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The newsletter of the INFORMS Decision Analysis Society

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President's Letter

Emanuele Borgonovo



Dear DAS Members, dear Friends,

I hope this letter finds you well and safe. I am writing this message with a bit more emotion, as this is the last letter of my term as DAS president. Two years have passed by already, at lightspeed. It has been a very intensive time for our society and us all. The COVID-19 pandemic has revolutionized our lives in 2020. It has forced us to communicate and stay together differently than in the past. However, these two years have been as lively and active for the DAS as ever. We have created a new webinar series, which has hosted exceptional speakers that have guided us through the fascinating recent developments of our discipline (see below for more details). And many speakers have yet to come! We have had a successful 2021 INFORMS annual meeting, although held mainly online. And we have had a super successful Advances in Decision

Analysis Conference, ADA 2022. The conference has been hosted at the wonderful Washington DC campus of the Darden Business School in Arlington VA. On behalf of the whole DAS, let express the warmest Thank You to **Yael Gruschka-Cockayne** and **Manel Baucells** for their wonderful job as hosts of the event. A warm thank also to **Max Henrion** and **Lumina**, as well as to the **Darden Business School** for their financial support; and let me extend these thanks to the several DAS members that have taken part in its organization in the scientific and in the organizing committee: They are too many to be listed here, please find their names at <https://connect.informs.org/das/events/ada2022>. ADA 2022 has hosted three exceptional keynote speakers:

Dr. Alex Imas, Behavioral Science and Economics, Vasilou Faculty Scholar, University of Chicago, Booth School of Business, <https://www.chicagobooth.edu/faculty/directory/i/alex-imas>

Dr. Lauren Meyers, The Cooley Centennial Professor of Integrative Biology and Statistics & Data Sciences at The University of Texas at Austin, <http://www.bio.utexas.edu/research/meyers/LaurenM/index.html>

Dr. Ariel Procaccia, Gordon McKay Professor of Computer Science at Harvard University, <http://procaccia.info/>.

It has also hosted a special panel to honor the memory of Professor **David Schmeidler**, who passed away on March 17, 2022. Professor Schmeidler has given enormous contributions to decision and game theory. Let me thank **Manel Baucells**, **Itzhak Gilboa**, **Massimo Marinacci**, and **Peter Wakker** for forming a marvelous panel of speakers. Their contributions have made this panel an invaluable occasion to get us better acquainted not only with David's scientific work and thought, but also with him as a colleague and friend. The online presence of David's wife and daughter has made the event even more intense.

The period October 2021-September 2022 has also been an intense year in terms of new initiatives for our society.

1. DAS Dei Committee: Officially in December 2022, we have established the DAS Diversity, Equity, and Inclusion (DEI) committee. The DEI bylaws foresee this committee as a permanent one in our society. Let me report here an excerpt of the bylaws for your convenience:

The Decision Analysis Society hosts a permanent Diversity, Equity, and Inclusion Committee, hereafter referred to as the DEI committee. The DEI committee advises DAS leadership on initiatives that promote the work and voice of historically marginalized groups, that enhance cultural competence of the society, and that ensure equitable access to society opportunities. The DEI committee conducts an annual survey of the DAS Society membership on Diversity, Equity and Inclusion issues. Highlights of the results of this survey are presented at the DAS Business Meeting each year. (...).

The DEI committee members are determined as follows:

a) A DEI committee coordinator, a DEI committee coordinator-elect, and a past DEI committee coordinator. These positions are determined by elections. Each position lasts one-year. Overall, a coordinator will serve on the committee for a three-year term, taking first the role of coordinator-elect, then of coordinator and then of past coordinator.

b) Any DAS member who volunteers to run for the elections will be part of the committee, although the election will designate the coordinator elect.

Let me warmly thank our current members, **Andrea Hupman**, **Gul Okudan-Kremer**, **Allison Reilly**, **Amy Russ**, and **Jun Zhuang** for the intense work they are doing for the DAS DEI committee!

Please feel free to volunteer at any time!

2. Webinars. We have had several exciting webinars. Let me thank all our speakers: **Galit Shmueli** in early October 2021, **Ilia Tsetlin**, on December 2nd, 2021, **Yael Gruschka-Cockayne**, in January 2022, and **James Dyer** and **James Smith** on April 6th, 2022. In March we held a special webinar on Diversity Equity and Inclusion, with Catherine de Vries, as a speaker and the participation also of Anahita Kohiandi and Susan Martonosi.

In case you missed them, the recordings are available online at <https://connect.informs.org/das/events/webinars>.

However, please do not miss our next Webinar on September 23rd, with Professor **David Budescu** as a speaker. Let me thank David in advance for his availability to join us in our webinar series.

3. DAS Video Initiative: Later in the newsletter, you will read about an initiative promoted by **Johannes Siebert**.

On the webpage, you will also find the recordings of the wonderful joint DAS-SDP webinar with **Johannes Siebert** and **Ralph Keeney**.

4. Awards. The work on the awards has proceeded steadily. Let me warmly thank **Jay Simon** and **Aurelien Baillon**, for their work on the DAS Best Publication Award, **Mehmet Ayyaci** and **Sasa Zorc** for their work on the DAS Best Student Paper award, **Karen Jenni** for her work on the Ramsey Medal award, **Gilberto Montibeller** and **Nadia Papamichail** (DAS), for their work on the DAS-SDP practice award. Please also let me also thank all the judges of all our committees that have worked hard and professionally to make this year's awards possible: My warmest congratulations to all winners!

5. Elections. This year we will have elections for the following positions:

- 1) DAS President-Elect
- 2) DAS Council (2 positions)
- 3) Treasurer
- 4) DEI Committee Chair and Chair-Elect (2 positions)

6. INFORMS Annual Meeting 2022. One occasion ahead of us to meet in person is the INFORMS Annual Meeting. Thanks to the fantastic work of our INFORMS DAS session chairs **Eric Specking** and **Jun Zhuang**, we will have a breathtaking program rich in DAS talks and flash sessions. As usual, on the Monday of the INFORMS conference, we will also have an intense award session and a wonderful Business Meeting, with a fantastic reception at the end: you are all welcome, I hope you'll be able to join us in person!

Let me also thank and congratulate our two members **Enrico Diecidue** and **Matthias Seifert** on their wonderful initiative, the European DS Seminar Series, devoted to Ph.D. students and researchers in the decision sciences, which integrates well with our webinar series and with the joint webinar series between the DAS and the Society of Decision Professionals.

As this is my last newsletter, I have some further thoughts to express (apologies that it becomes longer than usual). First, a thank you to our journal editor, **Vicki Bier**, for her incredible work on the Decision Analysis journal, and a thank you to all our editorial board members. Also, many thanks go to **Don Kleinmuntz** for his donation that has established the Kleinmuntz-Clemen award for the best paper in the Decision Analysis journal. Let me thank for their work all our area editors and editorial board members at the INFORMS journals, Operations Research (**Jim Smith**) and Management Science (Manel Baucells and **Ilia Tsetlin**) as well as at all the many decision analysis journals all over the globe.

The second thought is a heartfelt “Thank You” to all our leadership. Your work and support in these two years have been exceptional: **Andrea Hupman**, **Ying He**, **Valentina Ferretti**, **Kara Morgan**, **Allison Coffee Reilly**, **Nadia Papamichail**, **Asa Palley**, and **Jonathan Welburn**, thank you for the wonderful cooperation! I will always remember the always serene and constructive council meeting!

Many special thanks to our exceptional treasurer, **Dharma Kwon**: Dharma, thank you for the time you have devoted to DAS during these 3 years of service in this critical position for our Society!

And additional thanks go to our past president, **Karen Jenni**, who, besides taking on her responsibility as chair of the Ramsey award, is also helping DAS in a key communication role, and to our incoming president, **Yael Grushka-Cockayne**: All the absolute best for your next two years as DAS president: Go DAS and Go Yael!

The third thought is a heartfelt thank you to all of You, for your trust and for allowing me to serve the DAS during these two wonderful years. They have been unique, professionally and personally. The DAS is a society of colleagues who have an infinite passion for our discipline and whose energy makes it the center of excellence for one of the most important activities in our lives. Making decisions is hard (as the title of the monograph of our Ramsey Medalist Bob Clemen suggests) and, borrowing a sentence from Laplace, Decision Analysis is a “refreshing supplement for the feebleness of the human mind”. To any young colleagues starting a career in the management sciences, I would warmly suggest joining the DAS. They will find a wonderful home for their personal and professional growth.

Finally, a warm thank you to **Andrea Hupman**, for her work and leadership on the newsletter, as well as to all authors that have contributed to this issue.

Looking forward to meeting many of you personally in Indianapolis, I send you my best wishes for a safe and productive end of the year 2022!

Emanuele

Prof. Emanuele Borgonovo (PhD, MIT)

President 2020-2022, INFORMS Decision Analysis Society

Letter from the Editor

Andrea Hupman

Dear reader,

I hope this newsletter finds you well! I want to begin this letter by first extending a warm thank-you to **Emanuele Borgonovo** for serving as DAS President through these past few extraordinary years. The society has weathered the pandemic well, due in no small part to your leadership.

I would also like to highlight an INFORMS video showcasing the Decision Analysis Society in which Ashley Kilgore interviews Emanuele about DAS. He represents the DAS very well. If you have not yet seen it, the link is below.

<https://www.youtube.com/watch?v=62ElfHUn70Y>

This issue of the newsletter is full of information from the past year as well as position statements and bios as we look forward to elections of new leadership for the years to come.

I am pleased to extend a hearty congratulations to all the award winners from the past year!

This newsletter also shares two initiatives: (1) a video platform initiative to share decision analysis content more widely and (2) a call for guest editors of a research column in this newsletter. These are great opportunities to share your passion for decision analysis with the community.

This issue also contains two excellent columns. In DA Practice, Pat Leach reflects on Annie Duke's book, *How to Decide*, with six interesting insights. (I am not giving away what they are; you need to scroll down to the column.) In DA Around the world, Chen (Mavis) Wang and Shijith Kumar examine decision analysis related employment in different companies. The column includes data they collected and that you will not find elsewhere.

I want to extend a large thank-you to all the column editors, **Pat Leach, Chen (Mavis) Wang, Shijith Kumar, Florian Federspiel, and Michael Gerst**. This newsletter would not be possible without your ongoing service to the community to share insights and analysis with DAS.

Best regards,

Andrea Hupman

Supply Chain & Analytics Department
University of Missouri-St. Louis

Nominations for DAS Positions

Candidates for VP/President-Elect



Robin Dillon-Merrill,

Position Statement: It is an honor to be considered to serve as the VP/President Elect for the Decision Analysis Society. I have been an active member of the DAS since the 1990's. I have supported the society during that time in many roles. I organized DA session tracks for the conference in 2000 and 2003. I also served as the DAS Treasurer from 2002-2006. I served as the chair of the publication award in 2012 and 2013. I was the local chair for the Advances in Decision Analysis conference that we held at Georgetown University in 2014. Additionally, I have been an Editorial Board member for the Decision Analysis journal since 2004 and an Associate Editor since 2012.

If elected, I will work to address what I see as our current biggest challenge: promoting and enhancing the reputation of the Decision Analysis (DA) journal. Our journal has had great success in recruiting amazing talent to serve as Editor-in-Chief (Bob & Don, Robin, Rakesh, and now Vicki). But promoting the journal takes a community, our community. I would like to see the DAS leadership (officers and council) working closely with the journal's leadership (EiC and editorial board) in a combined effort to promote the visibility of decision analysis and the journal.

I would like to see DAS events developing a pipeline of research for the journal. I would like to organize more DAS-sponsored webinars promoting research that will ultimately result in highly impactful submissions for the journal. We should also have webinars highlighting the best research that is being published in the journal such as those papers being recognized by the Clemen-Kleinmuntz best paper award. More promotion of these papers should enhance citation counts. I also envision using DAS social media channels to promote research in the journal to enhance citation counts. (I know Vicki is doing some of this, but again, it takes a community.) Additionally, the journal has not successfully bridged the research and practice communities with relatively few papers focusing on applications. In the last few years, the DAS' relationship with the Society of Decision Professionals (SDP) has expanded greatly. Now we need to follow through on how to convert this success to more journal submissions of interest to the SDP/practice community.

When Georgetown University loaned me to serve as an NSF program director from 2017-2019, I was given some good advice. You only have two years, so pick something where you can have an impact and focus on that. I feel like that advice applies here too. If elected, I want to focus on using the DAS community to aid the leadership of the DA journal to meet the joint objective of enhancing the reputation of the DA journal.

Biographical Sketch: Robin Dillon-Merrill is a Professor in the McDonough School of Business (MSB) at Georgetown University. She has been on the faculty there since 2001. From 2017-2019 she served as the Program Director for the National Science Foundation's Humans, Disasters and the Built Environment program in the Directorate of Engineering. She seeks to understand and explain how and why people make the decisions that they do under conditions of uncertainty and risk. This research specifically examines critical decisions that people have made following near-miss events in situations with severe outcomes including hurricane evacuation, terrorism, cybersecurity, and NASA mission management. She currently

serves as the Faculty Director for the MSB Undergraduate Curriculum and the Area Coordinator for the Operations and Analytics area. She first became interested in decision analysis when she had the opportunity to work with Detlof von Winterfeldt, Ralph Keeney, and Richard John on the tritium supply study in 1993. She did her PhD at Stanford University working with her advisor Elisabeth Paté-Cornell and taking classes from Ron Howard.

Jun Zhuang,



Position Statement: It is a great honor to be nominated to serve on the Vice President/President Elect for Decision Analysis Society (DAS)!! I have enjoyed being an active DAS family member since 2004 when I was a Ph.D. student. In particular, I have attended and (co-)organized sessions for the DAS track at the INFORMS annual meetings almost every year in the past 18 years. I served as a co-editor for the DAS official newsletter *Decision Analysis Today* (2011-2016) and an elected DAS council member (2013-2016). I also co-chaired the DAS membership committee (2015-2016, 2016-2017), co-chaired the DAS Student Paper Award Committee (2011, 2012, 2013), editing the research column for *Decision Analysis Today* (2011), Coffee with a DAS member volunteer (2018), Scientific Committee member of the 2019 and 2022 Advances in Decision Analysis Conferences (ADA

2019, ADA 2022), and Ph.D. Incubator Committee of the ADA 2022. Currently, I am serving on the DAS Diversity, Equity, and Inclusion (DEI) Committee (2021-present), and the DAS Cluster Co-Chair for INFORMS 2022 Annual Meeting. Additionally, I have served the DAS' flagship journal *Decision Analysis* as an Editorial Board member (2011-present) and an Associate Editor (2017-present).

I fully believe "It is more blessed to give than to receive." I have been trying to enjoy this blessing by actively serving professional communities, with DAS being the most important and favorite one. I find serving DAS rewarding for the following reasons. First, I obtain a larger perspective about how the society works by serving on "the other side." Second, I find it fulfilling to sustain the community by services. Third, I obtain a stronger ownership by serving. Finally, I truly enjoy the friendship built through serving together with other DAS community members.

If elected to the DAS VP/President Elect, I will continue serving the DAS with the goal of increasing the visibility of the work we do as decision analysts in the post-COVID-19 world. In particular, I will work with the DAS officers to: (a) engage more students and young professionals in DAS activities; (b) organize more DAS-sponsored webinars, workshops, and conferences; (c) adopt state-of-the-art technology and latest social media platforms to promote the DAS; and (e) enhance the relationship between the DAS and other organizations, such as the Society of Decision Professionals (SDP), other INFORMS societies, Society for Risk Analysis Society (SRA), and Institute of Industrial and Systems Engineers (IISE).

Biographical Sketch: Dr. Jun Zhuang is Morton C. Frank Professor, Director of Graduate Studies, and Director of the Decision, Risk & Data Laboratory, Department of Industrial and Systems Engineering, at the University at Buffalo, the State University of New York. Dr. Zhuang has a Ph.D. in Industrial Engineering in 2008 from the University of Wisconsin-Madison. Dr. Zhuang's long-term research goal is to integrate operations research, big data analytics, game theory, and decision analysis to improve mitigation, preparedness, response, and recovery for natural and man-made disasters. Other areas of interest include applications to health care, sports, transportation, supply chain management, sustainability, and architecture. Dr. Zhuang has been a principal investigator of about 40 research grants funded by the U.S.

National Science Foundation, by the U.S. Department of Homeland Security, by the U.S. Department of Energy, by the U.S. Air Force Office of Scientific Research, and by the National Fire Protection Association.

Dr. Zhuang received numerous research awards including the 2020-2021 SUNY Chancellor's Awards for Excellence in Scholarship and Creative Activities, the 2019 Chauncey Starr Distinguished Young Risk Analyst Award from the Society for Risk Analysis, the UB's 2019 Exceptional Scholar Award - Sustained Achievement, the 2018 SEAS Senior Researcher of the Year Award, the 2018-2020 Buffalo Blue Sky Gold Coin Award, the 2017 Koopman Prize from the INFORMS' Military Applications Society, the 2014 Military Operations Research's Journal Award, and the 2013 UB's Exceptional Scholar--Young Investigator Award. Dr. Zhuang is also a fellow of the 2011 U.S. Air Force Summer Faculty Fellowship Program, sponsored by the AFOSR, and a fellow of the 2009-2010 Next Generation of Hazards and Disasters Researchers Program, sponsored by the NSF.

Dr. Zhuang has published 100+ peer-reviewed journal articles in Operations Research, IISE Transactions, Risk Analysis, Decision Analysis, and European Journal of Operational Research, among others. His research and educational activities have been highlighted in The New York Times, The Wall Street Journal, Spark CBC Radio, Metro, The Washington Post, USA Today, Stanford GSB News, NSF Discovery, Science Daily, Industrial Engineer, The Council on Undergraduate Research Quarterly, and The Pre-Engineering Times, among others. He is on the Editorial boards of both Risk Analysis and Decision Analysis, was the co-Editor of Decision Analysis Today, and has reviewed proposals for NSF/ASEE/DOD/NASA/European Research Council/Japan Science and Technology Agency/The U.S.-Israel Binational Science Foundation/Ministry of Science and Technology of Israel/Foundation for Polish Science/Dutch National Science Foundation/National Science Centre-Poland, book chapters for Springer, and has reviewed articles for 100+ academic journals and conferences for 400+ times. Dr. Zhuang's professional and community service activities have been recognized by the 2019 40 Under 40 Award from Buffalo Business First, the 2018 Volunteer Service Award from INFORMS, the 2017 Best Reviewer Award from Risk Analysis, Society for Risk Analysis, and the 2012 Outstanding Reviewer Award from Journal of Infrastructure Systems, American Society of Civil Engineers.

Dr. Zhuang is dedicated to teaching and mentoring undergraduate and graduate students. Dr. Zhuang's teaching and mentoring efforts have been recognized by the 2020 UB Teaching Innovation Award, the 2019-20 UB Excellence in Graduate Student Mentoring Award, 2019 UB SEAS Best Senior Teacher of the Year Award, 2019 UB Student Engagement's Exemplary Faculty/Staff Mentor Award, 2012 UB President Emeritus and Mrs. Martin Meyerson Award for Distinguished Teaching and Mentoring, and 2008 Graduate Student Mentor Award from the University of Wisconsin-Madison.

Candidates for DAS Secretary/Treasure



Onesun Steve Yoo

Position statement: I am honored and excited to be nominated for the Secretary/Treasurer position and to have the opportunity to serve the Decision Analysis Society. I have been a member of the society for over a decade since the beginning of my career. Being part of the community enriched my career, through mentorship and support I had received from many of its key members, and also meeting many friendly members to broaden my views and evolve as a researcher. I am eager to pay back and serve the community as Secretary/Treasurer

and to assist the leadership team in its effort to foster new generation of the decision analysis scholars.

My involvement with the Decision Analysis Society has been in organizing the INFORMS sessions and participation of the Advances in Decision Analysis meetings. As the Secretary/Treasurer, I will be happy to help facilitate its important conference activities, promote the society's journals, and to support any new initiatives of the society.

Short bio: Onesun Steve Yoo is an Associate Professor in the Operations & Technology and Marketing & Analytics groups at the UCL School of Management, University College London, UK. Steve conducts research on a broad range of topics around innovation and entrepreneurship. While his research is context-driven, his training in decision analysis has always been at the center of his research where he frequently utilizes uncertainty and Bayesian learning models. Steve's research has been published in leading academic management journals such as *Decision Analysis*, *Operations Research*, *Marketing Science*, and *Manufacturing & Service Operations Management*, and has been featured in key media outlets including the *Wall Street Journal*, and *BBC Capital*.

At UCL, Steve teaches decision and risk analysis, decision science, and new product development to both undergraduates and graduate students. He received a Ph.D. in Decisions, Operations, and Technology Management from UCLA Anderson School of Management, an MS in Electrical Engineering from UCLA, and BS in Electrical Engineering and Computer Science and BA in Applied Mathematics from UC Berkeley.

Candidates for DAS Council



Mathieu Dahan

Position Statement: I am very excited to run for a position on the Decision Analysis Society council! My work being on decision making under stochastic and strategic uncertainty, I was naturally drawn towards this INFORMS society. As a relatively new faculty (3 years), I am genuinely interested in increasing my involvement in DAS. I have chaired sessions in the DAS track at the INFORMS annual meeting, and I would like to devote time to contribute to and promote the various DAS activities. In particular, I would be interested in helping increase the involvement of junior faculty in this society. Other INFORMS societies have developed or are developing young researchers prizes and/or workshops, and I

believe that it could potentially attract a significant number of researchers, given the diverse nature of the work in Decision Analysis. This could also create nice opportunities to foster new relationships between academics and industries. It would be a real honor to serve on the DAS council and help in any way I can!

Short Bio: Mathieu Dahan is an Assistant Professor in the School of Industrial and Systems Engineering at Georgia Tech. His research interests are in game theory, combinatorial optimization, and predictive analytics, with applications to service and healthcare operations, humanitarian systems, and supply chain management. His primary focus is on developing prescriptive solutions for improving the resilience of large-scale systems facing uncertainties as well as random and adversarial disruptions. His research topics include resilient network design, resource coordination for network security, service network optimization, and disaster response. Dr. Dahan received his Ph.D. in Computational Science and Engineering from MIT and his M.S. from the École Centrale Paris. He is the recipient of the MIT Robert Thurber fellowship and the MIT Robert Guenassia award.



Gül E. Kremer

Position Statement: I am very excited and honored to be nominated for a position on the Decision Analysis Society (DAS) council. Although I am relatively new to DAS, I consider myself a veteran of the Decision Analysis field, having become a member of Alpha Iota Delta as a doctoral student and with an active research program since then. I will be delighted to serve our community in this capacity.

Currently, I am serving on the DEI committee of DAS. Previously, I served as a member of the Association of Chairs of OR Departments

(ACORD) for INFORMS.

My primary research interests are in design theory and decision analysis as applied to product design and system improvement. I developed several software platforms in collaboration with students and colleagues that facilitate architecture optimization at the product and supply chain design levels for sustainability purposes. Capabilities established through these platforms and supported by industrial data have enabled investigations on product architecture design and supply chain integration, modularity level, and its implications for the supply chain. My contributions to product design and system improvement span several domains including building systems, medical device design, and healthcare systems. These improvements reflect not only theoretical contributions to method building but are also intended for practice. Results of my research efforts have been presented in numerous publications (115 journal articles and 240 refereed conference proceedings). Twelve of these publications have been recognized with Best Paper awards.

I was drawn to DAS for the visible DEI activities; and currently, I am delighted to be a DEI committee member. I consider my former and current students and our collaborative works as my biggest achievements. Eight of my Ph.D. graduates and two of my MS advisees have secured faculty positions in prestigious universities (2 in Taiwan, 1 in Korea, 1 in Turkey, and 6 in the US).

If elected, using my past experiences as a business administration and an engineering faculty member I would like to: 1) further enhance our community's efforts in developing our Ph.D. students into highly effective early career professionals; 2) continue with DEI efforts; and 3) outreach to other professional societies to enhance recognition of DAS.

Short Bio: Gül E. Kremer is Dean of Engineering at the University of Dayton. Previously, she held faculty positions at Gebze Technical University, Pennsylvania State University, and Iowa State University. She is a Fellow of the American Society for Mechanical Engineers (ASME), and a senior member of the Institute of Industrial Engineers (IIE). She has served as the Chair of Design Education and Design for Manufacturing and Lifecycle Technical Committees of the Design Engineering Division of ASME. She has given several keynote talks on enhancing creativity in STEM students and sustainability in product and system engineering and has served on the scientific committees for many conferences. She served on the editorial boards of Journal of Cleaner Production, ASME Journal of Mechanical Design, ASEE Advances in Engineering Education, International Journal of Precision Engineering and Manufacturing, Journal of Industrial & Production Engineering, and IEEE Transactions on Engineering Management.



Kelly Robinson

Position Statement: I am very honored and excited to be nominated to serve on the Decision Analysis Society council. Although I am still relatively new to DAS, I have found the society to be extremely beneficial to myself and my career. I would be thrilled to have the opportunity to give back to DAS as a council member. I first participated with DAS as a presenter at the INFORMS annual conference in 2019. Since then, my co-authors and I were the recipients of the Decision Analysis Practice award in 2020, I am an associate editor for a special issue of Decision Analysis on using DA to further environmental sustainability, and I will be chairing a session at

the annual meeting in Indianapolis this fall. Above all, the opportunity to interact with and learn from DA practitioners in such a diversity of fields has been especially valuable as an early career scientist and junior faculty member.

As an ecologist and decision analyst, much of my work focuses on aiding decision makers in state, federal, and Indigenous natural resource management agencies. Fisheries and wildlife decisions must account for the effects and associated uncertainties of ecosystem change, as well as the needs and desires of a diversity of stakeholders. As a council member, I would strive to expand the reach of DAS into the natural resources management realm, bringing more of these DA practitioners into the society. Increasing the already diverse expertise of this society will lead naturally to innovation of techniques and unique opportunities for society members to learn and grow as practitioners in their own fields. In addition to a diversity of expertise in the society, I would also work to maintain and enhance diversity within the society's membership, including creating opportunities for students and underrepresented groups to attend conferences and increasing awareness of the benefits of this society to decision analysts around the world.

Short Bio: Dr. Kelly Robinson is currently an associate professor with the Quantitative Fisheries Center, in the Department of Fisheries and Wildlife at Michigan State University. In the coming month, Dr. Robinson will be transitioning to a new position as assistant unit leader of the U.S. Geological Survey's

Georgia Cooperative Fish and Wildlife Research Unit and adjunct associate professor at the Warnell School of Forestry and Natural Resources at the University of Georgia. She received a bachelor's degree in Biology and Spanish from the University of Virginia, an MS in Marine Biology from the College of Charleston, and a PhD in Fisheries Science from the University of Georgia. Her research focuses on the ecology and management of natural resources, with a focus on decision analysis for fisheries problems that are mired by uncertainties related to climate change, landscape change, and species invasions. Her decision analytic projects include harvest management for fish and wildlife species, control of invasive species, protection of endangered species, and planning for climate resilience in estuarine and riverine systems. In addition, she mentors graduate students and postdoctoral research associates in applications of decision analysis, teaches a graduate level course in decision making for natural resources, and has served as an instructor for numerous workshops in structured decision making and adaptive management.



Saša Zorc

Position Statement. It is an honor to be considered for a position on the Decision Analysis Society (DAS) council. I have been a member of the DAS for almost a decade: DAS has been my academic home starting from the early days of my Ph.D. studies and continuing well into my current role as a junior faculty member. During that time, I had the fortune and pleasure of meeting many inspiring and friendly DAS members, and I feel like I have benefited enormously from the experience.

If elected, my focus in the society would be on the following two areas.

- 1) *Nurturing the next generation of scholars.* I feel privileged to have been so welcomed and inspired by the society during my student days. Hence, one of my primary interests is to ensure the same privilege will be provided for generations to come. This is something that I have already been working towards with my involvement in the DAS student paper award and the Ph.D. Incubator at the Advances in Decision Analysis (ADA) conference.
- 2) *Fostering inclusiveness.* One of the things that attracted me to DAS—and what I perceive to be one of our main strengths—is that our society includes a broad spectrum of affiliations, methodologies, and application areas. Thus, this is something I would love to see continue and even improve in the future.

Short Bio: Saša Zorc is an Assistant Professor at the Darden School of Business at the University of Virginia, where he teaches graduate-level courses in Decision Analysis and Game Theory. He received a Ph.D. in Management with specialization in Decision Sciences from INSEAD, an MBA from Cotrugli Business School, Croatia, and an M.S. and B.S. in Mathematics from the University of Zagreb, Croatia.

His work studies the design of dynamic, multi-agent systems such as healthcare and matching markets. Methodologically, his research relies on search theory, dynamic programming, game theory, mechanism design as well as data-driven simulations.

He organized sessions at the INFORMS Annual Meeting and the ADA conference. He was on the program committees for the Algorithmic Decision Theory Conference in 2019 and ADA in 2022. At ADA 2022, he also served as a co-chair of the Ph.D. incubator. Since 2018 he has been a committee member and, since 2021, a co-chair of the DAS student paper award.

Candidates for DEI Committee Chair & Chair Elect



Amy Russ

Short bio: Amy Russ is the Vice President of Customer Analytics and Synchrony. She has a MBA from Auburn University and a Master of Science degree from the Georgia Institute of Technology. Before joining Synchrony, Amy previously worked at UPS, where she held multiple roles in different functions, including Marketing, Finance and Accounting, and HR. However, all her previous roles focused on using data analytics to deliver insights and actionable recommendations. Outside of work, Amy studies three languages (Japanese, Mandarin Chinese, and Korean) and has taken up pottery.



Andrea Hupman

Short bio: Andrea Hupman is an Assistant Professor in the College of Business at the University of Missouri-St. Louis. She received her MS and PhD from the University of Illinois at Urbana-Champaign and her BS from Northwestern University. She has an active research program that spans both the application and theory of decision analysis, with particular interest in the value of information and in ways to leverage data for improved decision making. She has been an active member of the Decision Analysis Society (DAS), serving as a DAS Cluster Co-Char for the INFORMS Annual Meeting (2016-2017), a DAS Council Member (2018-2021), and the DA Today newsletter editor (2021-present).

Upcoming Conferences

October 16-19, 2022
INFORMS Annual Meeting
Indianapolis, Indiana
<https://www.informs.org/Meetings-Conferences/INFORMS-Conference-Calendar/2022-INFORMS-Annual-Meeting>

November 19-21, 2022
Decision Sciences Institute Annual Meeting
Houston, Texas
<https://decisionsciences.org/annual-conferences/national-dsi/>

December 4-8, 2022
Society for Risk Analysis Annual Meeting
Tampa, Florida
<https://www.sra.org/events-webinars/annual-meeting/>

December 11-14, 2022
Winter Simulation Conference
Marina Bay Sands, Singapore
<https://meetings.informs.org/wordpress/wsc2022/>

March 21-24, 2023
29th SDP Annual Conference & Workshops
(Formerly DAAG Annual Conference)
Houston, Texas
<https://www.decisionprofessionals.com/>

April 16-18, 2023
INFORMS Business Analytics Conference
Aurora, Colorado
<https://meetings.informs.org/wordpress/analytics2023/>

May 20-23, 2023
Institute of Industrial and Systems Engineers
Annual Conference & Expo
<https://www.iise.org/annual/>

July 26-28, 2023
INFORMS Healthcare Conference
Toronto, Ontario Canada
<https://meetings.informs.org/wordpress/healthcare2023/>

Award Announcements

Frank P. Ramsey Medal

The Frank P. Ramsey medal is awarded for distinguished contributions in decision analysis. Distinguished contributions can be internal, such as theoretical or procedural advances in decision analysis, or external, such as developing or spreading decision analysis in new fields. The specific award criteria for evaluating potential Ramsey Medal recipients are a candidate's:

- Theoretical, methodological, and procedural contributions to decision analysis
- Applications of decision analysis (including new uses and in new fields)
- Other contributions promoting decision analysis (e.g. educational and public awareness)
- Exceptional contributions to the Decision Analysis Society (e.g. service to society or journal)

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

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 one's preferences 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. Behavioral decision research addressing how people make decisions that has direct implications for improving the practice of decision analysis is a contribution to decision analysis. Models of uncertain possible consequences from scientific, engineering, and economic modeling that are useful for decision analysis are contributions.

The award includes an honorarium, a medal, and complimentary lifetime membership in the Decision Analysis Society.

Professor Robert F. Bordley was selected to receive the 2021 Frank P. Ramsey Medal

Professor Robert F. Bordley has an exceptional record of accomplishment in decision analysis practice, research, and education; he has been a tireless champion of decision analysis in aligned fields, and a consistent and significant contributor to INFORMS and the Decision Analysis Society (DAS).

His application of decision analysis at General Motors for over 30 years and later at Booz Allen Hamilton has been outstanding. At GM, Bob served in numerous positions and roles: as Mission Analysis Group Leader, he developed a value-focused systems engineering approach to vehicle design; as Manager of GM's R&D Portfolio, he implemented the DA portfolio approach and received the GM Award of Excellence; as Technical Director in Strategic Planning, he led dialogue decision-process efforts, for which he received GM's President's Council Award; and as Technical Fellow, he used influence diagrams to identify cost drivers and increase profitability, and received the GM Chairman's Award. As a Booz Allen Hamilton Fellow, he worked on major trade studies and DA elicitation methods to help the Army make billion-dollar procurement and maintenance decisions.

Throughout his entire career, he maintained an enviable record of research publications, many of them (such as target-oriented utility) directly inspired by his industry experience. He has published widely, with over eighty peer-reviewed publications and many book chapters. His research includes a focus on incorporating important aspects of the decision-making environment (e.g., targets, expectations, suspicion, time delays, problem framing, etc.) into decision-analysis methods, and on expanding the traditional decision analysis "toolkit" by developing alternative, but theoretically equivalent, decision-analysis methods (e.g., visual decision trees, creation of hybrid solutions, dynamic morphing of communications such as ads to fit a user's cognitive style). As a Professor of Practice at the University of Michigan for the past four years, and an instructor there for many years prior, he has taught decision analysis and systems engineering to hundreds of students. More recently, he introduced two new courses and incorporated significant concepts from decision analysis into an updated introduction to Systems Engineering course. He has advised over 30 students on their capstone projects for the Masters of Engineering degree.

The Award Committee especially appreciates Bob's long and active dedication to the field of decision analysis, to INFORMS and to the Society. He took a "break" during the middle of his successful career in industry to serve as the Program Director for the Decision, Risk and Management Sciences Program at the National Science Foundation, where he provided critical support to efforts to elevate the profile of the social and decision sciences within NSF. He was one of the original members of DAS, and served the society as Council Member for two terms, twice organizing the decision-analysis cluster for the annual conference. He has been a finalist for the Practice Award and previously won the Decision Analysis Publication Award. He has contributed similarly to INFORMS, including a term on the Board of ORSA and serving as Chair of several INFORMS committees. He continues to be a tireless and enthusiastic participant in INFORMS and DAS conferences.

DAS Practice Award

The Decision Analysis Practice Award is sponsored jointly by the Decision Analysis Society (DAS) and the Society of Decision Professionals (SDP). It is given annually to the best decision analysis application, as judged by a panel of members of both Societies. The award includes a cash prize of \$750 and assistance in getting the work published in a suitable journal, if the winner so desires. The winner of the Practice Award is also invited to present their work at the Decision Analysis Affinity Group conference the following spring.

2021 Co-Winners:

- **Joice Ribeiro Giacon, Gustavo Martins and Kislán Santos** (Optimum Supply) with the project
 - "Optimum Supply: e-procurement decision analysis platform to maximize the value of strategic sourcing choices"
- **Saurabh Bansal** (Penn State University) and **Genaro Gutierrez** (University of Texas at Austin) with the project:
 - "Use of judgmental forecasts with expert heterogeneity to support biofuel jet fuels in a Federal Aviation Administration Program"

2021 Practice Award Committee:

Jay Anderson, Valentia Ferretti, Jeffrey Keisler, Carol Liffman, Gilberto Montibeller, and Nadia Papamichail

For more information about the award, and for past awardees: [DAS Practice Award](#)

Clemen-Kleinmuntz *Decision Analysis* Best Paper Award

The Clemen-Kleinmuntz *Decision Analysis* Best Paper Award (previously *Decision Analysis* Special Recognition Award) is given annually for the paper most worthy of recognition published in the *Decision Analysis* journal for the current year. The winning paper is announced by March and awarded a plaque by the award committee and a cash prize of \$2,000. Funding is provided by an endowment established by the Kleinmuntz Family Foundation.

The criteria for the paper most worthy of special recognition are:

- 1) the paper is foundationally based on decision analysis
- 2) the paper makes an important contribution to theory and/or practice
- 3) the paper is broadly interesting and influential to a wide portion of decision analysis community

We are pleased to congratulate the following awardees for 2021:

2021 Winner

Gary J. Summers

Friction and Decision Rules in Portfolio Decision Analysis

Volume 18, Issue 2, June 2021

<https://doi.org/10.1287/deca.2020.0421>

The practice of decision analysis typically involves identifying performance objectives and managerial preferences, quantifying uncertainties, and then using them as inputs to assess alternatives. An exhaustive theory-driven literature in decision analysis provides foundations for this practice, assuming that objectives, preferences, and uncertainties are well understood and available to quantify. The award-winning article by Gary J. Summers highlights that this quantification may not be accurate in practice, leading to “friction” in decision-analysis models. This friction can systematically lead to a loss in decision quality. The article provides examples from multiple domains, and new analysis to illustrate this friction. As such, the article underscores the importance of calibrating the inputs to decision-analysis models. It promises to be a springboard for future research on understanding the causes of friction in decision-analysis models, its implications, and mitigation methods.

2021 Finalist

Yucheng Dong, Yao Li, Ying He, Xia Chen

Preference–Approval Structures in Group Decision Making: Axiomatic Distance and Aggregation

Volume 18, Issue 4, December 2021

<https://doi.org/10.1287/deca.2021.0430>

While decision analysis commonly focuses on decision making by an individual or a group acting as an individual, the paper by Dong et al. (2021) focuses on group decision making. It combines two popular approaches for aggregating individual preferences, ranked voting and approval voting, which have compensating strengths and weaknesses: Ranked voting leverages the preference ranking central to the decision-analysis approach, but is subject to strategic manipulation (where individuals misrepresent their preferences). Approval voting is immune to strategic manipulation, but does not provide the complete ranking required by decision analysis. The article shows that combining them leads to superior performance. Future empirical research and practice is likely to significantly benefit from the rigorous foundational treatment provided by this article.

2021 Award Selection Committee:

Saurabh Bansal and Robert Bordley (co-chairs)

For more information about the award, and for past awardees: [Decision Analysis Special Recognition Award](#)

Decision Analysis Publication Award

The Decision Analysis Society Publication Award is given annually to the best decision analysis journal article or book published in the second preceding calendar year, as judged by an award committee. For example, publications appearing in the year 2020 would be eligible for consideration in the year 2022. 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 one’s risk preferences and probability to quantify the state of one’s knowledge.

The intent of the award is to recognize the best publication in decision analysis. Contributions could

include, but are not limited to, theoretical, methodological, and procedural contributions to decision analysis, descriptions of applications and experimental studies. Publications addressing behavioral aspects of decision making are eligible if the relevance to the theory or practice of prescriptive decision analysis is clear.

Nominated publications will be judged for significance, relevance, originality, and readability. The award includes an honorarium and a plaque.

2021 Co-Winner:**Asa Palley & Jack Soll****Extracting the Wisdom of Crowds when Information is Shared,**
in *Management Science*, 65.5 (2019): 2291-2309**2021 Award Selection Committee:**

Jay Simon and Aurelien Baillon

DAS Student Paper Award

DAS gives the Student Paper Award annually to the best decision analysis paper by a student author, as judged by a panel of members of the Society.

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 one's risk preferences and probability to quantify the state of one's knowledge.

The intent of the award is to recognize the best publication in decision analysis, by a student. This includes, but is not limited to, theoretical, methodological, and procedural contributions to decision analysis, descriptions of applications and experimental studies. Publications addressing behavioral aspects of decision making are eligible if the relevance to the theory or practice of prescriptive decision analysis is clear. Nominated publications will be judged for significance, relevance, originality, and readability. The award is accompanied by a plaque and an honorarium.

2021 Winner:**Nicolò Bertani,****Fast and Simple Adaptive Elicitations: Experimental Test for Probability Weighting,**
Co-authored with Abdellah Boukhatem, Enrico Diecidue, Patrice Perny and Paolo Viappiani,**2021 Award Selection Committee:**

Mehmet Ayvaci and Sasa Zorc

DA Articles in Advance & Forthcoming Issue

Decision Analysis Journal – Articles in Advance (AIA)

Multipolar Security Cooperation Planning: A Multiobjective, Adversarial-Risk-Analysis Approach

William N. Caballero, Ethan Gharst, David Banks, Jeffery D. Weir

In an increasingly competitive environment, defense organizations are met with more difficult decisions than in years past. This problem is especially apparent in security cooperation, that is, defense diplomacy, conducted by the United States. Both the ...

<https://doi.org/10.1287/deca.2022.0458>

Optimizing the First Response to Sepsis: An Electronic Health Record-Based Markov Decision Process Model

Erik Rosenstrom, Sareh Meshkinfam, Julie Simmons Ivy, Shadi Hassani Goodarzi, Muge Capan, Jeanne Huddleston, Santiago Romero-Brufau

Sepsis is considered a medical emergency where delays in initial treatment are associated with increased morbidity and mortality, yet there is no gold standard for identifying sepsis onset and thus treatment timing. We leverage electronic health record ...

<https://doi.org/10.1287/deca.2022.0455>

Model Complexity and Accuracy: A COVID-19 Case Study

Colin Small, J. Eric Bickel

When creating mathematical models for forecasting and decision making, there is a tendency to include more complexity than necessary, in the belief that higher-fidelity models are more accurate than simpler ones. In this paper, we analyze the performance ...

<https://doi.org/10.1287/deca.2022.0457>

An Empirical Comparison of Rank-Based Surrogate Weights in Additive Multiattribute Decision Analysis

Roger Chapman Burk, Richard M. Nehring

Many methods for creating surrogate swing weights based only on the rank order of the attributes are proposed to avoid the cost and effort of eliciting weights in multiattribute decision analysis. We explore empirically how well eight different methods ...

<https://doi.org/10.1287/deca.2022.0456>

Supporting Innovation in Early-Stage Pharmaceutical Development Decisions

Florian Methling, Steffen A. Borden, Deepak Veeraraghavan, Insa Sommer, Johannes Ulrich Siebert, Rüdiger von Nitzsch, Mark Seidler

Pharmaceutical companies have frequent portfolio reviews to monitor development progress and prioritize development assets. The earliest assets are drug candidates whose efficacy is unknown and whose effects on the human body have yet to be fully ...

<https://doi.org/10.1287/deca.2022.0452>

Balanced Opioid Prescribing via a Clinical Trade-Off: Pain Relief vs. Adverse Effects of Discomfort, Dependence, and Tolerance/Hypersensitivity

Abdullah Gökçınar, Metin Çakanyıldırım, Theodore Price, Meredith C. B. Adams

In the backdrop of the opioid epidemic, opioid prescribing has distinct medical and social challenges. Overprescribing contributes to the ongoing opioid epidemic, whereas underprescribing yields inadequate pain relief. Moreover, opioids have serious ...

<https://doi.org/10.1287/deca.2021.0447>

Stay Home or Not? Modeling Individuals' Decisions During the COVID-19 Pandemic

Qifeng Wan, Xuanhua Xu, Kyle Hunt, Jun Zhuang

During the COVID-19 pandemic, staying home proved to be an effective way to mitigate the spread of the virus. Stay-at-home orders and guidelines were issued by governments across the globe and were followed by a large portion of the population in the ...

<https://doi.org/10.1287/deca.2021.0437>

*Decision Analysis Journal – Forthcoming, September 2022 Issue***Methods for Eliciting Informative Prior Distributions: A Critical Review**

Julia R. Falconer, Eibe Frank, Devon L. L. Polaschek, Chaitanya Joshi

Eliciting informative prior distributions for Bayesian inference can often be complex and challenging. Although popular methods rely on asking experts probability-based questions to quantify uncertainty, these methods are not without their drawbacks, and ...

<https://doi.org/10.1287/deca.2022.0451>

Forecasts of Prices and Informed Sensitivity Analysis: Applications in Project Valuations

Babak Jafarizadeh

From corporate budgeting to public planning, we hear that commodity prices are uncertain and that, when they vary, key investment measures sway with them. However, claiming that commodity prices are outside a firm's domain of control, corporate decision ...

<https://doi.org/10.1287/deca.2022.0453>

Uncommon Knowledge in Multiparty Auctions

David Banks, Yi Guo

The pure strategy Nash equilibrium (PSNE) solution to multiparty auctions makes the strong but unrealistic assumption that all participants share the same beliefs about the type distributions of the others, and that all know that this information is ...

<https://doi.org/10.1287/deca.2022.0454>

Cognitive Stress and Learning Economic Order Quantity Inventory Management: An Experimental Investigation

Jinrui Pan, Jason Shachat, Sijia Wei

We use laboratory experiments to evaluate the effects of cognitive stress on inventory management decisions in a finite horizon economic order quantity (EOQ) model. We manipulate two sources of cognitive stress. First, we vary individuals' participation ...

<https://doi.org/10.1287/deca.2022.0450>

Video Platform Initiative

Video platform collecting high-quality DA-videos

The idea for this video platform came up in a discussion with Emanuele a few months ago. I had asked him how my TEDxTalk, “[Nudge yourself to make better decisions](#),” could be shared with the DAS community. Emanuele suggested creating a DA YT channel. This is impossible, as we must be the legal owner of all content. Embedding openly available YouTube videos, on the other hand, is easily possible. That was the starting point of this initiative!

We created an external website (da-videos.org), which collects high-quality DA videos and presents them to an interested audience. The DAS endorses this platform. The objectives are to

- Promote DA to practitioners, students, and others.
- Raise awareness of DA.
- Maximize DA research dissemination.
- Create traffic to the website of the Decision Analysis Society.
- Maximize “cross-selling” of different ideas, areas, and methods.
- Gather exciting materials for scholars, especially in neighboring fields who teach “just a bit DA.”
- Gather exciting materials for students (self-learning).
- Showcase high quality DA.

The video platform should be inclusive so that everyone can suggest a video. If you want to suggest an exciting video on DA theory, DA practice, or DA education, you can register at the top right of the website. After registration, you can suggest videos using a form on the website that collects the following information:

- Name(s) of the speaker(s)
- Title of the video
- Video description (up to 300 words)
- Category of the video (e.g., DA research, DA practice, DA teaching; more than one category is possible)
- Video-Plattform (Youtube, Vimeo, Dailymotion, Facebook, Adaptive / Live Streaming)
- Link to the video

The quality of the videos is crucial. Therefore, a DAS video committee will screen suggested videos. After the screening, suitable videos will be included on DA-Videos.org.

There are two additional mechanisms to ensure high-quality videos.



1. If someone has reasons why a particular video should not be included on this website, he or she can contact the head of the DA video committee and share these reasons. If necessary, the DA video committee will reassess and exclude the video from the website.
2. The person who suggests a video will also be displayed for each video (as long the person suggested the video using the form).

Please consider suggesting high-quality DA videos! Search for also old videos! Suppose you do not want to register and enter the information using the form on the website, you can also suggest a video by sending the relevant information by mail to Johannes.Siebert@mcu.edu in the transition phase.

Let us showcase how great, helpful, smart, attractive, mind blowing, and much more DA can be😊!

Johannes Siebert

Management Center Innsbruck

Call for Research Column Guest Editors



Are you working on an interesting project? Is there a topic that has had insightful advances in recent years, or is there a research problem that would benefit from greater attention from a decision analytic perspective? **We are calling all people who would like to share their passion for research with the DAS by serving as a Guest Editor and/or author of the DA Today Research Column.**

If you are interested in serving as a Guest Research Column Editor, please email the Editor, Andrea Hupman (hupmana@umsl.edu) with a brief introduction to yourself and a short description of your proposal/idea for the research column. In the event of high demand, Guest Research Column Editors will be selected on the basis of

- Proposed topic/idea is of interest to the DAS community
- Proposed topic/idea has not been covered in a recent newsletter
- Order in which request is received.

We look forward to your ideas and contributions!

DA Practice

Column Editor: Pat Leach

How to Decide



This column will discuss some of the concepts presented so brilliantly in Annie Duke's latest book, *How to Decide* (which I use in one of the courses I teach). If you've already read this book, there won't be much in this column that is new to you.

Annie Duke is a former professional poker player who won millions of dollars in various tournaments. She is now a consultant and author (obviously), translating what she learned at the poker table about making decisions in the face of uncertainty into practical advice for making better decisions in business and in life. She was a keynote speaker at the Society of Decision Professionals' annual conference in 2021.

There are, of course, many books on how to make better decisions using the principles of decision science. What sets Duke's book apart are several insights that I don't find in those other books, along with practical ways to apply these insights. These insights include:

- When decisions are hard, that's when they're easy
- Memory creep and its effect on learning
- The value of counterfactuals
- The weakness of a "Pros and Cons" list
- The Happiness Test
- Intelligence does not necessarily make you more logical

Let's take a closer look at these.

When decisions are hard, that's when they're easy. How many times have you tied yourself in knots over a decision because there was no clear winner among the alternatives? Duke uses an example of choosing between vacationing in Paris or Rome; both cities are wonderful, both have their unique attractions, and either would make for a great trip. *So just pick one.* Pondering ad infinitum and trying to find definitive evidence that one is better than the other is a waste of time. Even if you choose one – say, Rome – and it rains the entire time you're there and someone steals your wallet, that's a bad outcome, not a bad decision.

I've made a similar comment when teaching students about sensitivity testing. Sometimes, you vary a key input by a significant amount, and the decision doesn't change. Great – you can be confident of your choice. Sometimes, you vary the input just a little, and the decision flips. I like to say that in that case, it depends on whether you're an optimist or a pessimist. The pessimist says, "We don't know what to do;" the optimist says, "We can do whatever we want – it doesn't matter." It also means that when it comes to whatever criterion you're using (say, financial value), it's a wash – so you can make the decision using a different value metric (say, reputational value).

Memory creep and its effect on learning. We all know (or should know) that our brains are not recording devices. Mountains of research show that human memories are distressingly unreliable, even without biases creeping in. When bias does creep in, it is often to “remember” that we correctly anticipated events when, in reality, we did no such thing. Duke asserts that this is more than just an inconvenience or a humorous human quirk. Remembering ourselves as more prescient than we were is a huge impediment to learning. You can’t learn from a mistake you’ve convinced yourself you never made.

The value of counterfactuals. This is a complement of the Memory Creep issue. When we actually do anticipate events and succeed as a result, a very healthy exercise is to seriously consider how things might have turned out differently – i.e., consider counterfactual scenarios. Could one or two chance events have easily gone the other way, thereby thwarting our success? If so, were we really all that brilliant, or did we get lucky, too? Counterfactuals are a great tool for staying humble.

The weakness of a Pros and Cons list. In a word: the problem is we’re almost always the ones generating the list. As such, the list is usually grounded in what Duke calls the “inside view,” as opposed to the “outside view,” sometimes known as the “base rate.” Ignoring the base rate has been shown time and again to be one of the easiest decision traps to fall into. Duke insists (as Daniel Kahneman does) that we should always start with the Outside View/Base Rate, and then tweak it based on our knowledge of our specific situation (the Inside View). Starting with a Pros and Cons list reverses the order, making the Inside View dominant.

The Happiness Test. Duke points out that not only do we often fail to take a rigorous enough approach to making big decisions, we waste far too much time on small decisions. She notes that we often agonize over what to order in a restaurant, or what to watch on TV. She suggests a simple test: ask yourself, “A year from now, will this decision have affected my happiness and my life in any appreciable way? How about a month from now? A week from now?” If the answer turns out to be, “Don’t be ridiculous” (as it often does), then just make a decision and go with it. A bad meal or a boring film on Netflix is quickly forgotten, and by being a bit adventurous, you’ll learn something about what you like and don’t like. And as the book says, the more you can move Stuff You Don’t Know into Stuff You Know, the better equipped you’ll be to make decisions in the future.

Intelligence does not necessarily make you more logical. This is a cousin of Confirmation Bias, the tendency we all have to seek out and preferentially believe information that confirms what we want to believe (and ignore or denigrate information that contradicts what we want to believe). If we’re cherry-picking our data, we have to rationalize why doing so makes perfect sense and is, appearances to the contrary, the correct way to deal with the problem. This requires *motivated reasoning* – the ability to come up with convincing stories that support our position and our cherry-picking actions. And more intelligent people are better at motivated reasoning than their less intelligent cohorts. In addition, intelligent people generally have a high degree of confidence in their own judgments, providing even more impetus to twist the facts to suit their arguments.

These are just a few examples of the pearls of wisdom contained in this book. *How to Decide* has many more insights into how often we slip into bad decision-making practices and how easy it is to do so. If it’s not on your reading list, I highly recommend it.

DA Around the World

Column Editors: Chen (Mavis) Wang and Shijith Kumar

In this column, we introduce Decision Analysis communities around the world to promote their visibility and strengthen the ties between DA researchers and practitioners across borders. In the current issue, we are interested in investigating the industry demand of Decision Analysis talents based on the advised job positions in the job-hunting website indeed.com. In particular, we collected and text-mined the ads and identified competencies required by decision analysis-related jobs.

To find decision analysis-related jobs, we set the search criteria to include at least one of the three phrases “decision analysis,” “decision science,” and “decision analytics.” We then collected 2,074 job advertisements in total from Indeed.com between February and May 2021, covering its websites in several different regions of the world. Among those job locations, 1,670 were in the United States. Besides, there were also advertisements for jobs in eight other countries, including the United Kingdom (132), China (79), Singapore (54), Australia (50), Canada (45), Germany (29), Switzerland (8), and France (7). In the remaining part of this article, we summarize the skills and competencies needed in the workplace for decision-analytic professions across these representative countries.

For the content analysis of the screened jobs, we used the software WordStat 8.0.35 to perform text-mining. To determine the competencies most needed for decision analysis-related positions, we first counted the most frequent words and phrases in these ads. We then subjectively divided them into two broad categories - *soft skills* (such as communication skills, teamwork skills, etc.) and *technical skills* (such as programming languages, statistical tools, etc.). We constructed a dictionary for the competencies spanning these two skill-categories (see Table 1). Later, we merged different expressions of these capabilities, including synonyms, n-grams, unique nouns, and phrases. For example, an advertisement may contain phrases such as “in a team,” “as a part of ____ team” (____ stands for an arbitrary expression like domain team or visualization team, etc), “in team settings,” “teamwork skills,” “within a team,” and “team player,” we believed that this position hopes that the candidate has teamwork skills. We also manually validated these merged expressions. Finally, we noted the interdependencies between some of the competencies and retained competencies that are meaningful to the industry practitioners, even though some could overlap. For instance, candidates who have a good mastery of machine learning methods generally possess strong programming skills, and those who can perform data analytics tasks should know statistics.

Table 1 List of Frequently Mentioned Competencies in Ads of Decision Analysis-Related Jobs

Skill categories	
Communication skills	Data analytics
Statistics	Business-related skills
Database technology	Basic office software
Programming languages	Predictive analytics
Problem solving skills	Machine learning
Project/program management skills	Visualization skills
Statistical tools	Independent working ability
Anti-pressure ability	Interpersonal skills
Operations research	Big data
Multitasking ability	Risk management
Simulation	Software development
Detail orientation	Teamwork skills
Leadership skills	Data management
Data mining	Presentation skills
Supply chain	ETL (Extract, Transform, and Load)

What do we find?

Figure 1 shows the frequency of occurrences for the above identified competencies in different job ads. More than 65% of the decision analysis-related jobs require candidates to have good communication skills, followed by data analytics and statistics. If we counted predictive analytics, statistical tools, big data, and data mining, we could see a great demand for people/talent who could draw insights out of data. In addition to this, employers expect job candidates to possess basic data handling skills. We could see that more than a third of the positions needing basic database skills, including database technology, data management, and ETL (extract, transform and load data), implying that the capability of obtaining, processing, and managing data is also handy. So, data handling skills are the must-haves for these job positions and possessing skills to make meaningful insights from data is highly expected.

Interestingly, many decision-analysis related jobs also require traditional operations research and management science skills, such as operations research, simulation, risk management, etc. Moreover, many decision-analysis related jobs are management-oriented. They require good leadership skills (such as problem-solving skills, multitasking ability, business-related skills, interpersonal skills, etc.), to which the principles and methods of decision-analysis connect very well. Therefore, we believe that Decision Analysis is always a critical module in the ORMS profession skillset and should be emphasized in the ORMS education.

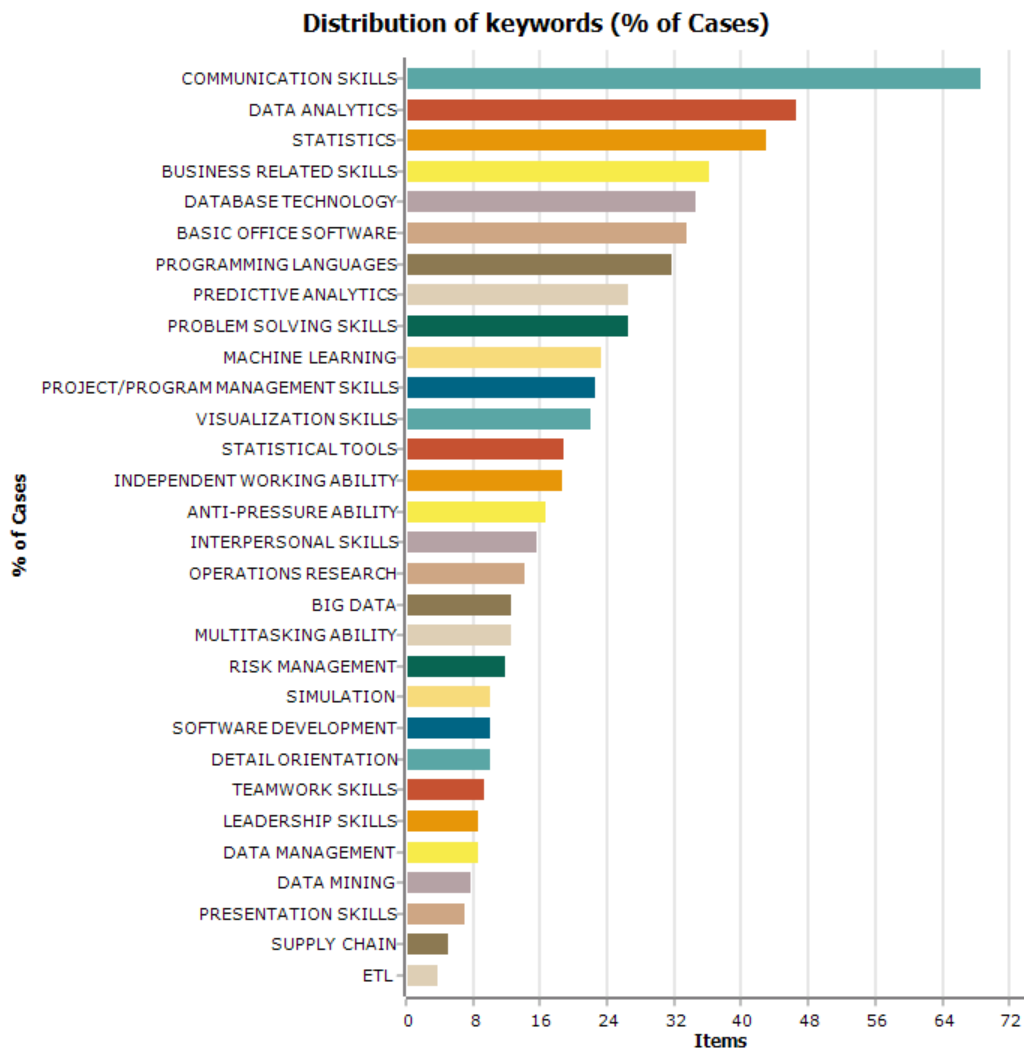


Figure 1 Distribution of Skill Categories in Job Advertisements [A country-wise view](#)

A country-wise view

Next, we had a closer look at the four countries with the most advertisements we collected, including the United States, the United Kingdom, China, and Singapore. Figure 2 shows the sought competencies in four countries' decision-analysis related jobs in the form of a word cloud. The skills requirements of jobs in different countries are not significantly different. However, we can see that job positions in the US and Singapore emphasize communication skills more. In contrast, companies in the UK place roughly equal emphasis on data analysis, statistics, and communication. Chinese companies place less emphasis on problem-solving but require more machine learning skills.

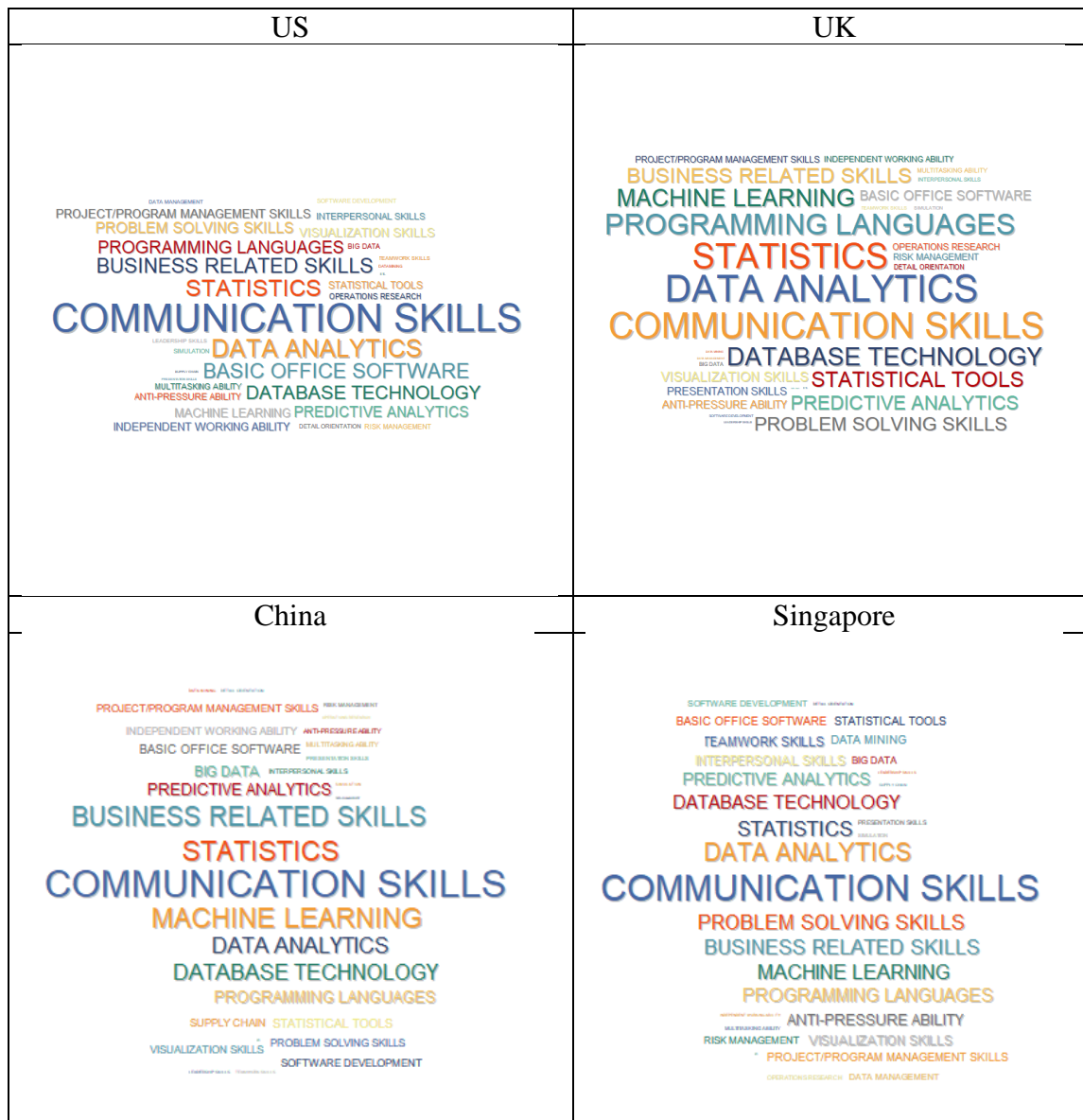


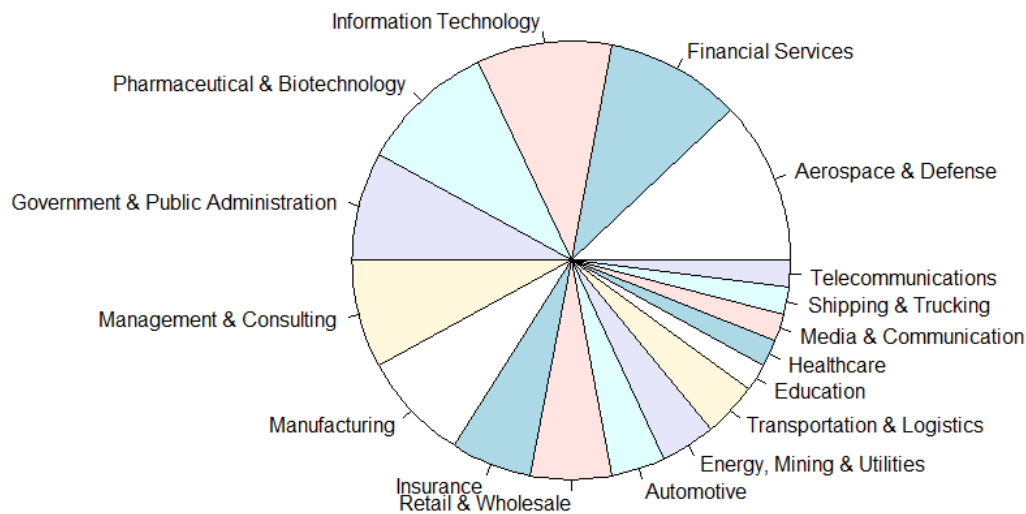
Figure 2 Distribution of Skill Categories in Job Advertisements for Top Countries

Next, we take a closer look at the jobs in the US (a vast majority of the jobs were listed in the US). Specifically, we identify the top 50 firms which posted the highest numbers of decision-analysis related jobs (see Table 2 for the top ten companies), and developed an industry-wise distribution for these jobs listed (see the pie-chart in Figure 3). The top five industries are Aerospace & Defense, Financial Services, Information Technology, Pharmaceutical & Biotechnology, and Government & Public Administration. About fifty percent of the top 50 companies are in these five areas.

Table 2 Ten Companies in the US with the Most Decision Analysis-Related Job Advertisements

Table 2 Ten Companies in the US with the Most Decision Analysis-Related Job Advertisements

Company name	Industry	# of ads
Govini	Information Technology	67
Exelon Corporation	Energy, Mining & Utilities	33
Sandia National Laboratories	Government & Public Administration	32
American Express	Financial Services	32
Allegheny Science & Technology	Government & Public Administration	31
ZS Associates	Management & Consulting	29
Experian	Financial Services	29
FedEx Services	Transportation & Logistics	28
Takeda Pharmaceuticals	Pharmaceutical & Biotechnology	25
NBCUniversal	Media & Communication	23

**Figure 3 Industry Distribution of 50 Companies in the US with the Most Decision Analysis Related Job Advertisements**

We hope that this brief analysis of DA-related jobs across different regions would be quite informative and also help all of us get a perspective of how DA is shaping up in the industry.

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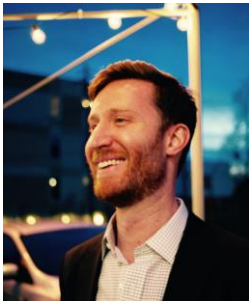
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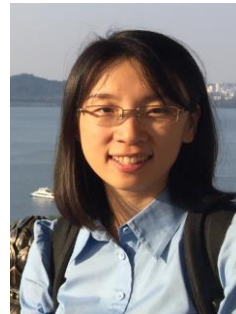
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