

asor news

August 2008

The AUSTRALIAN SOCIETY for OPERATIONS RESEARCH Inc.
MELBOURNE CHAPTER

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From the Editor

The subscription receipts will be posted with this newsletter edition. If this is not the case or there is an error, then please inform your most convenient committee member,

Harry

August Meeting:

Anyone for Tennis?

Speaker : Alan Brown, Swinburne University
Date : 20th August, 2008
Location: AMSI Seminar room, ICT Building,
111 Barry Street, Carlton
Time: 6.00pm.

Abstract: Nested scoring systems exist in several sports, e.g. tennis, badminton, table tennis, squash and volleyball. Our examples will be taken from the sport of tennis, which has rules covering points in a game, games in a set, and sets in a match. The rules are subject to change at various times and places. A recursive model is developed to study the influence that the selected scoring system has on the length of a match.

The assumptions made in the tennis model are modest, the calculations are not very difficult, and the results obtained match with intuition. The generality of the methodology means that similar models can provide insight to a wide variety of practical problems outside sport. The wider field includes medical surveys, demographic projections, project management, casino games, stockpiles, fleet management, internet traffic and extreme value theory.

Report on the May Meeting

Beyond interest based negotiation: Developing fair negotiation support systems

The speaker for the May meeting was Prof. John Zeleznikow from Victoria University. The talk began with commonly used methods in negotiations in law. Bargaining in the shadow of the law was discussed. This is where rational parties forecast the expected trial outcome and strike bargains that leave both sides better off by splitting the saved costs of trials. The Harvard Program on Negotiation introduced the concept of principled negotiation. Fundamental to the concept of principled negotiation is the notion of knowing your "best alternative to a negotiated agreement" (BATNA). The reason you negotiate with someone is to produce better results than would occur without negotiation. If you are unaware of the potential results of an unsuccessful negotiation, you run the risk of 1) entering into an agreement that you would be better off rejecting; or 2) rejecting an agreement you would be better off entering into. Determining one's BATNA is an important step in the decision whether to go to court or to mediate.

The speaker then discussed the following sequencing to try and find an optimal dispute resolution.

- 1) negotiation support tool should provide feedback on the likely outcome(s) of the dispute if the negotiation were to fail – i.e. the BATNA.
- 2) the tool should attempt to resolve any existing conflicts using dialogue techniques.
- 3) for those issues not resolved in 2), the tool should employ compensation/trade-off strategies in order to facilitate resolution of the dispute.
- 4) if the result from step three is not acceptable to the parties, the tool should allow the parties to return to step two and repeat the process recursively until either the dispute is resolved or a stalemate occurs.

The speaker investigated how marital property is distributed following divorce and discussed and used terminology of common pool determination, percentage split determination and discretionary reasoning. This was followed by the idea of split up as a negotiation support system and stated that “While Split-Up is a *decision* support system rather than a *negotiation* support system, it does provide disputants with their respective BATNAs and hence provides an important starting point for negotiations”.

This led to Utility Functions and being able to integrate artificial intelligence and game theory techniques to develop intelligent negotiation support systems. Bellucci and Zeleznikow have developed negotiation support software based upon game theory techniques developed by Brams and Taylor. It uses a point-allocation procedure to distribute items or issues to people on the basis of whoever values the item or issue more. Although the system suggests a suitable allocation of items or issues, it is up to the human negotiators to finalize an agreement acceptable to both parties. “The Family Software” was evaluated on the Australian Broadcasting Commission’s New Inventors Program in 2005. The actual clip from the TV program was shown to demonstrate how the software can be used and their invention won the heats for that particular week.

Prof. Zeleznikow is currently developing measures for assessing the outcomes of online negotiation in the legal domains of sentencing, plea-bargaining and family mediation. Such methods will form the basis of a new model for evaluating fairness and consistency within online dispute resolution systems. This model will inform the construction of fairer and more consistent systems of IT based negotiation support.

Overall, the talk was informative and brilliantly presented.

Tristan Barnett

What Else is On

Victorian Statisticians

The Statistics Society of Australia (in Victoria), typically has meetings on every 3rd Tuesday of the Month starting in March 2008. The next major event is:

Date: 26th of August, 2008

Speaker: Simon Wood, Professor of Statistics at the University of Bath

Location: Monash University, Caulfield Campus

For latest information check at:

<http://www.statsoc.org.au/Branches/VIC/meetings.htm>

The AOQ (Vic)

For the latest information – see

<http://www.aoqvic.org.au>

Topic: *Do You Always Know What You Eat?.*

Presenter: Dr Chris Brendon, International Academy for Quality, on Food Industry Standards and Compliance. (www.iqs.com.au).

Date and Time: Tuesday, 24th June 2008

6:00 for 6:30 pm Presentation start,

7:30pm Refreshments and Networking.

Location: AIM, Fitzroy St, St Kilda (check Web page for the latest information)

Conferences

Qualcon 2008

19th -22nd October, 2008

Adelaide, South Australia

Qualcon is AOQ’s annual National Quality Conference. It’s objective is to provide a forum for speakers and delegates from organisations with similar or related interests to exchange ideas and increase networking opportunities.

Focusing on practical and hands-on experience, topics at Qualcon 2008 will include TQM, Innovation, Environment, Business Excellence, Best Practice, Lean, Six Sigma, CMMI and the eight quality principles covered in ISO 9001:2000.

For further details see:

<http://www.2008.qualcon.com.au/>

Don’t forget the IFORS 2011 conference in Melbourne – details will be posted soon.

Web Pages of Interest

We are affiliated with FASTS through AMSC
To keep abreast of FASTS activities
consult : [http:// www.usyd.edu.au/fast/](http://www.usyd.edu.au/fast/)

ASOR National: <http://www.asor.org.au/>
Melbourne Chapter

<http://www.asor.ms.unimelb.edu.au/melbourne>

The new website for ASOR - Sydney is:
<http://www.asor-sydney.asn.au/>

NZ OR Society <http://www.orsnz.org.nz/>

ORS (UK): <http://www.orsoc.org.uk/>

INFORMS (US): <http://www.informs.org/>

IFORS: <http://www.ifors.org>

For the latest International news, conference and
jobs details see:

<http://www.ifors.org/panorama/index.html>

tutOR: <http://www.tutor.ms.unimelb.edu.au>

CSIRO's Double Helix Club <http://www.csiro.au/>

Committee Membership for 2008/9

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