



A U R U M

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The Canadian Newsletter for IEEE GOLD

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From the Editor

Change is good! At least that's what we believe here at the publication headquarters of AURUM! So staying true to that belief, there is been a change of AURUM'S publisher once again this year.

I have taken over the publishing responsibility from Helen Ho of Vancouver GOLD. Helen made some key contributions to this national publication. She made AURUM a quarterly publication and expanded its scope to also include material of a technical nature. It is hoped that this more inclusive shift of AURUM will appeal to a wider range of GOLD members.

Some of you may be surprised to know that this issue marks AURUM's first birthday. It has come some ways since its first issue one year ago in December 2003. No doubt, more changes will come in the future to accommodate the dynamic and evolving needs of its GOLD readership. With your continuous feedback and contribution this publication can continue to improve and meet its mandate. You can contact me at ahsan@ieee.org with your submissions and comments/feedback.

Happy Holidays and a Happy New Year!

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About Aurum

"Aurum" is Latin word for "gold" and is where the periodic symbol Au originates. The Aurum newsletter is published quarterly each year, with the next issue being for January/February 2004. The next deadline for submissions is February 7, 2004.

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Music Downloads Don't Hurt Sales

Helen Ho, Vancouver GOLD

According to Felix Oberholzer and Koleman Strumpf music file swapping over P2P networks have no measurable negative effect on music sales. If anything, there is some evidence indicating that third party mediated file swapping has actually helped music sales. This study was featured by the National Post the day after the Federal Court in Canada ruled that against the CRIA (a music industry consortium) in a dispute against several major Canadian Internet service providers. The crux of the dispute was over whether or not the ISPs would be obligated to hand over the names of people that the CRIA has suspected of downloading music. The ISPs won the right to not reveal the names of suspected downloaders. What this means is that until further notice, music downloading is completely free and legal in Canada. This totally flies in the face of the American stance on the issue where the lawsuits filed by the RIAA against individual users are becoming common. Mark Evans of the National Post has quipped "who knows, maybe Napster founder Sean Fanning will come out of hiding and launch a new improved P2P service north of the boarder...until the laws are changed Canada could quickly become the world's Kazaa capital."

Oberholzer and Strumpf reviewed the server logs from two file servers on a centralized P2P network (OpenNap). They reviewed data that was collected between September December 2002 (0.01% of the world's downloads). More technical details on their research method can be found on page 9 of their study. Song downloads were correlated back to music sales during this period.

Here are highlights from the Oberholzer and Strumpf study:

- "While 65% of users say downloading led them to not purchase an album, 80% claim they bought at least one album after first sampling it on a file sharing network." pg. 3
- "Even in the most pessimistic specification, five thousand downloads are needed to displace a single album sale." pg. 3

- "At the end of 2003, roughly one billion songs are downloaded per week (Wall Street Journal, 19 November 2003) or 17 billion file downloads during our seventeen week sample." footnote 11, pg.10

Felix Oberholzer is an Associate Professor Harvard Business School and Koleman Strumpf is an associate professor in the economics department at the University of North Carolina, Chapel Hill.

Links:

The Effect of File Sharing on Record Sales An Empirical Analysis

http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf

"Music industry sues 532 swappers" Washington Times, March 24, 2004

<http://www.washtimes.com/business/20040324-121405-1983r.htm>

Congratulations to Vancouver GOLD!

IEEE Canada President Mr. Bill Kennedy recently presented the Region 7 Outstanding GOLD Program Award 2004 to Vancouver Section Chair Dr. Jose Marti and IEEE Canada GOLD Coordinator Miss Verona Wong at the Regional Fall Meeting in Calgary. The prestigious plaque carries the following citation:

2004

IEEE Vancouver Section GOLD Affinity Group

"For developing a successful GOLD program that not only fosters the personal and professional development of its members but also strongly promotes networking and active member involvement."

Beach Volleyball at Spanish Banks

Jin Ng, Vancouver GOLD

Six volunteers organized this wonderful summer event! Thank you goes to Linda Zhang, Stephanie See, Verona Wong, Jesse Malm, Dave Michelson, and Jin Foong Ng.

Invites were sent out via e-mail to all Vancouver IEEE GOLD and Vancouver IEEE Comsoc members for June 20th. The fun activity was scheduled for 10am to 2pm on Spanish Banks.

We had about 10 participants in total for that sunny day. Meet some of them sitting in the shade to hide from the scorching sun!



The beach sand was somewhat baking. Some members could stand the heat and decided to play barefoot. Some, however, decided that the heat was too unbearable and played in their sandals. In the next picture, watch Roberto serve while teammate Ethan watches eagerly.



As noon approaches, it's time to think about food. A group of people gathered around a table and started the BBQ event!



The whole event ended with the consumption of a scrumptious watermelon – a ritual BBQ sacrifice!



Are you Getting AURUM?

AURUM is a quarterly electronic newsletter published by the IEEE Canada Graduates of the Last Decade (GOLD) Committee highlighting activities of the Committee and IEEE GOLD members. To subscribe to AURUM please contact your local GOLD Chair.

Educating the Public on the Impacts of Cyber Security Threats

Helen Ho, Vancouver GOLD

Sometimes spending some time on the weakest link is the best investment you can make in a security strategy. That's what I think, and it looks like I have some company. Carnegie Mellon University recently announced the establishment of the CyLab, a new organization dedicated to take an interdisciplinary approach to researching ways to manage and thwart cyber security threats.

"Cybersecurity is a problem for all of us," said Carnegie Mellon President Jared Cohon. "Every time anyone anywhere logs onto a computer, they become part of a network at risk. And, though they may not be aware of it, they contribute to that risk."

Pradeep Khosla, a co-director at CyLab stressed the importance of educating the public to recognize and thwart security threats. CyLab's education program will be directed by the INI (Information Networking Institute). Nonprofit organizations, schools and the U.S. Department of Homeland Security will assist in disseminating information to the public. Carnegie Mellon University has launched a cyber security institute called CyLab, which CyLab's co-directors are Pradeep Khosla, head of Electrical and Computer Engineering and the INI, and Richard Pethia, director of CERT/CC. One of their goals over the next three years is to make 10 million people around the world savvy about cybersecurity. Pethia said the increasing occurrences of identity theft and computer viruses have wreaked havoc on computer systems in the past few years. He said the problem won't be solved without advances in technology, and CyLab is expected to lead the way in that endeavor.

Altogether, CyLab engages 120 experts in information assurance, public policy, response and prediction, representing the College of Engineering, the School of Computer Science, the Heinz School and CERT/CC, a federally funded research and development center sponsored by the U.S. Department of Defense. CERT/CC is also a partner with the U.S. Department of Homeland Security in the

activities of U.S.-CERT, a national coordination point to prevent, protect from, and respond to Internet attacks.

Links:

CyLab, Carnegie Mellon University

<http://www.cylab.cmu.edu/>

CERT

www.cert.org

Internetworking Institute

<http://www.ini.cmu.edu/>

Volunteer Recruitment Toolkit

A web-based volunteer recruitment tool kit has been developed to provide IEEE geographic units (Regions, Sections, Societies, Chapters, or Affinity Groups) with ideas for recruiting local IEEE members who may be interested in volunteering time to help lead or participate in IEEE activities. The tool kit is composed of several components that will assist in recruiting, recognizing, and identifying the responsibilities of volunteer positions. The components include:

- Tips for recruiting volunteers
- Job descriptions for Section and Subunit officer positions
- The importance of recognizing the efforts of volunteers
- Customizable volunteer recruitment brochure
- One-page handout or flyer (suitable for bulletin boards)
- Help to survey local members about volunteering
- A presentation based on the recruitment tips.

The tool kit is located on the IEEE website at:
<http://www.ieee.org/vol-recruit>

Message from GOLD Committee Chair Ivan Jileta

The IEEE GOLD program has developed over the past five years focusing on providing young engineers with tools, support, and information to assist in their careers. IEEE GOLD has been a success in several areas of the world. As we constantly face new challenges in our professional lives, we hope that by participating in activities with your IEEE peers, your IEEE volunteer experience will help you meet these new challenges.

We are close to year-end 2004 and the GOLD Committee has been working on issues that GOLD members addressed their concerns including recognizing GOLD leaders via the GOLD awards program. Actions were taken to improve the performance of the Committee by setting up ad hoc committees focusing on strengthening the relationship with the IEEE Student Activities Committee and strategic planning. Thanks to all the volunteers that helped make this work possible.

The GOLD Committee has designated October 2004 as "GOLD month" in which IEEE Sections or GOLD Affinity Groups can plan an activity organized for GOLD members that help them network with their peers. The activity may be technical or non technical. Suggestions include subject tutorials, management workshops, lectures, social events or industry visits.

Congratulations to the new IEEE GOLD Affinity Groups that formed in 2004. They started their operations with energy and enthusiasm and we welcome them to the IEEE GOLD family. My last comment is "Thanks!" to all the IEEE GOLD volunteers that make our GOLD network larger by their valuable efforts around the world. The GOLD volunteers inspire us to continue to developing ideas and working out the plans.

Ivan Jileta
Chair,
2004 GOLD Committee

Light Projector Keyboard

Helen Ho, Vancouver GOLD



Canesta Inc. of San Jose California has partnered with UK based Symbian to create a virtual keyboard created from laser light projection. Symbian manufactures an operating system that is commonly used in smart mobile phones. This solar (a play on the word sonar) application projects the shape of a qwerty keyboard onto a nearby surface. As your fingers move over the positions of the virtual keys, the infrared light waves measure the relative position of your fingers and input your keystrokes back into the hand-held device.

Links:

Canesta Inc.
<http://www.canesta.com/>

Symbian
<http://www.symbian.com/>

**"Machine Vision Goes Real-Time" by
Stephen Cass**
<http://www.spectrum.ieee.org> (2002 archives)