



SOCIETY OF DECISION
PROFESSIONALS
Clarity & Insight for Decisive Action

NEWSLETTER

Issue 7

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President's Message by Ellen Coopersmith



Our Growing, Connected DQ Community!

As we start this year with our annual conference on the horizon, we have many things to be excited about. This year's conference in Vancouver already has more than 75 people registered two months out and the four half day courses ahead of the conference are very well subscribed. The program is excellent. We have two very different and compelling keynotes and the conference logistics will be set up for continual sharing of ideas with discussion tables and posters on councils, chapters, strategy, community outreach and learning. I urge you to check it out and consider [registering](#) if you have not done so already. Many of us will be there and look forward to reconnecting with you and your colleagues ...in a beautiful part of the world, no less.

Where are we heading? We're getting the word out on DQ on many levels. Believe it or not, we now have three local chapters! Houston is entering its fourth year, Calgary is up and running and Seattle just held their first "meet and greet" to decide what they want to be. The SDP chapter strategy sub-team is working furiously to provide a chapter launch kit and ultimately connect the chapters so that they can benefit from each other as they decide what they want to do in their local meetings. On the horizon, other locations, such as California, Vancouver, Portland and others, are considering if and how forming a local SDP chapter might be enjoyable and beneficial to them and their communities. What does all this mean? People in multiple cities around the world are meeting regularly - monthly or quarterly and talking, sharing and practicing DQ...In more and more locations, it's no longer a once a year occurrence to do this outside of our own business practices. Wow.

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All in all, I see our global SDP role as that of an enabler. We enable DQ to broaden and connect people practicing and growing DQ principles with others across the world and within their own cities – both in industry as well as in the community. This viral approach grows DQ awareness and practice organically – from leaders to project teams. To that end, some chapters will be hosting several types of events locally and inviting others to come and share learnings and expertise. Together, we're spreading the word naturally.

Meanwhile, our strategy sub-teams are just now working through how SDP can best enable all this connectedness. They are working on how best to share DQ learnings, reach out to communities, help non-profits, educate and communicate. Basically, how to bring a "broader swath" of the population into the DQ fold. Exciting times with lots of clever ideas! Watch this space. Join the councils. Help make this happen.

Your friend and colleague,

Ellen M. Coopersmith

Upcoming Events



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- [DAAG 2018 – Register HERE](#)
Coast Coal Harbour Hotel
Vancouver, Canada
April 11 - 13, 2018

- Webinar: [Robust Portfolio Decision Analysis for Decision Making under Deep Uncertainty](#)
Wednesday, February 21, 2018,
8 am PT | 11 am ET



[40th Annual North American Meeting](#)
October 14-17, 2018
Montreal, QC, Canada

Do you know of upcoming professional events that might be of interest to other SDP members? If so, please email the SDP newsletter at newsletter@decisionprofessionals.com



SDP Council in Focus: Awards Council

Sandy Wrobel, Chairperson

COUNCIL CHARTER	<p>The Awards Council is responsible for creating, maintaining, and continuously refining an awards portfolio established to recognize the outstanding contributions of its members and fellow practitioners, large and small.</p> <p>The awards portfolio includes the esteemed Raiffa-Howard Award for companies successfully implementing Organizational Decision Quality and numerous SDP-focused awards such as Council of the Year, Volunteer of the Year, and Recruiter of the Year.</p>
COUNCIL MEMBERS	<p>Chair: Sandy Wrobel</p> <p>Team: HELP ME PLEASE!</p> <p>The council is actively looking to expand (!) its membership and would welcome members interested in defining and managing the SDP awards portfolio.</p>
ANNUAL OBJECTIVES	<ul style="list-style-type: none">• Assess satisfaction with current award portfolio and identify award improvement/change needs• Identify and define new awards for SDP Board consideration• Manage development and roll-out of agreed award portfolio• Present awards at annual DAAG meeting
NEAR-TERM COUNCIL ACTION ITEMS & SUPPORT NEEDS	<ul style="list-style-type: none">• Interview existing award managers to agree on 2018 award preparation support needs and identify 2019 award improvement/ change needs• Identify potential new awards and develop award structure and process recommendation for SDP Board approval• Present award portfolio recommendation to SDP Board for decision and agree on appropriate award sponsor• Work with award sponsors to finalize 2018 awards• Coordinate award presentation at 2018 Annual DAAG Meeting

IF YOU WOULD LIKE TO BE PART OF THIS EMERGING POWERHOUSE COUNCIL, PLEASE CONTACT SANDY WROBEL AT SJWROBELCONNECT@GMAIL.COM FOR IMMEDIATE PRAISE AND ACTIVITY ASSIGNMENT!





Spotlight on SDP Member Katie Catlett

In every issue of this newsletter, we turn the spotlight on a randomly-selected member of the SDP to learn more about that member's life as a decision professional.

The editors



Katie Catlett can trace her path to becoming a decision professional all the way back to her childhood. Both of her parents were professional educators and, in raising their children, they emphasized the importance of critical thinking in all aspects of life. Katie remembers that her father, when helping her decide which college to attend, told her that getting clarity in her own values was essential to making a good choice.

Katie went on to earn bachelor's and master's degrees in mathematics and a PhD in soil chemistry. She then joined the consulting firm Neptune and Company where she remains today, describing her role as Environmental Scientist. One of her main responsibilities is the probabilistic modeling of radioactive waste disposal strategies. The goal is to identify the strategy that produces the optimal combination of cost-effectiveness, environmental and health impacts, and meeting regulatory limits. In doing this work, Katie has become increasingly involved and interested in the realm of decision analysis and decision quality (DA/DQ). She finds it satisfying to be able to build models that explicitly include ranges of uncertainty in key drivers rather than having to put in "conservative" single-point input values. Such probabilistic modeling allows her to shed light on which processes within a complex system have the biggest impacts. She also finds satisfaction in working as part of a team to uncover answers to technical questions that were not apparent beforehand, exploring such questions as: "Why do we see the results that we see? Do they make sense?"

Katie currently serves on the Board of Directors of Neptune and, in that role, is interested in moving the company toward further development of their DA/DQ tools and using DA/DQ methods in important new areas, such as climate change adaptation for the agricultural industry, municipalities and other government bodies.

Chief among the challenges that Katie faces in her role as a decision professional is in helping people who are interested in DA/DQ concepts but feel they do not have the time to fully apply them to solve the problems that they face.

Katie became a member of SDP a couple of years ago and appreciates how the Society has helped her grow in understanding of DA/DQ, particularly in how to set up and structure problems. She loves the webinars and looks forward to more deeply exploring the resources on the SDP website.



Dear SDP Fellows: A range of uncertainty has a well characterized process for its quantification, but what is the difference with a “risk” and how can we clarify and quantify a risk? They get thrown around as warning flags all the time, but which ones are material?

The Fellows discuss the lack of clarity in the use of the term “risk”

Part of the problem is that everyone uses different definitions for “risk” (Jim Murtha spent about ten years trying to get the oil & gas industry to agree on one before giving up – and that’s just a single industry). Some people use “risk” synonymously with “uncertainty” (which would mean it also has upside potential), some use it to mean a “chance” variable (i.e., something that may or may not happen, as opposed to something with a range of possible values), some people think of it as the probability of financial loss combined with the potential magnitude of that loss, and to some people, “risk” is essentially the possibility that something bad (anything bad) may happen.

By “risk” people generally mean the chance of a bad outcome. Nobody says they have a “risk” of winning the lottery. But I have heard many people refer to the “decision-and-risk timeline,” where the “risks” referred to are actually uncertainties with upsides as well as downsides. I have also met with clients who talked about how they needed to recognize the “opportunities associated with risks, not just the dangers.” I have heard clients define “risky” projects as ones with a wide range of possible outcomes. In all cases, they are confusing (or maybe conflating) risk with uncertainty.

Too often I see risk misunderstood as " a bad thing to avoid" rather than an "opportunity to be captured, but maybe missed if you don't recognize it". So, we often talk about the range of outcomes in our uncertainty discussions; but less often talk about the range of outcomes for a given uncertainty based on our choices about how to deal with that uncertainty/risk. So, the uncertainty of a coin flip is clear; the risk of choosing to play or not, to pick heads or tails, to hedge your bet, etc. - that's not often discussed.

And the Fellows offer various views on how to incorporate risk in the analysis of decisions

It is not true that, by default, decision trees assume risk neutrality. That may be how some use them, but there is no theory that admits multiplying probabilities and dollar amounts to determine the best alternative.

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If you have a question for the SDP Fellows about good practice among decision professionals, please send it to us at [SDP Newsletter: Ask The Fellows](#).



Ask the Fellows, continued from page 5

The probability and magnitude of financial loss can be quantified using tools like decision trees and Monte Carlo simulation, but decision trees by default assume risk neutrality on the part of the decision maker, which may or may not be the case. In my experience, incorporating one's risk tolerance into a complex decision is a discussion, not a calculation. There are just too many dimensions to "risk" to try to reduce it to an algorithm – loss of reputation, feeling pangs of regret for an opportunity missed, undermining the investing public's confidence in your abilities, etc. This is especially true if the risks involved go beyond financial risks.

It is quite easy to put utility curves into decision tree calculations once the measurable quantity that has uncertainty associated with it is defined and a risk profile of the decision maker is assessed. The multi-objective form allows for utility functions for multiple objectives.

When possible, I prefer quantifying the uncertainty of the outcome and then using a utility function to take risk tolerance into account. There are times when this does not get at the underlying risk aversion and a discussion brings it out. Sometimes that could lead to different scenarios if a probability cannot be assessed.

The following SDP Fellows contributed to answering this question: Eric Bickel, Gerald Bush, Jack Kloeber, Frank Koch, and Patrick Leach.

Brain Teaser

Answer to December Brain Teaser

The correct answer to the brain teaser posed in the December issue is that the probability that a triangle can be formed by three pieces of a stick broken at two randomly chosen points is 25%. A full explanation of the answer can be found by [clicking here](#). Sadly, no one submitted the correct answer to this brain teaser.

THE FEBRUARY BRAIN TEASER

Instructions: You can win “bragging rights” by being the first to submit the correct answer of this brain teaser to the newsletter editors ([SDP Newsletter: Brain Teaser](#)). We will announce the winner in the next issue.

Sequence

What is the next number in this sequence?

1

11

21

1211

111221

312211

Useful Links

The SDP Board has posted the Society’s Bylaws and Policy and Procedure Manual, which can be found at: <http://www.decisionprofessionals.com/about/governance>

The SDP Knowledge Sharing Council maintains a Fellows Blog at: <http://www.decisionprofessionals.com/?scrollTo=blog-news#blog-news>

A listing of courses in decision analysis available to SDP members is at: <http://www.decisionprofessionals.com/courses/training-program>

A Word From an SDP Sponsor

In every issue of this newsletter, we include a message from one of the SDP sponsors, whose support contributes significantly to the on-going success of the Society.



Chevron is a charter sponsor of the Society of Decision Professionals. Chevron deployed decision analysis in the early 1990s. Currently we have almost 200 decision analysts (DAs) based around the globe. Chevron business units engage in exploration and production of crude oil and gas (the “upstream” in the business) and have internal decision analysis teams. Two groups of decision analysis consultants also provide support, one with an upstream focus and the other focusing on the “downstream” – refining and product sales. Most of decision analysts are involved with major capital projects, but some groups support commercial organizations and business units involved in managing pipelines, power generation, environmental issues, and real estate.

Decision analysts are involved in projects from opportunity framing through presenting results for analysis of alternatives. The skills they need cover the spectrum from interpersonal “soft” skills to “hard” technical analytical skills. They also get involved in and seek to improve and assure all elements of decision quality (DQ).

Decision analysis is a job family in Chevron. Most decision analysts initially work in other functions within Chevron, such as petroleum engineering, earth sciences, or business and commercial roles. Many decision analysts stay in the job family for their entire career. Others work as a decision analyst for a single multi-year posting, and then return to their former function with excellent DA and DQ skills. This makes them informed consumers of DA work and aligned in the pursuit of DQ.

Over a dozen internal classes are available to develop the skills necessary to achieve high decision quality. We also host an annual internal conference that contributes to professional development and networking. We develop and maintain our own decision analysis software. This allows us to tailor the software for our use and get a wider distribution of users, well beyond the decision analysis community.

In the past few years Chevron has been recognized with several DA/DQ-related awards. In 2010 Chevron received the Decision Analysis Society’s Practice Award. In 2014, Chevron received the Raiffa-Howard Award for superb organizational decision quality. Chevron received the INFORMS Prize in 2015, recognizing repeated application of the principles of advanced analytics in pioneering, varied, novel, and lasting ways.