character animation, motion visualization, and the design of animation interfaces. He has also done work in geometric modeling, non-photorealistic rendering, and physical simulation. He received his master's and bachelor's degrees in computer science from the University of Toronto and The Ohio State University, and has worked as a technical director at Pixar Animation Studios. His film credits include Ratatouille (2007, Pixar) and Ryan (2004, National Film Board of Canada).

## Aaron Hertzmann

Associate Professor, Department of Computer Science,  
Faculty of Arts and Science, UofT

Aaron Hertzmann received his BA in Computer Science and Art & Art History from Rice University in 1996, and an MS and PhD in Computer Science from New York University in 1998 and 2001, respectively. In the past, he has worked at University of Washington, Microsoft Research, Mitsubishi Electric Research Lab, Interval Research Corporation and NEC Research Institute. His awards include an MIT TR100 (2004), Ontario Early Researcher Award (2005), Sloan Foundation Fellowship (2006), and Microsoft New Faculty Fellowship (2007). His research interests include computer vision, computer graphics, and machine learning.

# agenda

8:30 - 8:50 **COFFEE**

8:50 - 9:00 **Welcome remarks** – Eugene Fiume

9:00 – 9:20 **Exploiting multicores for 3D games engines**  
– Greg Steffan

9:20 – 9:40 **Support systems for scalable massively multiplayer online games** – Cristiana Amza

9:40 – 10:00 **Publish/subscribe messaging layer for multiplayer online gaming** – Balasubramanyam Maniymaran, Alex Cheung and Hans-Arno Jacobson

10:00 – 10:20 **Character motion content models for motion editing and interactive visualization** – Patrick Coleman

10:20 - 10:30 **BREAK**

10:30 - 10:50 **Data driven character animation** – Aaron Hertzmann

10:50 – 11:10 **Identifying practical AI modules for the development of non-player characters in video games** – Stavros Vassos

10:10 - 11:30 **Challenges of designing a video gaming course at the Undergraduate level** – Steve Engels

11:30 - 11:50 **What can social research tell us about the 'non' traditional gamer?** – Tracy Kennedy

11:50 – 12:00 **Introduction to Networking partners**

12:00 - 1:30 **LUNCH AND NETWORKING FAIR**

1:30 - 1:50 **Video games and spatial cognition** – Ian Spence

1:50 - 2:10 **Video games to fight cognitive decline** – Ron Baecker and Kevin Tonon

2:10 - 2:20 **Cognitive gaming research and parametrized game development** – Kevin Tonon and Ron Baecker

2:20 - 2:30 **BREAK**

2:30 - 2:50 **Do violent video games cause aggression and violent crime?** – Jonathan Freedman

2:50 – 3:10 **Virtual Property, Real Law: The Regulation of Property in Video Games and Preparing for the virtual apocalypse: Managing business risks in virtual worlds** – Susan Abramovitch

3:10 - 3:45 **INDUSTRY PANEL**

3:45 - 4:30 **Networking session, tour of Dynamic Graphic Project (DGP) Lab**

# presenters

## ***Ron Baecker***

Professor, Department of Computer Science,  
Faculty of Arts and Science, UofT

Ronald Baecker is Professor of Computer Science, Bell University Laboratories Chair in Human-Computer Interaction, and founder and Chief Scientist of the Knowledge Media Design Institute at the University of Toronto. He has been named one of the 60 Pioneers of Computer Graphics by ACM SIGGRAPH, has been elected to the CHI Academy by ACM SIGCHI, and has been awarded the Canadian Human Computer Communications Society Achievement Award.

## ***Alex Cheung***

PhD candidate, Department of Computer Science,  
Faculty of Arts and Science, UofT

Alex Chung's research interests centre on distributed systems, publish/subscribe, enterprise application integration, security, routing, and load balancing. His past M.A.Sc thesis involved building a dynamic load balancing algorithm for heterogeneous content-based publish/subscribe systems.

## ***Kevin Tonon***

Master student, Department of Computer Science,  
Faculty of Arts and Science, UofT

Kevin's research interests include exploring the relationships between game playing, learning, and cognitive health.

Need:

## ***Cristiana Amza***

***Balasubramaneyam Maniymaran,***

***Hans-Arno Jacobson,***

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