

Cryogenics Lab Creates Room Temperature Super Conductor

☞ Ryan Smith

The Cryogenics Research Lab (located in L-Hut) has experienced its first significant breakthrough since its conception. Ironically, the discovery came about completely by accident!! One evening in late May, Dr. David Scott was at home, talking on the phone to a colleague about the significance of frost on his lawn and how it was possible to tell if it was overcast or not without even looking up. During this conversation a bright flash was observed by Doctor Scott closely followed by an ear shattering blast. In an interview with Dr. Scott the following day, he described the events as follows:

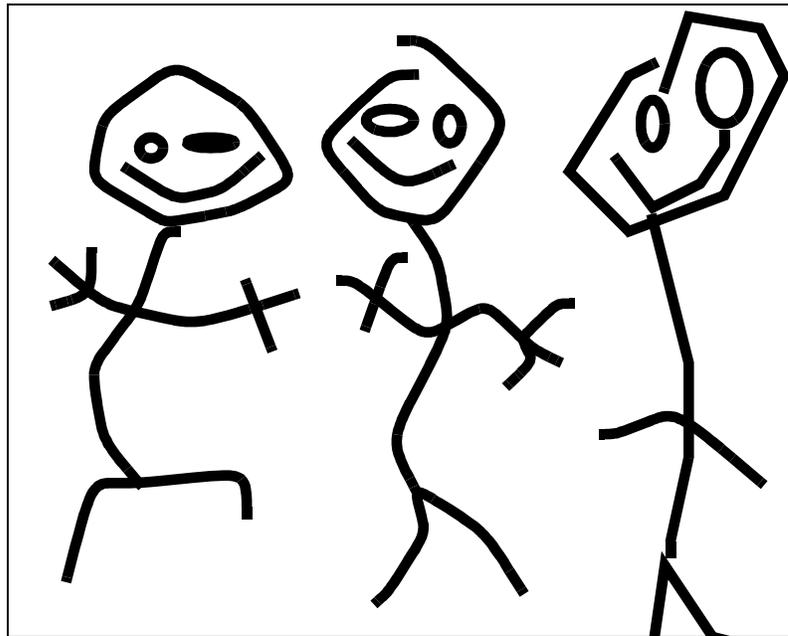
"Yah, I mean, one minute I'm (scratch, scratch) sailing my mini-12 ... it's really windy and I started to take on water ... oh, and me without my survival suit, HAH HAH! Can you imagine?? ... Gee, I guess I'm off topic again!! Sorta jumped the track didn't I, well ... Oh yeah!! ... Anyways I was

talking to Dr. Harry Ness over at Kitwanga U about some very interesting ideas ... I was writing down some of them in my note book with my trusty BIC pen when there was a tremendous flash, closely followed by a big loud bang, the whole house went dark and the phone went dead. Luckily I had been staring at my wrist watch and was able to estimate the time between the flash and the sound, I figured the distance to be approximately 5 to 7 meters from where I was standing, that put it right about my chimney ... or the hole where it had been anyways. Okay, so I am preparing to do a distance calculation on paper to verify my preliminary estimate when I notice that the only thing left of the BIC pen is the clear outer shell. So I figure maybe I should see if the power is out so I stuck the shell of the pen into the nearest socket and BOOM, like I was hit between the eyes!! My panties were so bunched up from the shock I didn't really notice until later that the damn plastic pen was electrically conductive!! A plastic pen! Anyhow, I looked around the room and damn if the VCR weren't flashing ... flashing, flashing, flashing ..."

The rest of the story was filled in by Dr. Scott's associate Dr. J. Barclay. After extensive (continued on page 2)



Due to intergalactic agreements, universal laws of physics, and a general lack of time (MIDTERMS), this issue of the Fish Wrap was produced at Lightning Speed! So please do not be upset if you find a lack of, oh, say, pictures. The Fish Wrap should be back to normal next issue.



Fish Wrap Editors Self Portrait

- Creditorama**
Creditorio
Credit Meisters
 Raymond Kwong
 Ryan Smith
 Kal Brown
 Barry Fishler
 Tom Lochbichler
 Dean Provan
 Co-op
 Dean Curry

And last and least,
 the three you see to
 the left!
 (can you figure out
 who is who?)

Cryogenics (continued from page 1)

investigation it was determined that the BIC pen casing that Dr. Scott was holding had become super conductive at room temperature. As Dr. Barclay describes it:

“It is totally unbelievable! A room temperature super conductor from a BIC pen! We couldn’t have made this material in the lab in a million years. It appears that the crystal structure was altered during the intense pulse of energy dissipated by the lightning bolt, this turned it into the perfect conductor! Well, BIC pen plastic has what kind of crystal structure? You there, taking the notes, do you know? You don’t know? How about a guess then? Can anyone help him? Okay, HEY YOU OVER BY THE GYMNASIUM ...”

As a result of this discovery, the Cryogenics Lab is pushing ahead with its research. Dr. Scott has assigned grad student Chris Morgan to manufacturing another superconducting sample using a long steely rod and a set of heavy gauge jumper cables. This apparatus is being set up on the roof of the EOW and will be manned by Dr. Scott and Chris Morgan whenever there is the possibility of an intense electrical storm. In closing, Dr. Barclay suggested that, “anyone thing of purchasing BIC pens should do so now since I have submitted an application to list them as rare earth materials. This will boost the price by at least a magnitude of, oh, well, you writing this down, what do you think?”

Dr. Barclay and Dr. Scott welcome any inquirers students may have about the new super conductor, given the name SUPER BIC STICK, and will have the only specimen available for display starting June 25, 1993. ❖

Birds Poo On Macs Daycare

© Barry Fishler

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In the building that I was working in during a previous work term, there existed a room that contained wall to wall computers. There was a VAX 3100, a SUN SparcStation, various terminals, a couple of IBM compatibles, plotters, laser printers, a slide generator, miscellaneous pieces of networking hardware, and in the corner of the room sat one lonely MAC. Anyhow, one evening the window for this room was apparently left open, and a bird had flown in. The bird was able to leave before anyone arrived for work the next morning, but before it did, the bird had left a little present. The bird had crapped all over the MAC. The keyboard and monitor were smothered with birdie poop. Not another computer in the room had even been touched.

Although I was impressed with the bird’s sign of intelligence, being a lowly co-op student meant that I had to clean up the mess. After a long and heated debate with my supervisor (I thought the crap looked fine where it was), I finally agreed to do the job. However, before I could, a co-worker who had obviously obtained a degree in Computer Maintenance from one of those “learn in the comfort of your own home” schools, had WASHED the keyboard (*Mechs see below.). After being convinced that the MAC had been sufficiently thrashed upon and degraded to the level that it so readily deserved, I went home that evening with an extremely satisfied feeling.

*Note to Mechs: Putting water on computer stuff is VERY VERY BAD!

Mr. Brent Hamilton, UVSS director and 4th year elec., promised to support the transfer of daycare services from the UVSS to UVic administration. Mr. Hamilton, however voted against the daycare settlement between the UVSS and UVic Student and Ancillary Services at the May 31 UVSS Board of Directors meeting.

No parents of children at the daycare were present at the BoD meeting. A parents’ advisory committee member of the daycare said, “They did not allow us to make a presentation at the BoD meeting.” The parents’ board, who oversees daycare policy, is in favour of the UVic offer to take over the daycare.

During the four-hour closed session, all the directors present at the meeting voted against the UVic offer, as well as Mr. Hamilton, Ms. Jennifer Hawkes, and Ms. Meghan Gaudet, who promised in their election platforms to transfer daycare control to UVic.

Mr. Hamilton separated himself from Ms. Hawkes and Gaudet, by stating, “I campaigned to guarantee daycare must remain parent-managed and student-accessible. The [UVic] offer did not guarantee this.”

According to some sources, UVic did not make a suitable offer to the UVSS for the transfer of control. UVic would not guarantee parent-control over policies, nor would UVic guarantee funding to keep the high quality of care and growth of services to ensure affordability to low-income students. Because the UVSS does not expect UVic to increase contributions to the

(continued on page 3)

<p>Hilside Printing</p>	<p>Collwood Travel Centre</p>
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daycare, a Fall referendum question to increase the UVSS activity fee of \$2.00 per term to support daycare expansion may be asked.

Mr. Hamilton's other campaign promises were UVSS fiscal responsibility, campus safety, and a freeze on fees of tuition, UVSS membership and residence rent.

If you have any questions about the UVSS, Brent Hamilton, a member of the Board of Directors, can be reached at bhamilto@enr.uvic.ca.

According to the UVSS bylaws, a call for impeachment requires a petition of at least 5% of the membership(750 students). This will call for a special meeting of the membership, in which quorum is 100 members and impeachment requires a 75% vote in affirmative. There is no record of impeachment ever occurring in the UVSS. ❖

PAAAAAAAAAAAAAAAAAARTY!!!!

☞ Tom Lochbichler

Official Batch Party!

Yes I know its right in the middle of midterms, but hey. Live a little. Firday the 18th will be the first official engineering BATCH Party, featuring *FREE* batch!!!

What is batch you say? Well, you'll find no answers here, you'll have to come to find out.

Things you need to know:

Date and Time: Friday June 18th, at 9:00pm.

Location: 2440 Sinclair Road (right behind the UVic residences, across the street from the Health Center - there was a map in the first FW.

Parking: If you have a valid UVic parking pass, park in the res parking lot. If you don't, you're on your own.

See y'all there! ❖

chew ad

Some suggested “Costs and Benefits” of the Proposed Combination of some of Co-op Areas

A. The Proposal:

Context:

The co-op programs have been growing steadily over the past few years and are expected to continue to grow rapidly in the next 2-3 years. There are two large mandatory Co-op programs on campus (Business and Engineering). In these two areas the pressures for expansion are very significant. In 1992/3 the Engineering program achieved 407 co-op placements and this is forecast to increase to between 550 and 600 placements within the next 2-3 years. Similarly the Business program, which is still very much in the “start-up phase”, is forecast to increase its co-op placements from 233 in 1992/3, to between 550 and 600 in the same time period (Business has placed 200 students for summer 1993). This growth in co-op is encouraged by governments etc., but is occurring at a time of significant difficulty in the employment market and at a time of financial restraint imposed on the University. The Co-op program has been told that it must be prepared to accommodate the expansion with no significant increase in the resources available to it. In addition it is essential that we maintain and improve upon our position in the market with employers, if we are to be able to meet the expectations. We must be able to meet the requirements of employers and to prepare our students to be competitive in the employment market, in a very efficient way, if we are to be successful. The employment market for co-op in the Greater Victoria area is close to being saturated (but will always remain of critical importance to us) and it is essential that we increase our participation in employment markets away from Victoria.

The objective of the proposal is to ensure that the co-op program is delivered in a manner which is consistent with and meets the needs of the academic units (i.e. Engineering and Business), their students and employer communities, while achieving the maximum operational efficiencies in delivering the program so that budget and other constraints may be met.

The proposed arrangement is that the Co-op Director's Office, Business Co-op Office and Engineering Co-op Office, be located in the same general physical location in University Center. This will permit the sharing of resources and of certain operational activities between these areas. The structure outlined is designed to maintain the necessary close linkage and cooperation between the academic units and their Co-op component.

In general terms the proposed operational structure will consist of four “units” designated by their primary functions and responsibility line. The duties and functions of these “units” will overlap requiring close liaison between them.

There will be an overall “Management Team” to review and evaluate the total operation. This team will be composed of the Director, Co-operative Education; the Director, School of Business; and the Dean, Engineering (or their delegates).

The four “units” will be (defined by primary area of responsibility):

1. Director's Office Group - serving all co-op areas - primary reporting being to the Director, Co-op Programs;
2. Business Co-op Group - serving primarily the needs of the Business co-op - primary reporting being to the

Director, School of Business;

3. Engineering Co-op Group - serving primarily the needs of the Engineering co-op - primary reporting being to the Dean of Engineering;

4. Shared Operations Group - serving jointly the needs of both program areas - primary reporting being to the Program Managers.

B. Positive and Negative Aspects of the Proposal:

I. Positive:

1. External Image:

- Many employers prefer to deal with a single contact for co-op within the University, and increasing numbers of employers, both large and small, deal with both Engineering and Business Co-op. The “professional” image that we portray is particularly important in dealing with employers who are located away from Victoria, and who must become a major part of our future expansion.

- Through a sharing of some co-op coordination duties, we will be able to deal with employers distant from Victoria in a more concerted and efficient manner, providing better service and increasing the probability that they will hire from UVic and continue to do so.

- The facilities in University Center will include interview rooms and somewhat more ready access for employers (parking, interviewing, etc.).

- Interview and placement arrangements for employers will be “simplified”.

2. Shared Resources:

- Combination of marketing efforts and skills, when dealing with employers.

- Many types of materials for employers and students can be prepared jointly, eliminating duplication of effort, and distributed in an efficient manner.

- Shared interview and placement facilities for a “student information center”, which will include computer access.

- Improved coverage of staff for one another, e.g. unavoidable absences, staff turnover, etc.

3. Information Systems

- Sharing resources allows for more extensive automation and the implementation of consistent database structures (for employers, jobs, students, etc.).

- Upgraded hardware and improved communications between staff dealing with common sets of employers etc.

- Improved availability of shared facilities for FAX, file servers, photocopy etc.

- Better overall support for systems etc.

4. Students

- Extended job market for students, resulting from improved efficiency indicated above.

- On-line access to job and employer information, and broader access to job postings.

- Opportunity for interaction with students outside their own area (specifically engineering with business students and vice versa, but also the University Center location will draw students more to the “center of campus”).

- Improved facilities for student information center including access to computer facilities (increases current availability).

- Possibility for extended market for “student society

services or products” (for example, the students could manage the printing and photocopy facilities for other students in the co-op).

5. Admissions and Record Services:

- Proximity to the university's admissions offices and record services (in University Centre) will be an asset as will a closer proximity to other student services.

6. Overall Costs:

Sharing of resources permits “savings” in program delivery costs, mainly through improved ability to provide increased service with current resources. Compared with the estimates of resource requirements to deal with the projected placement load, the combined operation will cost over \$100,000 per year less. These “savings” result from improved efficiency, less duplication etc., specifically:

- sharing job development activities and employer contact away from Victoria (particularly) will reduce operational costs and permit more to be done with same resources;

- development of international and many out of Province locations only becomes viable if resources are shared;

- sharing development and delivery costs for promotional materials saves in personnel time and operating costs;

- sharing programs for the preparation of students for their work terms and future employment will improve quality and efficiency of programs for all co-op areas;

- sharing of data base and information systems will improve operational efficiencies and permit greater output for the same resources (as is needed) for all co-op areas.

II. Negative:

1. Co-op Image

- decreased identification of the specific academic unit with the “co-op office”;

- loss of proximity to Faculty (Division) offices;

- requires greater effort (by co-op staff) to maintain links to specific faculty and their interests.

2. Shared Resources:

Results in some loss of independence and control.

3. Students:

- will be drawn away from EOW (or the academic area), reducing contact with and access to faculty etc. This could be countered by putting in the EOW an area for the ESS, which would draw students to the EOW

4. Faculty access to Co-op:

- will be reduced, but in practice it is usually the co-op staff who seek out faculty for consultation.

5. Undergraduate Office Activities:

- will be drawn away EOW, but official faculty records, for students, should still be kept in the Dean's Office (as will be the case for Business);

- students, who are all co-op, will need to come to the co-op area just as much in its new location as in the EOW and access for students to the EUO will be similar to present;

- Faculty access to the EUO will be less convenient, but in practice current contact is usually by phone or initiated by Barry visiting a faculty member in their office. ♦



Dean's Comments

☞ Dr. Provan

The following is a reproduction of the memo sent by Dean Provan to Dr. Graham Branton, Director of Co-op Education Services. This is reprinted with permission. - ed

First of all I must sincerely thank you for providing me with the information on the "costs and benefits" of a proposed merger of the Engineering and Business Co-op areas. It provided a concrete basis on which my Executive Committee, comprised of Profs. Stuchly, Dost, and Miller, could come to grips and gain an insight into the background and ramifications of the proposed amalgamation.

On the basis of a full discussion with: i) the above Executive Committee, ii) the current Executive of the Undergraduate Engineering Student Society, iii) email correspondence with Prof. Manning, the former Dean who is on Study Leave in Japan, and iv) a discussion with the senior Professors in the Department of Mechanical Engineering, it is with regret that I have to inform you that the Faculty of Engineering is opposed to a merger of the co-op offices under discussion. The reasons, and some of them are repeats of those contained in your analysis, may be listed as follow.

1) We just do not agree with your argument that the merger will not influence the Engineering Co-op program. In your own words the Business program "is still very much in the 'start-phase'". If this is so and you wish to accommodate its growth "with no significant increase in the resources available to it", then the growth can only be achieved at the expense of the Engineering Program. The University and Government knew that the Business program was a co-op program and I am sure that funds were or should have been allocated to accommodate this activity.

2) With the advent of computer LANs throughout the University, we do not see any hindrance to the university being able to portray a "professional" and concerted effort to employers who wish to interview both Business and Engineering co-op students within the framework of the present arrangement. Mail databases can be shared, interview sessions and rooms in the University Centre can be scheduled and announced, and the pertinent information can be made available to the students again without the necessity of the two offices being physically located in one location.

3) Marketing efforts, the preparation of materials for employers and students and the elimination of duplication of effort can all be accomplished within the present system.

4) One thing that has been admirably demonstrated by the National Centres of Excellence Program is that people in distant locations can effectively work together. The suggestion to centrally locate the information system is certainly going against current trends which are towards more distributed computing facilities.

5) In my discussions with students, the increased interaction with students outside their own area at the expense of a reduced contact with the Faculty of Engineering is a price they do not want to pay. I'll return to this point in a minute.

6) While the proximity to the University's Admission

and Record Services offices may be an advantage, the distance between the Co-op office and the Records Office in the EOW will definitely be a disadvantage.

7) Your section 6 "Overall Costs" was discussed during the Executive Committee Meeting. We are of the opinion that these "savings" will either be at the expense of the Engineering Co-op program or can all be attained within the present framework of the separate locations. We see no problem of the existing co-op offices sharing job development and promotional activities, developing contacts away from Victoria and internationally, and sharing programs for the preparation of students. Finally, we do not think you are going to save \$100,000 without influencing the services currently being provided to Engineering students.

8) In relation to and in confirmation of some of your expressed negatives, we firmly believe that there is going to be a decreased identification of Engineering Students with the Faculty of Engineering if this proposed amalgamation goes ahead. This intangible is one of my main concerns. I thoroughly enjoy the students milling around outside my office, they have already established, with my encouragement, the habit of charging into my office whenever something really bothers them and this interaction is going to be radically reduced by the proposed merger.

9) In spite of the "Engineering Co-op Group" being available in the Student Services Building for Engineering students, the students themselves are going to unintentionally gain the impression that there is a central co-op office handling the needs of all students. Quoting from Eric Manning's email, "The major innovation which UVic built onto the Waterloo model of co-op education is to replace UW's centralized coordination office with a decentralized one. Here, the coordinators are housed in the Faculties, are encouraged to think of themselves as members of the Faculties and to do various things (teaching, contract research, etc.) for the Faculties in addition to co-op duties. A modest measure of centralization is provided by the Co-op Office. Based on considerable experience with both, I think the UVic model beats Waterloo one all hollow! The proposal sounds like a big step backwards, to the (bureaucratic, remote) Waterloo approach."

10) This feeling of disenfranchisement is going to be heightened when the new ELW is constructed. For example, how are the Engineering Students going to feel when the Computer Science Co-op Office moves into the ELW, actively serves the students in Computer Science, and they have to deal with a remote Office in the University Centre?

11) Finally, not only will the faculty and staff on the Faculty of Engineering be severely inconvenienced when the physical distance between the two organizations is established, but the co-op staff will themselves feel remote and cut off from the Faculty.

In closing, I and, as far as I can ascertain, a large portion of the Faculty of Engineering are opposed to the proposed merger. As an alternative, I am willing to help you conduct a total review of the operations of the Engineering Co-op Office, the objective being to reduce its costs without reducing its efficiency.

With my very best personal regards.

James W. Provan,
Dean of Engineering ❖