

Decision Analysis Today

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The newsletter of the INFORMS Decision Analysis Society

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From the President



Jim Smith

It is spring! This is an incredibly busy time of year for me, as most of my year's teaching is packed into an intense six-week period. The good news is that demand for decision analysis education remains strong at Duke (we have 350 students in our "Decision Models" elective for MBA students, out of 440 students total in the program). The bad news is that these students don't leave me

much time to enjoy our fine spring weather!

If I weren't so busy teaching, I would be heading to Orlando for the INFORMS Practice Conference, April 18-20. Bill Klimack, David Leonhardi and others have put together a very interesting program in decision analysis; the broader conference has much to offer as well. The INFORMS conference will be immediately followed by the Decision Analysis Affinity Group's (DAAG) 15th annual conference, April 21st-22nd, at the same hotel. A highlight of the DAAG conference will be a keynote session featuring Ron Howard and Howard Raiffa, two key early leaders in our field. I wish I could be in Orlando to hear these two inspirational leaders discuss their views on the future of our field.

In other news, I would like to update you on the efforts of the "Decision Professionals Network." You may recall several past articles in

Decision Analysis Today on this emerging organization. Most recently, the last issue of Decision Analysis Today (December 2009) featured a summary of a panel discussion at the San Diego INFORMS meeting about building a decision analysis practitioner-oriented professional society. Since that meeting, the Decision Professionals Network has rebranded itself as the "Society of Decision Professionals" (SDP) and has begun to recruit charter members. It's great to see the SDP founders' energy and enthusiasm for promoting the profession of decision analysis. I know that there is a lot of support in DAS and INFORMS for their goals, but I worry that creating a new professional society may lead to confusion about the focus of our field and potentially divide our constituency. I tried to encourage the SDP leadership to work within DAS and INFORMS to accomplish their goals, but they have decided to proceed to develop an independent

organization. While they chose to go on their own, I look forward to our organizations working together in a spirit of cooperation to produce positive results for the field. I encourage practicing decision professionals who become involved with the SDP to remain engaged with DAS, where the interactions between academics and practitioners have been of great mutual benefit for all of us.

Finally, I encourage you to check out the new Decision Analysis Society website at

<http://www.informs.org/Community/DAS>

We have moved the old website to a new site that is hosted using INFORMS' new content management system. This new system will help us keep the website up to date and make it easy to add new content. If you have suggestions to improve the site, please let us know. **Jason Merrick** remains our webmaster; I am grateful for Jason's efforts in updating our website!

Editor's comments

This is an exciting issue. On the other side of this page, Rex Brown provides a fascinating guest column. Alec Morton takes us to the UK with his first full "DA Around the World Column" – a good read indeed. Robin Keller and Kelley Kophazi catch up us on recent abstracts from Decision Analysis. Hello there students, Karen Jenni's Ask DAS column is for you, and in this issue she describes what the INFORMS conference is all about, why you should go, and how you can get the most out of it. In Bill Klimack's DA Practice Column, Rob Brown and Gerald Bush describe the challenges and rewards of applying DA in small business settings. The DA in Education column is taking a short break, but please note its request for thoughts (RFT). Last, but far from least, Robin Dillon-Merrill and Jason Merrick have their first Ask About the Experts Column in which they share their insight on the question of whether to make experts accountable. Thanks so much to all and thanks to readers for your continued kind comments. – JK

Guest Column – Rex Brown

Is Decision Analysis the Best Way to an Ideal Choice?

Rex Brown

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It may be true that your ideal choice, in any situation, corresponds to the ultimate decision analysis of everything in your head. But is decision analysis that you can actually do the best way to get close to it? After a long career of consulting practice and methodology development, I have concluded that the answer is "usually not". Except that the right kind of training in DA can greatly educate your ability to reason informally and to draw on all kinds of decision aid.

In the 1960s, as a junior member of the original Raiffa-Schlaifer team, I was convinced (like many were at that time) that decision analysis¹—i.e. decision theory modeling—was going to dominate all decision-aiding. I moved to full-time decision consulting, interleaved with periods at academic institutions oriented toward behavioral, normative and applied decision science². Along the way, I interacted extensively with leading minds in these fields³, most recently in the context of an email discussion group⁴.

This essay reflects some of the decision-aiding philosophy that has evolved from this experience and which I now cautiously advocate [1]. DA still plays a significant role, but much more limited than I once thought. (DA pioneers I know have become highly

¹ I will be using terms familiar to DAT readers, but I replace some of them when communicating with broader audiences, e.g. "decision analysis" by "decision theory modeling", "expected" by "mean or probability-weighted, "utility" by "satisfaction", and "likelihood" by "diagnosticity"

² Including statistics at University College London, Psychology at the London School of Economics and management at Universities of Michigan and Cambridge and George Mason Universities.

³ Including collaborations with Dennis Lindley, Cam Peterson, Amos Tversky, Andrew Kahr, Stephen Watson and Jon Baron[3,4,5,6], and discussions with Howard Raiffa, Herb Simon and Amartya Sen. (I have no indication that any of them entirely share my current views!).

⁴ Included Danny Kahneman, Ken Hammond, Vicki Bier, Andrew Kahr, Jon Baron and Chengwei Liu. (I have compiled extracts from that correspondence, which I can share.)

successful executives, and never use DA explicitly⁵, but they claim to be indebted to their previous DA involvement).

The task of decision aiding

The basic task in aiding a decider D is to infer wise action from his (or her) “mind-contents”. These may include thoughts, feelings, anticipations, recollections, misgivings and sub-conscious activity—often quite jumbled—and may change at any time, with or without outside input.

The object is to get D from here to there”, where “here” is how D acts now and “there” is his ideal decision. Psychologists have done much to describing “here”, i.e. the nature of unaided decision processes and their flaws. Statistical decision theorists have done much on what constitutes the normative ideal of “there” [2]. However, there has been less progress on how to move from here to there.

I contend that, whenever D has a dilemma, he has some ideal⁶ choice, if he but knew it. Dennis Lindley has said “Inside every incoherent person there is coherent person struggling to get out”. This concept allows an analyst to consider separately the room for D’s decision to improve, and how much that might be reduced⁷. It is a controversial idea, but we all seem to talk as if we believe it. We comfortably say “D should know better than to do X”?⁸ Otherwise, it surely would mean we think D is making an ideal choice. This universal intuition persuades me there is something to it.

Statistical decision theory (SDT)⁹ offers a promising interpretation of ideal choice. If judgment is quantified as probabilities, utilities and option ranking, a coherent D should prefer that option with the highest probability-weighted average of outcome utilities. It does not,

however, specify how any incoherence should be resolved, or whether the direct and/or indirect choice should be adjusted.

Initially, different subsets of judgments may imply different choices and therefore be potentially incoherent. Ideal choice is a special case of “super-coherence”, where all possible judgments that characterize D’s entire mind-contents cohere¹⁰. For this to obtain, all mind-contents relevant to the choice must be quantifiable (e.g. as probabilities and utilities) and be reconcilable (with some kind of “best fit”¹¹). These conditions are more readily met for the factual than for value elements of choice.

D’s ideal current probabilities (factual judgment) could be determined by everything he has ever learned, by means of “ultimate” Bayesian updating. It does require positing priors and likelihood functions at birth, which are questionable, to say the least. However, I would expect the wealth of information normally accumulated over the years would swamp any plausible “prenatal” assessments.

The concept of ideal *value* judgments is more controversial. Psychologists argue that D does not have any inherent preferences, because they are constructed, not uncovered¹². However, stable preferences are not needed for ideal choice, only that they exist *at the moment of choice* (whether constructed or not). This is a much weaker condition, but by no means insignificant, unless there are tight bounds on constructed preference.

I contend that “spot” ideal choice, especially value, judgments are a “good enough” approximation for our purposes¹³.

Institutional choice. My argument so far refers to private decisions, although the motivation for institutional decision aid is greater, because the cost of

⁵ Including Kahr (prominent financier), Bob Glauber (Under-secretary of the Treasury) and Jackson Grayson (head of the Federal Price Control Board).

⁶ “There” may not be a precise spot, but rather a vicinity compact enough to be useful. Vicki Bier notes that, it would normally exclude dominated options, but I think the string can be drawn a good deal more tightly than that. This idea is analogous to using a compass to use a map, even though the exact location of magnetic north pole is somewhat indeterminate

⁷ Analogous to “perfect information” in research planning.

⁸ We more frequently hear “D should have known better than to do X”, but that assessment may be contaminated by hindsight.

⁹ Defined by the Savage axioms

¹⁰ Another Lindley saying is “coherence is all”.

¹¹ For example by characterizing initial judgments by how firm they are (say, as(second-order probability)[4,6]

¹² Kahneman: “How could an agent who is susceptible to framing effects have underlying coherent preferences?”

¹³ “There” may not be a precise spot, but rather a vicinity compact enough to be useful. Vicki Bier notes that it would normally exclude dominated options, but I think the string can be drawn a good deal more tightly. This idea is analogous to using a compass to use a map, even though the exact location of magnetic north pole is somewhat indeterminate

error is greater. (Indeed business is the main market for DA courses¹⁴). We can, of course, treat a manager as an individual D whose value criteria include institutional impact.

To say that an institution itself “has” an ideal choice, we must treat it as a “unitary actor” and be prepared to say things like “Ideally AOL would not have acquired Time-Warner”. It requires attributing values to an organization, which is certainly a stretch¹⁵.

Factual judgments would have to be attributed to a human assessor (such as a decision analyst), not to the institution.

Decision analysis as approximation to ideal choice

How does D get as close as possible to his unachievable ideal choice? If it is true that choice corresponds to a SDT model, the obvious route would be via decision analysis, i.e. an *achievable* SDT model. This would express D’s choice as a function of a selected sub-set of probabilities and utilities, *measured as best he can*. This is a weak test of “partial coherence” among part of D’s mind-contents and *could* be a step toward the super-coherence of his ideal choice.

In fact, virtually any informal line of reasoning that D would normally use to improve his choice can be represented as a DA model. For example, “projection” thinking focused on options, their outcomes and outcome utilities can be represented by a decision tree. “Analogy” thinking can be represented as a ratio of two probability distributions¹⁶.

The simplest as DA mode is a “singular” model: D equates his choice to model output, e.g. he picks the option with maximum expected utility. He could extract more from his mind-contents by comparing this with his unaided intuition and reconciling them, making this a

¹⁴ There was talk that HBS, the cradle of decision analysis, would be reintroducing decision analysis, after dropping it for several decades, but nothing has come of it.

¹⁵ Economist Amartya Sen argues against imputing value judgments to institutions, but agrees that revealed preference (such as laws requiring government to buy American unless 20% cost is saved) might imply something.

¹⁶ If D is considering buying a house, the informal reasoning version might be: “In the past a house like this would probably go for about \$300k. In the present downturn, I expect I could get it for about 20% Less.”

“plural evaluation”. Additional DA models can be added to such a plural evaluation, thereby extracting more material from D’s mind-contents.

In the limit, D will have used and reconciled enough alternative evaluations to incorporate all his mind-contents, but he will not arrive at his ideal choice unless all inputs are accurately elicited. Choice evaluation in practice, plural or singular, will fall short of ideal, because cost limits scope and inputs are mis-measured.

My and others’ experience convinces me that, even with plural evaluations, feasible decision analysis models usually fall shorter than some other decision processes, and often fall shorter than unaided intuition¹⁷. DA is subject to potentially crippling defects. It may only draw on a small part of what D knows and feel, and it may mis-measure what it does draw on. Moreover, the cost and training of competent modeling may just not be worth the effort.

The earliest developers of, adherents to and writers in DA (like myself), were convinced at the outset that decision analysis would become the universal decision aid of choice and would revolutionize decision practice. Many of us, some of whom have become highly successful deciders themselves, are no longer prepared to make such grandiose claims. Indeed we now advise Ds against using quantified DA explicitly on real dilemmas, unless the stakes are very high (as in some business and government decisions) and performed with rare skill.

Moreover, most decision processes that could be helped consist of a messy flow of incremental actions interleaved with evolving information. These processes are ill-suited to quantitative DA, which is designed mainly to help people to choose deliberately among specified options.

¹⁷ Danny Kahneman: “...around 1973 both Amos Tversky and I thought ... that DA would conquer the world. . . . I tried to implement a version of it for ... the Ministry of Foreign Affairs in Israel.... The abject failure of that effort was quite informative, and I have been skeptical ever since ... Relative to what we believed forty years ago DA has certainly failed. But of course many of the ideas of DA are part of good practice in decision making”. I have received similar comments from Stephen Watson, Art Schleifer and Richard Zeckhauser.

Other ways to approximate ideal decisions

The subset of judgments covered by DA draws on only part of D's usually messy mind-contents and may not be adequately elicited. As a result, the resulting DA model often does bring D any nearer to an ideal choice than his unaided intuition. Other decision aiding devices, alone or in combination (possibly also in conjunction with one or more DA models), may promise to bring D nearer to his ideal—and with much less effort.

Decision making approaches other than DA and that do not remotely resemble the SDT process that defines ideal judgment, might get D much closer and more cheaply to ideal choice. These approaches include spontaneous intuition, informal reflection, alertness to cognitive flaws, pattern recognition, heuristics, analogy to past successes and failures, “sleeping on it” and even pills to enhance alertness. They could be used singly or in combination, possibly including one or more decision analysis models, i.e. in plural evaluation.

Moreover, I believe that the quality of our actions depends on capabilities other than those required for comparing options, which is the distinctive province of DA. In particular, there is a greater need for:

- a. Carefully defining and enriching the set of immediately available actions.
- b. Understanding contingent choices available at subsequent decision points.
- c. Capturing the dimensions and scale of possible outcomes
- d. Focusing on key events and more accurately assessing their likelihood

DA for educating informal decision-making.

I do not disparage the importance of DA and, indeed, I give high priority to teaching it. Virtually all of us who have been deeply involved in DA value and use it for informal guidance. Robert Schlaifer, the initial driving force in the development of operational DA tools later characterized its main value as “mental hygiene”.

I also believe that training in SDT and its logic educates informal decision making.¹⁸ I am, in fact, developing a

course to help college students and laymen of all kinds how to make effective decisions that focuses on quantitative DA. Useful informal guidelines conform to the SDT logic of coherence, but are rarely arrived at in that form.

Critics of the decision-aiding strategy I am advocating fall largely into two camps: those who reject DA and other applications of decision theory, and those who whole-heartedly urge wide-spread use of DA as commonly implemented. As a pragmatic decision technician, not a scientist, my position is somewhere in the middle. I only need decision aid that is soundly based enough for practical purposes. As public policy scholar Granger Morgan has argued, good decisions depend on bad science [7]. I would welcome constructive feedback on these, no doubt provocative, thoughts!

References and Bibliography

1. Brown RV. *Rational choice and judgment: Decision analysis for the decider*. New York: Wiley. 2005.
2. Brown, R.V. Impersonal Probability as an Ideal Assessment based on Accessible Evidence: A Viable Construct? *Journal of Risk and Uncertainty*, 7:215-235, 1993.
3. Baron, J and R.V. Brown (Eds.), *Teaching decision making to adolescents*. New York: Lawrence Erlbaum and Associates, 1991.
4. Brown, R.V. with Lindley, D.V. *Reconciling Incoherent Judgments (RIJ) - Toward principles of personal rationality* McLean, VA: Decisions and Designs, Inc., July 1978. (NTIS No. AD A059639.)
5. Brown, R.V., Kahr, A.S., and Peterson, C.R. *Decision analysis for the manager*. New York: Holt, Rinehart, and Winston, 1974.
6. Lindley, D.V., Tversky, A., and Brown, R.V. On the reconciliation of probability assessments. *Journal of the Royal Statistical Society, Series A*, 1979, 142(2), 146-180.
7. Morgan MG. Bad science and good policy analysis. *Science*. Vol. 201.p. 971. Sept. 15 1978.
8. Watson, S.R., and Brown, R.V. The valuation of decision analysis. *Journal of the Royal Statistical Society, Series A*, 141, 69-78, 1978.

¹⁸Herb Simon observed that, although experts (such as chess grandmasters) normally decide by pattern recognition, they acquire their expertise as novices by deliberately comparing options (as in decision analysis).

Decision Analysis Journal

The *Decision Analysis* March 2010 issue...

Honoring Michael H. Rothkopf's Legacy of Rigor and Relevance in Auction Theory: From the Editors...

Robert F. Bordley, Elena Katok, and L. Robin Keller
<http://da.journal.informs.org/cgi/content/abstract/7/1/1>

Honoring Michael H. Rothkopf's contributions to decision analysis and operations research, the papers in this special issue in memory of Michael H. Rothkopf focus on auction theory, field data, and experiments.

TREES--A Decision Maker's Lament

Michael H. Rothkopf
<http://da.journal.informs.org/cgi/content/abstract/7/1/5>

We begin with Mike's poem (Rothkopf 2010 & OR 1980) on decision trees --- which remain one of the central and unifying structuring tools in both decision analysis and game theory.

Procurement Auctions for Differentiated Goods

Jason Shachat and J. Todd Swarthout
<http://da.journal.informs.org/cgi/content/abstract/7/1/6>

Managing Project Failure Risk Through Contingent Contracts in Procurement Auctions

Jianqing Chen, Lizhen Xu, and Andrew Whinston
<http://da.journal.informs.org/cgi/content/abstract/7/1/23>

In the spirit of Mike's stress on relevance and rigor, these first two papers focus on procurement auctions, which is an area of great practical importance that presents serious theoretical challenges. Most practitioners know that a buyer who only seeks the lowest possible bid potentially obtains a low quality supplier. Shachat and Swarthout (2010) and Chen et al. (2010) show how practitioners can successfully obtain both lower prices and higher quality through ingenious innovations in the design of procurement auctions.

Pricing Rule in a Clock Auction

Peter Cramton and Pacharasut Sujarittanonta
<http://da.journal.informs.org/cgi/content/abstract/7/1/40>

A Practical Combinatorial Clock Exchange for Spectrum Licenses

Karla Hoffman and Dinesh Menon
<http://da.journal.informs.org/cgi/content/abstract/7/1/58>

These next two papers, by Peter Cramton and Pacharasut Sujarittanonta (2010) and by Karla Hoffman and Dinesh Menon (2010), also focus on relevance by analyzing the uses of the clock auction design for spectrum auctions.

Auctioning the Right to Choose When Competition Persists

Ronald M. Harstad
<http://da.journal.informs.org/cgi/content/abstract/7/1/78>

Harstad (2010) analyzes bidder behavior in auctions in which heterogeneous items are sold simultaneously and bidders compete for the right to choose. It is a novel area for applying auction theory to an important and difficult problem.

Common Value vs. Private Value Categories in Online Auctions: A Distinction Without a Difference?

Peter Boatwright, Sharad Borle, and Joseph B. Kadane
<http://da.journal.informs.org/cgi/content/abstract/7/1/86>

Boatwright, Borle, and Kadane (2010) question the traditional distinction between common-value and private-value auctions.

The Impact of Online Auction Duration

Ernan Haruvy and Peter T. L. Popkowski Leszczyc
<http://da.journal.informs.org/cgi/content/abstract/7/1/99>

Haruvy and Popkowski Leszczyc (2010) use a carefully controlled field experiment to study an important and practical, but often overlooked, aspect of auctions: the effect of auction duration on the number of participants.



Optimal Static Hedging of Volumetric Risk in a Competitive Wholesale Electricity Market

Yumi Oum and Shmuel Oren

<http://da.journal.informs.org/cgi/content/abstract/7/1/107>

In the spirit of decision analysis's concern with risk, Oum and Oren (2010) study another topic that Mike considered to be of great importance—electricity markets. Oum and Oren analyze the optimal hedging strategy in markets with uncertain load.

Measuring Risk Aversion in a Name-Your-Own-Price Channel

Ali E. Abbas and Il-Horn Hann

<http://da.journal.informs.org/cgi/content/abstract/7/1/123>

Abbas and Hann (2010) focus on using auction information to assess risk preferences (in a decision analytic style).

Information Variability Impacts in Auctions

Justin Jia, Ronald H. Harstad, and Michael H. Rothkopf

<http://da.journal.informs.org/cgi/content/abstract/7/1/137>

We close the special issue with a note by Mike himself along with two colleagues. Jia, Harstad, and Rothkopf (2010) address how variability in the bidder's costs or valuations affects bidder profits and bid-taker revenues in auctions.



The *Decision Analysis* June 2010 issue...

From the Editors...

L. Robin Keller and Kelly M. Kophazi

<http://da.journal.informs.org/cgi/content/abstract/7/2/1>

Is Screening Cargo Containers for Smuggled Nuclear Threats Worthwhile?

Jason R. W. Merrick and Laura A. McLay

<http://da.journal.informs.org/cgi/content/abstract/deca.1100.0171v1>

*In a prior paper in *Decision Analysis*, Bakir (2008) developed a decision tree model on countermeasures to secure cargo at southwest US border entries. Merrick and McLay (2010) extend the analysis in Bakir (2008), by considering multiple objectives, multiple levels of screening, and the effect that screening has on discouraging terrorists.*

Decision-Focused Transformation of Additive Value Models to Improve Communication

Robert A. Dees, Matthew F. Dabkowski, and Gregory S. Parnell

<http://da.journal.informs.org/cgi/content/abstract/deca.1090.0168v1>

If a “global” multiobjective decision analysis model is constructed before specific alternatives are known, the ranges of the value measures may be much larger than the range of the actual alternatives. This would result in the overall additive values of the alternatives to seem to be relatively close, in comparison with the broad range of possible overall values. Dees et al. (2010) show how the global model can be transformed to a local value model, which uses the full space defined by the specific alternatives to distinguish between alternatives.



Valuing Multi-factor Real Options Using an Implied Binomial Tree

Tianyang Wang and James S. Dyer

http://da.journal.informs.org/cgi/content/abstract/deca_1100.0174v1

Wang and Dyer (2010) construct the binomial tree to be consistent with simulated market information. Their method provides an alternative approach to estimating the value of high dimensional real options and can be used as a capital budgeting method for projects with managerial flexibility.

Generalized Diagonal Band Copulas with Two-Sided Generating Densities

Samuel Kotz and Johan René van Dorp

http://da.journal.informs.org/cgi/content/abstract/deca_1090.0162v1

Copulas (joint continuous distributions with uniform marginals) have been proposed to capture probabilistic dependence between random variables. This paper addresses a specific type of copula, the generalized diagonal band copula, and provides an elicitation procedure and an application to a value of information example.

The Role of Some Functional Equations in Decision Analysis

Ali E. Abbas and János Aczél

Abbas and Aczél (2010) survey prior results and present new results on the use of functional equations to characterize utility and probability functions. This will be a valuable resource for mathematical decision theory researchers.



Decision Analysis is now included in the [Social Sciences Citation Index](#).

Decision Analysis is a part of [Articles in Advance](#) (AIA), where accepted manuscripts appear prior to printing:

<http://da.journal.informs.org/papbyrecent.dtl>

Decision Analysis archive available through Highwire Press:

<http://da.journal.informs.org>

For *Decision Analysis* subscription information and rates:

<http://www.informs.org/Journal/DA>

INFORMS DAS Members!

By special arrangement with the Decision Analysis Society Council,
dues-paying regular members of the DAS receive a subscription to the journal as part of their 2010 membership dues.

The DAS is a subdivision of INFORMS.

For information on DAS, go to
<http://www.informs.org/Community/DAS>

Decision Analysis is a quarterly journal dedicated to advancing the theory, application, and teaching of all aspects of decision analysis. The primary focus of the journal is to develop and study operational decision-making methods, drawing on all aspects of decision theory and decision analysis, with the ultimate objective of providing practical guidance for decision makers. As such, the journal aims to bridge the theory and practice of decision analysis, facilitating communication and the exchange of knowledge among decision analysts in academia, business, industry, and government. *Decision Analysis* is published in March, June, September, and December by the Institute for Operations Research and the Management Sciences (INFORMS) at 7240 Parkway Drive, Suite 300, Hanover, Maryland 21076. Please visit our website <http://www.informs.org/Journal/DA>

Upcoming conferences

- April 18-20, 2010
INFORMS: Practice Conference
Orlando, Florida
<http://meetings2.informs.org/Practice2010/>
- April 21-22, 2010
Decision Analysis Affinity Group (DAAG)
Orlando, Florida
<http://www.daag.net/>
- June 6-9, 2010
ALIO-INFORMS Joint International 2010
Buenos Aires, Argentina
<http://meetings2.informs.org/BuenosAires2010/>
- June 10-13, 2010
Behavioral Decision Research in Management conference
Pittsburgh, PA
<http://wpweb2.tepper.cmu.edu/bdrm>
- June 27–July 7, 2010
10th MCDA Summer School
Ecole Centrale Paris, France
<http://www.gi.ecp.fr/mcda-ss>
- July 11-14, 2010
EURO XXIV (24th European Conference on Operational Research)
Lisbon, Portugal
<http://www.euro2010lisbon.org/>
- October 24 - 27, 2010
The 32nd Annual Meeting of the Society for Medical Decision Making
"Evidence, Economics, and Ethics: The Future of Health Technology Assessment"
Toronto, Ontario,
<http://www.smdm.org/2010meeting.shtml>

November 7-10, 2010
INFORMS: Annual Meeting
Austin Texas
<http://meetings2.informs.org/austin2010/>

2010 SJDM meeting, St. Louis, MO., Nov. 19-22.
<http://www.sjdm.org/>

December 5-8, 2010
Society for Risk Analysis (SRA): Annual Meeting
Salt Lake City, Utah
http://www.sra.org/events_2010_meeting.php

June 13-17, 2011
Multicriteria Decision Making: The 21st MCDM Conference
University of Jyväskylä, Finland
<https://www.jyu.fi/en/congress/mcdm2011>

Professional news

From Steve Barrager (steve.barrager@gmail.com),

"The DAS group might be interested in knowing that I did a talk at the INFORMS Conference on Applying Science to the Art of Business in April, 2009. An expansion of the talk, "Framing our challenge: toward collaborative design," is available at www.BakerStreetPublishing.com Both the slides and a narrated version of the slides are available. Let me know if you would like more information."

If you have some news or information you want to share with the DAS, contact the editor. This could include: promotions or new positions, awards, book announcements, other accomplishments, or whatever rings your bell.

Calls for Award Nominations

2010 Ramsey Medal Nominations

The Ramsey Award Selection Committee is soliciting nominations for the 2010 Ramsey Medal.

The Frank P. Ramsey Medal is the highest award of the Decision Analysis Society. The medal is named in honor of Frank Plumpton Ramsey, a Cambridge University mathematician who was one of the pioneers of decision theory in the 20th century. His 1926 essay "Truth and Probability" (published posthumously in 1931) anticipated many of the developments in mathematical decision theory later made by John von Neumann and Oskar Morgenstern, Leonard J. Savage, and others. The Ramsey Medalists are recognized for having made substantial further contributions to that theory and its application to important classes of real decision problems. The Medal is accompanied by a \$1,000 honorarium.

Criteria for the Ramsey Medal

The Ramsey Medal of the Decision Analysis Society (DAS) is awarded for distinguished contributions to the field of decision analysis. Distinguished contributions can be internal, such as theoretical or methodological advances in decision analysis, or external, such as developing or spreading decision analysis in new fields. Thus the specific criteria for evaluating potential Ramsey Medal recipients are a candidate's

- Theoretical, methodological, and procedural contributions to decision analysis
- Applications of decision analysis
- Other contributions promoting decision analysis

- Exceptional contributions to the Decision Analysis Society

A potential recipient need not meet all of the criteria, but contributions to each criterion are relevant.

For this award, decision analysis is defined as a prescriptive approach to provide insight for decision making based on axioms that are logically consistent with the axioms of von Neumann and Morgenstern and of Savage. Key constructs of decision analysis are utility to quantify values and probability to quantify the state of one's knowledge. There are overlapping aspects of decision analysis with other fields such as behavioral decision research, probabilistic risk analysis, and engineering and economic analyses.

Where and When to Send Nominations

Nominations should be sent via email to the committee chair, Bob Winkler: rwickler@duke.edu. The deadline for nominations is May 10, 2010. A nomination should include a one-page summary of the nominee's contributions with respect to the award criteria listed above and an electronic copy of the nominee's vita or a link to one.

2010 Best Paper Award Nominations

Dear Colleagues:

We are asking you to self-nominate your research (an article or a book) that was published in 2008 for the Decision Analysis Society Publication Award.

For this award, nomination simply means that you are bringing to the attention of the committee a work of yours that was published in 2008. A one-line reference to the work will suffice.

We also welcome your recommendations of research work by colleagues published in 2008 that you found appealing and worthy of further consideration by the committee. Vigorous participation of the DA society

members is necessary for the award to be meaningful.

A formal statement of the award is given below:

Decision Analysis Society Publication Award: An award of the Decision Analysis Society

This award is given annually to the best decision analysis article or book published in the second preceding calendar year (i.e., calendar year 2008 for consideration in 2010). The award is accompanied by a plaque and a \$750 honorarium. The intent of the award is to recognize the best publication in "decision analysis, broadly defined." This includes, but is not limited to, theoretical work on decision analysis methodology (including behavioral decision making and non-expected utility theory), descriptions of applications, and experimental studies.

We look forward to hearing from you. Thank you for your input.

Best Regards,

Rakesh Sarin (Chair)

David Bell

George Wu

2010 Student Paper Award Nominations

Decision Analysis Student Paper Award

Submission deadline: **June 15, 2010**

The Student Paper Award is given annually to the best decision analysis paper by a student author, as judged by a panel of the Decision Analysis Society of INFORMS. Students who did not complete their Ph.D. prior to May 1, 2009 are eligible for this year's competition.

The award is accompanied by a plaque and a \$500 honorarium. The award will be presented and the winner will also be invited to present his or her paper at the DAS Awards Session at the INFORMS Annual

Meeting to be held in Austin, TX, November 7-10 2010.

All students doing work in or related to decision analysis (e.g., decision methodologies, experimental studies, and applications) are encouraged to submit a paper. The work must be predominately that of the student, though faculty members or other mentors can be co-authors if appropriate. The paper should be 30 pages or less (double spaced and 12 point font) and, if possible, in the standard format of Management Science or Operations Research.

If you are a faculty member who is supervising students, please inform them of this opportunity. If you are a student reading this, please encourage your classmates to submit a paper and to join the society. While we encourage applicants to join DAS, students do not need to be members to be eligible for the competition.

To be considered for this year's competition, please submit an electronic version of your paper (either MS Word file or PDF format) to the committee co-chairs at the address given below. The deadline for submission is June 15.

Erin Baker

e-mail: edbaker@ecs.umass.edu

Karen Jenni

kjenni@insightdecisions.com

2010 Practice Award Nominations

Please submit your best applications to the DAS Practice Award Competition!

The DAS Practice Award was established to recognize, promote, and publicize outstanding decision analysis practice. It includes a cash prize of \$750 and assistance in getting the work published in a suitable journal such as *Decision Analysis* or *Interfaces* if the winner so desires. Previous publication of the work does not preclude it from consideration for this award.

To enter, please send a brief summary describing a recent application of decision analysis and your involvement in it (please see below for contact information). Ideally, the summary should be about 2 pages long and describe the problem and its importance to the client company or agency; the decision analysis methods and/or models applied, including any unusual or innovative techniques; and what impact the application had on the client organization. The application **deadline is August 20, 2010.**

A committee including decision analysis practitioners will review and evaluate all submissions. Finalists will be invited to present their applications in a special session at the Fall INFORMS Meeting in Austin (Nov 7-10, 2010) and a winner will be selected after the presentations.

Evaluation criteria include a) importance of the problem, b) impact on the client's decision making, c) benefits to the client organization, d) use of decision analysis tools, e) quality of the analysis, and f) originality. The winner will be announced at the DAS Awards Session.

Please include with your submission the name, address, and telephone number of 1) the submitting decision analyst (specify one person to contact from an analysis team), and 2) a contact person at the client organization who is knowledgeable about the work and its impact from a managerial or user's perspective. Submitters are responsible for obtaining any company or agency clearances necessary to allow presentation of the work. Aspects of the application or results may be disguised as necessary to preserve confidentiality, provided that the material that is disclosed is sufficient to allow evaluation of the work. We encourage co-authored submissions where appropriate.

If you have any questions or a submission, please contact Eric Bickel (ebickel@mail.utexas.edu).

Decision Education Foundation

Make the Decision to Help Young People Learn Decision Skills

Young people are excited to learn about the power of good decision skills from Decision Analysis practitioners. Terry Karner, a volunteer who has worked with the Decision Education Foundation (DEF) knows this first-hand. Manager of strategy and corporate development at U.S. Cellular, Terry attended Strategic Decision and Risk Management courses at Stanford's Center for Professional Development. Convinced that sharing decision skills with young people is important, Terry offered to work with 7th graders at F.E. Peacock Middle School in Itasca, Illinois, a Chicago suburb. At Peacock, Terry used DEF materials to plan and present a decision-making workshop that complemented the school's "Character Counts" program. Terry's pro-bono presentation was so well received that he was invited to continue working with the same students, now in the 8th grade, on a community service learning project using decision skills.

DEF, a nonprofit foundation dedicated to improving the lives of young people by empowering them with effective decision skills, is currently seeking other Decision Analysis professionals interested in volunteer opportunities. There are many ways you can support our mission to improve the lives of young people by empowering them with effective decision skills. Giving presentations is one; telling local educators about us is another; becoming involved as a donor is another. Why not make a decision to help us spread the word, and the skills, to our youth? If you would like to become involved, contact Nadia Gardezy at (650) 475-4474 (ngardezy@decisioneducation.org) for more information. To learn more about DEF, visit www.decisioneducation.org.

DA Around the World

Alec Morton, Column Editor

Dedicated readers of this newsletter will recognise that this is a new column, replacing Martin Schilling's "International Decision Analysis". The general aims of this column in its new incarnation, "Decision Analysis around the World", will be to present a view of what is going on in the Decision Analysis community and its various sister communities, broadly conceived, beyond the confines of DAS and INFORMS. The general philosophy is that Decision Analysis rather being a monolithic, static lump of a discipline is a dynamic ever-shifting multicultural kaleidoscope in which the same foundational ideas and concerns are continually reorganising themselves into new and fascinating patterns.

The column could thus deal with decision analysts based outside the US, as did "International Decision Analysis"; but it could also deal with related professionals who do something like decision analysis but do not identify themselves as such; or it could deal with decision analysts who are partially affiliated with other communities, and attend other meetings, and wish to reflect on their divided status. My mental labels for these types of columns are "Decision Analysis at..."; "Decision Analysis and..." and "A Decision Analyst goes to...". If you fall into one of these categories and are interested in writing for this column, please do get in touch with me at a.morton@lse.ac.uk.

The first column in this series will be "A Decision Analyst goes the Health Economists' Study Group" and the decision analyst in question is yours truly. The Health Economists' Study Group (HESG) is a UK-based grouping with about 450 members mostly within the UK which has been operating since 1972. The stated aim of the Group is to "support and promote the work of health economists". Although it has a predominantly academic focus, members and participants include civil servants from the Department of Health, and employees of the UK National Health Service and various private sector specialist consulting and pharmaceutical companies.

The Group operates two meetings a year, attended by around 100 participants, of which the most recent, in January 2010, was held at the London School of Economics. The meetings have an unusual and attractive format. Abstracts are submitted in advance of the meeting, and authors whose abstracts are accepted have to deliver written papers some weeks prior to the meeting itself. Each paper has a one hour slot devoted to it. Authors *do not* present their paper: the assumption is that the attendees will have read the papers and prepared comments. Instead, an assigned discussant gives a 20 minute summary and constructive reflection on the paper. Authors have five minutes to respond to clear up misunderstandings, and then the floor is opened to a chaired general discussion. There are no published proceedings: the intention is that this is a forum for authors to get feedback on papers prior to submission to the main journals in the field (such as *Health Economics*, the *Journal of Health Economics* and *Health Economics, Policy and Law*).

The range of topics discussed is very broad. Topics may include, but are not limited to, economic analysis of the interactions between public and private sector players in health care, qualitative and naturalistic studies of decision making at various levels of the system, demand and financing projections for the UK and other healthcare systems, statistical methodology for interpretation of clinical trial data, proposals for and evaluations of institutional reforms within the healthcare system, and econometric studies with a focus on understanding healthcare dynamics and performance. The topics of most interest to decision analysts will probably be those relating to the use of healthcare cost-effectiveness analysis to support decision making. Economic cost-effectiveness analysis, whereby interventions are assessed on the basis of the ratio between their cost and contribution to health in the form of incremental Quality-Adjusted Life Years (QALYs), plays a prominent role in the UK system and this raises interesting issues relating to the measurement of health quality, the handling of uncertainty, and the incorporation of social values for concerns such as equity in the distribution of health, as well more technical issues related to the construction of disease models (see Gold, Siegel, Russell and Weinstein 1996; Drummond, Sculpher, Torrance, O'

Brien and Stoddart 2005 for an introduction to the literature). The “cost/ QALY paradigm”, although enshrined institutionally in the procedures of the National Institute for Health and Clinical Excellence (NICE, <http://www.nice.org.uk/>) continues to be a source of controversy, and dissident health economists continue to propose decision rules based on alternative philosophies (Cost-Benefit Analysis, the Sennian “Capability approach” and so forth).

Your columnist has attended three HESG meetings and found them uniformly very pleasant and useful occasions. There is a genuine sense of shared commitment to and deep knowledge of the UK healthcare system and the values of social solidarity which it embodies. Alongside this, there is a genuine interest in understanding how well the system is doing and how performance can be raised. From a scientific point of view, the format facilitates deep, reflective discussions about methodological and substantive issues, in a way which simply is not possible at meetings where four talks are crammed into a 90 minute slot. Readers interested in attending future meetings of the Group are referred to the Group’s website at <http://www.hesg.org.uk/information.php>.

References

Drummond, K. F., M. J. Sculpher, G. W. Torrance, B. J. O’Brien and G. L. Stoddart (2005). Methods for the Economic Evaluation of Health Care Programmes. Oxford, OUP.

Gold, M. R., J. E. Siegel, L. B. Russell and M. C. Weinstein, Eds. (1996). Cost-effectiveness in health and medicine. Oxford, OUP.



Ask About the Experts

Will you get better results if you make your experts accountable for their judgments?

Robin Dillon-Merrill & Jason Merrick

Robin: The answer is that “it depends”. Many decades of research on accountability are summarized in the article: J.S. Lerner and P.E. Tetlock, “Accounting for the Effects of Accountability,” *Psychological Bulletin*, 1999, 125(2): 255-275. In this short column, I will not cite all of the original sources for the findings, but direct you to this review article. Also all quotations are from the Lerner & Tetlock article.

Accountability is defined as “the implicit or explicit expectation that one may be called on to justify one’s beliefs, feelings, and actions to others” (p. 255). Accountability also generally implies that people who do not provide a satisfactory justification will suffer some type of negative consequences where for example in our case of expert elicitation, the negative consequences may simply be “disdainful looks” (p. 255).

One of the most relevant findings described in the paper for us is the difference between an individual who is held accountable to an audience with known versus unknown views. Numerous studies summarized in the review article show that when an individual is expecting to discuss his/her views with an audience whose views are known, he/she will strategically shift attitudes toward that of the audience, but when the audience views are completely unknown, people will think more critically and consider multiple perspectives on the issue, trying to anticipate the objections that reasonable others might raise. One study cited that supported this conclusion showed that when views of the audience were unknown, auditors in a high (versus low) accountability condition wrote more thorough justification for their decisions and were more likely to qualify their professional opinions. Thus, the conclusion would be that you would like

your experts to be held accountable but not aware of any prior beliefs or preferences of the decision maker in the decision situation. The challenge becomes that research also shows that the “unknown audience” manipulation fails to elicit “preemptive self-criticism” (p. 257) when participants think they can guess the views of their prospective audience. So you don’t want your experts to try to guess what may be considered the preferred “right answer.” Finally, it also matters whether participants know pre-assessment versus post-assessment that they will be held accountable. The general results show that “post-decisional accountability” prompts “defensive bolstering” (p. 257) in which people focus on rationalizing prior actions, in our case assessments, rather than reflect and consider other possible perspectives. In conclusion, experts that are held accountable for their assessment should think more critically and consider multiple perspectives when providing the assessments as long as they do not know the preferences of the decision maker, they cannot guess the preferences of the decision maker, and they know prior to the assessment that they will be held accountable.

Jason: The issue of accountability plays to two objectives that we have as analysts in eliciting expert opinions. First, we would like the expert to commit sufficient cognitive effort to the task, and not take a heuristic shortcut that could lead to the many known biases. The professed aim of making the expert accountable for his or her judgments is to achieve this first objective; there is a perceived reward for “being right,” so we hope they will commit significant effort to forming their judgment. Second, we would like the expert to provide their true judgment. If they are likely to attempt to game the judgment to achieve objectives beyond providing useful information to the analysis, then we instead obtain a tainted judgment. Robin’s discussion of the audience reveals that “being right” is really a social phenomenon of acceptance in a peer group, not a mathematical truth.

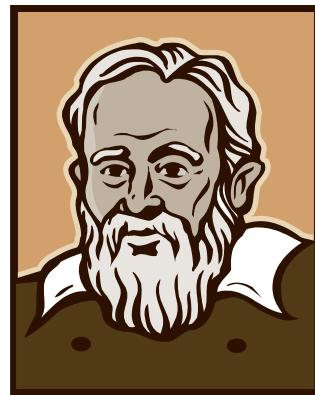
So what should the analyst do? The analyst’s choice is not as simple as make the experts accountable or not. Most decision analyses involve more than one expert. The list of experts can be published along with their

specific judgments and the result of aggregating the judgments. The list of experts can be published with just the aggregated judgments. The list of experts can be made private. In my own maritime risk studies, a number of experts provide judgments from each organization involved. These experts are representing their organization, so only the organizations are identified, not the individuals. Furthermore, we do not wish to provide justification to game the system by providing judgments that the organization might prefer, so we publish aggregated judgments.

Each analysis will have a different scenario, so our main advice is to consider motivation. Have you provided the expert with a strong motivation to provide a thoroughly considered and truthful judgment? Or are there other motivations that might drive their choice of answer? Who is the audience they are playing to if their name is made accountable?

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Aristotle

DA Practice

Bill Klimack, Column Editor

About the time this column is being published the 2010 INFORMS Conference on O.R. Practice will be held at the Hilton Bonnet Creek Resort, Orlando, Florida, on April 18-20, 2010. We have a strong decision analysis component. The talks are 50-minutes in length, so there is an opportunity to gain significant insight into timely DA projects.

The DA speakers we have lined up are:

- “Making Better Decisions through Probabilistic Thinking,” Patrick Leach, Decision Strategies, Inc.
- “Game Theory Yields New Insights to Decision Analysis in the Energy Industry,” Franklyn Koch, Chevron Corp.
- “Analytic Applications Opportunities in Sustainability,” Dwight Collins, Presidio College; Dauriush Rafinejad, Stanford University
- “Using Decision Analysis to Select Communications Research Projects,” Hal Wilson, US Government
- “A New Perspective for an Old Decision Analyst: How Things Can Change When a Life or Death Decision Hits Home,” Terry A. Bresnick, Innovative Decisions, Inc

Of course there are great talks in other areas as well. There is also a professional colloquium and a Soft Skills Workshop perfect for improving interpersonal skills needed in our profession. It's a great conference so I hope I will see you there. You can register or get more information at <http://meetings.informs.org/Practice2010/>.

The opportunities for professional growth of DA professionals continues as the INFORMS Practice Conference will be followed by DAAG 2010. It was recently announced that the keynote speakers will be Howard Raiffa and Ron Howard. Go to www.daag.net to register or for more information.

Our guest contributors for this column, Rob Brown and Gary Bush, share their experiences in consulting in smaller businesses. As they point out, small firms are a vital part of our economy, but have high failure rates. Years ago, a friend worked part-time as a consultant serving small businesses. His experience was that ORMS tools were very beneficial (he wasn't a decision analyst) and greatly assisted his clients. His clientele were mainly single-location family-owned businesses, and he found it very rewarding to help them.

Thanks to Rob and Gary for this issue's column. Please send your comments, suggestions, and, especially, offers to be a guest columnist to me at bklimack@kromite.com. You can help improve the practice of decision analysis! – BK

Small Business Decision Analysis: A View from the Trenches

Robert D. Brown III (Incite! Decision Technologies) and Gerald A. Bush (Independent Director)

A Not-so-hypothetical Scenario

On a rainy winter afternoon, the board members of Columbia Jewelry excitedly discussed the results they were hearing about their business. Even in a poor economy, they were pleased with their business's performance during 2009. Due to quick action to control expenses and a decision taken earlier in the year to delay store expansion plans, profits grew by 6% compared to a 40%+ decline in the rest of the retail sector.

As the board members talked about the next year, they put forth ideas to take advantage of their strong position in a weak industry. Also, they discussed the eventual transition out of the business by the founders in a few years time. As ideas swirled around, the group provided well-worn concerns about things they could not control that might put the business at risk. After all, the current systems and personnel were taxed to the limit just managing the existing stores. How could they ramp things up to grow significantly in 2010?

Using DA methods? Too complicated!

The literature shows that decision analysis (DA) can provide a consistent way to create insights into practically any decision facing uncertainty, whether taken by a large multinational corporation, a small private businesses or an individual. However, the practice of decision analysis has historically fallen to the upper end of the corporate spectrum. But, are the risks faced by the bigger entities really any larger relative to the size of the enterprise? Is a small business decision any less important or momentous to its owners? If not, why then have we not seen the wide application of decision analysis in the small business arena?

One explanation might be that there is a tendency to rely on the Founder's vision for key decisions. In a small business environment, some intuitive leaders can work wonders with a speedy uncomplicated process. They tend, then, to avoid any process they perceive that might impede that rapid, intuitive responsiveness. Nevertheless, when leaders do find themselves in want of additional guidance, they frequently feel as if they cannot afford sophisticated support resources (often hired from name brand consulting groups) or the time commitment they suppose is required. Consequently, if an intuitive decision does not work out down the road, leaders often respond that the failure probably occurred due to external factors outside their control. The self-justifying pattern then repeats.

Using DA methods? It works!

We recently enjoyed the opportunity to go "down stream" in order to provide DA support to a handful of smaller businesses. There we found that small organizations benefitted immensely from the process. Their leadership demonstrated the capability to participate in the process as well as any big company executive. In most cases, we found that the smaller risk tolerance made these leaders even more focused on making good decisions. They knew they had fewer opportunities to get things right and were working with a tighter margin for error on cash flow.

With Columbia Jewelry, the DA facilitator interviewed the owners and principals and then presented what he heard in a framework that any DA

practitioner would recognize. The ability to provide structure from so many different ideas, and to compare multiple alternatives side-by-side was quite an eye-opener for the group. External subject matter experts were used where information was not available in-house. The idea that a range of uncertainty was more insightful than assumptions and forecasts overcame years of non-productive arguments. Illustrating non-financial objectives in a hierarchy and quantifying the tradeoff of social responsibility and economic value, two key objectives of the company founder, surprised the decision team. It helped them select a strategy that balanced both objectives and created an energy that the business had not seen in a while. The founder agreed that she wanted to make the investments and stick around to help implement them. She felt much more comfortable that her baby would be in good hands producing the success she desired.

We also were encouraged that the leadership team expressed agreement that the investment they made in hiring a DA facilitator was worth it. The process had not taken much of their time, but the work provided compelling graphical insights they needed to chart their path forward as a growing business. What made the engagement profitable for the consultants was keeping things at a high level for insights and agreement, without taking forever to go through each step or getting bogged down in the details.

Can it be replicated with other small businesses?

In another recent example, we worked with a start-up company that finds technology within universities and sells it to businesses. They were struggling to make their original business model work, while seeking a new round of funding to keep the wheels on the bus. Investors kept asking why the group had gone through their first round without creating a viable revenue pipeline. How would things be any different this time?

Rather than get frustrated at having the definition of insanity pushed into their face, the leaders of the company asked who could help them develop a new business model to capture the value of an unmet need in this area, while overcoming the barriers they had encountered. The real issue we found was that they had not quantified their business model to know what

levers made the difference. The management team had also been operating with an overconfidence bias in their ability to sell their services.

A simple framing exercise helped them visualize how things really worked and a DA probabilistic model quantified the value of investing in the levers that had the most impact. Value of control was put to good use, first to reshape the business model, and then to overcome the barriers to change that exist in every business at any size. Best of all, the management team had a more informed understanding of the reason they needed the capital targets they sought and could discuss that target with potential investors with greater confidence and clarity.

Is this a real consulting business?

Small companies create the majority of the jobs and economic activity in the world, but they fail at an astonishing rate. The aggregate opportunity to provide support is huge. However, small business owners have a low tolerance for cumbersome consulting processes they think will take their people's time and attention away from "real work."

Our experience showed us, however, that if DA practitioners develop a trusted advisor role that is applied in a timely manner with the leadership of small businesses, then valuable insight and commitment to action occur at a higher rate than that in the unaided business. We offer the following construct to guide the practice of DA consulting to the small business. *You must be:*

- **Fast*** – provide a faster process cycle time and greater agility in conceiving novel and competitive decision strategies
- **Effective** – provide real insight and creativity to the leadership's thinking that resolve lingering doubts and controversies about the right things to do
- **Affordable** – deliver results at a price or schedule that overcomes sticker shock and limited capital capabilities
- **Simple** – make the "user interface" for results of analysis uncomplicated, graphically compelling and understandable to a range of educational backgrounds

- **Tiny-** don't require a huge footprint of internal resources and time to participate in the process

We remain open to learning whether a DA consultancy can thrive while serving small businesses. We do believe, that if DA practitioners can adopt the above structure, a field of business exists that can complement the support provided to larger clients. In fact, it may serve to inform the business experience at both ends of the spectrum with a healthy cross-pollination of ideas. Ultimately we hope it serves small business owners to enjoy their occupation longer in the manner they desire.

* Our thanks to USAF Majors Dan Ward, Chris Quaid, and Gabe Mounce, who first introduced the acronym FIST (Fast, Inexpensive, Simple, Tiny) as a system design heuristic in a series of five articles published in *Defense AT&L* between January 2006 and May 2008.

Robert D. Brown III is the President of Incite! Decision Technologies, LLC. Robert has devoted his seventeen-year career to providing solutions to his clients' complex problems by employing creative thinking and advanced quantitative business, engineering, and systems analysis. His experience spans diverse industrial and commercial fields including petroleum and chemicals, energy, utilities, logistics and transportation, pharmaceuticals, electronics manufacturing, telecommunications, IT, commercial real estate, and education. He may be reached at rdbrown@incitedecisiontech.com

Gary Bush is a founder and current board member of Decision Strategies, Inc. He has served clients in the oil, gas, chemicals, utilities, pharmaceuticals, medical devices, transportation and technology industries. Before founding DSI in 1993, he spent 15 years in the life sciences industry with responsibility for R&D, technology licensing and new venture development in the biotechnology and innovative medical device arena. Gary currently is a board director and strategy advisor for a number of businesses and the Georgia Tech School of Sciences. He may be reached at gabush@mac.com

Ask DAS

Karen Jenni, Column Editor

Students and the INFORMS Annual Conference

Introduced in the December 2009 newsletter, the “Ask DAS” column is intended to target the interests, needs, and questions of student members of the Decision Analysis Society. If you are a student member and you have a question about the field that you think might be interesting to other DA students, please send it to me and I will try to find some folks to provide, if not answers, at least some perspectives. If you are a faculty member or a non-academic practitioner just anxious to provide advice to your own or other students, we welcome that input as well. Please email questions and comments to: kjenni@insightdecisions.com

For this issue, we focus on questions student members have about the annual INFORMS conference

What is the conference like? The INFORMS annual conference is a large event; usually attended by several thousand people, with over 2000 technical presentations. The conference occurs over four days, with four technical sessions and two or more plenary sessions each day. The technical sessions are organized into subject and method-specific “tracks,” so that talks are grouped with similar talks. DAS will typically sponsor two full tracks, meaning that each day there will be about 8 sessions that are related to decision analysis theory and practice. Traditional sessions will consist of 3 to 5 individual talks on related topics; and the conference may also include sessions devoted to panel discussions of a particular topic. DAS also co-sponsors sessions with other subdivisions, in which the talks focus on the application of decision analysis to specific topical areas. At the 2009 conference, for example, we co-sponsored sessions with the Section on Energy, Natural Resources, and Environment (ENRE), the Military Applications Society, and the Health Applications Section. The technical talks span a wide range, from cutting edge theory to highly applied

work. To make a long story short, there is a lot to do at the conference and plenty to learn.

What are the benefits of attending? The annual conference provides a unique opportunity for students to get a broader view of the DA field, and of the OR field as a whole. Students often present their work in technical sessions, which lets you gain experience in presenting your work to technically savvy audiences who are not familiar with it, and to obtain feedback from an audience with a variety of perspectives perhaps not as readily available at your home institution. As a student, I found the greatest benefit of the conference was simply the ability to meet and talk with other decision analysts in a professional but relatively informal environment. It was fun to meet people whose papers I was studying and to hear about their current interests. Most folks at the meeting (even the so-called “famous” ones) are happy to talk with students about their work, so there is no need to be shy; just introduce yourself when you see an opening! Meeting and talking with students in other programs at other Universities was particularly enlightening. I have made several connections with other students and professionals at the conference that last to this day, and that have lead to some joint work. The conference was also helpful in making decisions about the next steps in my career, even outside of the more formal “job placement” and interview aspects of the conference. For example, are you looking for a post-doc? You can learn a lot about opportunities and pros and cons by talking to current students in the programs you are interested in. Considering a consulting career? You can see the kind of work DA consultants are doing through their talks in technical sessions, and learn about the ups and downs of consulting in conversation. It never hurts to have a resume and your contact information handy.

Are there student-focused activities? INFORMS itself generally holds a “Student Reception” on either the first or second night of the conference, providing an opportunity to meet and talk with other students and to compare notes on, well, on whatever! Advisors, theses, conference highlights, outside-the-conference activities, and so on. Rather than hold a separate social event for students, DAS encourages student members to attend the Society Business Meeting, which is

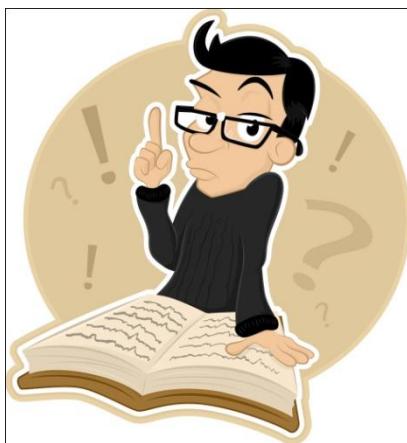
followed by an informal reception with casual discussions and interactions. (It's a conference highlight for many of us!)

How can I participate? This year's annual conference will be held November 7-10th in Austin, Texas (see the INFORMS website for details). You can submit talks through the INFORMS website, or directly to the DAS-sponsored "cluster" of talks. The DA cluster is being organized by Casey Lichtendahl and Jim Felli, and they welcome your submissions (for details, check out

<http://www.informs.org/Community/DAS/Conferences>

DAS also has a student paper competition, designed to recognize the best decision analysis paper by a student author each year. The winner receives a small cash award and the opportunity to present the work in the DAS Awards session at the conference. For those of you who are nearing completion of your thesis (or any other significant piece of work), we encourage you to look at the announcement in this issue of the DA Today (p. 11) for some details on how to enter your paper.

And as a final note, DAS offers several small student travel awards each year for student members who are presenting at the conference. Details of how to apply for this award will be posted to the DAS bulletin boards and/or in a future issue of DA Today.



DA in Education

Ali Abbas & Patrick Noonan, Column Editors

The DA in education column is taking a holiday this issue. We'd like to get a head start on the column for the next issue, when we plan to consider the use of software in DA education (as opposed to or in addition to use of pen-and-paper type calculations). Are there some areas where pen-and-paper are more effective? Are there some parts where pen-and-paper and software are equally effective but the former doesn't require as much investment? When does the software help in teaching concepts, and to what extent is learning the software an objective itself? What are the pros and cons of using the different packages out there? And how do all these questions depend on the context – the class (intro management science vs. fully DA, the students (undergrad vs. grad, engineering vs. business), etc. Please send us any thoughts you have on this matter, and we'll build on them for our next column.

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DA Practice: Bill Klimack, Kromite Consulting.



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