



McGill
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Newsletter

Experimental results are finally in!

The CIM Men's washroom surveillance experiment is finally complete and the results are astonishing. Using state-of-the-art back-of-the-head-and-face recognition techniques the "Experiment in Progress" team was able to autonomously monitor individual usage patterns for the Men's washroom at CIM.

While full experimental results are to be published shortly in an upcoming special issue of Nature magazine on bodily functions, a few highlights are presented here for the CIM community. Names have been changed to protect the innocent.

It was found that the average time spent in the washroom by a given person was a function of the number of times they visited the washroom on a given day. Optimum washroom habits were only exhibited by one subject, John Doe, who by going to the washroom an average of 10 times per day was able to bring down his total time spent in the washroom to 1.25 minutes per day. We are particularly proud of the special filtering techniques developed to properly recognize this subject given the high speeds at which he would generally be seen entering and leaving the washroom. The subject who exhibited the least optimal washroom behaviour (that of going only once every three days and staying in the washroom the entire morning) could not be identified given the scarcity of associated visual data and the common presence of a facial occlusion due to an open newspaper.

Complaints by CIM's female staff that their washroom habits are not being studied should be answered shortly with the purchase of a second camera and ladder. Additional sponsors are also being sought so that cameras and ladders could be placed in front of *all* of the washrooms throughout McGill, making it the first fully equipped

university in Canada with full washroom monitoring. We're really excited about the promise of this experiment, in fact we're so excited we almost wet our pants! (But, being the crack research team we are, we didn't give in to this urge since it would skew our experimental data.) Remember, be efficient and don't dilly-dally.

Here's looking at you, from the "Experiment in Progress" group.

Holiday Closure

McGill University and CIM will be closed on Monday June 24 and on Monday July 1.

All University offices will be closed on Fridays from June 21 to Aug. 23. However, CIM offices will remain open.

CIM at the European Conference on Computer Vision

On April 20th, a small CIM group composed of Frank Ferrie, Tal Arbel and Nigel Ayoung-Chee attended the European Conference on Computer Vision. This year it was held at Cambridge University, England. Nigel presented his paper at the ECCV Workshop on Object Representation and Tal presented a poster on her work at the conference. Also in attendance was CIM alumni James Elder who gave two oral presentations.

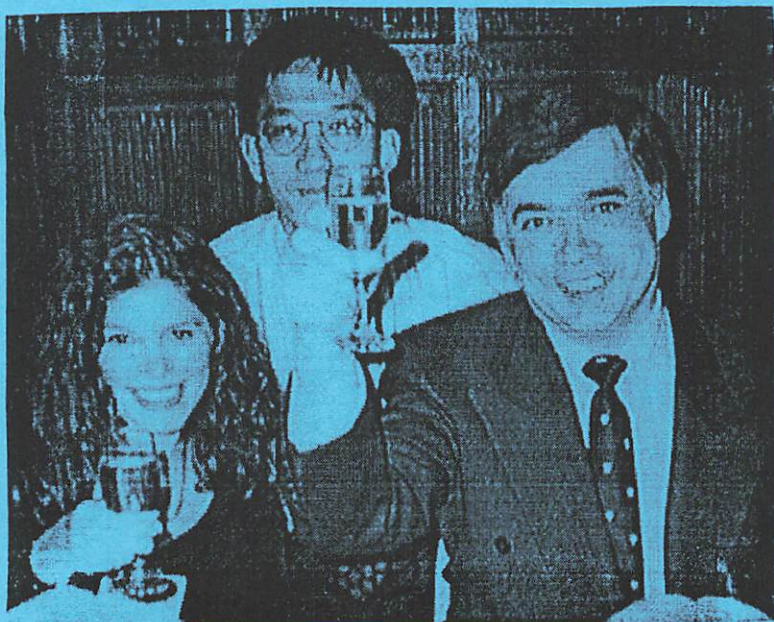
The conference was well attended and it was a great opportunity to meet and exchange ideas with other people in our field and to observe some of the trends in computer vision among the European community. Cambridge University was simply breathtaking. The architecture took you back to another time and campus was very peaceful and relaxing (aided by the fact that the students were

away for the week). Funny though, the cafeteria didn't serve any beef while we were there..

In contrast, London was a very lively and bustling city - also with a lot of history to it. Even then, there was a typically British order to the chaos. During our short stay in London we had a chance to see some of the sights such as the Tower of London and walk through the infamous "SOHO" district

Overall it was a very motivating trip and we were full of ideas to try when we got back - once we recovered from the jet lag.

Submitted by Tal Arbel and Nigel Ayoung-Chee



The IEEE International Conference on Robotics and Automation

On April 23rd, CIM was represented by a handful of members at the 1996 IEEE International Conference on Robotics and Automation. Farhad Aghili, Michael Daum, Yiannis Rekleitis, Daniel Rey and Nicholas Roy were the student representatives, along with their supervisors Greg Dudek, Vincent Hayward and Evangelos Papadopoulos.

Minneapolis doesn't exactly have a reputation as the rockin'est city of the mid-west, but there's no

limit to the fun you can have in a town with the largest mall in America. (Edmontonians take note: the Mall of America, although 55 sq. ft larger than West Edmonton mall, has 8 fewer stores. Can you see a difference? I can't see a difference.) The overhead skyways also put the much vaunted underground city of Montreal to shame.

The conference itself was of much interest, although 16 presentations a day for three days does drain the mental muscles, if not the corporeal matter. However, it was a pleasure to see some old faces (hey Paul!) and meet some new colleagues from around the globe. The final banquet boasted a presentation by the one-time US astronaut Bonnie Dunbar, who gave the attendees an engrossing presentation of her visit to the Soviet-cum-Russian space station Mir, putting in a hefty plug for the Canadian space arm. All in all, not a bad way to spend the end of April.

Submitted by Nicholas Roy

Update on the High School students' visit to CIM

Judy Pharo, Faculty Student Advisor, Office of the Associate Dean, Student Affairs, Faculty of Engineering, would like to say thank you to everyone who participated in the tour and demos given to the high school students on May 14. Based on feedback from the school and the kids, it was a real success! The students were treated to demos by Marc Bolduc, John Zelek, Noga Arenson, and Charles Snow.

Judy wrote, "Schools are always so amazed at how willing and supportive our Faculty is in demonstrating what goes on behind our perceived closed doors. While we appreciate that it is very resource intensive for the departments, we, as student recruiters and advisors, can really see the long term benefits to both the students and our Faculty. Hopefully, we will see some of these girls in our Faculty in a few years."

Submitted by Judy Pharo

NEWS AND EVENTS

☛ On Friday May 31, CIM's resident Choir Director, **Anna Lin**, and her troupe of enthusiastic, talented choristers: **Tanya Adamsson**, **Noga Arenson**, **Jonas August**, **Marc Bolduc**, **Don Bui**, **Michael Kelly**, **Nick Roy** and **Sharon Taylor**, provided us with a superb rendition of early music sung in latin, rousing maritime songs and musical rounds of an incredible scale. The enthusiastic audience responded with "wild applause". Congratulations and thank you to the whole choir!



Hats off to ...

☛ **Pham Tan Loc** has finished his project and will be receiving his Masters Degree this month. He would like to express his gratitude to his supervisor Prof. V. Hayward for his supportive guidance, his innovative suggestions and his strong motivations for his thesis project. With his recommendations, Pham was able to find an interesting job in a related field at MPB Technologies. He also thanks the administration for a great time and helpful services. Congratulations Pham!

☛ **Stephen Benoit** submitted his Master's thesis, entitled *Monocular Optical Flow for Real-Time Vision Systems*. He has decided to stay at CIM to do his Ph.D. under the supervision of Frank Ferrie. His field of study will continue to include optical flow and other forms of analysis of images over time. The goal of this work is to recover 2D and 3D structure from motion. Congratulations Stephen.

☛ **Shailendra Mathur** announced that he has finally submitted his Masters thesis entitled *Edge Localization in Surface Reconstruction using Optimal Estimation Theory*, under Frank Ferrie's supervision. He is currently working for Softimage (Microsoft Corp.) here in Montreal. All the best Shailendra.

☛ **Bin Mu** presented his Master's thesis last week, entitled *System Modeling, Identification and*

Coordinated Control Design for an Articulated Forestry Machine, under the supervision of Prof. Papadopoulos. He has already begun working at CAE. His office mate, **Soumen Sarkar** will also be leaving the Centre this month, having completed his Master's thesis entitled *Dynamic Modeling of an Articulated Forestry Machine for Simulation and Control*. He will be joining Lateral Logic, a startup company, for the summer but will no doubt be in and out of the lab from time to time. Congratulations to both of you.

Good-bye to...

☛ After eight years at CIAR & CIM, **Jennifer Quinn** has moved on, and up the hill, to the Department of Oncology. Mindle says that it is very lonely now in room 441. Congratulations and all the best Jennifer!

☛ After the CIM Musical Interlude this week, **Tanya Adamsson's** lovely soprano voice will no longer resound in our halls. Tanya has transferred to the University of Toronto to pursue her Masters degree with Dr. John Tsotsos. She says that she will remember her experience here fondly, especially the choir and even studying for Prof. Zucker's vision exam! She has also announced that she and Jesse recently became engaged and are planning an August wedding in Cape Breton. All the best Tanya!



☛ Two summer weddings are planned for members of the Ambulatory Robotics Lab. **Anca Cocosco** will be getting married on June 15, while **John Damianakis** is planning to tie the knot sometime in August (he's determined to finish his thesis first, though). Best wishes to all of you.

A parting word from the editor

As editor of this newsletter, I had an interesting job, and it allowed me to take some liberties, like writing this personal note.

As manager of CIM (my other job ;-)), there are two things I probably said most often. The first is the word 'please'. 'Please could I have volunteers to move the furniture out of this office?' 'Please could you help me move the furniture back in?' (Some of you remember those days!!) 'Please could you do a demo?' 'Please could you...' etc., etc. There was always so much work to do and it's not surprising I had to use that word so often.

What is amazing is that I had the opportunity to say 'thank you' even more often. There were always volunteers for whatever task needed to be done, and for tasks I didn't even know needed to be done!! You folks always came through for CIM with flying colors!

Now I have the opportunity to say my last, and most important, 'thank you'. Thanks so much, I would not have been able to do half the things I did at CIM without you. Thanks for making my job easier, thanks for sharing your many talents with all of us. Special thanks to my associate editors for all their work on the newsletter and for adding that humorous touch. Good luck to all of you in your studies and careers. I hope we stay in touch, I will certainly miss all my friends at CIM.

Articles & ideas are welcome. Please send them by e-mail to the editor. Deadline for publication is the 5th of every month.

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Job Hunting with the Web

The following are a list of web links which may be useful for people at CIM looking for a job. The list is not complete, but a lot of the links are cross-referenced, and links that are not listed below are probably accessible via one or more of the following pages.

1. General job links :

a)Globe & Mail career: http://www.globeandmail.ca/careerconnect/globe_careers.html

b)General internet links: <http://www.lib.umich.edu/chdocs/employment/>

c)6 major US newspapers...current career postings (NY Times, Boston Globe, etc): <http://www.careerpath.com/>

d)Canadian job sources: http://www.irus.rrri.uwo.ca/~jlaw/job_can.html

e)Employment resources (list of links):<http://www.cs.yale.edu/homes/tap/positions.html>

f)AI Employment Opportunities: http://ai.iit.nrc.ca/ai_jobs.html

g)General job hunt: <http://rescomp.stanford.edu/jobs/>

h) Monster job board: <http://199.94.216.76:80/>

2. Academic links:

a)Academe this week: <http://chronicle.merit.edu/>

b)AUCC (Canada): <http://www.aucc.ca/>

c)Academia listings: <http://volvo.gslis.utexas.edu:80/~acadres/jla.html>

d)Computer science academia & research postings: <http://www-ccsl.cs.umass.edu/~kaplan/jobs/>

e)Computing Research Organization: <http://cra.org/>

f)IEEE (& scientific industry jobs): <http://www.ieee.org/>

g)ACM (need to be a member): <http://info.acm.org/>

Submitted by John Zelek

CIM Horoscope of the month

Due to circumstances beyond our control, JoJo was unable to send us her astrological predictions in time for the last two newsletters. Apologies to those who missed their birthday horoscopes and

since it's never too late to learn your fate, here they are:

Aries (March 21 - April 19)

The doldrums of the winter are over, and it's time to put the spring back in your cloven hoof, and run through the fields. The ram's head is the symbol of pride and strength, but remember there is a gentle grace about the truly strong. Hooke's law applies to the spring in your step as in all other weighty matters.

Taurus (April 20 - May 20)

A bull market. A bull in a china shop, or a machine shop, since we're all engineers here, no? Bull-headed. Sam the Sham and the Pharaohs sang about Woolly Bully. How many more bullisms can we cram into this space? How many can you?

Gemini (May 21 - June 20)

All right, Gemini, it's your party and, with apologies to Lesley Gore, you can play if you want to. You've worked hard, and you've earned your summer respite. Just be very nice to the cosmic workers that have given you this boon. And get roller blades, because they're fun yet practical - they suit your two-sided nature. Just imagine rolling into work!

Jojo Cimvard



GUEST TOP TEN

Top Ten reasons why everyone is sorry to see Janet leave...

- ⑩ No more stories of wild adventures in the Caribbean.
- ⑨ Without her, CIM might become as organized as Professor Dudek's desk.
- ⑧ Students meeting in the conference room will have to kill the spiders all by themselves.
- ⑦ MRL group won't have her warm Monday morning smiles to counteract the air conditioner.
- ⑥ She has such a talent for selecting good newsletter staff...
- ⑤ There will no longer be a friendly face to persuade students and engineers to do on-the-spot demos (actually, only the professors are sorry about this...)
- ④ Kadima Lonji might try to counter the ensuing drop in morale by singing.
- ③ All the robots will become so depressed they will spout oil and refuse to move (hmmm, looks like Sarcos is already depressed...)
- ② Vision experiments will all go awry when she's not there to brighten up the room.
- ① Heck, we'll miss her !

Submitted by Paul Mackenzie