

Learning from Laval's Success

What we must do to promote our profession and recruit the next generation of Geomatics Professionals

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One of the first things that Blain Martin did when he became the Executive Director was to assemble some statistics on our association's demographics. It opened our eyes to what would be a dim future for our association, or not if we take steps now. These statistics have forced us to ask the following questions: Where are the up and coming Geomatics Professionals? What can we do to attract young people to what has been to many of our members, a rewarding and lucrative career?

While doing some research on the Internet for the Universities and Colleges Liaison Committee (UCLC), I found a copy of a PowerPoint presentation by Annick Jaton and Francis Roy, both of whom are professors from Laval University, titled "Bridging the gap between academic, government and private sectors to recruit the next generation of Land Surveyors & Geomatics Engineers – A success story in Québec, Canada". It was presented by Francis Roy at the International Federation of Surveyors - FIG Working Week in Marrakech, Morocco this past May. The surveying program at Laval began in 1907, the first in North America. A Geomatics Program was introduced in 1986.

One of the slides from the presentation was a graph of the evolution of the number of undergraduate students in Land Surveying/Geomatics at Laval since 1986. It showed a peak in enrollment of over 300 in 1993 and then a steady decline to just over 100 in 2001. At this point, attracting students became a priority for Laval. It also became an issue for the surveying and geomatics industry because, as it became a more prosperous sector in Canada, there weren't enough graduates to fill the available jobs.

Organizations such as the Ordre des Arpenteurs-Géomètres du Québec (OAGQ), the Canadian Institute of Geomatics, private companies, municipalities such as the City of Montreal, and the Quebec Ministry of Natural Resources and Wildlife joined forces with Laval University and Limoilou College to develop some collaborative initiatives to attract young people to their geomatics programs. These initiatives have worked and the students are back.

Number of Surveyors by Age						
AGE	Total	Cad	Photo	Hyd	Geod	GIM
Total	626	539	10	1	16	60
20 - 29	3	3	0	0	0	0
30 - 39	40	39	0	1	0	0
40 - 49	105	98	0	0	3	4
50 - 59	229	191	8	0	8	22
60 - 69	193	155	2	0	3	33
70 - 79	48	45	0	0	2	1
80 - 89	8	8	0	0	0	0
Percentage over 50	76%	74%	100%	0%	81%	93%

AOLS Demographic Chart May 2011

Since that low point in 2001, the number of undergraduate students in Geomatics has climbed to over 200.

We contacted Annick and Francis and asked them if they would share some of the secrets for their recruitment success. We set up a teleconference with them, and Pierre Tessier, Vice President of OAGQ and a few members of the UCLC, i.e. Chair Nigel Day, Bill Buck, Blain Martin and me. They didn't disappoint us.

The first piece of advice they gave us was to stop trying to define the word "Geomatics". Instead, tell students what you do in your day to day work, what attracted you to the profession and how much money you make.

They also shared details of some of the collaborative initiatives that worked for them:

- Alumni from Laval (Geomatics Ambassador's Network) visit high schools to talk to students about their careers and what they actually do in their day to day jobs.
- A popular map competition was developed for high schools
- A booth is shared at Education Fairs every year and dynamic surveyors, engineers, professors and students work together at the booth. They show maps and images and 3D views of all applications to the field of surveying/geomatics.

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- The OAGQ completed a salary survey and shared the results. Annick and Francis advised us to tell young people that we offer fantastic jobs with good salaries on par with other professionals, such as engineers and architects.
- Laval University posts career information on their website and lists employment opportunities. If students know that there are jobs available upon graduation with good salaries, they are going to enroll in the geomatics program.

The UCLC will consider these initiatives to see if some of them can be worked into the AOLS Strategic Plan or be combined with initiatives that both the UCLC and the Public Awareness Committee (PAC) are already working on.

AOLS Initiatives

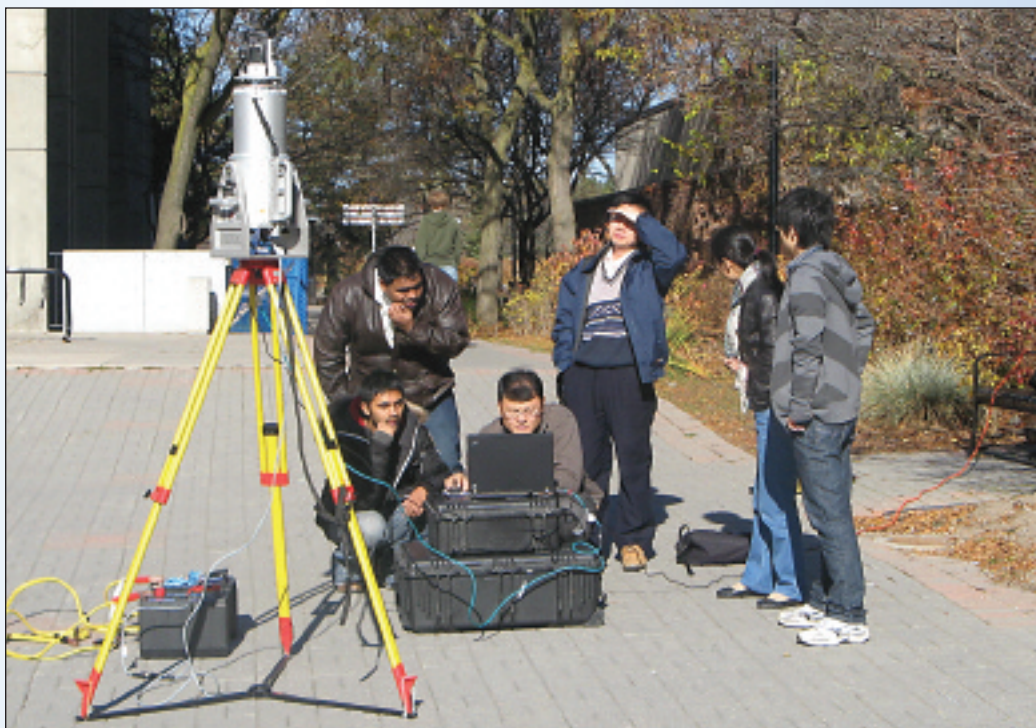
In October of last year, Nigel Day and Michael Matthews (sponsored by the AOLS), and a few of the Eastern Region staff of the Ministry of Transportation Ontario staffed an exhibit booth at the Ontario Association for Geographic and Environmental Education (OAGEE) Fall Conference for geography teachers. Their purpose was to highlight the importance of Geomatics and its applications and make the teachers aware of the many career opportunities that are available through membership in our Association. One of the most important outcomes from the conference was meeting Kim Wallace, the Education Officer of the Ministry of Education. Ms. Wallace is currently spearheading the revisions to the *Ontario Curriculum for Canadian and World Studies, Grades 9-12*, which includes all of the Geography courses. The AOLS, as a stakeholder, was asked to identify key Geomatics issues that would impact the proposed curriculum. Together with members of the UCLC, Nigel and Michael drafted a response and from that point on the AOLS has played a key role in the curriculum review.

In March, I represented the AOLS at a curriculum review session in Ancaster. I was placed with a group of Geography teachers from the Halton Region. We reviewed and commented on the draft of the Grade Nine *Geography of Canada* (CGC1D) course. The Association was then asked to complete an online survey about the course and all other geography courses that contained a Geomatics component.

The AOLS then invited Kim Wallace to a meeting at the AOLS office to discuss how our association could continue

to assist her with the revision of the entire geography curriculum. Sue MacGregor, Nigel Day, Jean Tong from ESRI, Blain Martin and I also attended. The group was asked to determine what key skills students need to have in geography from grade one all the way up to the high school level. At a second meeting 2 weeks later the same group, with the addition of Iain Greensmith from ESRI but without Sue MacGregor, focused on what key skills were necessary for the “Purposeful Introduction of Map and Globe Skills” starting from the grade one level. Kim Wallace felt that the meetings were very beneficial to the curriculum review process and we will continue to work with her. From our viewpoint if students are exposed to Geomatics at an early age and develop an interest that leads them to a career with our association, then we have created a valuable source for recruitment.

For the past several years, members of the PAC have staffed an exhibit at the Ontario Universities Fair, which is held at the Metro Toronto Convention Centre each fall. This fair attracts up to 90,000 students and their parents and teachers. We work together with professors and staff from York University, Ryerson University and the University of Waterloo. We hand out material on each of their respective Geomatics programs and direct interested students to their exhibits. They in turn send students who are interested in their programs to our booth to discuss career opportunities after graduation. Our goal this year is to get more “young ambassadors” to help us at our booth because students tend



York University Geomatics Engineering students conduct a terrestrial laser scanning survey for a 3D building modeling project.

to feel more comfortable talking to young people, especially recent university graduates who can give them firsthand knowledge of their university experience. Members of the UCLC/PAC will be exhibiting in November at the Ontario School Counselors Conference and for the second time we

will have a booth at the OAGEE Fall conference.

These are a few of the recruitment strategies that members of the UCLC and PAC are working on, but it is not their sole responsibility to recruit future members. What can you do to promote your profession?

Member Initiatives


Be an ambassador - The best ambassadors for our association are you, the members, and alumni from the current post-secondary Geomatics programs. Most high schools have annual career fairs or career days and they are quite eager to offer a table and a chair to a Geomatics Professional to promote career opportunities for their students. The Association has career pamphlets, bookmarks and portable displays that are available for members at no charge for these types of events.

Offer summer jobs or co-op positions - If you ask many of our current cadastral members why they chose surveying as a career, many will answer that they had a relative who was a surveyor or that they had a summer job in surveying. Many high schools and post-secondary institutions have co-op programs and are looking for employers to hire their students, in any of our five disciplines.

Take Our Kids to Work Day - Every year for the past 16 years there has been an opportunity to take a grade nine student to work for one day to show them what you do. It

doesn't have to be your own child; it can be a relative or a friend's child. This year it is scheduled for Wednesday, November 2.

Promote Your Profession

One of the most important outcomes for students to consider when they choose a university or college program is whether they can get a job after they graduate. This factor played a very large role in my own university experience and was the reason that I became an Ontario Land Surveyor. In 1972 when I was entering into my 2nd year as a Biology student at Erindale College, I discovered the newly formed Survey Science program. I did well in Mathematics and I loved the outdoors, so I took the introductory surveying course. When I found out that surveyors were in demand and I was guaranteed a job after graduation, it didn't take me long to change my major to Survey Science. When you look at the current decline in our membership and the graph of our demographics, it is imperative that we let prospective students know that Geomatics Professionals are in demand. If we all work together, we can increase the number of students in post-secondary Geomatics programs and recruit new members. It's time for you to step forward and promote your profession; the future of our association depends on it. 

Sites to See

FIG Young Surveyors Network

www.fig.net/ys/index.htm

In a time where many of the International Federation of Surveyors (FIG) member organizations are facing difficulties to attract young people to the profession of surveying FIG has created the Young Surveyors Network as a global working group. The goal is to create connections between "older" and "younger" surveyors.