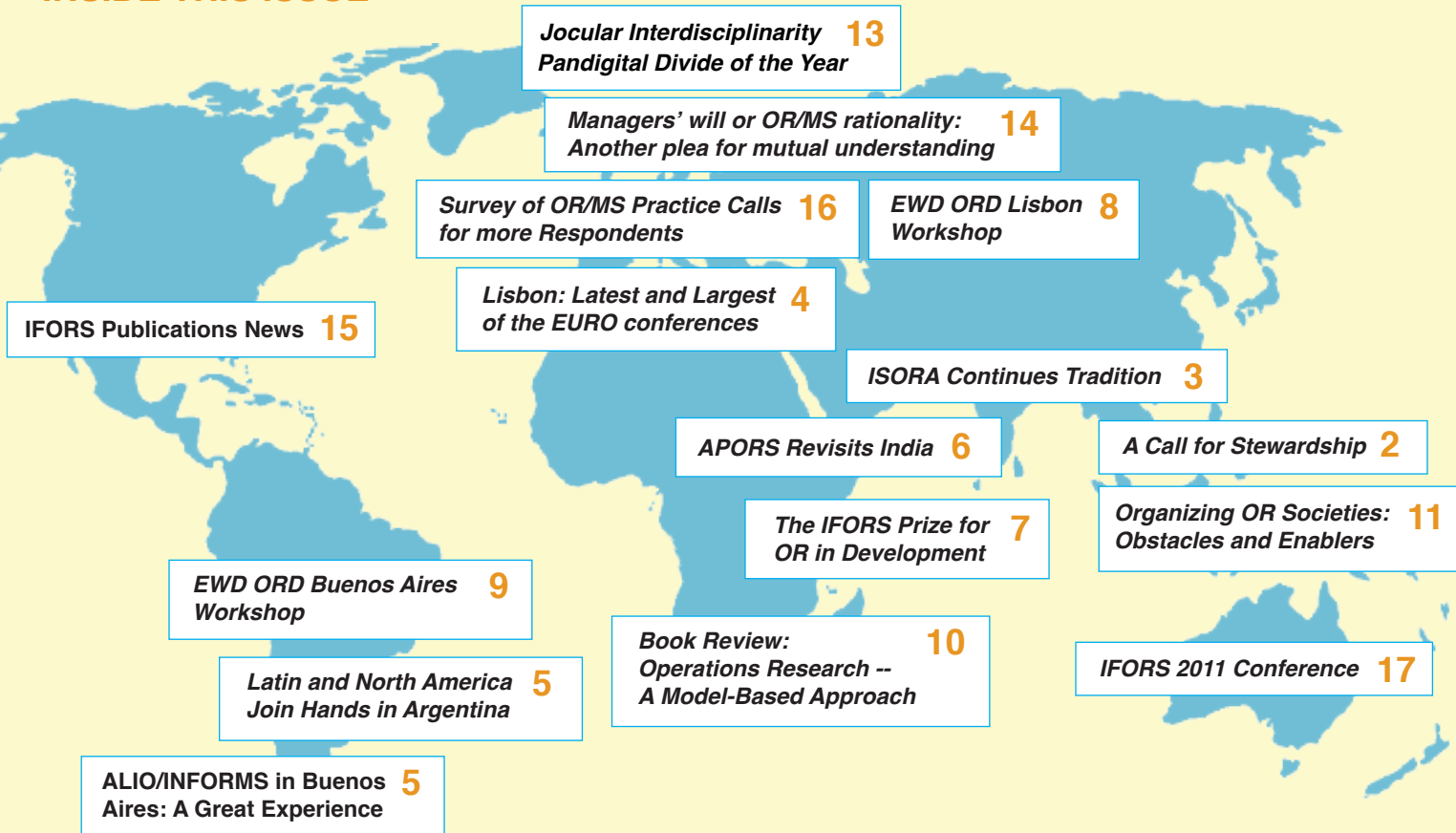


INSIDE THIS ISSUE




From the Editor

I welcome you to "my" first issue of IFORS News. I took over from Hans Iltmann, who served as editor from July 2007 to June 2010. Hans took the gargantuan task of starting a newsletter from scratch. When he started, there was no stopping him. The issues came every quarter, bearing important and interesting information for the IFORS membership to read, always exceeding the expectations of the Administrative Committee. As IFORS President Dominique had said of the newsletter, "How did we manage to live without it?" ... We are now used to receiving an edition regularly, bringing us various news about IFORS, regional events or about trends in the developments of OR and its often surprising fields of applications."

Hans did a tremendous job as IFORS News editor, which probably intimidated the people approached to take over when Hans decided to resign as editor effective July 2010. I was very happy to have had the role in appointing Hans as newsletter editor during my term as IFORS President, and as such, could not allow it to be editor-less. Thus, here I am, your new editor.

One new thing you'll notice is the map above. Yes, it looks familiar- you've seen it in the IFORS website. It will now be a regular part of the IFORS News. For each issue, event sites and author locations will be mapped, as above. This I hope helps us keep in perspective our membership in this international community called IFORS.

In this issue, you will find accounts of the latest conferences, including of course the IDLs. You will also find important news about the publications, brought to you by someone who has dedicated many years to IFORS, past Treasurer Hugh Bradley. We also hear from our past President, Heiner Muller Merbach, as well as from Hans Iltmann, who writes a book review for this issue. On the OR for development activity, we see a lot of young people featured in the EURO ORD workshop, as well as important announcements on the IFORS Prize. So you don't forget, this Prize will be awarded during IFORS 2011 – latest developments from the Program Committee Chair, Janny Leung, are covered here. Those in the early stages of putting up their OR societies may find a reprint from the OR/MS Today useful. On the other hand, the editorial, "A Call for Stewardship" is addressed to OR societies that have successfully gained membership in IFORS.

Yes, you make up the global community. Don't you want to see news from your part of the world appear in the map? Be a correspondent and email me at news@ifors.org. We would love to hear from your OR community. 

- Elise del Rosario

As everyone knows, the International Federation of Operational Research Societies (IFORS) is here because of the national OR societies that make it up. On its 50th anniversary last year, IFORS has inducted 52 national OR societies, with the last three welcomed just in the last three years. It can be said that IFORS is on track with respect to the objective stated in its Statutes of "Encouraging the establishment of national operational research societies". IFORS sees this activity as important to the work and development of OR professionals everywhere. The formation of a national society and its subsequent affiliation with IFORS creates an environment where a country's OR academics and practitioners can get together to interact, share ideas, discuss problems common in the local milieu, discover OR solutions, celebrate successes on a regular and on-going basis, and tap the international community when convenient and necessary.



It is heartening to note that IFORS member societies have continuously worked in their respective locations to foster a learning, sharing, coordinating, and cooperating environment through various activities: mounting workshops, seminars, conferences, academe-industry roundtables; reaching out to IFORS through the regional groups for assistance with lecturers; publishing their works; publicising conferences; and keeping members in the local and global loop through their websites and publications.

However, there are a few exceptions. It is not unusual for IFORS to get such innocent inquiries from OR professionals in some locations, as: "I learned that there's supposedly an OR society in my country. But no one here has any clue as to who's in charge and how we get hold of them so we can join"; or, "I'm a member of our national society and the only communication I get is my dues assessment - nothing is ever organized"; and how about, "Our society has been run by the same set of people for the last five years. No election has ever been called."

The officers of a national OR Society have a responsibility to their constituents to create a platform for sharing common problems, solutions, techniques, and applications; to disseminate news, abstracts, relevant publications, international conference schedules, and current OR events coursed through them; and even perhaps: to market OR to the business community; to guide the educators in the optimal and continuing development for the country's OR professionals; and to celebrate successes in the local OR community. Evidence indicates that in a few instances, none of these is happening.

If this is the case, it may be timely to undertake a difficult but necessary evaluation of what is delivered vis-a-vis the leadership's sworn duty. If the outcome of such an exercise calls for it, the officers should not hesitate to give way to others who have the energy and the enthusiasm to take on the challenge. Beyond leadership, what's called for is a strong sense of "stewardship". Current officers should never make the mistake of regarding their national society as their own, but rather, that the society, its members, and its mission had been temporarily entrusted to their care and management. And it is their stewardship responsibility to ensure that in the period when they're "in charge", they meet, if not exceed, the members' expectations and accomplish the society's avowed mission and strategic thrusts. Most importantly, when it is time to hand it over to a new set of leaders or 'custodians', the current leaders leave the national OR society an even better organization than when they received it.

I encourage the leadership of OR societies to consider this suggestion in the spirit of putting the interest of their OR society professionals before their own, fully understanding that OR workers in their respective communities deserve to reap the benefits of belonging to a wider community of OR professionals. To the good stewards out there, more power to you and may IFORS see more of the likes of you! 🌐

- Elise del Rosario, IFORS Immediate Past President

IFORS Website (www.ifors.org)

A note from your friendly neighborhood webmaster 

Have you visited the Members' Area lately? I would like to invite you to do so. In this area, you can: update your annual return online, get in the loop of who's (OR expert) coming to your country, comment on articles, participate on our discussion board and vote on matters for which IFORS needs your input.. By the way for those of you who have not gone to the site, exercise your right to vote on the membership of the national OR society of Estonia, the Estonian Operational Research Society (EstORS).

I have received feedback about difficulty accessing this area because they have forgotten their passwords. Click on the "forgot your password?" option. If you are the representative of your society, you will be sent your password in your registered email.

However, you will not be needing this password for the latest in the website - I invite you to contribute to our OR Wiki project which can be found at <http://www.ifors.org/wiki>. OR-related articles/information that you want to post are welcome. You may also add relevant information or edit existing articles. In case the topic of your posting is not yet found in our system, simply click the red "create this page" link. For a detailed how to guide, please visit this link: <http://www.mediawiki.org/wiki/Help:Contents>

If you feel the need for further assistance I am just an e-mail away (webmaster@ifors.org), It would be my pleasure to help you.

I do hope to "see" you - Click away!!! 🌐



ISORA Continues Tradition


By Degang Liu, Operations Research Society of China, dliu@amt.ac.cn

Prof. Xiang-Sun Zhang, IFORS vice president representing APORS, welcomed participants to the opening of the ninth International Symposium on Operations Research and Its Applications in Engineering, Technology, and Management (ISORA) last August 20, 2010 in Chengdu, China. Prof. Zhang brought the audience sixteen years back to the first ISORA meeting in Beijing, citing how over the years, a network of OR workers have turned to friends who meet regularly at the ISORA, thus ensuring the continued success of the conference.

As in the past years, ISORA provided not only an active academic exchange through invited speakers, presentations, and published proceedings, but also a rich social program, which allowed both Chinese and non-Chinese participants to enjoy Chinese culture and China's natural splendor. Organized annually since 2005, the ISORA had been held in Tibet, Xinjiang, Lijiang, and Zhangjiajie, among other interesting places in China. This year saw the Japanese delegation comprising majority of the 110 registered attendees.

Prof. Zhang relayed to the participants the message of IFORS President Dominique de Werra, who among other things, extended condolences to those who have lost family members in serious floods, earthquake and mud-rock avalanches, natural catastrophes that have struck China and the rest of the world. It was therefore timely that papers were presented in the areas of "Emergency Logistics Management" and "Disaster Management", a signal to the growing sensitivity of OR workers to environmental problems.

Emergency logistics management was practiced firsthand when ISORA2010, scheduled to convene at two sites - in China's southwestern Sichuan province's capital Chengdu and Jiuzhaigou - had to stay in Chengdu owing to bad weather in and the resulting flight cancellations to Jiuzhaigou. Although this caused program changes and inconveniences in hotel recheck-in, the organizing committee was able to manage through the understanding and patience of the delegates. The delegates, in turn, were appreciative of the quick and efficient response by the organizers.

ISORA 2011 will be convened in Dunhuang, China. Located in the north-western province Gansu, this site is an ancient city on the Silk Road and famous for its grottoes. For interested parties, the Call for Papers is available at <http://www.aporc.org/ISORA/2011/CallForPapers.php>. 



▲ Participants listen, share and discuss intently among themselves



▲ Xiang Sun Zhang, IFORS VP representing APORS welcomes ISORA participants.



▲ Tatsuo Oyama, IFORS VP representing APORS (2007-2009) analyses point made by a paper presenter



Lisbon: Latest and Largest of the **EURO** conferences

A personal account of EURO XXIV by Silvano Martello, Program Committee Chair (silvano.martello@unibo.it)

The 24th European Conference on Operational Research, organized by the Association of European Operational Research Societies (EURO) within IFORS, was held in Lisbon on July 11-14, 2010. The venue was the Faculty of Sciences of Lisbon University.

With over 700 sessions for a total of approximately 2300 presentations, and with 2700 participants coming from 77 countries, this was the largest EURO conference ever.

The scientific program was enriched by a distinguished set of twelve keynote speakers (Fran Ackermann, Noga Alon, James Cochran, Rommert Dekker, Elena Fernández, Pierre Hansen, Martine Labbé, Nelson Maculan, Arkadi Nemirovski, Alexander Shapiro, Paolo Toth and Berthold Vöcking), and by the plenary lectures delivered by two legendary mathematicians:

Harold W. Kuhn (A tale of three eras: The discovery and rediscovery of the Hungarian method);

John F. Nash, Jr. (The agencies method for modeling coalitions and cooperation in games).

Keynote and plenary lectures were professionally videotaped, and will be broadcast over the internet. In addition, articles derived from the lectures will be collected in a special issue of the European Journal of Operational Research.

The Program Committee exerted tremendous effort in crafting a conference program of twenty five streams of sessions, plus a number of satellite events, that provided a stimulating opportunity for a global interchange of ideas on all recent advances in Operational Research. Special peer-reviewed issues based on papers submitted by the conference participants are planned by the journals Optimization and Central European Journal of Operations Research.

José Pinto Paixão chaired a hardworking and dedicated Organizing Committee which put a thousand and one disparate pieces together into a well-integrated and highly-organized EURO conference. As is the tradition with EURO conferences, a number of social events were scheduled to make the meeting exciting and enjoyable. The conference banquet, held at the Pavilhão Atlântico, on the banks of River Tagus, offered a menu combining Portuguese style cod fish and special roasted duck. The banquet was opened by a show of the famous guitarist António Chainho and his group, who presented an exquisite combination of fado and Indian music.

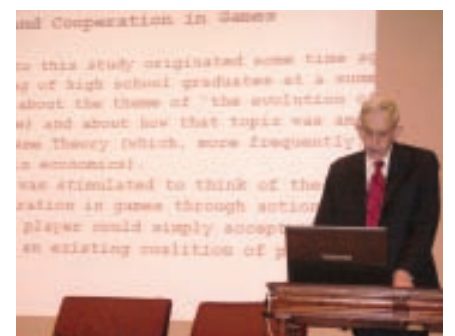
I conclude this account with two personal remembrances that have been my best reward for the considerable time spent organizing the program. During the conference I had the great pleasure of again meeting Harold Kuhn and his wife Estelle, whom I had met for the first time last year, when they visited me in Bologna; he delivered a brilliant and well-attended seminar. The conference also offered me the privilege of getting acquainted with John Nash, his wife Alicia and his son Johnny. In a number of friendly meetings and discussions, I had the fortune to appreciate the rich personality of one of the most important mathematicians of the twentieth century. 🌐



▲ IFORS President Dominique de Werra (right) presenting John Nash (left) the IFORS Distinguished Lecture Award



▲ Kuhn with author



▲ Nash Jr delivering his IDL

The Agencies Method for Modeling Coalitions and Cooperation in Games By John F. Nash; IFORS Distinguished Lecture Awardee, EURO 2010

Our work in this research project represents the beginning of an effort to study the game-theoretic phenomenon of cooperation in cooperative games (that is, in games where it is understood that the players MAY cooperate whenever they would naturally desire to do that so as to realize mutually advantageous benefits). (This project of work could be described as work along the lines of the (old) "Nash program", seeking to reduce the study of "cooperative games" to the area of the (theoretically simpler) study of "equilibrium" in "non-cooperative games".)

The theoretical key for the inter-linking of these areas is the concept of the "evolution of cooperation" (in Nature) which has been studied both by theoretical biologists and by game theorists.

Our key idea for the reduction of a process realized through cooperation to a process achieved by actions taken independently (and separately) by the Players that are involved in the game context lies in the introduction of moves (or actions) of "acceptance" together with the supposition of an indefinitely repeated game context in which the Players may react (in punishing fashions) against unfavorable actions on the part of other Players. Our model designed for this purpose has the players strategically making "demands" in relation to the behavior of the other players.

And at the same time any Player also chooses, strategically, how he (or she) will allocate the resources available to a coalition if he (or she) has become accepted (through acceptance elections) to have that power. As it happens, in short, the studied model, for a game with three players, involved 39 strategic parameters to be controlled by the players, and we represented it in terms of 42 variables.

There was a substantial challenge of computation to find game theoretic solutions. These were sought in terms of PURE STRATEGIES. And the game example itself, although being described by a characteristic function giving rise to three numerical parameters setting the payoff benefits accessible by specific coalitions, was an "NTU game" rather than a game with "transferable utility". However we have compared solution results with corresponding indications for the games deriving from the Shapley value or from the nucleolus.

The general context of computations is found to be quite challenging. We have used Mathematica in the connection with the work done up to now. There seem to be possibilities for refinements in the model structure and games of more than three players can also be studied.





Latin and North America Join Hands in **Argentina**

Irene Loiseau (irene@dc.uba.ar)

General and Program Chair, ALIO/INFORMS Joint International Meeting

The ALIO/INFORMS Joint International Meeting was held in Buenos Aires from June 6 to 9 (<http://meetings.informs.org/buenosaires2010/>). CLAIO, the biannual Latin American Operations Research conference organized by ALIO (Association of Latin-American Operations Research Societies, <http://www.dc.uba.ar/alio>), was organized jointly with INFORMS International Conference (<http://www.informs.org>). Local host was SADIO (Sociedad Argentina de Informática) and the venue was the Law School of Buenos Aires University, located at Recoleta, one of the areas of the city most visited by tourists.

The conference was opened by the Minister of Science and Technology of Argentina, followed by a plenary talk by Celso Ribeiro. The other plenary presentations of Garrett van Ryzin (IFORS distinguished lecturer) and David Simchi-Levi, as well as the semi-plenary sessions of Egon Balas, Sebastián Ceria, James Cochran, Paul Grasserman, Ralph Keeney and Christopher Tang, and 15 tutorials given by renowned researchers covered a broad spectrum of themes. These talks provided an excellent learning and sharing opportunity for everyone, most specially the Latin Americans.

More than 1000 papers made up the 310 invited and contributed sessions which were arranged in up to 20 parallel tracks. A wide range of topics on basic research and practice were covered. All the talks, tutorials and sessions were very well-attended.

Participants included people coming from 52 different countries. Among them, 631 were from Latin America, 159 from USA and Canada, 97 from Spain and Portugal and 86 from the rest of Europe. It is also worthwhile to remark that we had 265 postgraduate students participating at the

ALIO/INFORMS in Buenos Aires: A Great Experience

By Andres Weintraub -(IFORS President 1998-2000, aweintra@dii.uchile.cl)

For many of us who had been to many previous ALIO Conferences, it was interesting to see how the new ALIO/INFORMS format would develop. The ALIO Conferences started in the early 80's as small meetings which eventually grew in importance. The last ALIO conference held in Cartagena Colombia attracted some 700 participants, a continuation of the success of its predecessor conferences.

Integrating ALIO with the yearly (except for IFORS Conference years) INFORMS International Conference was a challenge, and an opportunity. I believe the results were very successful. The work of the INFORMS office, and the Local Organizing Committee, in particular the Chair Irene Loiseau led to an impeccably organized meeting. The academic program was very strong, featuring many high quality plenary and tutorial sessions. These were further complemented by a good number of top level presentations. About 150 US-based INFORMS members participated. Maybe not as high as hoped for, the number of attendees had been on the decrease in the last few INFORMS International Conferences, owing perhaps to financial constraints. Nonetheless, the less than expected attendance was more than made up for by the participation of excellent researchers from INFORMS. A common participant feedback was the great satisfaction with the quality of the conference. Of course, Buenos Aires, with its rich and beautiful cultural center enveloped by excellent spring weather, made it all the more unforgettable.

event. The grant from the Argentinean Science and Technology Agency supported the travel of some 54 Latin American participants.

Authors were given the option to submit their work to 4 different Journals. Most of the tutorials will be published in future issues of the ITOR, an IFORS publication.

An event of this size was made possible through the efforts of the program committee members, chairs of contributed and invited clusters, as well as the invited session chairs. Deserving special mention are Celso Ribeiro who organized the extraordinary tutorials program, Andrés Weintraub and Nelson Maculan who arranged the plenary and keynote talks. The enthusiastic contribution of several young cluster chairs, former students of our school at Buenos Aires University, and now my colleague's professors in several countries, as well as the support of professors and students of my research group were critical to the success of the conference.

INFORMS meetings and SADIO staff also had to carry on hard work to organize at the distance. Putting together two different organizational and country cultures has been a real challenge. Last but not least, the conference provided an opportunity for many to tour and enjoy Buenos Aires and other areas of Argentina for the first time. 🌐

IFORS VP Hugo Scolnik (right) presents the IDL award to Garrett van Ryzin (left) during the ALIO/INFORMS Conference in Buenos Aires, Argentina.



Choice-Based Revenue Management

By Garret van Ryzin; IFORS Distinguished Lecture Awardee, ALIO/INFORMS Conference 2010

Abstract:

Using consumer choice models as a basis for revenue management (RM) is appealing on many levels. Choice models can naturally model important buy-up and diversion phenomenon and can be applied to newer, undifferentiated low-fare structures and dynamic pricing problems. And recent research advances have now brought choice-based RM within striking distance of being truly practical. In this talk, we survey the recent research results in this area and discuss their implications for RM research and practice.

Biography:

Garrett Van Ryzin is the Paul M. Montrone Professor of Private Enterprise at the Columbia University Graduate School of Business. His research interests include stochastic optimization, pricing and revenue management and supply chain management. He is co-author (with Kalyan Talluri) of the book, *The Theory and Practice of Revenue Management* and is Area Editor for Revenue Management at Operations Research



APORS Revisits India

By Ashok K Mittal, Conference Chair (mittal@iitk.ac.in)

The Eighth Triennial Conference of Association of Asia Pacific Operational Research Societies (APORS) was held at Jaipur (India) from 6th to the 9th of December 2009. The theme of the conference “ Operations Research for Emerging Economies” reflected the changing reality of a world economy whose centre of gravity is shifting back to East and South Asia. Around 300 years ago, 30-40% of world trade use to originate from this region.



▲ Subhash Datta welcomes participants to the Jaipuria Institute of Management as opening plenary speakers look on.

Organized by Operational Research Society of India (ORSI) at Jaipur, jointly in academic partnerships with IIT Kanpur, IIM Indore, Jaipuria Institute of Management Jaipur and UP Technical University, the conference was attended by 230 delegates from 17 countries. In total about 200 papers were presented which included a keynote lecture in Inaugural session by Jonathan P Caulkins from Carnegie Mellon University ,who delivered the IFORS Distinguished Lecture (IDL), plenary lecture by Elise Del Rosario IFORS President, four semi- plenary lectures and 13 invited papers. The conference also featured a first in the region, the Teaching Effectiveness Workshop, sponsored by IFORS and coordinated by INFORMS' Jim Cochran from Louisiana Tech University, ably complemented by Tom Grossman and Jill Hardin from the US, and Ashok Mittal and G Raghuram from India, A panel discussion at the last session of the workshop provided forum for exchange of ideas. The workshop was attended by 70 participants.

The 180 paper presentations were organized into 36 technical sessions covering several topics, notably, in the area of Supply Chain Management and Mathematical Programming. Application papers covered areas such as



▲ Tom Grossman (left), Tatsuo Oyama (center) and Elise del Rosario (right) valiantly try out for the Rajasthani dance troupe during the conference banquet.

Finance, IT, Marketing, Health Care and Manufacturing. For the social program, a cultural evening and banquet dinner was organized in the open lawns of Clarks Amer, featuring traditional Rajasthani Indian dances . The banquet also was highlighted by the presentation of the Dr M.C. Puri Memorial Award for Outstanding Contributions to OR in India to Dr Subir Chowdhury, past president of ORSI. The Award was instituted by ORSI in memory of Dr M.C.Puri , an eminent

OR researcher, who lost his life in an terrorist attack in Bangalore in the year 2006 ,while attending ORSI national convention . 🌐

Providing a Scientific Basis for Managing Illegal Drug Problem

By Jonathan P. Caulkins

IFORS Distinguished Lecture Awardee, APORS 2009

Illegal drugs pose serious problems that vex policy makers throughout the world. Globalization and increasing affluence in rapidly developing countries have triggered substantial increase in rates of addiction in places where use was once rare. For Afghanistan and its neighbor there are particularly vexing connections between the profits from drug trafficking and the funding of insurgencies.

The tools of operations research, industrial organizations, and economics can be harnessed to provide an empirical, scientific basis for drug policy making. Data are drawn from epidemiological studies, forensic laboratory, analysis, undercover buys, and extensive interviews with incarcerated drug smugglers and dealers. This talk focuses on drug initiation (product diffusion), price responsiveness (elasticity of demand), and operation of the illegal supply chain, both during normal times and when distribution network is disrupted. Resulting understanding provides the foundation for estimating the cost-effectiveness of different broad strategies for controlling drug use and associated social harms.



▲ IFORS President (2007-2009) Elise del Rosario presenting Jonathan Caulkins the IFORS Distinguished Lecture Award

The success of Operations Research in the nontraditional domain can be viewed as an encouraging case study for those interested in tackling kindred issues such as terrorism, human trafficking, and financial crime and also social issues more generally, ranging from economic development to environmental management.



IFORS Prize for OR in Development



INTERNATIONAL FEDERATION OF OPERATIONAL RESEARCH SOCIETIES

IFORS is pleased to launch the logo for the IFORS Prize for OR in Development. This is the first logo to be adopted since this paper competition was first introduced in 1987 as the "Third World Prize". It is designed to reflect the aim of the Prize, namely to bring out and recognize outstanding Operations Research applications which are conducted to assist organizations in their decision-making processes with regard to education, health, water, technology, resource use (physical or financial), infrastructure, agricultural/industrialization, environmental sustainability with original features in methodology or implementation for development in developing countries. The 2011 competition features an increase in the Prize and removes the previous limitation on author nationality.

Below are the highlights of the Prize:

- Will be awarded at the close of the 19th IFORS Triennial Conference in Melbourne on July 15, 2011
- Carries a grand prize of US\$ 4,000.00 and a runner-up prize of US\$ 2,000.00
- Automatically considered for publication in International Transactions in Operational Research (ITOR).

What papers qualify?

- describes a practical OR application in a developing country;
- conducted to assist a specific organization in its decision-making process with regard to education, health, water, technology, resource use (physical or financial), infrastructure, agricultural / industrialization, environmental sustainability;
- with original features in methodology or implementation for development in developing countries;

- includes some description of the application's social context and its impact on the decision making process or on the organization for which it was conducted; and
- where appropriate, the relevance of the country's state of development to the study.
- A stress on developmental issues will be an important factor in the judging. Papers of a purely technical nature, or those which have no relevance in the developmental context, will not be considered.


Requirements from authors

- Authors of any nationality are welcome. If selected to be among the finalists, the entry must be presented by one of the authors during the IFORS Triennial Conference to be held in Melbourne, Australia from 10-15 July 2011. Registration fees for finalists will be sponsored by IFORS. Accommodation may be sponsored subject to availability of funds.
- All contributions must be submitted through <http://mc.manuscriptcentral.com/itor>, with a cover letter indicating that paper is intended for this competition.

Important Dates and Contact Details

- Full paper submission deadline: December 30, 2010.
- Notification of finalists: March 31, 2011
- Oral presentation: July 10, 2011

For more information

- visit www.ifors.org
- Or email the Prize Chair:
Dr. Subhash Datta (subhash.datta@gmail.com)
Director, NIILM Centre for Management Studies
Plot No. 53, Knowledge Park V, Greater Noida, UP, India. 



Euro Working Group on Operational Research for Development (EWG ORD)

A Report from the Young Researchers PhD Symposium EURO XXIV, Lisbon, Portugal

by Claudia Rave (ccraveh@unal.edu.co)
& Gerhard-Wilhelm Weber (gweber@metu.edu.tr)

The annual workshop for Young Researchers and PhD Students, a main activity of the EWG ORD, was held for the third time last July 10 as a satellite event of the EURO XXIV in Lisbon. This workshop is considered as a key component of building networks between PhD students and researchers across the world, to promote the collaborative and creative work on development and sustainability and to enforce the virtuous chain in promotion of the interest for young researchers to undertake doctoral research on OR for development, to interact and feel a part of the OR community and to contribute in the consolidation of research groups.



▲ Workshop participants pose for a final photo even as they promised to keep in touch.

Special congratulations to Elise del Rosario (the Philippines) and Mahdi Zarghami (Iran) for their appointments as Senior Fellow 2010 and Junior Fellow 2010, respectively, recognitions given for the second time for achievements in OR applications for developing countries.



▲ Photo shows Elise del Rosario (2nd from left) and Mahdi Zarghami (5th from left) receiving their Senior and Young ORD Fellow Awards for 2010, respectively. Also in photo are (left to right): Honora Smith, Leroy White and Gerhardwilhelm Weber.

Contributed papers to the workshop held in the Faculty of Sciences at the University of Lisbon covered three tracks, namely: Management Sciences in Developing Countries: Socio-Economic Elements, Natural Resources Management in Developing Countries and Planning for Development. Two invited senior speakers joined the workshop, both of them working on OR for education. The discussion during the workshop between the young and senior researchers and practitioners proved to be a dynamic forum of exchange which crossed several cultures and views on sustainability. Though young, the EWG ORD had again gained much from this scientific and social experience.

With participants coming from Austria, Belgium, China, Colombia, India, Indonesia, Iran, France, Germany, the Philippines, Portugal, Russia, Spain, South Africa, Sweden, The Netherlands, Turkey, the UK, the USA and Zimbabwe, the workshop set a high standard in terms of the diversity of the nations represented and breadth of topics covered.

Special mention and gratitude to the participants, Amirhossein Sadoghi, Chi To Daniel Ng, Felipe Kesrouani, Gregory Lee, Jaime del Rosario, Jian Cui, Leonardo Monteiro, Liu Yang, Mahdi Bashiri, Mahdi Zarghami, Pablo Maya, Rita Paleta, Theodor Stewart, Tom Blockmans, Trishna Fadjrir, Gustav Feichtinger, Arij Mkaouar, Lyudmila Kuzmina, Honora Smith, Leroy White1, Begoña Vittoriano1, Gerhard-Wilhelm Weber1, Claudia Rave, Youssef Masmoudi and our invited speakers James Cochran and Elise del Rosario. Thanks to our organizers and all members of the Managing Board

The success of the event owes much to the support of the OR societies and the local host APDIO. Special thanks are due to IFORS for its continuous endorsement of the EURO ORD activities. The financial support it extended enabled the participation of researchers from developing countries. Their inputs and presentations greatly enriched the discussion and provided a wider network of future applications.

Holding of future workshops will ensure the continued expansion of networks and facilitate collaborative work in the area of OR for development.




EWG ORD

(<http://www2.ing.puc.cl/~fcrespo/eurofdv/>)

IFORS (<http://ifors.org/web/>)

EURO (www.euro-online.org)

APDIO (<http://www.apdio.pt/home.do>) 

◀ Bing del Rosario emphasizes a point during the Workshop held at the Faculty of Science at the University of Lisbon.



Euro Working Group on Operational Research for Development (EWG ORD)

A Report from the ALIO-INFORMS Joint International Meeting

by Claudia Rave (ccraveh@unal.edu.co) & Gerhard-Wilhelm Weber (gweber@metu.edu.tr)

The Operational Research for Development and Developing Countries cluster was held in Buenos Aires Argentina, within the framework of the ALIO-INFORMS International Joint Meeting 2010, with the support of IFORS and the organization of the EURO Working Group in Operational Research for Development EWG ORD (<http://www2.ing.puc.cl/~fcrespo/eurofdv/>).



▲ Participants of the Cluster. Alejandro Builes, Laura Lotero, Rafael Nanclares, Claudia Rave, Gerhard-Wilhelm Weber
Venue: Law School, University of Buenos Aires. <http://www.derecho.uba.ar/>

contribution on vulnerability analysis and disaster relief was presented. For transport, many applications dealt with sustainability and public transport enhancement technology, environment and coverage for rapidly growing cities, as well as modeling strategies.

Papers presented by researchers, students and practitioners from private and public institutions enriched the workshop. For the PhD and master students, the cluster was an invaluable opportunity to link the contributions of their research in Latin America to the OR for development community. The workshop indeed provided the foundations of a network of people working together to think through the applications and implications of academic contribution to sustainability and rise to the challenge of making this world a better place.

Buenos Aires provided the perfect background to this event, generously letting its winter sun stream through the sessions.

Thanks to all our speakers and participants!

Links of interest

EWG ORD, <http://www2.ing.puc.cl/~fcrespo/eurofdv/>

IFORS

INFORMS, meetings.informs.org

EURO, www.euro-online.org

ALIO, www.dc.uba.ar/alio

SADIO, <http://www.sadio.org.ar/> 

A first in America, the ALIO-INFORMS cluster was successful in extending and consolidating the network in Latin and North America. The combined efforts of Claudia Rave (Colombia), Fernando Crespo (Chile), and the board chaired by Gerhard-Wilhelm Weber (Turkey) and OR societies IFORS, INFORMS, ALIO, EURO and the local host SADIO ensured a successful extension of the EWG ORD network among Latin American OR workers.



▲ Coffee time in Buenos Aires.
Rafael Nanclares (Medellín) and
Gerhard-Wilhelm Weber (Turkey)

Twenty two speakers from Medellín, Bogotá, Montevideo, Buenos Aires, Santiago, Texas, New York, Ankara, Valencia and Lisbon, some of them presenting multiregional works, participated in 7 different sessions, with a wide range of applications on education, economy, scheduling, environment, energy and decision support systems for policy design as well as some conceptual works on innovation and OR teaching. Ten of the participants, all of them active researchers or consultants in developing countries, received financial support from IFORS.

Remarkable work was presented along the lines of policy assessment for environment, urban planning, education and even commercial and investment issues in developing countries. Software design and development papers ranged from mobile social applications for micro-retailers to structured modeling platforms for public institution prospective modeling. A

The EURO Working Group on OR in Development (EWG ORD)

The EWG ORD (<http://www2.ing.puc.cl/~fcrespo/eurofdv/>), aims to develop and maintain a common platform to enable researchers, practitioners, academicians and other interested parties across the globe to collaborate and share ideas and information that will bring about improvement and channeling of OR-based knowledge towards novel and creative applications in support of sustainable development in all its dimensions, in both developed and developing countries. EWG ORD was established with numerous founding members at a satellite meeting of the EURO XXI 2006 Conference. EWG ORD subsequently organized / co-organized a number of workshops on sustainable living and development in Ankara, Turkey (June 08, 2007; April 13-16, 2008), Prague, Czech Republic (July 2007), EURO 2006, EURO 2007, EURO 2008, IFORS 2008 and EURO 2009. For 2010, EWG ORD organized satellite events for the ALIO-INFORMS Joint International Meeting in Buenos Aires, Argentina last June 6-9, as well as for the EURO XXIV held in Lisbon, Portugal on July 11-14. The EWG ORD conducted many streams in both conferences focused on different aspects of applications in development and sustainability.

The main goal of all these workshops, summer schools, and conferences is to promote the importance of operational research and its related techniques to living in developing and developed countries.

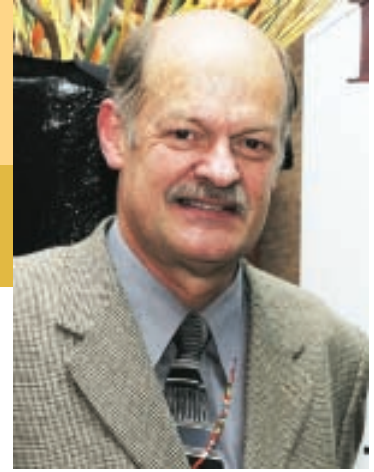


Book Review

Operations Research – A Model-Based Approach

by HA Eiselt and C-L Sandblom,

2010, Springer, pp. 447. ISBN 978-3-642-10325-4. US \$ 49.95.



Recently I was approached to advise on an introductory textbook for Operations Research (OR). Not being an academic and not that up-to-date, it was not very obvious what the latest good OR text book is. Looking around and asking colleagues I became aware of the new book Operations Research that was published recently. Paging through the book I started reading chapter 1 which is an Introduction to Operations Research and I just could not stop. The introduction outlines the nature and history of OR as well as the main elements of OR including the four main issues that need to be considered when applying any operations research model namely feasibility, optimality, sensitivity and implementation. The modelling process used in OR is also discussed. All of this is outlined in a very clear concise manner at the same time explaining the field of OR to the reader in a very exciting way! The topics and issues are handled very comprehensively and it is very difficult, even as an "experienced old hand", to stop reading. What was very evident was the clarity in which concepts are conveyed making it very easy to understand and to follow. In addition the book focuses very specifically on the application of operations research in practice. This is the one outstanding features of the book and makes it a really valuable text book because of the emphasis on the exposure to applications.

objective function and the constraints formulated. This section is then followed by a number of exercises about the diverse applications, as indicated previously, the solution to the problem is also presented. The next section illustrates how linear programming problems can be represented graphically, a graphical solution method is discussed as well as a number of special cases of linear programming problems. Examples for the latter included problems where there is no feasible solution, unbounded "optimal" solutions, dual degeneracy and the issue of redundancy. Again this is followed by exercises. Postoptimality analyses, so important and critical in the solution of any LP problem, is covered in the next section in a fair bit of detail. Various outcomes are described and the interpretation of results are shown and explained graphically. This is very useful as it leads to a better understanding while one can also get to know and understand how to derive the maximum benefit from LP solutions. Solutions in the form of computer printouts from LP computer packages or codes are then introduced and the authors show how these should be used, interpreted and how to do proper sensitivity analyses using these solution printouts. Finally, duality as applied to linear programming is described without going into too much technical detail. The concepts are illustrated through examples of the formulation of the primal and dual problems and the interpretation of results graphically and using computer-generated solutions.

The next chapter deals with multiobjective programming and the two main approaches to solving these types of problems, namely vector optimisation and goal programming, are described. There is an exercise at the end of the chapter on these approaches. Chapter 4 that covers integer programming follows the same structure as all the other chapters. Initially integer programming is defined and the basic concepts described. A variety of application types using integer programming is then discussed, and solution methods for integer programming problems handled. These include cutting plane, branch-and-bound and heuristics methods. All the other chapters follow a similar structure where the "theory" is dealt with very briefly and where the emphasis is on applications with exercises. Not all chapters go into the same depth as the one dealing with linear programming; nevertheless the material covered in each chapter is sufficient to allow one to get a good grasp of the content.

The discipline of OR is ultimately about a scientific approach to problem solving. For that purpose one has access to a whole and diverse range of techniques that can be used for specific problem types and specific purposes. This book, Operations Research, is an ideal introduction to giving one a broad overview of the discipline and also an exposure to a wide range of different techniques. Techniques are of no use if one cannot use them in a practical environment to solve problems. With this book the authors have consciously decided to focus on the most important aspect of the discipline and that is to show, and expose, the reader to practical application areas. To learn, and gain experience, in solving practical problems is the main challenge of anyone wanting to practice OR. This book goes a long way in achieving this difficult objective. The material is presented in such a way that is very easy to follow and understand and, what is more, it is written in a style that is clear and easy to read. Topics are explained in a straight forward manner while the value of the exercises with solution cannot be underestimated. I would recommend the book to anyone who is looking for an introduction to OR. 🌐

Hans W Ittmann, Executive Director: CSIR Built Environment, Pretoria, South Africa (hittmann@csir.co.za)



Over and above the introduction there are 12 chapters each focusing on a specific OR technique. The following techniques are dealt with in each of these chapters:

Linear Programming;
Multiobjective Programming;
Integer Programming;
Network Models;
Location Models;
Project Networks;
Machine Scheduling;
Decision Analysis;
Inventory Models;
Stochastic Processes and Markov Chains;
Waiting Line Models; and
Simulation.

In addition there are four appendices that address Heuristics Algorithms, Vectors and Matrices, Systems of Simultaneous Linear Equations, and Probability and Statistics. Not all techniques that one would expect are included in the book although within some of the chapters some techniques not included in the above list are discussed, for example, Goal Programming is addressed in chapter 3. Dynamic Programming and Non-Linear Programming, for example, are two of the techniques not covered in this introductory text book. This, I believe, is not a major concern since the rest of the material is more than sufficiently covered.

The structure of each chapter is very similar. A basic introduction is given to the technique and then a whole range of applications of the technique is discussed, followed by exercises where the specific problem is clearly stated and the solution to the problem is also presented. In chapter 2, which is devoted to linear programming, the formulation of a mathematical programming problem is briefly described and outlined with linear programming problems being special cases. All the intricacies of LP formulation are covered and presented. For example, the different assumptions when using linear programming namely the deterministic property, divisibility and linearity are highlighted. Section 2 of the chapter is then devoted to LP applications. These include a whole host of different problems such as production planning, diet problems, allocation problems, employee scheduling, dynamic production, blending problems and transportation and assignment problems. In each case the problem is discussed, and the



Organizing OR Societies: Obstacles and Enablers

By Elise del Rosario (elise.del.rosario@stepforward.ph)



Like all professionals, OR workers gain a lot from membership in a grouping where they can share their knowledge and benefit from the experiences and expertise of others. This is the reason why national Operations Research communities play a very

important role in ensuring the continued health and development of the discipline within a geographical area.

INFORMS, for example, has very active communities of educators, scientists, students, managers, and consultants, enabling them to communicate with each other as well as with other professional societies and clients of the profession's research and practice. The organization makes available to its members access to journals, news from other members, national and international conferences for academics, professionals, various interest groups. Thus, professionals learn from the experiences of others and avail of resources that would hardly, or not at all, be available to non-members.

This is what drives practitioners and academicians to seek membership in OR societies. In cases where this is not available in their place of work, they resort to membership in OR societies located elsewhere. For example, the Operations Research Society of the Philippines (ORSP) includes in its membership roster, three Filipinos working in the Middle East. On the other hand, INFORMS includes among its members, nationals of various countries. While these members, specifically those who have no local national societies to join, can tap the "offshore" society publications and web-based resources and attend conferences once in a while, it is hard to keep in regular touch as well as share experiences and problems encountered in the environment of the worker. In some cases, this may even lead to frustration when the gap between "what could be" and "what is" becomes very palpable. Why then are there not as many OR societies as there should be?

My personal experience as founder of a national society, corroborated by an informal survey of thirteen OR society experiences, reveals some factors that affect the difficulties and survival of OR societies:

1. Society organizer – Experience of setting up the OR societies among the interviewees showed a very strong correlation between which sector (academe or industry) organized it and who later on got involved with the organi-

zation. Among the interviewees, 30% reported both academe and industry were involved in the organization of the society. The other 70% were put up by people from the academe. This 70% reported a difficult time getting people from practice/industry to be involved in the organization. In this case, one respondent said that the only people from practice who joined the society are those who were previously in the University but later went to work for industry. Even among the academe-organized society, some people reported difficulty in getting the academe from other schools involved. It would seem that getting a broad range of people involved in the formation of the society will mean that the society will continue to attract a diverse group throughout its life. This is true for the case of the Operations Research Society of the Philippines (ORSP), which was founded through the initiative of industry but which had a good balance of people from industry, the government and the academe among its founders. At the present time, involvement from these same sectors is maintained, except for those from companies which have closed down their OR departments.

2. Involvement from Senior People – Of those interviewed, 50% explicitly mentioned that it was important to have highly-placed people, whether in government, industry or the academe, involved to a great extent especially in the formative stages of the organization. Their stature is a necessity in terms of helping the organization gain the visibility needed particularly in the setting-up stage. Importantly, too, these are the people who would have access to financial and manpower resources as well as connections who could be brought in to the organization. The Korean OR Society mentions the significant impact of the election of a former MS professor at the Seoul National University who was at the time of his election, the Deputy Prime Minister for Finance to the visibility, financial viability, industry connections as well as the success of the regional conference APORS 1988 which they sponsored.

3. Involvement from Young People – The difficulty of attracting young people to join the society was expressed 20% of the time. This had the effect of not having future leaders and supporters of the organization. However, this was cited as the result of lack of rules regarding people being re-elected several times, thus preventing and discouraging the younger people from taking up greater responsibilities in the organization. ORSP thinks that this is solved from their end by encouraging and supporting the activities of student chapters. At least three members of its current Board were active leaders of the student chapters.

4. Administrative Support – At least two societies expressed the difficulty of administering the organization, because of the small size of their society and the lack of skills and resources needed to sustain it. The common practice among developing countries is to have the President's personal secretary do the tasks

for the organization. In this situation, record keeping cannot be expected to be at the best level and the President is more often than not burdened with the requirements of the organization.

The Slovenian OR Society tackled this problem by working together with a related society, the Informatika. The mutual support the two societies extended to each other was made possible because they had at least one common officer in Lidija Zadnik. In case of the ORSP, sharing admin costs with another volunteer organization made it possible to have one permanent, affordable administrative office.

5. Achieving and Maintaining a Critical Mass – A small membership puts a lot of constraints on a society. As Hector Cancela of the newly-formed Uruguayan OR society said, "We are still a small community, and people have many activities, so it is not easy to count on volunteer work for organizing initiatives of the society. On the other hand, also as a result of the small number of members of the society, the finances do not allow to have a support staff to help. This means that we are quite restricted to volunteer work and can only put into practice initiatives in subjects which strongly motivate some of our members."

A critical mass is needed to form any organization. In general, especially in developing countries, there are few OR workers. For example, while the Philippine Computer Society and the Philippine Institute of Industrial Engineers have at least one thousand members each, ORSP peaked at over a hundred qualified members. Why so? There is only one company which has an internal corporate OR group that has existed for more than 10 years and which still exists at the present time, while the three others were formed not earlier than 5 years ago. On the other hand, while there are vendors supplying OR software, external local consulting firms rarely exist.

Although the Singapore OR Society has more members, they are still concerned about "finding common threads through disparate fields of application, e.g. in military, government, academia, industry that OR covers." This makes it hard to create various interest groups.

On the academic side, the discipline is normally included as a course in several fields of studies such as Engineering, Business, and Applied Mathematics. The small enrolment for OR in the school for Applied Math has led to its closing down in the University of the Philippines. The "decentralized" offering of OR (divided into mathematicians, engineers, business managers, according to MZ Mamun of Bangladesh), aggravated by the fear of Mathematics among students, leads most private university administrators, to treat it as a marginal course with low priority for faculty funding, training and networking.



The concern about the decreasing students of OR was expressed by Sung Joo Park of Korea, as follows: "Not many schools offer OR as a core and there's no OR department in the University or in business." Lidija of Slovenia wants to know how to succeed in bringing OR into the curricula of new university programs to counteract what she perceives as the decreasing hours allocated to OR courses. Luka Neralic of Croatia mentions that the two years master degree study in OR has been decreased to a one year specialization in OR and optimization. He observes that in the last two years, there was not that much interest. There is also no Ph. D. study in OR, which is the same situation in the Philippines.

Critical mass does not seem to be a problem for the Operations Research Society of China where OR courses are a basic requirement in the business schools and engineering departments of almost every university. This is reflected in the society membership numbering around 500, distributed among a dozen chapters throughout the country. While majority of their chapters have memberships from the academe, the chapter located in the largest oil industrial base and home to 500 of the biggest companies in China, is as can be expected, composed of members from industry.

Grants from the government sector such as the National Natural Science Foundation (NNSF) are available to OR workers. They can do research or provide consulting services to the central government, local government or industrial sectors. The output of these work are usually traditional OR models and algorithms built into software that are given to the decision-makers for their use.

Visibility of the discipline – While not a problem for the ORSC, this is a problem that is expressed by most of the respondents and to which the low membership numbers were attributed. This lack of visibility translates to the low demand for OR people in the industry, which then discourages students from taking up the course. In turn, the schools do not give emphasis to the OR program. This problem of visibility for OR has been discussed and is a major IFORS concern, and is currently being addressed by such societies as the INFORMS and the UK based Operational Research Society. This small number of OR professionals both from the academe and practice has consistently been mentioned as a major obstacle in forming and sustaining the activities of an OR society.

Despite this problem, small OR organizations continue to exist and serve their constituents. The interviews indicate these common characteristics which make small societies succeed in spite of being small:

1. An active core group which holds informal exploratory meetings, arranges workshops and seminars, and eventually formally organizes the society is always an ingredient of small but successful OR societies. It is the work of these pioneers who have seen the

organization through at least three years after formation that contribute to the survival of the organization. These people are the tenacious, resourceful and creative types whose collective energy sustains the organization. It does also help that there is usually one person in the group who gets the rest focused on the task at hand.

2. Development of future leaders ensures the continued existence of the organization. These leaders not only take over from the pioneers, but more importantly, inject new ideas and start initiatives. Andres Weintraub expressed confidence that young people who have taken an interest in the leadership of the national OR society of Chile will do well in keeping the society successful and active.

3. Regular activities bring people together and draw them closer as a group. The activities not only serve as a unifying force, but became a source of funds that is critically needed at the early stages. All the interviewees traced the origins and growth of their societies to regular activities prior to and after the formal creation of their societies. In particular, the nation-building project of the ORSP which involved providing OR services (consultants do not charge professional fees) to the government not only brought the membership together, but also attracted a lot of new members who wanted to contribute into the group.

4. Support from other organizations come in the form of funds, administrative, information, and being a part of a larger network.

Funds and administrative support that may have come from other organizations through its activities or by virtue of influential contacts that were made was a recurring theme in the interviews. It may be support from a government agency or a senior executive who allowed resources of his office to be used by the society. For the case of the Philippines, work of the society with the government afforded access to offices and funds that would not have been available had the projects not been carried out.

Resource persons. According to Han Chun Kwong, encouragement of people he met at OR conferences from whom he sourced copies of existing society by-laws was a big help in starting the formation of the OR society of Malaysia, Help from other national societies and nationals based in foreign countries played a great role in the formation of the Croatian national society.

Activities in the wider community. Past EURO (the regional grouping of IFORS in Europe) President Alexis Tsoukias thinks that societies within Europe are motivated to form societies and join the regional grouping to participate in such activities as the EURO Summer Institutes, the EURO and mini-EURO conferences, and the Working Groups. They also become part of the region management, as

they take part in choosing the participants to the EURO Summer Institutes, suggesting subjects and candidates for the EURO awards, giving their inputs and hearing from the experiences of others during the annual "strategic discussions." Special attention to inactive societies in terms of visits from the region had also reminded these societies that they belong to a wider community which is willing to help them. Tsoukias adds: "Moreover, the big societies within EURO (the British, the Germans, the Spanish, the French) have activities that go beyond the borders of their respective countries and attract neighbours including trans-national initiatives such as joint conferences and journals."


As to their membership in the IFORS, respondents were united in expressing support for the Exchange programs and scholarships that they feel gives opportunities for young researchers to develop their skills and their international network. However, they would like to see more resource people who will lend expertise on OR matters and who will support their conferences. Also expressed was the help that IFORS could give in terms of boosting the visibility of the discipline, something that they think is seriously hampering their efforts to become bigger.

Putting up an OR society

Learning from the experiences of others will greatly help in avoiding future obstacles in putting up an OR society. With an understanding of the realities and unique characteristics of their environment, OR workers can start networking on joint activities, and having secured the critical support from some quarters, start activities to form their national societies. Established OR societies in the vicinity or the regional groups to which they belong can be approached for help. IFORS can assist in identifying, assisting, and even providing resource people who may be positioned to build on the solid groundwork of the local initiators. The organizers must be prepared for a process which requires intensive work in the first few years, and must not lose their focus on the rewards that having their own OR community would bring for them and the future OR workers in their locale.

Acknowledgement

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Jocular Interdisciplinarity

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WIRTSCHAFTSINFORMATIK UND OPERATIONS RESEARCH



Feature

In the early days of OR, i. e. from 1938 to the 1960ies, interdisciplinarity was a central characteristic of this new field. There are many witnesses of this fact among the OR pioneers, such as Patrick M.S. Blackett (1897-1974), C. West Churchman (1913-2004), Hugh Miser (1917-1999), Russell L. Ackoff (1919-2009), and others.

Ackoff in particular emphasized the traditional virtue of interdisciplinarity in OR. Later on, in 1979, he deeply regretted that the "original interdisciplinarity of OR has completely disappeared" (Ackoff 1979, p. 95).

Interdisciplinarity was a serious subject in the discussion about OR and its characteristic approach to problems. However, there were also some jocular – and witty – contributions about interdisciplinarity, such as the paper "How to be a project leader – nine helpful hints" by Harvey Lynn, Jr. (Operations Research, Vol. 4, 1956, No. 4, pp. 484-488). Lynn discussed the collection of the interdisciplinary team:

"Next, select your technical team. You may find it desirable to choose people with some knowledge of the problem."

"You should include an economist. Someone has said that economics is only common sense made difficult. This is true. For this reason, you must have at least one and preferably two economists on your team (if you have two, they can argue with each other). They are good at taking straightforward data and putting it into the language of systems analysis. They use such term as optimization, suboptimization, allocation of resources, marginal utility, etc."

"Then, you need a social scientist. Having a social scientist on your team will add a certain amount of prestige. He will be indispensable when it comes to writing the report. One good social scientist can contribute a hundred pages to your report without even knowing what the problem is."

"Be sure to include mathematicians – even if you agree with Plato, who said, 'I have never met a mathematician capable of reasoning.' Any systems analysis

worth its salt must have several appendixes full of equations, and this is where mathematicians come in handy. If the mathematicians cannot put all the information into equations, they will recommend war gaming it, in which case you will have more and more people working for you."

"Don't forget a physicist. Physics is a very proper and popular science. Physicists also know about equations. Some of them know equations the mathematicians don't know, so you are providing yourself with added protection. You will find a physicist indispensable when you have conferences, for it is typical of their breed that they will debate vigorously on any subject."

"To this essential cadre, you may add consultants on almost any subject – psychologists, engineers, and others. Just be sure that you get a well-rounded group. Add more people as the study progresses."

Certainly, Lynn's characteristics of the economists, the social scientists, the mathematicians, the physicists etc. are amiable exaggerations. But do we not tell jokes about economists, social scientists, mathematicians, physicists etc.? Do we finally trust them, the economists, the social scientists, the mathematicians, the physicists etc.? Yes, but only with respect to their field of competence. However, the power of interdisciplinarity has its foundation in mutual trust among the cooperating specialists.

I would like you to read three papers:

1. Harvey Lynn, Jr.: How to be project leader – Nine helpful hints,
2. Churchman, C. West; A.H. Schainblatt: The Researcher and the Manager: A Dialectic of Implementation,
3. Miser, Hugh J.: Craft in operations research.

Hugh J. Miser recalled the interdisciplinary cooperation in the early years of OR, such as: "The group contained a wide scatter of scientific backgrounds and interests, and each member contributed a memorable personality to the mix" (Miser 1992, p. 633).

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Pandigital Divide of the Year

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Several years ago I read a puzzle about the first "pandigital second" of a year: Two digits each for the month, the day, the hour (from 01 to 24), the minute, and the second. Each digit is allowed only for one of the ten positions. It is not too difficult to find the answer 03 26 17 48 59, i. e. 26th March, 17 hours, 48 minutes, 59 seconds.

What, then, is the last pandigital second of a year? Again, it takes some rounds of trial and error to find out: 09 28 17 56 43, i. e. 28th September, 17 hours, 56 minutes, and 43 seconds.

The curious reader will certainly ask: "How many pandigital seconds do exist and how are they distributed over the year?" Manual or electronic computation will lead to the answer of 816, distributed over the summer with bulks, such as:

There are bulks of 12 pandigital seconds each on 26th, 27th, 28th, and 29th March, April, and May, i. e. 48 such seconds in each of these spring months, 144 in total. >>



The summer months June, July, August, and September cover 168 such seconds each:

Eight pandigital seconds occur on 17th, 18th, and 19th June, on 16th, 18th, and 19th July, on 16th, 17th, and 19th August, as well as on 16th, 17th, and 18th September.


In addition, 12 pandigital seconds each can be celebrated on 23th, 24th, and 25th June, July, August, and September.

The highest density of 36 pandigital seconds each takes place on 12 different days, i. e. 27th, 28th, and 29th June, on 26th, 28th, and 29th July, on 26th, 27th, and 29th August as well as on 26th, 27th, and 28th September. Lucky are those people who were born on one of these 12 day with pandigital concentration!

There is a surprising coincidence of the digits 1, 6, and 8: The total number of pandigital seconds per year is 816 (see above). The total number of such seconds in June, July, August, and September is 168 each. And the pandigital summer, beginning on 26th March and terminating on 28th September, lasts 186 days (plus 7 minutes plus 44 seconds), leaving 179 days (in leap years 180 days) minus 7 minutes and 44 seconds for the winter.

The total number of days with pandigital seconds is 48 per year, i.e. 12 days each with 8, 24 days each with 12, and 12 days each with 36 pandigital seconds.

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– possibly with the support of the decision analysts (Müller-Merbach 2005, 2009).

Schopenhauer's doctrine is related to the plea for "mutual understanding" by Churchman and Schainblatt (1965). It helps to understand the roles of the decision maker and the decision analyst (or "manager" and "researcher" in Churchman's and Schainblatt's contribution). The decision maker and the decision analyst should be familiar with their roles in decision processes.

Another statement might be useful in this connection. Gene Woolsey once stated (somewhere in his series "The Fifth Column" in Interfaces): "A manager would rather live with a problem he cannot solve than accept a solution he cannot understand."

Additional help for mutual understanding comes from Henry Mintzberg in: "Planning on the left side and managing on the right" (1976). He refers to the distinction between the left and the right hemisphere of the brain (of right-handed persons); the left hemisphere is responsible for logic, language and mathematics, while the right hemisphere is responsible for holistic understanding, pictures, feelings etc.

I am sure, Churchman and Schainblatt, Mintzberg, Woolsey (and quite a few others) would be in agreement with Schopenhauer.

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Managers' will or OR/MS rationality: Another plea for mutual understanding

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"We do not want a thing because we have found reasons for it, we find reasons for it because we want it; we even elaborate philosophies and theologies to cloak our desires"
(Durant 1953, p. 312, interpreting Schopenhauer).

Decision "A" or "B"?

Consider a situation in which the responsible decision maker (i.e. the manager) tends to take decision "A". However, his decision analyst may come to the conclusion that decision "B" is much better. What to do? The decision maker's preference for "A" is based on his experience and his feeling; however, he cannot prove the superiority of his preference. On the other hand, the analyst can possibly prove the superiority of solution "B", but the superiority depends upon his model, assumptions and the quality and integrity of data he used.

Schopenhauer (1788-1860), an influential German philosopher, would vote for "A" and thus support the decision maker. The decision analyst would only have to serve the will of the decision maker (i.e. the manager). It is the decision analyst's task (or even duty) to provide the decision maker with arguments for decision "A".

Schopenhauer supports the decision maker and his will: „Consciousness is the mere surface of our minds, of which, as of the earth, we do not know the inside but only the crust" (Durant 1953, p. 312). Durant (1953) continues: "Under the conscious intellect is the conscious or unconscious will, a striving, persistent vital force, a spontaneous activity, a will of imperious desire. The intellect may seem at times to lead the will, but only as a guide leads his master; the will (quoting Schopenhauer) 'is the strong blind man who carries on his shoulders the lame man who can see.'"

Durant (1953, p. 313) quotes Schopenhauer: "Men are only apparently drawn from in front; in reality they are pushed from behind", and interprets: "they think they are led on by what they see, when in truth they are driven on by what they feel, - by instincts of whose operation they are half the time unconscious. Intellect is merely the minister of foreign affairs"; and quotes Schopenhauer again: "nature has produced it for the service of the individual will. Therefore it is only designed to know things so far as they afford motives for the will, but not to fathom them or to comprehend their true being", and: "The will is the only permanent and unchangeable element in the mind; ... it is the will which ... gives unity to consciousness and holds together all the ideas and thoughts, accompanying them like a continuous harmony".

It cannot be proven that Schopenhauer is right. Anyhow, his doctrine is thought-provoking and gives us cause to reconsider the relations between decision makers and decision analysts. The decision makers carry responsibility. Therefore, they have the freedom to decide and the freedom to take or reject any advice. Only the decision makers have to justify their decisions



IFORS Publications News

Bradley Appointed Chair of IFORS Publications Committee



Dr. Hugh E. Bradley

Dr. Hugh E. Bradley (US) has been appointed Chairman of IFORS Publications. He served IFORS in the past as Editor of IAOR, Editor of Operational Research '90, and Treasurer. Dr. Bradley, a retired educator and corporate executive, is past President of the Operations Research Society of America, recipient of the Kimball Medal, and Fellow of INFORMS. As Chair of the Publications Committee, he oversees the IAOR and the ITOR.

The International Abstracts in Operations Research (IAOR) was founded in 1961 to give the profession improved access to its rapidly expanding literature by way of continuing consistent and cumulative indexing. Though little more than a break-even operation in its early years, the value of IAOR has grown to the point where it now provides, through royalties, approximately half of IFORS' revenues each year. In 2005, Dr. Smith urged the Administrative Committee to modernize the process of acquiring abstracts and indexing the ever-growing literature. This was accomplished over the succeeding four years, so that the journal has become a web-based service called IAOR Online. Publishers now provide their original material to the IAOR Editorial Office electronically, where it is indexed and transferred to IAOR Online. A modern search engine within IAOR Online provides rapid access to its online database consisting of twenty years of indexed abstracts. A paper version derived from the online version is still published in its familiar format on its usual schedule, primarily for libraries, though libraries now are migrating toward purchasing site-licenses for the online service.

Bradley was instrumental in seeing to the orderly transition in International Abstracts in Operations Research (IAOR), which saw the editorship pass on from David Smith to K. Preston White, Jr.



Dr. David K. Smith

Dr. David K. Smith (UK) retired as Editor after having served for 20 years in this capacity. He is the longest-serving Editor in the journal's history. During his tenure, he edited and indexed more than 70,000 abstracts. Dr. Smith is to be commended for his tireless dedication to the journal and contribution to the profession of Operational Research. His research has included dynamic programming applications, heuristics, applications in the not-for-profit sector, and the history of taxation in

England. He authored three textbooks and contributed to several conferences concerned with OR in developing countries in Africa and Asia. Dr. Smith is now retired from the School of Engineering, Computing and Mathematics at the University of Exeter.



Dr. K. Preston White, Jr.

Dr. K. Preston White, Jr. (US) has been appointed IAOR Editor, succeeding Dr. Smith. He served IAOR as the US Contributing Editor since 1985. Dr. White is Professor of Systems and Information Engineering at the University of Virginia. He was a member of the Board of Directors of the Winter Simulation Conference from 1997-2010 and is General Chairman for WSC2011. He is an active member of the INFORMS Simulation Society and the NASA Engineering Statistics Team. His research interests include discrete-event simulation, data analysis, knowledge discovery, and optimization. He is particularly interested in the integration of decision and information technologies and applications in aerospace, manufacturing, and service systems. Dr. White is currently on sabbatical at the US Naval Postgraduate School in Monterey, California.



Dr. Celso Ribeiro

The International Transactions in Operational Research (ITOR) is a journal of record with special emphasis on OR in and for the international community. Its Editor since 2007 is Dr. Celso Ribeiro (Brazil), Professor of Computer Science at the Universidade Federal Fluminense. As Editor, Dr. Ribeiro has been very successful in attracting an ever increasing number of high quality papers in support of the journal's mission, a significant feat in the crowded arena of professional journals, enhancing the credibility and stature of IFORS.

The ITOR and the IAOR are complemented by the IFORS News which provides special emphasis on activities involving IFORS. The IFORS News is supplemented by the IFORS website. All together, they comprise important communication tools that are critical to satisfying the IFORS' mission to encourage and support the use and value of OR throughout the world. 🌐



SURVEY of OR/MS PRACTICE CALLS FOR MORE RESPONDENTS

John Ranyard (jranyard@cix.co.uk), Management Science Dept, Lancaster University, UK



IFORS has commissioned a survey of OR practice in member countries, updating an earlier one carried out in 1996. Fourteen years on we know too little about OR in practice and the organisations which make good use of analytical methods. The aim of the survey is to gain a better understanding of the usage of quantitative tools, techniques and approaches and their impact on decision-making in organisations, as well as the background of the OR analysts involved. The results should enable IFORS to improve their support to and promotion of OR in member countries.


The principal instrument is a comprehensive online questionnaire, aimed at OR practitioners in non-academic organisations. The questionnaire covers information on organisational aspects of an OR activity; the usage of quantitative techniques and software packages; the perceived barriers to the use of OR; and the background of the OR analysts involved.

The main questionnaire was circulated to 49 IFORS country Representatives in April, requesting them to forward the web link to as many practitioners as possible in their country. Reminders were issued in June and August and as of 25th August, 242 completed questionnaires had been received from 28 countries, as shown in the accompanying Table.

Questionnaire Responses by IFORS Regions

Region	Member countries/ Responding Countries	Responses Received
APORS (Asia/Pacific)	11/9	31
ALIO (South and Central America)	6/4	12
EURO (Europe, including Turkey, South Africa)	30/13	119
NORAM (USA and Canada)	2/2	82
Total	49/28	244

The completed questionnaires are dominated by the USA (71 returns) and UK (80), which have well developed – and well known – practice communities but four countries (Australia, Canada, Philippines and South Africa) provided 8 or more returns. Unfortunately 21 countries did not elicit any responses and several countries provided just one or two returns (including such countries as Germany and The Netherlands, which we believe to have a substantial OR activity). This will limit the analysis that can be carried out and any findings will have to be qualified. However, it is clear from a preliminary analysis of UK returns, that some useful results can be obtained.

The main analysis is planned for the period from October to December and consequently THERE IS STILL TIME FOR THE QUESTIONNAIRE TO BE COMPLETED AND RETURNED. For inquiries and to participate in the survey, email the author at jranyard@cix.co.uk. 

Country	To 7/7/2010	To 24/8/10
APORS (11 countries)	19	31
Australia	1	8
China	3	3
India		1
Jordan		1
Malaysia		1
New Zealand	7	7
Philippines	8	8
Singapore		1
UAE		1
(9)		
ALIO (6 countries)	10	12
Brazil		1
Chile	3	4
Mexico	5	5
Uruguay	2	2
(4)		
EURO (30 countries)	116	119
France	5	5
Germany	3	4
Greece	3	3
Hungary	2	2
Netherlands		1
Norway	2	2
Poland	1	1
Slovenia	1	1
South Africa	10	10
Spain	6	6
Switzerland		1
Turkey	3	3
UK	80	80
(13)		
NORAM (2 countries)	8	82
Canada		11
USA	8	71
(2)		
Total	157	244
(28/49)		





Invited Streams and Organisers:

Call for Papers

**19th IFORS Conference
 tackles World OR:
 Global Economy and
 Sustainable
 Environment**

Recent natural catastrophes and man-made crises have underscored the inter-connectedness of our world. Any upheaval leads to momentous reverberations across the globe with impacts well into the future. Now more than ever, Operational Research is of strategic importance to address problems critical to the economy and the environment. Academics and practitioners are invited to share their knowledge, experience and insights on theory, methodology and application of operational research to issues of vital concern to the global community during the 19th Triennial Conference of the International Federation of Operational Research Societies from 10th – 15th July, 2011 in Melbourne, Australia.

The Opening Plenary talk “Optimal Choice Sets: How tightly should we regulate?” will be given by Sir James Mirrlees, Trinity College, Cambridge, Nobel laureate in Economics 1996.

Abstract Submission now open:

Papers on all aspects of Operational Research are invited. Authors wishing to present are requested to submit an abstract of not more than 100 words via the Abstract Submission system at:
<http://www.euro-online.org/conf/ifors2011/>
 Abstract Submission deadline: 31st January, 2011

The scientific program includes over 50 invited streams covering all aspects of Operations Research, see the Program section of the conference webpage:
<http://www.ifors2011.org>.

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