CORS TIMES

An Interview with Vedat Verter

Professor, Operations Management
Director, CREATE Program on Healthcare Operations & Information Management
Desautels Faculty of Management,
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What is the subject of your talk in this year's conference?

I will be focusing on the health care sector and the operations research/operation management applications in this sector. In recent years, there has been a great increase in the amount of attention that researcher have been giving to health care because there are significant problems. Coincidentally, the three tutorials given at this conference have correlated issues. What I am trying to do is to spend some time on the bigger picture and highlight some of the challenges and hopefully it would attract more researchers to this domain.

What has made you interested to extend your research in the Health Care?

Well, I have been working on application of operations research to problems with impacts on different public sectors for a long time now. I worked on the issues concerning transportation risks; I worked on close looped supply chain with the issue of sustainable operations in mind. So the overarching theme in my research areas is to use the methods I know to problems which have either environmental or public and safety impacts and health care is a natural extension of that. In particular, within the health care domain I have taken upon some of my supply chain design expertise that I have from before and started looking at the differentiating characteristics of health care supply chain and that took me deeper into this domain where we started to talk with people, health care providers and policy makers, administrators, doctors and nurses and then we went from there to get to the clinical decision making problems. So in health care domain I work on both on design process improvements and problems that support clinical decision problems.

Working in applied areas such as healthcare, what is your experience of industry-academia collaboration and partnership?

I think there are a couple of challenges; the most important one is the difference between the objectives of the people in (industry) frontlines and the academia which must be resolved. Typically, front-liners are more looking for solutions to their problems and academics are more interested to contribute to science. Now, every solution to every problem is not necessarily a contribution because if you take some method and simply apply that to develop a straight forward solution which is not an optimal solution but an acceptable solution, that can be fully satisfactory for the industry, but not necessarily good for the career of a young researcher. The challenge is to establish those partnerships with the common understanding that it must serve the objectives of both sides.

What is your advice for young OR researchers who would like to do more practical or industry driven research?

In Canada, there are a number of sectors that I am aware of where the industry-academia partnership has been successful. In addition to health care which I highlighted in my talk, there is forestry, transportation, energy and others. so for young researchers it would be a working proposition to get involved in those establishments, which is not worth starting from a scratch because it takes a long time for those relationships to build and that would be, may be for young researchers, not a very wise use of their time. For example, with respect to health care, there is a health care management research team almost in every major Canadian university. There are very, very, strong groups in forestry and some in transportation. So by joining a group, the risks in issues such as gathering data and building relationship with policy makers and administrators could be reduced in this manner. I should add that I don't give more credit to applied research versus theoretical research. I myself am more on the applied side. I am an operations management person where the folks work on problems first and inventing new methods comes as a sequel. My advice is to do what you like the most and what you think that you are built for. Doing applied research takes a certain kind of personality. Some people are more successful in doing theoretical research which makes the infrastructure for doing applied research and in total, there is no one-size-fit-all recommendation; it is a personal choice.

How do you see the role of CORS in promoting industry-academia partnership?

CORS has a certain role to play. These conferences are good means to bring academia and industry together. At each meeting, there is a practice prize given to industry partners in that region to celebrate their contribution to the field. There is also an award that is given to a company that supports the OR applications in that region and that is a very good idea. I think the more CORS can bring industry members to these conferences, the more we see these collaborations. Of course, the publication of INFOR journal is also a good vehicle to foster this relationship.

The editorial team wishes to express its gratitude to Prof. Verter to spare time for this interview

Welcome note by the editors: We would like to welcome you to St. John's for the 53rd annual CORS conference. CORS Times intends to keep conference participants notified about the major events and news, and provide useful local information.

Mot de bienvenue des éditeurs: Nous vous souhaitons la bienvenue à St. John's à l'occasion de la 53ème conférence annuelle de la SCRO. CORS Time a pour objectif de tenir informer les participants à la conférence, des dernières nouvelles et évènements majeurs, ainsi que de fournir des informations utiles lors du séjour à St. John's.

Comments and feedbacks at:
Commentaires et réactions à:
CORSTimes2011@gmail.com

Local Information

About Newfoundland and Labrador

Newfoundland and Labrador is one of the fastest growing economic regions in Canada. St. John's metropolitan area is also the seventh fastest growing metropolitan area in the entire country. The most important contributors to Newfoundland and Labrador economy are oil and gas, fishery, mining, manufacturing, and tourism. The offshore oil and gas exploration and production projects account for more than half of the current provincial projects. In 2010, Newfoundland and Labrador initiated a massive hydroelectric development project, known as Lower Churchill Project, which has the combined generating capacity of over 3,000 megawatts.

Terre-Neuve et Labrador

Est l'une des provinces canadiennes où la croissance économique est des plus rapides. La croissance économique de la région métropolitaine de St. John's la place septième à l'échelle pancanadienne. Les principaux moteurs de l'économie en Terre-Neuve et Labrador sont le pétrole, le gaz, la pêche, l'exploitation minière, l'industrie et le tourisme. Les projets d'exploitation de pétrole et de gaz représentent la moitié des projets actuels de la province. En 2010, Terre-Neuve et Labrador a entamé un important projet de développement de production d'hydroélectricité, nommé projet Lower Churchill, dont la puissance combinée s'évalue à environ 3 000 mégawatts

Site Seeing

St. John's offers a beautiful architectural landscape, significant historical sites, ocean views and sceneries for its visitors. Attractions near the conference center include the St. John's Waterfront, Commissariat House, Fort Amherst, Signal Hill National Historic Site, Quidi Vidi Battery Provincial Historic Site and Anglican Cathedral of St. John the Baptist which is considered to be one of the finest examples of Neo-Gothic architecture in the North America. A flyer is available in the conference package for details.

Signal Hill National Historic Site
(Photograph by Atiq Siddiqui)

A voir

 St. John's offre à ses visiteurs une belle architecture de paysage, des sites historiques inestimables, une vue sur l'océan et des paysages à contempler. Les principales attractions proches du centre de conférence sont the St. John's Waterfront, Commissariat House, Fort Amherst, le lieu historique national de Signal Hill, Quidi Vidi Battery , la cathédrale anglicane de St.John le Baptiste, qui est considérée comme le plus bel exemple d'architecture néogothique en Amérique du Nord. Une brochure est disponible dans le package de la conférence.

Where to Eat

St. John's downtown, where the conference center is located, offers several eating options ranging from traditional to international cuisines available through several restaurants, breakfast cafés, pubs and eateries. A list of over thirty five eating places around the conference center is available through St. John's downtown website (downtownstjohns.com). If you would like to go outside the downtown area, a list of eating places across the city is made available through the St. John's tourism website (www.stjohns.ca/visitors/index.jsp).

View of St. John's Sunset from Signal Hill
(Photograph by Atiq Siddiqui)

Où Manger

Le centre–ville de St. John's, où a lieu la conférence, propose différents choix de restaurations. Cafés, bars, bistrots et restaurants offrent un éventail de spécialités culinaires : d'une cuisine traditionnelle à des saveurs internationales. Une liste d'environ 35 lieux de restauration est disponible sur le site du centre-ville de St. John 's (downtownstjohns.com). Si vous choisissez de sortir du centre-ville, une liste de restaurants à travers la ville est disponible sur le site www.stjohns.ca/visitors/index.jsp

CORS TIMES

An Interview with Edward Coffman

Professor Emeritus, Columbia University.
President Emeritus, Armstrong Memorial Research Foundation.

What has been keeping you passionate in Operations Research?

That is an easy question to answer! It's been the advances in technology, in particular communications, computing, and internet for example. I was ready to retire just about the time internet took off and then i said it is no time to retire! I've been applying my tools in OR to problems on internet - performance type problems on the internet- for a long time now. That is just one example. Another example is the growth of sensor networks. That also has produced an enormous number of truly intriguing problems; how do you compute with a very very large number of stupid devices at low power. And that sums it up: technology advances. There is a major advance, it seems to me, every few years that make it so hard to retire or to stop working, because your tools are always there and you get a completely new area to apply them. Applying my tools on these new problems, I get results just as exciting as they were 50 years ago.

During your sustained and fruitful career in OR, how have you been seeing the applications of your research in practice?

It is hard for me to see the results of my work in practice. A great deal of my work involves problems about structures and architectures that don't exist yet. They are on the draft-

ing board. People are considering them. So my work can be construed as preliminary analysis to determine whether these ideas make good sense or not. I have rarely been in a position where I've been asked to analyze the functioning of an existing system so as to somehow improve it through operations research methods. I have been close to people who have been in that position though. For example, I was in Bell Labs for 20 years where they had a stand-alone OR group; any division within Bell Labs could hire this group to do OR analysis and optimization. They worked exclusively on products of Bell labs and AT&T. But I have been more on the modeling and analysis side and looking at proposed systems rather than existing systems.

OR seems to be increasingly overlapping with research in other disciplines, for instance computer science, applied mathematics, and electrical engineering. What, in your opinion, is the distinguishing feature of OR today?

That is extremely difficult to answer. I have three appointments at the University of Columbia: Electrical Engineering, Computer Science, and Industrial Engineering and Operation Research. And why do I have these three appointments? Because my tools in OR are being applied to research of interest to all of those disciplines. The boundaries have simply broken down. I think the educational system today is in deep trouble trying to decide what is EE and not OR and not CS, what is CS and not EE and not OR, and so on. There are no boundaries. I see OR somewhat like mathematics; it is the queen of engineering. You can take your tools and apply them in almost

any department of engineering and applied sciences. I have worked on many disjoint areas. They've all been, I think, fundamentally OR. It is just the application area that puts them also in different engineering disciplines or physical sciences.

What is your suggestion for those who are at the beginning or their career in OR?

I have said the word more than once already: tools. Get a good command of the tools. Not just at the mathematical level, although that should be one of your tools, at least to a modest extent, but rather IT tools, experimental, and classical optimization software tools. That is what you must focus on as a student. Because all of these applications that have come up in my life time and have been exciting me and kept me from retiring will happen all over again in new settings in the life time of today's student. So what you need, really need, are those tools. The exciting applications, they will come along.

How could CORS conference better serve its stakeholders?

My experience with CORS is very limited. I have not been to CORS before, although I have been to many OR conferences. Given the extent of my experience with CORS, it strikes me as a well-structured and well-organized conference. I think it is true that people who organize these conferences should bring new ideas to the forefront, focus on new applications and ideas and to make it easy for people to talk to each other, and promote ideas. As far as I can see, all these are happening at CORS.

 The editorial team wishes to express its gratitude to Prof. Edward Coffmann to spare time for this interview

A Note of Thanks and Appreciation

On behalf of the CORS organizing committee, the editorial team of CORS Times newsletter would like to express gratitude and appreciation to all of the participants, plenary speakers, cluster chairs, session chairs who took part in this year's conference and made it a success. We hope to see you all in the next year's conference in Niagara Falls.

Une Note d'Merci et Appreciation

De la part du comité organisateur, l'équipe d'éditeurs de la "CORS Times newsletter" remercie vivement tous les participants, les conférenciers de séances plénières, les organisateurs de groupes, les présidents de séances. Chacun a contribué au succès de cette conférence annuelle. Nous espérions tous vous retrouver lors de la conférence de l'année prochaine, qui aura lieu aux Chutes du Niagara.

Comments and feedbacks at:
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CORS Conference for the Year 2012
2012 CORS/MOPGP International Joint Conference Niagara Falls, ON, June 10-13

CORS Awards/Prizes 2011

Award of Merit / Prix du mérite
Eldon Gunn

This CORS Award of Merit acknowledges significant contributions of a present or past member of CORS to the profession of operations research.

Le prix du Mérite de la SCRO souligne les contributions importantes d'un membre actuel ou passé de la SCRO à la profession de la recherche opérationnelle.

The Harold Larnder Award / Prix Harold Larnder
Edward Coffman

The Harold Larnder Award is given to an individual who has achieved international distinction in operational research.

Le Prix Harold Larnder est décerné à une personne qui a une renommée internationale en recherche opérationnelle.

Service Awards / Prix du Service
Tom Morrison
Thorn Walden
Saeed Zolfaghari

This award is to recognize CORS members who have made outstanding contributions of time and service to the Society.

Ce prix vise à reconnaître les membres de la SCRO qui ont apporté une contribution exceptionnelle de temps et de service à la Société.

Student Prize Winners

Open Category
1st Prize Winner:
Jonathan Y. Li (University of Toronto)
Paper: Portfolio Selection under Model Uncertainty: A Penalized Moment-Based Optimization Approach

Honorable Mention:
Mahmood Ebadian (University of British Columbia)
Paper: The development and application of a new simulation model for multi-agricultural biomass logistics system in bio-energy production

Undergraduate Category
1st Prize Winner:
Shuang, E, University of Alberta
Hewitt, Derek, University of Alberta
Morrow, Jenny, University of Alberta
Van Bolhuis, Scott, University of Alberta