A Scholarly Magazine of the Decision Sciences Institute Vol. 51, No. 3 May/July 2020

DECISION LINE

PRESIDENT'S MESSAGE

President Kannan Shares Institute Progress

Dear Colleagues,
Ready or not, fall semester is well and truly in view, and spring semester fast disappearing from the rear-view mirror. It was an unprecedented semester. For those of us in higher education, it highlighted the fact that while we may have a reputation for...
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DSI BOARD UPDATE

Recap of May Board Meeting

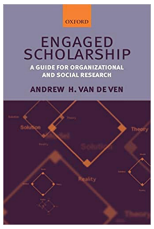
The first meeting of the DSI 2020-2021 Board took place via WebEx. Immediate Past President Janet Hartley virtually handed over the gavel to President Vijay Kannan, as the new Board officially began their elected positions on May first...>> More

2020 ANNUAL CONFERENCE

2020 Program Chair Message

In the last six months our academic life has undergone a rapid and profound change. As early as March 2020, the 2020 DSI conference program team began discussing the future of the November conference as a result of the COVID-19 situation. We all agreed that the safety and health of our members, the significant budget cuts and restrictions that many academic institutions all over the world are implementing, as well as individual concerns with travelling and large gatherings mandate that the physical conference in San Francisco should move to a virtual format. ...>> More

FROM THE BOOKSHELF



Book Review for "Engaged Scholarship – A Guide for Organizational and Social Research"

Could the COVID-19 pandemic have expedited the immediacy of the "no more ivory tower" realization by prodding us closer to being able to sense and think how main street dynamics truly work? Sensing and thinking are what we do, which are of value; but what about doing?...>> More

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2020-2021 DECISION SCIENCES INSTITUTE OFFICERS

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ISSUE MONTH	DEADLINES FOR AUTHORS
January issue	December 10th (prior year)
March issue	February 10th
May	April 10th
July issue	June 10th
October issue	September 10th

VISION STATEMENT

Decision Sciences Institute will be recognized globally as a scholarly professional association that creates, develops, fosters and disseminates knowledge to improve managerial decisions.

MISSION STATEMENT

Decision Sciences Institute provides forums to create, disseminate and use knowledge to improve managerial decision making involving systems and people.

PRESIDENT'S MESSAGE

Vijay R. Kannan
2020- 2021 DSI President

Dear Colleagues,

Ready or not, fall semester is well and truly in view, and spring semester fast disappearing from the rear-view mirror. It was an unprecedented semester. For those of us in higher education, it highlighted the fact that while we may have a reputation for being slow to act and innovate, we can pivot with the best of them. The efforts of our members to transition to remote teaching on a few days' notice while remaining responsive to the needs of our students was both impressive and inspirational. We have an opportunity to show that we too can be resilient, and to have conversations about the innovation culture of our business schools. DSI members should lead as we embrace the instructional and financial challenges ahead, learn from the current crisis, and make our institutions more agile before the next crisis hits.

Despite the times, the work of the institute continues at full speed. Indeed, the increased use of Zoom and WebEx has perhaps taken communication and collaboration to new levels. As reported previously, we unexpectedly found ourselves in need of a new Co-Editor for Decision Sciences Journal. Mark Ferguson took on the role two and a half years ago, and working first with Cheri Speier-Pero and more recently Xen Koufteros, helped bring stability to the journal. A new editorial structure was established and steps taken to elevate the journal's stature. These efforts are beginning to bear fruit, the most recent Journal Citation Report showing the journal to be on a positive trajectory.

	2017	2018	2019
2-year Impact Factor	1.641	1.960	2.014
5-year Impact Factor	2.479	2.799	3.00

While there is work still to be done, I am confident that, under the leadership of Xen and now Sri Talluri, continued progress will be made. Xen and Sri are committed to improving the review process and providing a higher level of service to authors, attracting leading scholars both as members of the leadership team and authors, and developing a strategy to elevate the journal to the ranks of the elite.

July 1 also saw the start of Susan Palocsay's tenure as editor of Decision Sciences Journal of Innovative Education. Having brought Susan on as an Associate Editor during my tenure as editor, I am well aware of her editorial leadership qualities and commitment to elevating the journal's standing. She has a record of accomplishment in decision sciences education that brings credibility to the role of DSJIE editor. I am sure Susan will build on the efforts of Matthew Drake who ably led the journal for the last four years, and worked diligently to raise its visibility.

Planning for the first DSI virtual conference is also progressing well. As of the time of writing, well over 800 submissions have been received. This is very encouraging in comparison to submission levels in more 'normal' years, and anticipating the typical large wave of deadline day submissions still to come. A working group was established to evaluate online conference platforms that would best fit our conference needs and provide the features, functional-

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ity, and support required to ensure another successful, albeit virtual, event. They enthusiastically made their recommendation to the board for approval. Another working group will be tasked to support program leadership and explore how to creatively incorporate the social element in the conference, a hallmark of DSI meetings. There is a certain excitement among those involved in planning for the conference.

Despite being only six weeks removed from receiving their marching orders, several committees are already deep into their charges. For example, the Information Management Committee is on track to unveil DSI's Web Gallery initiative that will give greater visibility to regions and chapters on the DSI web site. The Marketing Committee is at an advanced stage of developing a Call for Proposals that will enable us to move forward with a much-needed brand analysis. The Publications Committee has begun the process of searching for an editor for our new professional development publication, and developing a review process for the institute's publication editors. The Regional/International Presidents' Committee has been meeting regularly to exchange ideas and consider the ramifications of the COVID-19 situation for regional meetings in 2021.

Despite being barely two months into the board year, the Board's commitment to helping DSI move forward quickly yet deliberately in challenging times is apparent. We have already had to make several key decisions that will impact the institute's present and future, and the Board has been ready to engage, discuss, and act. While I would be delighted for the remainder of my term as President to be less 'exciting', I am comforted by being surrounded by a team that is ready regardless of what is in front of them.

Have a safe, healthy, and relaxing rest of summer.

Vijay R. Kannan
President

FROM THE EDITOR

Dear DSI Friends and Colleagues,

And the saga continues! COVID19 has wreaked havoc in everyone's life. Almost everyone we know has been impacted by the COVID19. Some of us may have lost friends, family members, and some of us have a very different way of doing things. Unexpectedly, we are living in a new era called the New Normal (NN) where there is nothing normal about it. Our research, our teaching, our network and how we see each other and communicate with each other have been impacted. I hope that you and your family are in good health.

During these perilous times DSI, like all other organizations, could not escape the wrath of COVID19. Like many other organizations similar to us, DSI officials so wisely decided to convert the 2020 conference from a traditional format to a virtual conference (the New Normal).

Maling Ebrahimpour *is the Dean and Professor of Supply Chain in the College of Business at The University of Rhode Island. He is an active researcher and has authored or coauthored over 100 articles that have been published in scientific journals and proceedings. Most of his work focuses on various issues of quality in both service and manufacturing companies. He received his PhD in business administration from University of Nebraska-Lincoln and has served on the editorial review board of several journals, including Journal of Quality Management, Journal of Operations Management, and International Journal of Production Research.*
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It is not surprising that COVID19 accelerated research with focus on pandemic and emergency situations. A quick check on Google indicates hundreds of research articles related to COVID19 published in scientific journals including peer reviewed business journals. These publications range from accounting to finance to supply chain to marketing to human resources, and many more areas.

Now, WebEx, Zoom, and MS Team are tools that we regularly use on a daily basis. This is another facet of the New Normal. Face to face meeting is now done via one of these tools. In addition to all these changes, the major changes are happening in our schools and affect how we teach. We are now talking about modality of course delivery in terms of face to face (F2F), Online, and Blended/Mix modes. In the meantime, administration and faculty of universities are scrambling to identify the best way to re-open their doors and return students back to their campuses. This turns out to be a very elusive and challenging process. Any decision made today may be out the door tomorrow, or next week, or next month if there is a change in the COVID19 situation. For example, discovery of a vaccine can change everything, a faster than expected spread of pandemic can change everything. It looks like we have been given the opportunity to make decisions in complete uncertainty. Indeed, we live in interesting times.

This issue of Decision Line is full of information about the conference. In addition, several articles relate to COVID19 and its impact on we as educators.

President Kannan's message provides a great overview of the conference and a discussion about the success of our two flagship journals and the increase of the impact factor of the Decision Sciences Journal (DSJ). It appears that we have a healthy number of submissions for our annual conference. I have firsthand knowledge of the decreasing numbers of submission and participations of a few other conferences and our numbers are very promising. Special thanks go to the conference organizers and the Home Office staff to make sure our annual conference attracts a decent number of submissions.

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Analytics and Data Science, Subhashish Samaddar, Georgia State University, s-samaddar@gsu.edu

Information Technology, Silvana Trimi, University of Nebraska-Lincoln, silvana@unl.edu

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Membership Roundtable, Gyula Vastag, National Szechenyi University gvastag@gmail.com

Supply Chain Management, Daniel A. Samson, University of Melbourne, Australia d.samson@unimelb.edu.au

Research Issues, Mahyar Amouzegar, University of New Orleans, mahyar@uno.edu

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The Executive Director's update from the Home Office is full of interesting information about our membership and how they are dealing with the NN. As we try to be recognized as a global professional organization, still most of our members are from the USA. I believe we need to exert more effort in getting our name and our values understood by other researchers from across the globe. We have tapped the surface but there is a lot more to do. The chart in the ED's article indicates a huge opportunity for us now and in the future. Nonetheless, we are enjoying a robust and healthy increase in our numbers. In addition, DSI's ED (Ms. Vivian Landrum) reports on how the board handled, and is handling the COVID19 and how agile they were in coming up with plans to counter the impact of the COVID19. Please read the details in the section titled DSI May Board Meeting Recap which provides many details and makes you proud to be a member of this organization.

In the next section, you will read detailed information about the state of the 2020 Virtual Annual Conference. The Program Chair's message (Carmela Di Mauro) provides an excellent highlight of the conference and many details of the activities planned for this year's virtual conference. It is a very promising conference and I am sure participants will be enriched by attending this conference. Among many highlights and important information about the conference, Carmela reminds us of one of the most important facts - that the conference will maintain its normal Saturday-Monday schedule (November 21-Novemebr 23).

In their article in the Ecommerce section, Julie and Ken Kendall write about the Ecommerce after the COVID19 Pandemic and whether we can prepare for the future. Their article, which is written in a very interesting format, is full of nuggets for the readers. I am sure you will really enjoy this piece.

In the bookshelf section, Mehmet Yalcin provides a thorough review of a book titled "Engaged Scholarship – A Guide for Organizational and Social Research," authored by Andrew H. Vande Ven. I encourage you to read this book review as it has relevance to the current environment asking us to be more engaged in all aspects of our work with our surroundings and that we are hearing more and more translating our research outcome into practice (such a creating an experiential learning environment). Van de Ven's definition of engaged scholarship encapsulates what the society is thirsty for, "as a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems." Who knows, maybe after reading this book review you might find a strong urge to read the entire book.

In the Information Technology section, Silvana Trimi, the feature editor, writes about Technology, Innovation, and The COVID-19 Pandemic. She writes about the challenges we face due to this pandemic. In this article, she discusses how to manage the pandemic and suggests ideas on how to overcome some of those challenges. She discusses collaboration, transparency, information sharing, and agility in the COVID19 environment. She elaborates on several ideas including application of technology to fight the pandemic. Silvana further discusses the innovation in the pandemic crisis environment and provides a good discussion of various ideas such as repurposing, automation, and many other entrepreneurial ideas. She concludes by stating that human resilience and advanced technologies could help us to come out of this pandemic stronger and with a heightened awareness of our surroundings.

Kathryn Zuckweiler, feature editor of In the Classroom, discusses "A Shifting Sea: Thoughts on Teaching in the Times of Uncertainty." She discusses how universities had to so very quickly pivot to online teaching from mostly a face to face (F2F) environment. She mentions how both students and faculty had hiccups with online courses. She rightly states that it is expected that faculty "get it right" for the Fall semester. She proposes several technologies that can be helpful for faculty to enhance and prepare themselves for teaching online courses. Video-capture tools are one of the tools that she brings to your attention. Kathryn suggest us to "Try Something

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DSI HOME OFFICE UPDATE

DSI HOME OFFICE UPDATE

By Vivian Landrum, Executive Director

Working from home, wearing a mask, keeping a six-foot distance between you and family, colleagues, friends, curtailing shopping and travel to essentials only – welcome to our new normal. Challenging times for sure. But as we all deal with living with a pandemic, I hope you are finding some positive consequences within all the negativity around us.

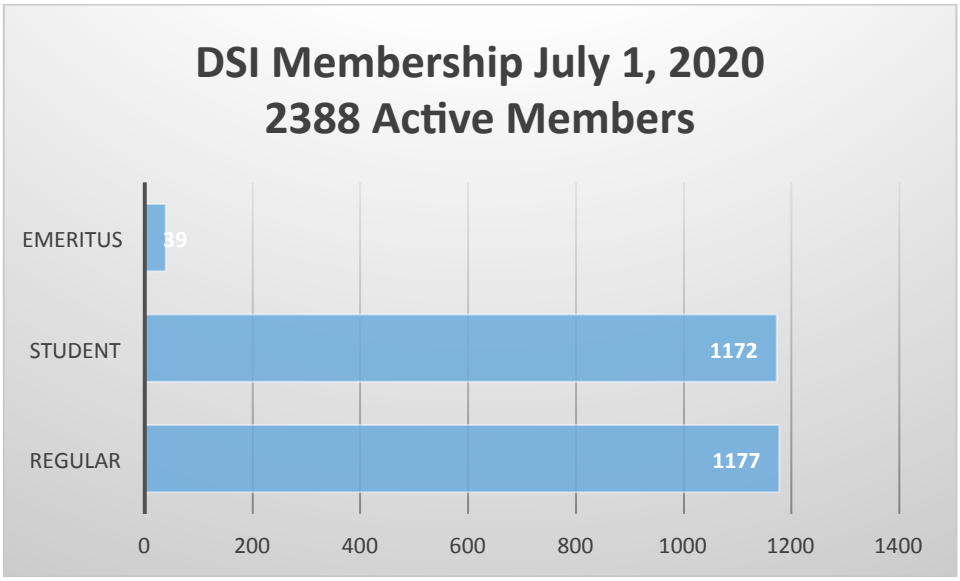
Your DSI Home Office staff began working from their homes mid-March and continue to do so. Maria Hunt, our Accounts Manager and Brenda Benitez Franco, our graduate student worker continue to keep up with emails, membership and financials. I flew to Hawaii early May to be with my husband and thus my “office hours” are a bit earlier to adjust for the time difference. As you may have seen on the news, Houston is not faring well right now with cases spiking. We all will continue to work from home as long as necessary until conditions permit a safe return to campus. We feel lucky that we can continue to perform our duties from the safety of our homes.

As of July 1, our membership numbers continue to remain strong. Our 2388 active members consist of 39 Emeritus, 1172 Students and 1177 Regular members. Time will tell with respect to the impact of budget cuts on our membership numbers for this fiscal year as renewals take place on anniversary join dates. The bulk of our membership renewals will take place in this next quarter. However renewals have been steady thus far.

The United States continues to host the largest percentage of our membership, as to be expected. However we find a nice mix of European countries, a strong contingency from India and rising numbers from China and Korea. We continue to explore opportunities for expansion via international chapters.

The 2020 DSI Annual Conference offers an opportunity for DSI to excel when conditions seemed bleak. The Program Team has put together an excellent lineup of

Vivian Landrum
DSI Executive Director



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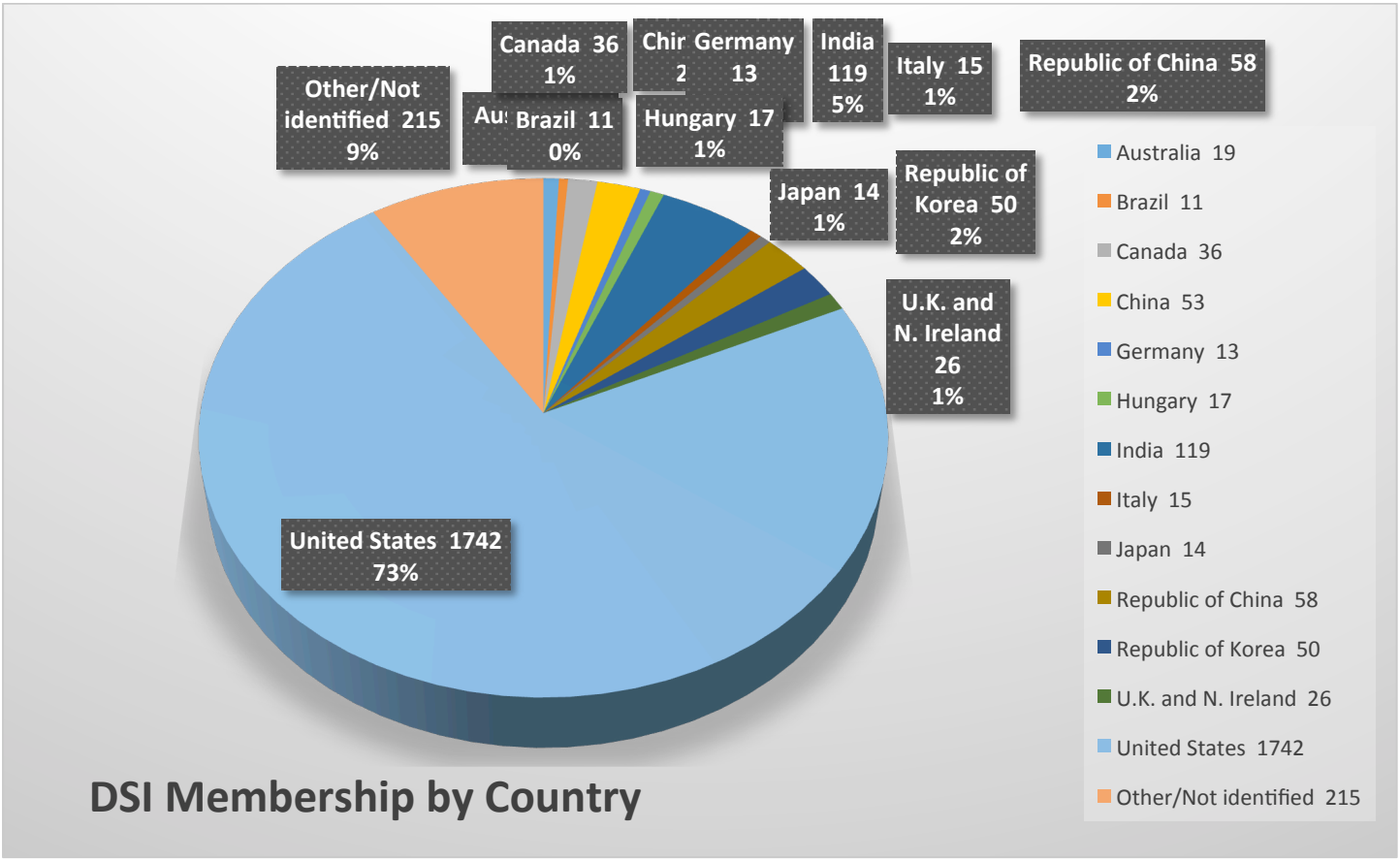
professional development workshops and panels, over 800 submissions ensure innovative and informative sessions, inspired keynotes, and a new online platform that will encourage creative networking along with virtual exhibitor activities. All at a very affordable price tag! New this year, the doctoral consortia will take place on Friday, before the official conference start on Saturday. This program is free to DSI members. Registration is required for both the conference and the consortia and is open now. Please refer to the DSI website for complete details.

I hope you and family are well as we continue down this road of pandemic uncertainty. Please know your DSI family is always here for you.

Sincerely,

Vivian Landrum



DSI MAY BOARD MEETING RECAP

BOARD HANDLES COVID-19 IMPACT ON CONFERENCES

By Vivian Landrum, Executive Director

The first meeting of the DSI 2020-2021 Board took place on May 16 via WebEx with all Board members attending. Immediate Past President Janet Hartley virtually handed over the gavel to President Vijay Kannan, as the new Board officially began their elected positions on May first. President Kannan welcomed the new and returning Board members and noted this year will be challenging but may also present new opportunities for DSI. He is eager to work with the Board and grateful for their willingness to serve.

Executive Director Vivian Landrum reviewed the Board Orientation materials, offered at the start of every new term. She emphasized the role each Board member plays, as well as their rights and responsibilities while serving on the Board. It is important to understand the Board must maintain a culture and structure that supports DSI's mission, vision, goals and strategic plan, as well as all legal non-profit standards.

The February 8-9, 2020 Board Minutes were approved. As the Board is constantly working outside of scheduled Board meetings, several votes were conducted between the February and May meetings. Notably were votes pertaining to immediate actions necessary in dealing with the consequences of the pandemic. The electronic votes were:

- Motion to allow publication of Decision Line in its current form until a call for nomination for editors can be issued for the new scholarly magazine, with Oct 2020 being the last edition in the current form at the latest. Approved February 20, 2020.
- Motion to recommend that the 2020 WDSI Conference (April 7 – 10) be "postponed," with the intention of re-scheduling with the 2020 host hotel for the 2022 conference. DSI will refund all conference registrations and cover the hotel cancellation costs for WDSI. Hotel cancelation costs will not be passed on to the region. Approved March 6, 2020.
- Motion that the DSI Board recommend to the NEDSI Board that they make the decision to cancel by March 12 or cancel if the situation in Boston moves to a greater risk level; that they notify all attendees immediately they have the option of cancelling with full refund. Approved March 7, 2020.
- Motion to recommend withdrawing SWDSI from participating in the 2020 FBD conference (March 11 – 14). This is not a DSI conference so we cannot cancel this conference directly. DSI will request that FBD refund registration for SWDSI attendees who choose not to attend. DSI will offer to cover our share of any penalties that may be invoked. Approved March 9, 2020.
- Motion to recommend that EDSI postpone the 2020 meeting planned for Lund on May 24-27 until 2021. Approved March 12, 2020.
- Motion to approve the revised SEDSI Charter as presented. Approved April 22, 2020.
- Motion to transition the 2020 DSI Annual Conference in San Francisco, CA November 21 – 23 from a face to face conference to an online conference.

Vivian Landrum
DSI Executive Director

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Executive Committee vote. All in favor. Motion carried May 1, 2020.

Landrum offered her report on the Home Office. A new graduate student worker, Brenda Benitez Franco, was hired late February. Her role is to assist in DSI communications, including social media, website and marketing. Benitez Franco is a marketing major. The Home Office staff began working from home on March 17. Landrum continues to hold weekly staff meetings via WebEx as Maria Hunt, Brenda and Vivian navigate the "work from home" challenges.

Newly-elected VP of Finance, Chris McCart, displayed her quick adjustment to her position and solid understanding of the financials by offering a review of DSI's current financial position. She noted YTD total assets sit at $2,510,800, however with the volatile market conditions, expect some additional investment loss before the end of this fiscal year. However, with the success of the 2019 Annual Conference, it is projected DSI will end this fiscal year in the black, with a net income of $200,000+.

McCart then presented DSI's FY2020-2021 Budget. Due to the pandemic conditions and face to face conference cancellations, income was budgeted utilizing an online conference scenario for the 2020 DSI Annual Conference, with no exhibitors or sponsors. A registration fee was set at $75. A decrease in membership and other income sources was also accounted for in the Board approved budget.

President Kannan next offered the 2020-2021 Committee Charges and Members roster for Board approval. Standing committees – Conferences, Fellows, Finance and Investment Advisory, Information Management, Marketing, Member Services, Nominating, Professional Development and Publications – were individually discussed, edited as needed and approved. An Ad-Hoc committee, Regional & International Presidents, was created to serve as a platform for sharing best practices and communication between/among regions and the Home Office. Editors and Award Committees were also reviewed and approved. (Note: all committees and charges can be found on the DSI website – About DSI – Leadership – Committees.)

2020 Program Chair Carmela Di Mauro joined the meeting via WebEx and offered updates regarding the conference planning. The Program Team has begun changing the consortia format. With the recent Board vote, they also began transitioning the conference to an online format, utilizing the results of a recent survey conducted with DSI members. The survey revealed 85% of members anticipate travel restrictions to impact their ability to attend a face to face conference. 73% would have concerns attending due to health issues. 44% would participate in an online conference, 23% would not and 33% were unsure at the time. Top activity choices for an online conference

Carmela Di Mauro
2020 Program Chair

DSI MAY BOARD MEETING RECAP

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included: keynotes, regular presentations, special sessions, panels and professional development workshops. It was noted that as networking and connectivity have been critical and integral to our conferences, it is important to incorporate some component of that in the online version.

With new Bylaws approved in 2018, new Policies and Procedures were mandated. The past two Boards had been drafting new P&P's and a final draft was submitted to the Board for review and approval. The draft presented incorporated revised prior P&P's, new formatting and new content. The new DSI Policies and Procedures was approved and can be found on the DSI website. It is offered to regions as a template, as they are now required to draft their own versions as per their Charter.

Past President Hartley updated the Board on the status of several new international chapters. In February, Qatar received Board approval on their submitted Charter and DSI is currently working with them on implementation. DSI has signed an MOU with Thailand to develop their Charter. Discussions had begun with China, however these have been placed on hold.

In a continuation of the Board discussion and vote from the February meeting, President Kannan explained the transition that will take place for Decision Line. The Publication Committee will conduct the first step by opening the search for a new editor. The overall intent of the new publication is to bring in content that will excite/appeal to a broad group of constituents both within and outside of DSI. The October issue of Decision Line is projected to be its final issue in its current format.

President Kannan adjourned the meeting with a message of gratitude to all Board members and a promise that this year may be challenging, however he is confident this Board is ready to work together to bring continued success to DSI.

FROM THE EDITOR

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New" and utilize resources that are available in many LMS systems. There are several other important points that she brings to readers' attention. I hope you enjoy reading this article and hopefully learn something that you can put to use for teaching your classes in the Fall semester.

The rest of the issue is about regional news and listing of the regional officers. If you are in the job market, please take a look at the positions listed under the Open Positions at Higher Education Institutions section.

I hope that you all take good care of yourself and your family and please stay healthy. Wearing masks and observing social distancing rules would be a great help to you and to your loved ones and everyone around you, including your students and your colleagues.

I encourage you, our reader, to share your opinions, ideas with us by writing and sending it to me at mebrahimpour@uri.edu. I am looking forward to reading your articles for inclusion in Decision Line.

Maling Ebrahimpour, PhD
Editor
College of Business,
The University of Rhode Island

PROGRAM CHAIR MESSAGE

In the last six months our academic life has undergone a rapid and profound change. As early as March 2020, the 2020 DSI conference program team began discussing the future of the November conference as a result of the COVID-19 situation. We included the DSI executive board in our conversations and consulted with the membership through an online survey. We all agreed that the safety and health of our members, the significant budget cuts and restrictions that many academic institutions all over the world are implementing, as well as individual concerns with travelling and large gatherings mandate that the physical conference in San Francisco should move to a virtual format. As Vijay Kannan, the DSI president, remarked in his message announcing the shift to virtual "This is ironic, given San Francisco's position at the center of a global technology hub and the conference theme of *Decision Sciences in the Age of Connectivity*."

The Program Team has taken the challenge and, in the past three months, we have painstakingly worked re-imagining the conference and planning the virtual activities. We will all surely miss the DSI receptions, the networking opportunities and the possibility to meet new colleagues and old friends that the physical conference in San Francisco would have offered. However, we believe that the virtual conference offers us a unique opportunity to use technology in creative ways to share our research and teaching practices, and to make DSI more inclusive. While the conference schedule will be finalized late in the summer, as of today, we can confirm the following, including several innovations:

- The conference will maintain its original dates of Saturday November 21 - Monday November 23 starting Saturday at 10 am ET.
- The program will include keynotes, special sessions and invited panels, professional development workshops, and awards. Unlike other online conferences, the DSI conference program will continue to offer regular paper sessions.
- The Doctoral Symposium has been moved to Friday 20th November and will be offered for free to all DSI members. This will be an exciting day with an opening panel, a "meet the editor session", workshops offered to doctoral students at different stages of their dissertation, as well as opportunities for networking.
- This year, there are 23 business research tracks and two educational research tracks, led by influential researchers in their fields.
- We have two new "Showcase tracks", one for doctoral students with papers in advanced stages of conceptualization and preparing to enter the job market, with a view to mentoring and providing feedback on the papers. A second one is intended to provide mentorship and constructive feedback to researchers from emerging markets for development purposes.
- Several professional development workshops on research, educational and career relevant topics with leading experts in the field.
- Awards competitions.
- Networking opportunities on line.

Carmela Di Mauro
2020 Program Chair

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In the coming weeks and months, we will continue to update you about the conference. We have strengthened our social media presence with a communication plan that will offers highlights of the conference.

The commitment of the program team and of the DSI leadership is to deliver an innovative, high quality experience that continues the long tradition of DSI conferences.

We look forward to meeting you at DSI 2020!

On behalf of the 2020 Program Team,
Carmela Di Mauro, DSI 2020 Program Chair

SPOTLIGHT ON KEYNOTE SPEAKER SUDHI RANJAN SINHA

Sudhi Ranjan Sinha, a business and technology leader, will be the first of two keynotes for the November conference. His keynote, titled "Reimagining Business with AI," fits well into the conference theme of Decision Sciences in the Age of Connectivity.

Sinha shares the following regarding his presentation:
"We live in the algorithmic age today where AI impacts nearly all aspects of our lives and work. AI has existed as a discipline for more than 60 years. Its recent rejuvenation is driven by the advances in digital capabilities around IoT, big data management, cloud computing, and communication technologies. As per a recent McKinsey study, by the end of 2030, the impact of AI is expected to be about $13 trillion with over 70% of companies impacted by AI. While AI brings a lot of new possibilities, it also brings new problems because businesses have to now reinvent themselves in this new world order. The keynote address will explore this topic and its implications for academia.

Topics to be covered in the keynote address:

1. Dawn of the algorithmic age
2. Reimagining businesses with AI and digital technologies
3. The evolving intelligent society
4. The emerging research challenges
5. Renewed role of academia in lifelong learning in decision sciences

Sinha is a business and technology leader with over 22 years of experience. He presently serves on the Boards of several digital start-ups. Previously he was the VP and GM of Digital Solutions for Johnson Controls (JCI) building new data-enabled businesses. Prior to working for JCI, Sinha spent 11 years with Tata Consultancy Services in various leadership roles. Sinha has several granted and pending patents in smart building technologies and has published two books on big data and IoT. Sinha has worked in the US, Europe, and Asia; he currently lives in Mumbai, India and holds a bachelor's degree in Engineering from Jadavpur University, India.

Sinha is scheduled to present on Saturday, November 21. Check the conference schedule for times.

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2020 ANNUAL CONFERENCE HIGHLIGHTS

DSI is proud to offer a full lineup of sessions at the conference this year. Not only will you find opportunities for thought-provoking conversations, but also venues to acquire new topical knowledge to share with students, new research methods to deploy in your scientific inquiries, and new pedagogical approaches as we all learn how to navigate our new normal in and out of the classroom.

Many professional development workshops (PDW's) will be featured at the conference. Currently there are ten research PDW's and four teaching PDW's. Here is the list of PDW's with a brief description. If you have any questions regarding any of the workshops, contact the Session Chairs.

RESEARCH PDW'S

Behavioral Research and Experimentation in Operations Management

Randomized experiments have been recently gaining traction in decision sciences and operations management. However, several internal and statistical validity threats can undermine the conclusions drawn from experimental studies. In this tutorial, we will briefly introduce some of these threats, as well as several potential solutions. After having introduced the endogeneity problem typical of observational studies (i.e., the correlation between a regressor and the disturbance term in a regression model), we will focus on major sources of endogeneity in experimental research. For instance, we will illustrate the perils of demand effects, the risks of running analyses conditional on non-randomized mediators, moderators, or covariates, as well as the problems related to running manipulation checks before measuring the main dependent variable of interest. We will finally present several experimental design strategies, as well as some statistical techniques (e.g., instrumental variable estimation) to cope with the abovementioned problems.

Sirio Lonati, HEC Lausanne
Sirio.Lonati@unil.ch

Conducting Successful Mixed Methods Research

Description unavailable at press time
Aravind Chandrasekaran, The Ohio State University
chandrasekaran.24@osu.edu

Dealing with Messy Data

Empirical researchers are increasingly drawn to curate a unique dataset by using a variety of secondary data sources. One of the key prerequisites to any such empirical research is to clean up data sources. In this workshop, I will explain general data management strategies, introduce common situations where messy data arises, and provide practical tutorials on dealing with messy data.
Hyunwoo Park, The Ohio State University
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Integrity and Ethics in Publishing

Description unavailable at press time
Erik Van Raaij, Erasmus University Rotterdam
eraaij@rsm.nl

Meet the Decision Sciences Journal Department Editors for the Empirical Studies in Supply Chain Management & Retail Operations Departments

Xen Koufteros, Texas A&M University
XKoufteros@mays.tamu.edu

Meet the Decision Sciences Journal Editors

Xen Koufteros, Texas A&M University
XKoufteros@mays.tamu.edu
Sri Talluri, Michigan State University
talluri@msu.edu

Predictive Analytics and Machine Learning

This workshop is aimed towards introducing the emergent field of predictive analytics in operations management research. Emergence of large

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secondary datasets in several areas of operations management such as new product development, product failures, retail operations, healthcare management, manufacturing operations and service operations have not only enabled researchers to address new questions in operational management but also, enabled researchers to have a new look at traditional questions. Real operations management is promised to undergo unpreceded metamorphosis due to incorporation of predictive analytics, decision support systems and artificial intelligence in several fields. However, to enable the potential of predictive analytics in operations management practice and research, it is essential to be able to use new types of data such as text data from social media, image and videos based data, sparse genetic data, etc., and new analytical methods such as machine learning and non-parametric statistics based methods.

This workshop is aimed at providing an overview of predictive analytics and the state of research using predictive analytics on complex and large datasets. There are two broad components to the workshop. First, the workshop will discuss general topics related to predictive analytics such as the difference between explanatory causal modeling and predictive analytic modeling of data, characteristics of big data, and general methods that can be used for predictive analytics. Second, the workshop will introduce a few illustrative examples of research using predictive analytics. Specifically, we intend to discuss three examples from healthcare analytics, product management, and social medial analytics. This workshop will hopefully motivate researchers to look into predictive analytic methods as a potential tool for research in operations management. Additionally, this will introduce predictive analytics in operations management to aspiring researchers who intend to delve into predictive analytics using large and complex datasets.

Ujjal Mukerjee, University of Illinois
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Social Networks Research

No description as of press time

Marcus Bellamy, Boston University
bellamym@bu.edu

Working on Big Data Using R

No description at press time

Pradeep Pandem, University of Oregon
pradeepp@uoregon.edu

TEACHING PDW'S

Effective Course Design for Gen Z: How to Engage Today's Tech Savvy Entrepreneurial Learners

Today's students have grown up with technology and we were all forced to embrace it with the COVID10 shutdowns. With the materials created, are you ready to flip your class? This workshop provides tips and tools for tackling the changing student population and teaching demands. Practical how-to advice will be shared, from setting expectations before class officially begins to engaging your learners to the end. Classroom tested techniques will be shared along with ways administrators can support faculty innovation in course design whether delivering face-to-face or remotely. Join the discussion to share your classroom trouble spots needing solutions and your successes.

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Facilitating Effective and Inclusive Student Teams

The current and future college student seeks inclusivity, communication that embraces collegiality and diversity, and integrated curricula that demonstrates interrelationships between disciplines on a global scale. In this interactive workshop, we will discuss research in engaging and inclusive pedagogical approaches that promote student engagement, teamwork, and learning. Suggestions and approaches to fostering greater team-dynamics through instruction

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will be introduced and disseminated. Practical, applied examples will be shared including an emphasis on creating diverse student work groups that are effective, impactful, and produce results not just for the classroom but for career experience as well.

Seth Powless, Earlham College
powlese@earlham.edu

How to Incorporate Deliberate Practice in Course and Curriculum Design

Deliberate practice is a training technique used to acquire high levels of expertise. Although there is increasing evidence of its relevance to higher education, two obstacles to its widespread adoption persist. 1. Due to its origins as a one-on-one coaching technique, deliberate practice is difficult to apply in traditional college classrooms. 2. Because the curriculum must be designed from the start to implement deliberate practice principles, instructional design guidelines are needed.

To help overcome these obstacles we develop an eight-step instructional design model called SPARRING that incorporates all deliberate practice principles into one conceptual framework. We also share 13 pedagogical techniques that can be used in and outside of the classroom to implement deliberate practice in higher education.

Using the SPARRING framework, we show that these techniques can deliver an authentic deliberate practice experience, even in traditional college settings. At a time of major disruptions in higher education, the SPARRING framework offers a new pathway for traditional residential colleges interested in teaching real-world skills that employers value in a manner not easily replicated by artificial intelligence.

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Online, Remote, Hybrid or Flex? GIFT Exchange for Mixed Modes of Teaching

Join the workshop to get some GIFTs (Great Ideas for Teaching) to refresh your courses. No need for contingency plans for teaching during the challenging time of the Pandemic and beyond. The workshop uses breakout groups and brainstorming to share ideas that help you deliver a flexible, engaging, and effective learning experience. GIFTs provide quick additions to your courses and new ideas for course design using multiple modes of delivery such as online, remote, hybrid, and flex.

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SPECIFIC INTEREST GROUP

Data, Analytics and Statistics Instruction (DASI)

Data, Analytics and Statistics Instruction (DASI) is a Specific Interest Group (SIG) within DSI. The primary focus of the DASI SIG is on improving education and instruction related to the effective use of data for decision-making. For the 2020 Annual Conference of DSI the SIG will have invited sessions, each addressing a particular topic that generally features three or more presenters. The goal of DASI sessions is to engage attendees in current topics of general interest. Sessions generally have time allotted for interactive discussion about the topic. Individuals who want to be a part of an invited session are encouraged to e-mail randrews@vcu.edu with a short description of the topic or topics they would be willing to present during a DASI session at DSI. The DASI co-chairs will confer and work with those making suggestions to incorporate the invited sessions into the annual conference. Typical topics address the practice of, software for, curriculum for and instruction for using data for decision-making in a variety of settings. As has been indicated, the conference management system does not allow submissions for this SIG. Please send a short description of possible

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topics to be considered for a DASI invited session at DSI 2020 by **e-mail to** randrews@vcu.edu.

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randrews@vcu.edu
Kellie Keeling, University of Denver
Kellie.Keeling@du.edu

SHOWCASES

New this year, two Showcases are offered.

Doctoral Research Showcase

Doctoral students are the future scholars of our field. This year at the 2020 Decision Sciences Institute Conference we are excited to introduce a new track to showcase doctoral research papers. This new track will distinguish from other regular tracks in several important ways.

The DSI 2020 program team is pleased to award a $300 prize to the best paper submitted to the showcase!

First, it is exclusively for doctoral student papers that are in advanced stages of conceptualization with a view to mentoring and providing feedback on the papers. Second, each presenting paper will be matched with appropriate discussants by the track chair to provide high-quality feedback, in addition to traditional audience feedback that the conference presentation provides. We will only have two to three papers per session with a view to provide the audience and students time to discuss papers. Third, given the inaugural nature of this track, we expect to accept only twenty papers. Preference will be given to candidates that are in the job-market, or close to the job-market. The remaining papers will be directed to general track. If a student is in the job market, we expect this will be beneficial to them. Fourth, all presentations will be scheduled in order to maximize exposure for the doctoral students.

We invite academics and practitioners who would like to volunteer to review and to become discussants for the doctoral student papers. The submission deadline was July 15. For further questions, please contact the track chair.

Adrian Choo, Michigan State University
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Emerging Markets Research

Increasing attention and focus on emerging markets' issues and opportunities motivates the need to publish more research focusing on emerging markets' issues in mainstream journals. This year at the 2020 Decision Sciences Institute Conference we are excited to introduce a new track on Emerging Markets which will comprise showcase and regular sessions.

The DSI 2020 program team is pleased to award a $300 prize to the best paper submitted to the showcase!

Emerging Markets Showcase Sessions

The showcase is intended to provide mentorship and constructive feedback to researchers from emerging markets for development purposes. This new track will distinguish from other regular tracks in several important ways.

First, it is exclusively for researchers from emerging markets. Emerging markets generally include countries in sub-Saharan Africa, Middle East & North Africa, Latin America & the Caribbean and Asia (excluding Japan, China, Hong Kong, Singapore, Korea and Taiwan). Submitted manuscripts could be work-in-progress papers or at advanced stages of conceptualization or development. Second, each presenting paper will be matched with appropriate mentors or discussants by the track chair to provide high-quality feedback, in addition to traditional audience feedback that the conference presentation provides. We will only have two to three papers per session with a view to provide the audience and researchers time to discuss papers. Third, given the inaugural nature of this track, we expect to accept only **twenty**

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papers into this special showcase. Preference will be given to research papers that focus on emerging markets' issues and are at relatively advanced stages of development. Fourth, all presentations will be in a roundtable discussion format to foster interactive discussions and maximize the benefit for the presenting researcher. All other papers will be routed to the regular track.

We invite academics and practitioners who would like to volunteer to review and to become discussants for the emerging markets research papers. The submission deadline was July 15. For further questions, please contact the track chair.

Adegoke Oke, Arizona State University
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The DSI member management system, GrowthZone, enables DSI to better manage and track membership renewal dates, payments and provides invoices in the member's portal for payment, download and printing. The process for member renewal is as follows: 30 days from member renewal due date, an email is sent to the member with an invoice attached. The date of the invoice is the renewal date/deadline. Members may pay directly from the invoice via a link embedded within. Or pay from their DSI member portal. If payment is not received by the due date, a reminder email is sent. If payment is not received within 30 days after the renewal date, one last email is sent asking the member to confirm they wish to continue their membership and allows another seven days for a response/payment. If no response is received, it is assumed the member no longer wishes to continue as a DSI member and the membership is automatically discontinued. This will void the invoice. Should a member wish to renew at a later date, they simply JOIN again and the old record will be attached to the new membership to preserve the history.

Questions? Contact the Home Office at 713-743-4815 or email info@decisionsciences.org.

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DOCTORAL SYMPOSIUM

The doctoral symposium will be held on Friday, November 20th, before the conference officially starts **and will be free for DSI members**. The hope is that doctoral students from around the world will find this free symposium to be a significant value add to their careers. Particularly in this time of the pandemic, there are few opportunities for networking with faculty and other students. The symposium will offer panels of speakers to provide wisdom on better managing an academic career, interactive sessions with journal editors, professional development workshops and even a social event. There will be plenty of time for breaks and virtual networking!

Everyone must register for the free symposium. You must be a member of DSI at the time of the conference to participate but student membership in DSI is FREE. **Registration for the symposium does not include participation in the annual conference taking place November 21 – 23. That will require a separate registration with fee.** You can look at the website for more information!

https://decisionsciences.org/annual-conferences/national-dsi/doctoral-symposium/

To register for the Doctoral Symposium, CLICK HERE.

Student membership in DSI is FREE. To Join, click here.

SYMPOSIUM SCHEDULE

Opening Panel: How to Navigate Your Academic Career — 9:30-10:30 ET
Facilitated by Wendy L. Tate, University of Tennessee

Panelists:
Stephanie Eckerd, University of Tennessee
Steven Carnovale, Rochester Institute of Technology
Sining Song, University of Tennessee
Stephan Wagner, Swiss Federal Institute of Technology
Morgan Swink, Texas Christian University
Peggy Daniels Lee, Indiana University

Research Track: Professional Development Workshops

Facilitated by: Cindy Wallin Blair, Brigham Young University

PDW1 — 10:45-11:45 ET
The Review Process: Responding to Comments and Conducting a Peer Review
John E. Bell, University of Tennessee

PDW2 — 1:30-2:30 ET
Writing a Compelling Introduction
Sriram Narayanan, Michigan State University

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PDW3 2:45-3:45 ET

Crafting a Manuscript that Makes a Theoretical and Practical Contribution

Barbara Flynn, Indiana University

Teaching Track for PhD students: Professional Development Workshops

Facilitated by: Yi Su Chen, University of Michigan, Dearborn

PDW1 10:45-11:45 ET

On Line Teaching for PhD Students, Tips and Tricks

Mark Collins, University of Tennessee

PDW2 1:30-2:30 ET

Teaching Generation Z

Karen Eboch, Bowling Green University

PDW3 2:45-3:45 ET

Teaching in a Global Setting

Vijay Kannan, University of Utah

Interactive Meet the Editors Session 12:00-1:00 ET

Editors from a number of journals will attend and host small group discussion sessions in breakout rooms.

Wrap-Up Session 4:00-5:00 ET

Networking Session, Preview of DSI conference, Open Q&A

Beverages Optional

ECOMMERCE AFTER THE COVID-19 PANDEMIC:

IS IT POSSIBLE TO PREPARE FOR THE FUTURE?

Julie E. Kendall
School of Business-Camden
Rutgers University

Kenneth E. Kendall
School of Business-Camden
Rutgers University

The novel coronavirus pandemic took most of us by surprise, but we bought a couple of masks (online, of course) on January 25 and so far, we are able to have food, groceries, and supplies delivered. This article examines possible changes in ecommerce during and following this crisis period. We flipped a virtual coin and Julie gets to talk about positive changes, while Ken is left talking about the negative effects. The article suggests that it is difficult to predict what will happen in the future.

Julie: After this crisis, more people will be using ecommerce, since their circumstances (stay at home restrictions affecting their work and schooling) have all but mandated that they upgrade their skills and technologies to keep afloat in their careers and their schools.

More people will take advantage of a variety of powerful price comparison tools and recommendation systems (Kendall, 2013) embedded into ecommerce platforms with the desire to make informed consumer choices and better-informed decisions (for example seeing all of the viable models

Authors

Julie E. Kendall, Ph. D*. is a Professor of Management in the School of Business-Camden, Rutgers University. She is a fellow of the Decision Sciences Institute and Past Chair of IFIP Working Group 8.2. In 2016 Julie was inducted into the PhD Project Hall of Fame for her work with minority doctoral students. She was awarded the Silver Core from IFIP and the AIS Sandra Slaughter Service Award. Julie was VP of SIGs, Chapters, & Colleges for AIS. Her research explores metaphors and storytelling in IS and corporate engagement in open-source software development. Julie's work appears in ISR, MISQ, Decision Sciences, ISJ, JAIS, Information & Management, CAIS, EJIS, Organization Studies, and many other journals. Julie is an Associate Editor for CAIS and a Preeminent Editor for The Data Base for Advances in Information Systems. She served as Associate Editor for MISQ and as a member of the inaugural editorial board of JAIS.*

Kenneth E. Kendall, Ph. D. *is a Distinguished Professor of Management in the School of Business-Camden, Rutgers University. Ken is a founder of the International Conference on Information Systems (ICIS). He is a Fellow of the Decision Sciences Institute (DSI), a Past President of DSI, a Past Chair of IFIP WG8.2 and has served a Program Chair for AMCIS and DSI annual conferences. Ken was inducted into the PhD Project Hall of Fame for his volunteer work mentoring minority doctoral students. Professor Kendall was named as the Educator of the Year in IS for 2010 by the Association for Information Technology Professionals. Ken was an Associate Editor for Decision Sciences for 12 years. He recently co-authored a text, Systems Analysis and Design, 10th edition, published by Pearson. Ken and his co-author and spouse, Julie, served as official nominators for the Drama League in Manhattan. Ken and Julie wrote gender-neutral lyrics to the Rutgers Alma Mater, which is sung at every commencement.*

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of printers for HP and seeing the competitors' comparable printers arrayed in one table with relevant pricing and printer-life information).

Another example of this ecommerce-integrated decision-making environment is the availability of a risk framework for making policy decisions that helps employers assess how employees can return safely to work. This framework and the risk calculator would be present in the same document where the decision will eventually be made and communicated.

In the future, people will be making more decisions within the ecommerce platform rather than coming to the platform with fully informed ideas about what is desired. Ecommerce platforms might also be integrated with collaborative tools so that corporate, household, or supplier/ manufacturer teams are able to interact within the same platform.

Ken: It is possible that we'll have fewer decisions to make and we will be thankful for what we receive from our forays into online shopping. During the weekend it turned Spring, the temperature rose to a wonderful 71° in South Jersey. We had planned to take advantage of this rare March event to grill some hot dogs outdoors that weekend. We ordered hot dogs and rolls from Whole Foods through Amazon. The order arrived as scheduled, but because of the shortages we are experiencing here, the personal shopper substituted tiny cocktail weenies for the hot dogs. If we tried to grill them, they would simply fall through the grates. So, if anyone ever asks us how many cocktail weenies fit on a hot dog bun, we know the answer.

Since then, personal shoppers have made many substitutions to our orders, even if we check the Do Not Substitute box. Brands of cereal, eggs, cheese, bread, paper towels (if we could get them), and cuts of meat have been substituted and delivered to us in New Jersey for over three months now. It is possible that the future includes an acceptance of products as interchangeable commodities.

The pandemic resulted in fewer ecommerce choices as far as food products (Gasparro, A., Bunge, J., and Haddon, H. (2020). This winnowing of choice may remain with us post-pandemic. Manufacturers used the period of the pandemic to streamline their product offerings, making greater quantities of best-selling items and stopping or slowing production on other less popular ones. When the pandemic began, there were shortages or perceived shortages of certain goods in the US. To keep the shelves stocked, manufacturers or growers sent more of their popular items while stopping or slowing the production (and therefore the shipping) of other more esoteric ones.

Julie: It is possible that ecommerce in post-pandemic will expand in innovative ways. Some researchers suggest that cross-border ecommerce opportunities for growth will exist in our new environments (Coresight Research, 2020). This desire for international ecommerce exchanges might be bolstered due to the on-again/ off-again travel bans and restrictions on people who cannot experience another culture in person but desire to use expertise, or consume products from, other countries.

Nationally and locally based ecommerce shops will need to work diligently and

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creatively to expand their reach across borders. Still, this is a way to grow without needing to set up brick and mortar shops and without adding new product lines.

Ken: Ecommerce technologies might be used to close, not open, international markets. Ordering online may be country or even regionally dependent. In an earlier Decision Line article, Allen Schmidt and I introduced Ajax to Decision Line readers. Ajax code allows a website to quickly change information on a website without reloading the page. When a user enters an address (or even when the user's IP address is identified), the website can change which products are available and even alter prices designed to change a shopper's attitude about the products. I myself experienced variable pricing when I searched for international airline tickets using a VPN.

I watched the available online options for food delivery disappear when the pandemic began taking effect. Suddenly, the restaurants that delivered were deemed to be too far away. Perhaps the delivery services decided that more customers could be served if choices were limited, but they have not returned after restaurants opened up. Furthermore, some restaurants are rebelling because delivery services demand too many fees (Allyn, 2020 and Popper, 2020.) The response has been nuanced, since some restaurants in our area retained online ordering, but dropped delivery service and now only offer pickup service. It will take some time to figure this out and it appears that it is too early to predict what customers will do using decision sciences techniques such as game theory.

Julie: Businesses as well as individuals will experience increasingly advanced technology embedded in ecommerce platforms (Evans, 2020). The health requirement to curtail or altogether eliminate human interaction during and post-pandemic is a prime driver of the incorporation of robotics into ecommerce user experiences. These include delivery by autonomous vehicle for last-mile delivery of food to a consumer, providing a completely contactless user experience with integrated online restaurant menus, cashless payment (and tipping), as well as eliminating face-to-face interaction with a delivery person. Amazon is trying drones to replace delivery by humans. Robots have been used successfully in hospital settings for years to dispense medication and clean contaminated surfaces. While some of these activities were spawned by the pandemic, they may well develop into an established user expectation after the crisis.

Embedding robotics into ecommerce platforms is also a powerful change that has shown itself to be useful during the pandemic when in-person interactions with people and physical locations must be limited. A good augmented reality (AR) rendering can help employees, students, and customers "improve visualization, instruction, and interaction" in the future (Porter & Heppelman, 2017). While the market awaits a standard, effective, inexpensive, and widely adopted consumer interface (e.g. glasses) for AR such as developed by Apple, Google, and so on, researchers are emphasizing the importance of developing an AR strategy so that companies are not lagging in adopting this technology.

Ken: The "Robocalpyse" is coming. That's what many people are saying. They fear the loss of jobs due to the growth of robots

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in the workplace. Even the gig workers will lose their jobs when technology like driverless cars replace Uber drivers. Researchers argue that job loss due to technology is short-term (Acemoglu & Restrepo, 2017 and Barlow, 2018). However, a growing dependence on robots and AI might contribute to the expanding income differential between worker and management. (Heater, 2017). This could result in workers and their families becoming reluctant or unable to spend money on education and technology. Lower-income people often suffer as their computers become obsolete, and they choose other methods for getting things done. At the same time, better-paid individuals can afford iPads, smartwatches, and other technology to improve the quality of their lives.

More than job loss, I feel that complex technology results in poor user choices. Users need to keep up on technology and constantly update their hardware, software, and operating systems. They need to take on the responsibility of maintaining their systems so they can work from home. They need to work safely. The recent uproar about photobombing as well as personal information security on Zoom (Cox, 2020; Gruber, 2020; Kan, 2020; and Libby, 2020) suggest that users want easy solutions to teleconferencing even though it makes them vulnerable security-wise. Users need to be responsible for their systems. Even though they may not be concerned about their personal privacy, they can inadvertently expose their friend's information to risks. Security threats will increase as people work from home.

This is, after all, the year of the virus.

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BOOK REVIEW FOR

"ENGAGED SCHOLARSHIP – A GUIDE FOR ORGANIZATIONAL AND SOCIAL RESEARCH"

Authored by Andrew H. Van de Ven from University of Minnesota Twin Cities, Oxford University Press, Paperback, ISBN: 0199226296, 330 pages, May 2007

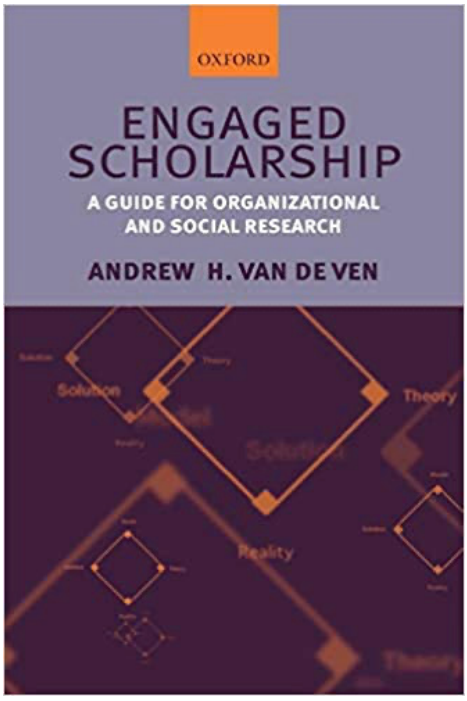
Mehmet G. Yalcin, Ph.D.

Keywords
Scholarship, Engaged, Practice, Science

Dr. Mehmet G. Yalcin *is an Assistant Professor of Operations and Supply Chain Management at the University of Rhode Island, College of Business. Mehmet held various engineering and managerial positions prior to joining academia where he has been recognized with research and teaching awards. He is a certified Black Belt in Lean/Six Sigma (LSS), and Logistics, Transportation, and Distribution (CLTD) and teaches Operations and Supply Chain Management courses to students and practitioners. Dr. Yalcin's research focus is the interface of sustainability and innovation with the focal point on Supply Chain Ambidexterity (SCX).*

> *"Scholarship means something more than research, and engagement is the means for scholarship to flourish." (Van de Ven, 2007, p.9)*

Could the COVID-19 pandemic have expedited the immediacy of the "no more ivory tower" realization by prodding us closer to being able to sense and think how main street dynamics truly work? Sensing and thinking are what we do, which are of value; but what about doing? To make ourselves –feel– useful, the guidance for reconciling practice and academia has always been there and the award winning work by Andrew H. Van de Ven is just one of them, but a special one. Indeed, it was the "Winner of the George R. Terry book award 2008 given by the Academy of Management for the book judged to have made the most outstanding contribution to the advancement of management knowledge"(p. back cover). Ironically, when the book was initially published, I was a procurement manager where my supply chain issues were, in most part, rather simple yet time consuming than complex and hopeless. Well, they had to be; otherwise, we could not have survived the competition. In any case, there, again, with another selfish reason for me to review a book authored by Andrew H. Van de Ven from University of Minnesota Twin Cities, "Engaged Scholarship – A Guide for Organizational and Social Research". Having stumbled upon it while researching paradoxes, I will be among many others who have already adopted this book in conducting a doctoral seminar course. If there is one message to take away from this review, here it is: "Written primarily for doctoral students and faculty who wish to know how to engage others to obtain a deeper understanding of their research problem and question"(p.ix), in his book, Van de Ven argues "that engaged scholarship produces knowledge that is more penetrating and insightful than when scholars or practitioners work on the problems alone"(p.ix). More? Sure! In his diamond research model, Van de Ven explicates the following four interrelated familiar steps: "(1) ground the research problem and question being examined in real world; (2) develop plausible alternative theories to address the research question; (3) design and conduct research to empirically evaluate the alternate models; and (4) apply the research findings to resolve the research questions about the problem"(p.ix). No surprises here but the valuable



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insights keep flowing within the remainder of the book and I present to you with a brief summary of what I thought could be highlighted in lieu of taking a critical stance. I hope you enjoy it.

Van de Ven apparently started drafting this book about 10 years prior to his initial publication "by compiling detailed class notes for a PhD social research methods course" (p.xi) that he taught almost every year which was fed with "trial-and-error in attempting to practice engaged scholarship, to read the literature about it across diverse fields of social science"(p.ix). Having often felt "…humbled by the complexity of the research problem, and of the necessity to obtain the perspectives of other colleagues, practitioners, and students to better understand the problem"(p.x), he suggests that "Involving others took more time and surfaced both consistent and conflicting information about a problem domain that were often difficult to reconcile. But the time and trouble of engaged scholarship paid off"(p.x) which led him to "… draw upon these and other studies throughout the book to exemplify principles of engaged scholarship"(p.x). Expressing that "a number of colleagues worldwide also used an earlier version of this book in research methodology courses they were teaching at their schools"(p.xi), he acknowledges the contributors "who carefully read and provided useful comments on chapters of the book"(p.xi). In addition to above, what makes this book a complete reference are special contributions such as guidance he received from philosophers, because, "…epistemology is a contested terrain among those adopting a positivist, relativist, realist, or pragmatic philosophy of science"(p.xi) and also "…much helpful feedback from participants in many invited seminars and workshops conducted in the USA, Canada, Europe, Southeast Asia, and Mexico"(p.xi).

> *"Written primarily for doctoral students and faculty who wish to know how to engage others to obtain a deeper understanding of their research problem and question" (p.ix)*

Chapter 1 clearly reveals the premise of the book and motivates the idea of engaged scholarship: "A central mission of scholars in professional schools is to conduct research… that advances both science and practice (Simon 1976). But this mission remains an elusive ideal"(p.1). "Management scholars, for example are being criticized for not adequately putting their abstract knowledge into practice … Practicing managers, as well are criticized for not being aware of relevant research and not doing enough to put their practice into theory…As a result, organizations are not learning fast enough to keep up with the changing times"(p.2). "However, there is evidence that academic research is also not adequately advancing the scientific knowledge … that papers published in management journals were cited on average only .82 times per article per year. Hence, much current academic research is not contributing in intended ways to either science or practice"(p.2). Van de Ven then reviews "three ways in which the gap between theory and practice has been framed. And then focus on one approach that motivates proposing a method of engaged scholarship (p.2).

Defining the first issue as "… one of translating and diffusing research knowledge into practice"(p.3), he points out the knowledge transfer problem. He argues "… that a deeper understanding of communicating knowledge across boundaries and a more engaged relationship between the researcher and his/her audi-

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ence are needed if research findings are to have an impact in advancing science and practice"(p.3). The second issue relates to science and practice being distinct forms of knowledge and asserts that "Each reflects a different ontology (truth claim) and epistemology (method) for addressing different questions. To say that the knowledge of science and practice are different is not to say that they stand in opposition or they substitute for each other; rather, they complement one another"(p.3). He then continues to suggest "Once different perspectives and kinds of knowledge are recognized as partial, incomplete, and involving inherent bias with respect to any complex problem, then it is easy to see the need for a pluralistic approach to knowledge co-production among scholars and practitioners. This leads to a third view of the theory-practice gap – namely, a knowledge production problem"(p.4). Criticizing the "… the status quo mode of research typically practiced in business and professional schools"(p.5), the author claims that "because such research is not grounded in 'reality', does not entertain alternative models for representing reality, nor is it informed by key stakeholders, it often results in making trivial advancements to science, and contributes to widening gap between theory and practice"(p.5). Discussions of structural reforms "… such as modifying academic tenure and reward systems, funding criteria for competitive research grants, editorial policies and review procedures of academic journals, and creating additional outlets for transmitting academic findings to practitioners… tend to overlook the choices and actions available to individual scholars undertaking research in a professional domain"(p.5), Van de Ven offers his "…methods and strategies that have more immediate relevance to individual scholars engaged in the knowledge production process"(p.6).

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Van de Ven defines *engaged scholarship* "as a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems"(p.9) and states that "… most phenomena in the social world are too rich to be understood adequately by any single person or perspective. Consequently, any given theoretical model is a partial representation of a complex phenomenon that reflects the perspective of the model builder. No form of inquiry is value-free and impartial; instead each model and perspective is value-full"(p.14). He then suggests that "Instead of viewing organizations and clients as data collection sites and funding sources, an engaged scholar views them as a learning workplace (idea factory) where practitioners and scholars co-produce knowledge on important questions issues by testing alternative ideas and different views of a common problem"(p.7) and calls on many American public universities "… to return to their charter mandate of a Land Grant University, as established by the Morrill Land Grant Act of 1862 (Schuh 1984)"(p.7). Acknowledging that "… one of the major barriers to

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sustained faculty involvement in engaged scholarship is the risk associated with trying to achieve promotion and tenure"(p.8), the author places scholarship as the ultimate prize for the profession rather than mere research. "My argument assumes, of course, that the primary motivation of engaged scholars for undertaking research is to understand this complex world, rather than to get published and promoted. The latter is a by-product of the former"(p.29). "Scholarship that engages both researchers and practitioners can provide an exceedingly productive and challenging environment; it not only fosters the creation of knowledge for science and practice, but it may dissolve the theory-practice gap"(p.35).

It is of common view among the social scientists that "Whether explicit or implicit, we rely on a philosophy of science to interpret the meanings, logical relations, and consequences of our observational and theoretical statements"(p.36). "… past 30 years have witnessed a major deconstruction and revision of traditional views of social science"(p.36) therefore "Engaged scholarship requires a comparative understanding of different philosophies of science"(p.37). To that extent, "Chapter 2 attempts to provide a synthesis of this reciprocal relationship between the philosophy of science with a historical view of four philosophies of science – positivism, relativism, pragmatism, and realism. It provides a discussion of how key ideas from each philosophy inform engaged scholarship, and how the practice of engaged scholarship might influence these philosophies of science"(p.14). Making his pick clear as a critical realist perspective, he adopts the philosophy that "takes an objective ontology (i.e., reality exists independent of our cognition) and a subjective epistemology. More specifically, this perspective is based on the following principles: (i) There is a real world out there (consisting of material, mental, and emergent products), but our individual understanding of it is limited. In general, physical material things are easier to understand than reflexive and emergent social processes. (ii) All facts, observations and data are theory-laden implicitly or explicitly. Social sciences have no absolute, universal, error-free truths, or laws as any scientific knowledge. (iii) No form of inquiry can be value-free and impartial; each is value-full. Some methods are better warranted than others depending on the phenomenon. (iv) Knowing a complex reality demands use of multiple perspectives. (v) Robust knowledge is a product of theoretical and methodological triangulation where evidence is not necessarily convergent but might also be inconsistent or even contradictory. (vi) Models that better fit the problems they are intended to solve are selected allowing an evolutionary growth of knowledge"(p.37-38).

> *Van de Ven defines **engaged** scholarship "as a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems"(p.9)*

Van de Ven points out "… problem formulation is often rushed or taken for granted. People tend to be solution-minded, rather than problem-minded"(p.17). He argues "that the more complex the problem or the bigger the research question, the greater the level of engagement is required of researchers from different disciplines and practitioners with different functional experiences"(p.18). To manage the engagement process, later in the book, he explains "four general methods for reasoning through paradoxes either: balancing between opposites, shifting levels of analysis, alternating positions over time, and introducing new

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concepts that dissolve the paradox. Inconsistent and contradictory findings are important, for they represent anomalies that trigger theory creation"(p.16). He suggests, "Managing conflict constructively is not only important but lies at the heart of engaged scholarship. Attempting to avoid tensions between scholars and practitioners, as we have in the past, is a mistake, for it blinds us to very real opportunities that are possible from exploiting the differences underlying these tensions in understanding complex phenomena"(p.17). Chapter 3 consists of Situating the Problem (Focus and Timespan, Level, Scope), Grounding the Problem in Reality, Diagnosing the Problem (Data classification and aggregation, Heuristic matching of problem and solution, Refining solution to the case, Relations among diagnostics steps, Going beyond the data given), and Problem Solving: The Research Question, Problem Formulation Techniques (Biases in Human Judgements, Cognitive Mapping, Group Process Techniques).

"My argument assumes, of course, that the primary motivation of engaged scholars for undertaking research is to understand this complex world, rather than to get published and promoted. The latter is a by-product of the former"(p.29). "Scholarship that engages both researchers and practitioners can provide an exceedingly productive and challenging environment; it not only fosters the creation of knowledge for science and practice, but it may dissolve the theory-practice gap"(p.35).

In one of his assertions, Van de Ven claims, "More significant knowledge is produced when rival plausible hypotheses are examined. Such studies are likely to add significant value to theory and practice"(p.21). While stating that "Selecting and building a theory is perhaps the most strategic choice that is made in conducting a study"(p.19), he suggests that theory building should be viewed "as entailing at least three activities—creating, constructing, and justifying a theory"(p.20). Continuing his discussion with research design, "A theory is typically not open to direct inspection, while a model makes operational some specific predictions of a theory, which can be subjected to empirical inspection. The theory and the hypothesis are related by reasoning or calculation, while the real world and the data are related by a physical interaction that involves observation or experimentation" (p.21). Chapter 4 covers Conceiving a Theory (Variations in thought trials, Selecting among thought trials), Constructing the Theory (Terms and definitions, Relationships among concepts, Logical deductive reasoning), and Justifying the Theory (Inductive reasoning in science, Building theoretical arguments, Background, The claim, Reasons and evidence, Qualifications and assumptions, Reservations and limitations, Can a theory be general, accurate, and simple?).

Moving beyond the theory, "Chapter 5 provides an overview of two basic approaches that are often undertaken to examine process versus variance models" which are further detailed under Chapters 6 and 7. "These two models capture basic distinctions

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between research studies undertaken to investigate either: (1) variance or causal questions of 'what causes what'; or (2) process questions of how 'things develop and change over time'"(p.22). Chapter 6 includes Designing Variance Studies, The Research Question and perspective, The Unit of Analysis, The Causal Model, (Covariation, Direction of influence, Nonspuriousness (elimination of rival hypotheses), A causal modeling process), Experimental Designs (Randomized experiments, Quasi-experimental survey design, non-experimental case designs), Sample Selection and Generalization (Theoretical sampling, population sampling, Sample size), Measurement and Frame of Reference, Data Analysis, and Validity. Chapter 7 contains Formulating the Research Plan (Clarify meanings of process (process as a category of concepts, process as a developmental event sequence), Clarify theories of process, Frame of reference to view the research question, Mode of Inquiry, Observing processes in real time or relying on retrospective accounts, Sources of change, Sample diversity: homogeneous or heterogeneous cases, Sample size: number of events and/or cases, Process research designs), Measuring and Analyzing Process Data (Process concepts, Incidents and events, Defining an incident: a qualitative datum, Reliability and validity of incident construction, qualitative strategies for identifying events from incidents, Quantitative strategies for coding event sequence data, From event sequence to story narrative), and an Example of Process Research Design with Comments from Larry E. Greiner.

"Managing conflict constructively is not only important but lies at the heart of engaged scholarship. Attempting to avoid tensions between scholars and practitioners, as we have in the past, is a mistake, for it blinds us to very real opportunities that are possible from exploiting the differences underlying these tensions in understanding complex phenomena"(p.17).

The author suggests that "It is one thing to write a research paper, and quite another to transfer, interpret, and implement study findings at the communication boundaries of both scientific and practitioner communities"(p.25). "When the difference, dependence and novelty of domain-specific knowledge between people at a boundary increase, then progressively more complex processes of knowledge transfer, translation, and transformation are needed to communicate the meanings and potential uses of that knowledge"(p.25). "Hence, when communicating research findings, a research report should be viewed as a first—not the last—step for researchers to engage in conversations with potential users, and thereby gain a broader and deeper appreciation of the meanings of research findings"(p.26). "At this boundary, speakers and listeners engage in conversations and discourse to mutually share, interpret, and construct their meanings of research findings. Speakers and listeners become co-authors in mutually constructing and making sense of their interactions"(p.26). Under Chapter 8 where he discusses Communicating and Using Research Knowledge, details include Impact of social research on science and practice, Relevance, and Managing Knowledge Boundaries (Knowledge transfer, Knowledge interpretation and translation,

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Pragmatic and political transformation of knowledge, The need for multiple conversations).

All that said; what about the engaged scholarship research model? Van de Ven clarifies several times that he focuses "… more attention in this book on the question of how scholarship that is engaged with (rather than for) practice can advance basic scientific knowledge?"(p.10) and "… recommend that scholars allocate their time and efforts about equally to problem exploration, theory building, research design and conduct, and problem solving activities"(p.11) where "… the four activities of the diamond model … can be evaluated in terms of five criteria: relevance, validity, truth, impact, and coherence"(p.12). Addressing the how to scholarly engage stakeholders in a study, he lists four main paths as: "(1) obtain their perspectives and advice on a basic research question; (2) collaborate and co-produce knowledge; (3) design and evaluate a policy or program; or (4) intervene and implement a change to solve a client's problem"(p.13). Final chapter reviews Practicing Engaged Scholarship which includes A Story About Engaged Scholarship from Lake Wobegon (There's a controversy brewing in the academy, All is not peaceful and tranquil at lake wobegon university either, Confronting and learning from reality, conclusion), Summary of Engaged Scholarship Model, Forms of Engaged Scholarship (Research purpose: the problem and question, research perspective, Informed basic research, Collaborative research, Design/policy evaluation research, Action/intervention research), and Discussion (Being reflexive about the researcher's perspective, Spending time in field research sites). "Engaged scholarship can be practiced in many different ways to address a variety of basic and applied research questions. This chapter examined four common ways. Informed basic science and collaborative research are two approaches that vary in levels of researcher control for studying basic questions of description, explanation, or prediction. Design and evaluation research is typically undertaken to examine applied questions dealing with the development and evaluation of designs, policies, and practices in a professional domain. Finally, clinical action research represents a family of approaches for diagnosing and intervening in problems of particular clients. There are many variations of these four forms of engaged scholarship. A researcher should choose the specific form and level of engagement that fits his/her particular study."(p.294-295).

"… more attention in this book on the question of how scholarship that is engaged with (rather than for) practice can advance basic scientific knowledge?"(p.10)

Van de Ven emphasizes his ultimate message: "Don't you think that if we ground our research questions in practice, and involve practitioners in problem formulation, theory building, research design, and problem solving that management scholarship will flourish and the management profession will benefit?"(p.265) by relating to a story that was told in conferences that he concludes as "Well, that's the news from Lake Wobegon University, where all the women are strong, the men are beautiful, and the children are above average"(p.265). Look it up; you will find it interesting!

TECHNOLOGY, INNOVATION, AND THE COVID-19 PANDEMIC

The whole world is suffering from the unprecedented impact of the COVID-19 pandemic: economically, socially, personally, and emotionally. The fears of disease infection, forced quarantine, grave economic damage, and the extended period of social isolation affect the entire world. A very fortunate thing about COVID-19, though, is that the pandemic occurred in the current modern world of advanced science, digital technologies, and innovation with collaboration. It is unimaginable to think and compare the effects of this global pandemic with the previous brutal killers (cholera, bubonic plague, smallpox, and influenza) in the dark age of technology. In this article, we review how technologies and innovations are and can be effectively applied to help fight the pandemic.

Human history is a series of meeting daunting challenges with creative solutions. When a difficult problem is solved by an innovation, a period of tranquility ensues, only to be punctuated by a set of new and greater challenges (Siebel, 2019). The global pandemic problems appear to follow the same pattern, except, because of globalization, the frequency, speed of spread, and magnitude appear to be accelerating. The most devastating global pandemic was the Spanish flu during 1918-1920. The more recent pandemics include SARS (Severe Acute Respiratory Syndrome) erupted in China in 2003, novel influenza virus (H1N1) in 2009, MERS (Middle Eastern Respiratory Syndrome) in 2012, and avian influenza during 2014-2017. As dangerous killers they were, the world successfully isolated and controlled the pandemics through collaboration of governments and international organizations.

COVID-19 is another story. It started out with no special alarm to the global public health organizations. China announced (late) a pneumonia of unknown cause on December 31, 2019 in Wuhan (Wu et al., 2020) and within a couple of months, the virus spread rapidly across the globe with an accelerated number of patients and deaths. The World Health Organization (WHO) finally (late) declared COVID-19 a global pandemic on March 11, 2020 (Cohen & Kupferschmidt, 2020; Desmond-Hellmann, 2020). In a matter of several weeks, the virus brought global calamity, with devastating consequences to life and livelihood. In the US, COVID-19 erased same number of jobs that was created during the past 10 years and stopped the longest economic growth period in history. In about three months since WHO's announcement of the global pandemic, more than 10 million people have been infected worldwide and over a half million have died. No one knows when will the end of this virus come and what its short- and long-term impacts on people, organizations, economies, environment, and even democracy and societies will be (Craven et al., 2020).

The effect of pandemic would have been much worse if we did not live in this modern time of advanced digital technologies and science. We live in the age of the Fourth Industrial Revolution (4IR) and digital transformation (DT), the core of which is innovation based on convergence of advanced technologies and strategic ideas. We are fortunate that many advanced technologies (e.g., artificial intelligence (AI), machine learning, smart sensors and robots, Internet of Things (IoT), mobile and location technologies, 3-D printing, virtual and augmented reality (VR & AR), and autonomous systems) are at our disposal to first deal with the crisis, but more so to get out of it, by developing innovative approaches to change the way we work and live (Lee and Trimi, 2020). We will elaborate on why we are lucky to live in this modern world of digital technology, how advanced technologies and innovation were, are and can be used to: (1) go through the crisis with much less devastating effects than previous pandemics; (2) fight the COVID-19 pandemic in much shorter time than ever before, and (3) recover and pivot to a much changed new world of AC (after coronavirus).

CHALLENGES OF THE COVID-19 PANDEMIC

COVID-19 invaded the world like a silent murderous march in a very short time. The devastating impact of

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COVID-19 on people's health has been a compound function of many factors, besides the newness and the unknown of the virus: public health infrastructure, nation's preparedness to meet the challenges of epidemic or pandemic crises, the government leadership and strategies, national healthcare insurance, the level of technological development, community and civic commitment of people, and the like.

The mortality rates in different countries clearly indicate that isolating the virus, through the implementation of strict travel restrictions and the shelter-in-place policy at the early stage of the pandemic, had a major positive impact. Thus, on one side, there are countries that were quick in closing the borders and therefore had low mortality rates, such as China, New Zealand, Central European countries, Chile, and Peru. On the opposite side, there are countries that failed to impose effective restrictions early in the pandemic (Italy, UK, and Spain) and therefore had extremely high mortality rates. Table 1 shows the consequences of the three distinct strategic approaches to pandemic management: (1) *strictly* enforced blockage, (2) *no restrictions*, and (3) a *medium* level of managed control. China, where the pandemic started its destructive spread, falls into the first approach. China took draconian measures by completely blocking Wuhan, a city of over 11 million population, and restricting travel and international flights. Thus, the number of infection cases, deaths, and mortality rate all seem relatively low, especially in view of its population size. Sweden is in the opposite side, as she deployed a relatively laissez faire approach with no closing of schools, businesses, or gatherings. The results were mixed however: country seemed to be successful in the early stage, but had delayed effects with some devastating numbers of soaring cases of infection and deaths, thus the mortality rate became high. South Korea took the middle approach, and has been lauded for its success in managing the pandemic. South Korea successfully combined two parallel approaches: keeping the cities open but strictly controlling the spread of the virus through early implementation of innovative testing, using ICT for contact tracing, and isolation. South Korea (learning from a bitter experience of the MERS pandemic) was most prepared, has an effective public health infrastructure, and used public-private partnership (PPP) for technological solutions for testing, contact tracing, and isolating the infected people. The country implemented a controlled mix of closings (certain international flights, remote work, and online schoolwork) but most businesses have been operating as usual (e.g., restaurants, coffee shops, bars, even golf courses). Korea had a remarkably low mortality rate of 2.25%.

Table 1: *COVID-19 Infection Cases, Deaths, and Mortality Rate Statistics*

Source: Johns Hopkins University (June 23, 2020)

World/Country	*Confirmed Cases*	*Deaths*	*Mortality Rate*
World	9,184,976	474,609	5.17
USA	2,342,739	121,176	5.17
Brazil	1,106,470	51,271	4.63
Russia	598,878	8,349	1.39
India	440,215	14.011	3.18
UK	307,682	43,011	13.98
Peru	260,810	8,404	3.22
Chile	250,767	4,505	1.80
Spain	246,752	28,325	11.48
Italy	238,833	34,675	14.52
Iran	209,970	9,863	14.52
China	84,640	4,640	5.48
Sweden	60,837	5,161	8.48
S. Korea	12,484	281	2.25

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MANAGING THE PANDEMIC

The pandemic has not only affected people's health but also devastated the economy of almost every country, threatening to lead to a global recession and famine in some parts of the world, and has permanently altered the very fabric of people's lives. The primary challenge is how to contain the spread of the disease until a solution is found. Even though the genome of the virus was mapped in record time (it took few weeks to discover the COVID-19 virus vs. 15 years it took for the Spanish Flu pandemic virus) because of the data sharing and big data technologies, there is no effective cure and/or vaccine yet to fight the virus. Without a medical breakthrough, it is estimated that the number of cases may reach 200m-600m by 2021 and deaths between 1.4m-3.7m (Economist, 2020). To counter these challenges, the following should be done:

- *Collaboration, transparency, information sharing, and agility.* COVID-19 is a global pandemic which cannot be managed by a single country. The key to containing the pandemic is the knowledge about its infection patterns, movements, and effective control methods. Thus, global collaboration for data transparency and sharing of information in real-time among the countries about the DNA of the virus, its characteristics, spread, and successes and failures of different approaches for containment, are imperative.
- *Containing and mitigating the disease.* COVID-19 spread like a wildfire from Wuhan, China. Before WHO announced the virus as a global pandemic, each country had to establish its own strategies for fighting the disease. The key steps required were: (1) *Changes in behavior* - handwashing, using masks, social distancing. Changing people's behavior is difficult and it takes time; (2) *Enforcement* - prohibiting or regulating large groups of people (businesses, governments, schools, entertainment activities, sports, limiting 10 or less persons in a group, etc.); (3) *Testing, tracing, and isolation* – testing has been the most difficult task for most countries, at the beginning stage there was a lack of quality. The most challenging aspects of testing are insufficient capacity and costs. Tracing is very important to mediate the spread but also has been hard to do, in some countries more than others. Technologies, such as GPS, apps, and data collection and share exist and can support tracing easily. However, privacy issues and lack of a good partnership between the private sector and government to solve this issues are big hurdles. (4) *Healthcare capacities* – securing sufficient medical staff, facilities, equipment, supplies, and treatment logistics. Even most developed countries had major issues with these at the beginning of the pandemic, because of lack of preparedness. Developing economies have very poor healthcare infrastructures and thus face huge risk. The whole world is in the pandemic together, therefore developed countries must help other nations.
- *Developing drugs and vaccines for COVID-19.* Currently there is no drug that can cure the virus or a vaccine that can effectively prevent infection. However, the crisis has jump-started the innovation engine of not only biotech firms but also government agencies for the approval needed to speed up innovations.
- *Civic commitment of people.* Without a cure or a vaccine, containment of the pandemic depends on people learning to change their behavior. Fighting the virus cannot be done only by the government or healthcare providers. It requires shared commitment of everyone in the country, local communities and citizens.

APPLICATION OF TECHNOLOGIES TO FIGHTING THE PANDEMIC

The worst global pandemic during the last century was the Spanish Flu, which killed more than 50 million people (Mozes, 2020). It is reasonable to assume that if COVID-19 happened about 100 years ago, it would have as much or even more human casualties than the Spanish Flu. The major reason is that today we have the advanced technological infrastructure for real-time communication and information sharing, big

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data analytics, AI, machine learning, and global collaboration innovation opportunities based on convergence of the various ideas and strategies.

There are simply too many examples to cite regarding the application of advanced technologies and innovation approaches to fighting COVID-19 but we will present a short summary of most notable ones.

- *New technology-supported value chain operations*. The pandemic has a dramatic impact on the value chain of organizations. Global supply chains were either disrupted or almost disappeared overnight when many suppliers shut down their operations. Innovations and technologies helped, first in overcoming the shortage in supplies, and now in finding just-in-case suppliers (The Economist, 2020). The pandemic crisis also changed the concept of customer value. Instead of preferring friendly personal service, customers now prefer "untact" (Lee & Lee, 2020) or low-contact services (Hrynowski, 2020) such as home deliveries, curb-side pickups, or service by drones and robots.
- *Real-time scanning of the pandemic* - We cannot fight an invisible enemy. To understand the characteristics of the virus and the magnitude of its severity, speedy collaboration based on digital technologies among infected countries is essential. The DNA sequencing of virus is important for finding the treatment and vaccine. Open data sharing of findings from different countries and scientific centers is the key. WHO and national organizations like the Chinese Centers for Disease Control and Prevention (CCDC) publish open statistics data so that researchers can map the spread of the virus (Xu, 2020). Real-time data analytics helps local and federal governments respond quickly to slow down the pace of opening businesses or even closing back some of the openings.
- *AI, big data, and transparent information for agile decision making*. When the pandemic spreads at an accelerating speed, the defensive moves must be faster than the pandemic. The control tower of the pandemic, usually the country's CDC, must execute a seamless cycle of track-trace-test-treatment/quarantine with agility. This process requires application of advanced technologies, especially AI, big data analytics, and mobile apps (Tonby et al., 2020). South Korea has implemented mobile apps such as Corona19 Checkup (an AI-supported big data app that can provide information about virus infection when a person inputs personal health data), Corona Map, and Corona 100m (providing information about the location of infected cases).
- *Digital transformation of healthcare in the time of crisis*. The US and South Korea both reported first confirmed COOVID-19 cases on January 20, 2020. While the US was bogged down with bureaucratic procedures and problems with test kits, South Korea had, almost overnight, digital transformation of testing and hospitalization of severely ill patients. The speed of digital transformation had a dramatic impact. For example, by March 16, almost two months after the initial cases, the US had completed 74 tests compared to South Korea's 5200 per million population (Cohen & Kupfershmidt, 2020). Digital transformation was the key for agile response to the crisis. Social distancing has forced healthcare providers to telehealth services. Telehealth has seen a surge of 50 to 175 times higher, an indicator that the pandemic may fundamentally shift how healthcare will be provided and received in the future (Pannozzo, 2020).
- *New forced netizens in the time of isolation.* One unexpected benefit of the pandemic has been that the crisis has compelled many people to learn using technologies to function and entertain using technologies. During the time of shelter-in-place enforcement, people are forced to perform remote work, learn through online instructions, purchase groceries using cell phones, sell handicrafts through commercial platforms, entertain themselves playing online games, and many senior citizens learned to communicate with their loved ones using Facetime (Bello et al., 2020).
- *Preparedness for the pandemic*. It is inevitable

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that the world will face repeated pandemics. What this pandemic showed is how unprepared countries were, even the most developed ones such as the US and EU countries. The main reason that South Korea has had a high degree of success in fighting the virus spread is that it learned from its traumatic failure experience with MERS in 2015 where it had the largest number of infected cases (186) and deaths (38) outside of the Middle East (Terhune et al., 2020). With its world-leading ICTs, Korea implemented a "*do-check*" approach rather than a "*check-do*" protocol which most countries did.

INNOVATION IN THE PANDEMIC CRISIS

Crisis situations can stimulate extraordinary innovation ideas from people. As COVID-19 pandemic swept through the globe there have been a countless number of innovations, which were for fighting the disease, but are bringing much permanent and broader changes and transformation in an accelerated rate. We provide only a handful of cases as examples.

- *Repurposing (product, facilities, drugs, etc.*). Many manufacturing firms were forced to partially or completely close their operations during the pandemic. When the governments and first responders needed medical equipment or PPE, many of these firms jump-started their innovation efforts with a shared singular purpose of fighting the virus without the traditional constraints of government regulations. For example, Ford Motors changed some of its manufacturing facilities and produced 2.4 million face shields in a matter of 20 days (Stoll, 2020). True Value made a lightning fast changeover of its paint production to hand sanitizers and General Motors repurposed some of its assembly operations to producing ventilators (Ip, 2020). Different existing drugs were tried to cure the virus, with Remdesivir (developed since 2009) being one of the most successful ones. All these indicate the power of innovation, collaboration, agility, and "doing well by doing good" (Lee and Lim, 2018).
- *Agile scientific innovation*. Since China released the genetic sequence of COVID-19 in January 2020, almost every country with sufficient scientific expertise has been aggressively pursuing vaccines to prevent the virus (Desmond-Hellmann, 2020). For example, Moderna, a biotech firm in Cambridge, Massachusetts, has been conducting human trials on a vaccine in less than two months since the release of the virus' genome sequence (Ip, 2020).
- *Entrepreneurial innovations.* The period of isolation and urgent need for the various medical and personal protection material during the pandemic renders golden opportunities to many entrepreneurs, especially tech savvy young people. For example, a medical staff in a Korean hospital presented the "Drive-Thru testing station" idea. This idea, which was based on the drive-through method to distribute antibiotic material to citizens in a bioterrorism situation without direct human contact, was promptly implemented by a university hospital and it soon spread throughout the world (Oh, 2020).
- *Automation, digitization, and artificial intelligence*. The pandemic accelerated the shift towards people-less companies and touchless customer services. During the pandemic operations put plastic shield around workers and distance among them. However, many companies are going beyond that: they are transforming their operations by removing human touchpoints, toward a robotic leap forward. Online businesses have thrived during the pandemic (e.g., Amazon), which along with algorithms and automation save cost, boost efficiency, but most of all, protect workers and public health (Williams, 2020).
- *"Untact" customer service*. Lockdowns, shelter-in-place, and social distancing are widely practice in almost every country to control the pandemic. While people can work remotely or study online, they still need to purchase food items and other necessities, preferably without human contact. Untact service involves no human encounter during a transaction (Lee & Lee, 2020). Similar

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customer engagement ideas with low-contact or contact free services have been implemented by retailers, restaurants, hotels, airports, and even religious organizations (Hrynowski, 2020).

CONCLUSION

The digital age is characterized by its dynamic and uncertain environment. The silent but massively destructive COVID-19 pandemic has brought a total chaos to people, organizations, and governments. Already the world has suffered almost a half million deaths (as of end of June 2020), the global economy seems to be at the early stage of pandemic recession, and countries that hastened to reopen their economies are experiencing new waves of virus infection cases and deaths. However, we are also optimistic that the current pandemic will be conquered soon, given the extraordinary efforts for finding effective cures and preventive vaccines by so many governments, scientific communities, and collaborative international organizations. The lives and livelihoods will be changed forever. Because of human resilience and advanced technologies, the world will not only return to where it was, but in a heightened, much changed and advanced new normal. At least that is our hope!!!

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A SHIFTING SEA: THOUGHTS ON TEACHING IN TIMES OF UNCERTAINTY

Kathryn M. Zuckweiler, Ph.D.

Kathryn M. Zuckweiler, Ph.D.

Well, that was an unusual semester!

If your institution was like mine this past Spring, you had to pivot to fully online education for all students in mid-semester with little warning or time to prepare. While certainly not an optimal way to approach education, I think we all learned some things and emerged in one piece (more or less) from a challenging semester.

Much has been written about how our students struggled with the shift from face-to-face to fully online education, the associated technological challenges, and the isolation of social distancing. There also seems to be a consensus that students were willing to overlook some hiccups with online courses this past semester, but this forbearance isn't expected to extend into the Fall semester.

There is a great deal of pressure on faculty to "get it right" this Fall. Getting it right includes so many facets of teaching and learning, some of which are second nature and others which require deliberate and dedicated attention. If you're spending part of your summer prepping your Fall classes for online or a possibly yet-to-be-determined delivery mode, here are a few tools and ideas to consider:

VIDEOS

Now more than ever, it's critically important to find ways to connect with our students to boost their engagement in the course and help them succeed (not to mention the positive impacts on faculty who thrive through student interaction). One of the best ways to connect and build community is via video – let your students see and hear you. If your cat walks across the keyboard or your dog barks in the background, so much the better. Students need to know that we're human and dealing with the same work-from-home challenges they are.

There are a variety of free video-capture tools available for both synchronous and asynchronous uses, as well as some excellent subscription-based tools. Some of my favorites include Flipgrid and Screencast O'Matic. Additionally, most laptops, tablets, and smartphones come with a video capture utility built-in. Videos are a great way to introduce yourself at the beginning of a course, provide introduction to a new topic, and offer feedback on an assignment. While no longer a free service, VoiceThread offers an elegant and intuitive user interface that allows an entire class to comment on a topic, either with just voice or with full video and audio. I used VoiceThread in my classes for years and found that it made asynchronous discussions much richer and more engaging.

Many learning management systems have video capture capability already integrated. It may be worth a quick email to your IT or Distance Education teams or instructional designers to inquire about existing resources. Tapping into existing, supported resources may ease the adoption process for both you and your students.

To transcribe or closed-caption your videos, two of the best bets are Google's Live Transcribe and YouTube. Live Transcribe is available on Chromebooks or as an Android app. It transcribes speech in real-time with a very high degree of accuracy, however saving the transcript and appending it to a video file is a little more challenging due to the minimalist user interface. YouTube's closed-captioning utility is remarkably good and can be edited to correct any errors prior to posting. Your university may also have a captioning service or software available.

TRY SOMETHING NEW

Most learning management systems have an integrated activity library that most faculty don't leverage

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to full advantage. Explore new tools in your LMS and use them creatively to engage students. For example, use a collaboration or jigsaw puzzle tool to have students work together to build a model (think forecasting or queueing models) or solve a problem. Use a wiki tool to have students write a memo that interprets an analysis and recommends a course of action.

I highly recommend the Chronicle of Higher Education's weekly Teaching newsletter. Editions from the past few months have been chock-full of innovative ideas for student engagement and learning, with suggestions for apps, tech tools, and reimagining face-to-face teaching techniques for delivery at a distance. At the time of this writing, the most recent edition includes links to advice pieces on how to become a better teacher online and how to build community in a Zoom classroom.

COMMUNICATION IS KEY

However you choose to structure your courses for the upcoming semester and whatever delivery mode you find yourself using, remember that communication is key. More is better. Redundancy helps too. If students face uncertainty in their world, you can alleviate some small but important part by keeping them up-to-date and fully informed about key aspects of your class. Consider providing a weekly update that includes topics of study, key assignments, due dates, and a schedule of class meetings (synchronous online or in-person meetings, office hours (either online or in-person), etc.). Think about posting a text-based version of the update to the LMS and telling students verbally through a video or other multimedia (or in person, if your class meets face-to-face this Fall).

Think about the tone you use when communicating with students and how to convey that tone through text, video, and other communication modes. For the weekly update, a conversational tone that lets your personality show may be most effective in getting students to listen and take note. Reserve your "professor voice" for when it's needed. In any given semester, I find that I use a conversational tone, my professor voice, an empathetic tone, a pep talk, and a "nice try, but we'll stick to the plan" voice. How to convey the appropriate tone depends on the medium – my spoken words communicate information differently than the same words typed on a screen. Be sensitive to the message within the message that you want to deliver and be attuned to misunderstanding so you can clarify quickly if needed.

A note about instructions – when I teach in a classroom, I have a couple assignments that are intentionally a little vague. They require students to think about what information they know, what information they seek, and how to get from the former to the latter without a formula or model in a textbook. As you might imagine, this causes anxiety and consternation among my students and I'm happy to let their anxiety fuel the critical thinking process because I see them in class three times each week and can keep them focused and moving forward. In an online course, this can be a recipe for disaster because students may internalize the struggle without ever reaching out or posting questions. To spare yourself a student mutiny, err on the side of clear, detailed instructions that provide signposts relevant to the task. Think about the learning outcomes for the task and design instructions that help students assimilate what you want them to learn. This may mean modifying or sacrificing ancillary or tangential learning goals. Students are dealing with uncertainty on so many fronts now that anything we can do to reduce it helps them focus on the key elements of the lesson or assignment and succeed.

TECHNOLOGY AND COMMUNITY

Finally, a note about technology. Be deliberate and judicious in your use of technology. Sometimes less is more, even in an online world. It turns out that students' facility with technology is deep but narrow and many struggle to learn to use new tech tools. When their grade depends on learning to use something new, the anxiety is compounded. Clear, explicit instructions can help mitigate the anxiety, as

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can support that appeals to a variety of learning styles (text-based instructions, video examples, diagrams or images such as screenshots, etc.). If there's a way to achieve the learning outcome with an existing tech tool, that path of least resistance may be beneficial to all.

To build community, facilitate student-to-student interaction. Force them to interact, if you have to. Social distancing may help with reducing virus transmission but it also reduces humanity and community. These are vital elements of teaching and learning. Build opportunities and activities into your course that allow students to connect with each other. Be creative – you have the whole Internet at your and your students' fingertips. This is huge opportunity to teach students to make connections across media, cultures, disciplines – really, anything. Find (or better yet, ask them to find) songs, cartoons, quotes, news stories, videos, historical examples, movies, that relate to the topic you're teaching. There are lots of great ideas in the Chronicle's Teaching newsletter mentioned previously.

Last but not least, be authentic and be human. Do what fits you, your teaching style, your personality, your philosophy about your topic – don't try to become someone you're not. Students will see right through it and it's not worth the stress. Speaking of which, the many sources of uncertainty are hard on us, faculty, too. With looming prospects of furloughs, pay cuts, myriad new safety guidelines, teaching online for perhaps the first time; it would be easy to try to become Super Professor who can do it all and make it look effortless. Don't. Be kind to yourself and recognize that in order to effectively teach your students, you too need to be engaged and enthusiastic; not exhausted and burned out. Show compassion for students and colleagues, but set boundaries and stick to them for your own health. Lend an ear when needed. This past semester, I made a point of asking my students "How are you?" I received a range of responses, some perfunctory, others an avalanche of words and emotion. In nearly all cases, I couldn't do anything to ease their burdens but giving them an outlet and my empathy seemed to help. I also paid attention to the rhythm of the course and when they seemed to be struggling more than usual, would extend due dates or offer flexibility where I could. Sometimes an additional day or two to complete a project made a huge difference, if only in perception.

I'll sign off with two quotes, both of which are guiding my approach to teaching and my other academic responsibilities (really, life in general) now.

First, from Sun Tzu: "In the midst of chaos, there is also opportunity."

And from Arundhati Roy (in an April 2020 article for the Financial Times): "Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next. We can choose to walk through it, dragging the carcasses of our prejudice and hatred, our avarice, our data banks and dead ideas, our dead rivers and smoky skies behind us. Or we can walk through lightly, with little luggage, ready to imagine another world. And ready to fight for it."

How will you approach teaching this Fall?

The 50th Annual Meeting of the Southeast Decision Sciences Institute (SEDSI) was held on February 12-14, 2020, at the Francis Marion Hotel in Charleston, South Carolina. Joining the 50th Anniversary Celebration were 258 registered attendees, including close to 100 first time attendees, workshop and poster presenters, participants, and supporters. The roster included SEDSI Distinguished Service Award recipients; SEDSI Founding President/former DSI President Dr. Sang Lee and 23 former and current SEDSI Presidents, former DSI Presidents Terry Rakes and Barbara Flynn, current DSI President Dr. Janet Hartley; DSI Executive Director Vivian Landrum; Keynote Speaker Heather Domin from IBM, President's Award Luncheon Speaker Intern Provost Frances C. Welch from College of Charleston, President's Reception Speaker Chancellor Dr. Larry Clark of Louisiana State University Shreveport; College/School Deans Michael E. Busing, Robert T. Sumichrast, Peter Brews, Chris Martin, Robert T. Burrus, Jr. Margaret Thompson, Alex Koohang, Kai Koong, Alan T. Shao, and Michael R. Weeks; Journal Editors Binshan Lin, Mark Ferguson, Matthew Drake, June Wei, Jiaqin Yang, Kai S. Koong, Kongkiti Phusavat, Alex Koohang, Barbara B. Flynn, Joanna Paliszkiewicz, and David Shonk.

As a result of careful planning by the Program Chair, Ping Wang (James Madison University), the meeting proved to be a stimulating academic gathering with over 209 papers, panels, and workshops in 78 regular sessions with 233 presentations from 361 authors and co-authors and special session panelists, from 170 institutions in 17 countries. The learning and instruction focus of the conference

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was evident with 42 presentations in the Innovative Education, Assessment, Engaged Learning Curriculum, Teaching and Pedagogy session, and 24 presentations in Data Analytics and Statistics Instruction (DASI) session, plus three presentations in learning and assessment. New tracks of Analytics, Big Data Applications, Business Intelligence, Data Mining, Statistics, and Expert Systems Track had 26 presentations; Healthcare, Public Sector, and Not for Profit Management Track with 20 presentations; and Hospitality, Recreation, and Sports Track with six presentations. Other tracks, each almost doubled the number of presentations, included Accounting/Economics/Cryptocurrency/Finance; Information Privacy/Security/System Resilience Business Ethics/Business Law; IS/IT/ Blockchain Technology/Social Media; Management/Strategy/ Organizational Behavior/Organizational Theory/ Human Resource Management; Marketing/Consumer Behavior/International Business; and Sustainability/SCM/Quality Management/Logistics. 32 students participated by submitting 13 papers, 4 posters and 2 panels. Thirty-two students participated by submitting 13 papers, four posters, and two panels.

Thanks for a generous sponsorship for the President's Award Luncheon to the College of Business and Department of Computer Information Systems/Business Analytics of James Madison University, School of Business and Department of Information Systems of The Virginia Commonwealth University, Pamplin College of Business of Virginia Tech University, and Presbyterian College; for Officers Reception from the Citadel; for Officers lunch from The University of North Carolina Wilmington, and for coffee breaks and student paper awards from Roanoke College, Georgia Southern University, Allen E. Paulson College of Engineering and Computing, Clayton State University, Louisiana State University Shreveport College of Business, Randolph Macon College, for the Keynote speaker from IBM. Thanks to exhibitors from Case Centre, FlexSim Software Products Inc., Hawkes Learning, JMP (Division of SAS), Minitab for interacting with attendees for their instructions and research needs.

We honored the accomplishments of our outgoing President Tobin Turner (Presbyterian College). We welcomed our new President Cheryl Aasheim (Georgia Southern University). We are actively planning our upcoming meeting scheduled for February 17 - 19, 2021, in Jacksonville, Florida. We warmly invite you and your colleagues to join us again. For more information about SEDSI, please visit our website at http://www.sedsi.org or contact the current Program Chair Dr. Binshan Lin, at binshan.lin@lsus.edu.

2020 SWDSI CONFERENCE RECAP

The 50th Annual meeting of the Southwest Decision Sciences Institute (SWDSI) was held on March 11-14, 2020 at the Hyatt Regency San Antonio Riverwalk, San Antonio, Texas. Despite the fact that the conference was held in unprecedented circumstances, it was a successful conference. There were 142 pre-registered members for the conference, 161 submissions and 2 workshops. Out of the 142 registered members, there were 96 participants in the conference.

The SWDSI conference could not have happened without the participants' efforts and contributions. An excellent team who worked very diligently to promote this conference made all the accomplishments. I would like to thank all the current and past SWDSI officers, track chairs, session chairs, reviewers, organizers, panelists, proceedings editor, and proceedings production coordinator from the bottom of my heart. Special thanks go to the SWDSI 2020 program chair (Dr. Dan Peak), proceedings editor (Dr. Will Senn), president-elect (Dr. Matt Lindsey), and our past presidents for their contributions and mentoring efforts. I am sure you will find the content of the proceedings very informative and helpful to you.

The most pleasant part of the meeting was recognizing the dedication and hard work of members that make this conference an annual success event. All the committees (Nomination Selection Committee, Distinguished Service Award Selection Committee, Outstanding Educator Award Selection Committee, and Strategic Planning Committee) worked hard and produced excellent results. They have identified the outstanding members of SWDSI for their dedication, service and achievement.

Mark E. McMurtrey, University of Central Arkansas, received the 2020 SWDSI Outstanding Educator Award. Victor Prybutok, University of North Texas, received the 2020 SWDSI Distinguished Service Award. We are so blessed to have such dedicated and wonderful outstanding individuals.

The recipients of best papers were as follows:

- The Alpha Iota Delta Best Paper Award went to M. Kabir Hassan, University of New Orleans, Selma Izadi, Loyola University and Yichi Zhang, University of New Orleans for their paper entitled "Does the Factor Model Perform Well in Emerging Market? – The Empirical Evidence of China Stock Market."
- The recipients of the 2020 best student paper awards were:
    - Comparative Analysis of Bankruptcy Prediction Models with Synthetic Sampling, John Garcia, Creighton University
    - The Use of Latent Semantic Analysis in Online Health Information Analysis, Heng Xie, University of North Texas
    - The Unique Factors Affecting Employee Performance in Non-profit Organizations, Charity Tinofirei, University of North Texas

2020 SWDSI BUSINESS MEETING

Our 51st Meeting will be on March 17– 20, 2021 at Moody Gardens as a part of the Federation of Business Disciplines Conference in Galveston, Texas. We hope you will join us either in person or virtually. For more information about SWDSI, please visit our website http://www.swdsi.org

Khaled Alshare
President, 2019-2020 Decision Sciences Institute – Southwest Region

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OPEN POSITIONS AT HIGHER EDUCATION INSTITUTIONS

The Decision Sciences Institute website provides a listing of open academic positions. Below you will find Placement Listings for April 30 – July 20, 2020. For more details on these and other position listings, as well as applicant listings, visit the DSI website – decisionsciences.org Ready to post a position? Guidelines on how to list your position can be found there as well.

POSTING DATE	INSTITUTION	LOCATION	JOB TITLE	JOB TYPE	AREA OF INTEREST
Posted	Institution	Location	Job Title	Job Type	Area of Interest
7/20/2020	University of Nebraska - Kearney	Kearney, NE USA	Nebraska Healthcare Collaborative Chair of Population Health	Full-Time, Tenure Track	Computation, Data Science, Data Analytics, Population /Public Health
7/13/2020	Winona State University	Winona, MN USA	Assistant Professor of MIS and OPS	Full-Time, Tenure Track	Information Systems/ Operations/ Project/Supply Chain Management
7/6/2020	University of Wisconsin -Stevens Point	Stevens Point, WI USA	Assistant Professor of Business Analytics	Full-Time, Tenure Track	Business/Data Analytics, Data Science, Business Intelligence
6/25/2020	University of South Dakota	Vermillion, SD USA	DSCI Visiting Assistant Professor	Full-Time	Analytics, Decision Sciences, Statistics, Operations Management
6/17/2020	University of Rhode Island	Kingston, RI USA	Lecturer see details	Full-Time, Non Tenure Track	Operations/Supply Chain Management
6/8/2020	Hope College	Holland, MI USA	Open Rank Operations Management Faculty	Full-Time, Tenure Track	Operations/Supply Chain Management, Marketing, Finance
5/14/2020	Wake Forest University	Winston-Salem NC USA	Adjunct Professor	Full/Part-Time	Data Analytics
4/30/2020	Radford University	Radford, VA USA	Instructor/Assistant Professor	Full-Time, Special Purpose	Operations Management, Business analytics

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2019–2020	Janet Hartley, Bowling Green State University
2018–2019	M. Johnny Rungtusanatham, The Ohio State University
2017–2018	Jatinder (Jeet) Gupta, University of Alabama – Huntsville
2016–2017	Funda Sahin, University of Houston
2015–2016	Morgan Swink, Texas Christian University
2014–2015	Marc Schniederjans, Deceased
2013–2014	Maling Ebrahimpour, University of South Florida, St. Petersburg
2012–2013	E. Powell Robinson, Jr., University of Houston
2011–2012	Krishna S. Dhir, Berry College
2010–2011	G. Keong Leong, University of Nevada, Las Vegas
2009–2010	Ram Narasimhan, Michigan State University

2000 – 2009

2008–2009	Norma J. Harrison, Macquarie Graduate School of Management
2007–2008	Kenneth E. Kendall, Rutgers University
2006–2007	Mark M. Davis, Bentley University
2005–2006	Thomas E. Callarman, China Europe International Business School
2004–2005	Gary L. Ragatz, Michigan State University
2003–2004	Barbara B. Flynn, Indiana University
2002–2003	Thomas W. Jones, University of Arkansas–Fayetteville
2001–2002	F. Robert Jacobs, Indiana University–Bloomington
2000–2001	Michael J. Showalter, Florida State University
1999–2000	Lee J. Krajewski, University of Notre Dame

1990–1999

1998–1999	Terry R. Rakes, Virginia Tech
1997–1998	James R. Evans, University of Cincinnati
1996–1997	Betty J. Whitten, Deceased
1995–1996	John C. Anderson, University of Minnesota–Twin Cities
1994–1995	K. Roscoe Davis, University of Georgia
1993–1994	Larry P. Ritzman, Ohio State University
1992–1993	William C. Perkins, Indiana University–Bloomington
1991–1992	Robert E. Markland, University of South Carolina
1990–1991	Ronald J. Ebert, University of Missouri–Columbia
1989–1990	Bernard W. Taylor, III, Virginia Tech

1981 – 1989

1989–1990	Bernard W. Taylor, III, Virginia Tech
1988–1989	William L. Berry, Ohio State University
1987–1988	James M. Clapper, Aladdin TempRite
1986–1987	William R. Darden, Deceased
1985–1986	Harvey J. Brightman, Georgia State University
1984–1985	Sang M. Lee, University of Nebraska–Lincoln
1983–1984	Laurence J. Moore, Virginia Tech, Deceased
1982–1983	Linda G. Sprague, Deceased
1981–1982	Norman L. Chervany, University of Minnesota–Twin Cities
1979–1981	D. Clay Whybark, University of North Carolina–Chapel Hill

DSI FOUNDED – 1979

1978–1979	John Neter, University of Georgia
1977–1978	Charles P. Bonini, Stanford University
1976–1977	Lawrence L. Schkade, University of Texas–Arlington
1975–1976	Kenneth P. Uhl, Deceased
1974–1975	Albert J. Simone, Rochester Institute of Technology
1973–1974	Gene K. Groff, Georgia State University
1972–1973	Rodger D. Collons, Drexel University
1971-1972	George W. Summers, Deceased
1969-1971	Dennis E. Grawoig, Deceased

DSI FELLOWS

Adam, Everett E., Jr.
Anderson, John C.
Benson, P. George
Beranek, William
Berry, William L.
Bonini, Charles P.
Brightman, Harvey J.
Buffa, Elwood S.*
Cangelosi, Vincent*
Carter, Phillip L.
Chase, Richard B.
Chervany, Norman L.
Clapper, James M.
Collons, Rodger D.
Couger, J. Daniel*
Cummings, Larry L.*
Darden, William R.*
Davis, K. Roscoe
Davis, Mark M.
Day, Ralph L.*
Digman, Lester A.
Dock, V. Thomas
Ebert, Ronald J.
Ebrahimpour, Maling
Edwards, Ward
Evans, James R.
Fetter, Robert B.
Flores, Benito E. *
Flynn, Barbara B.
Franz, Lori S.
Ghosh, Soumen
Glover, Fred W.
Gonzalez, Richard F. *
Grawoig, Dennis E.*
Green, Paul E.
Groff, Gene K.
Gupta, Jatinder N.D.
Hahn, Chan K.
Hamner, W. Clay
Hayya, Jack C.
Heineke, Janelle
Hershauer, James C.
Holsapple, Clyde
Horowitz, Ira
Houck, Ernest C.*
Huber, George P.
Jacobs, F. Robert
Jones, Thomas W.
Kendall, Julie E.
Kendall, Kenneth E.
Keown, Arthur J.
Khumawala, Basheer M.
Kim, Kee Young
King, William R.
Klein, Gary
Koehler, Anne B.
Krajewski, Lee J.
LaForge, Lawrence
Latta, Carol J.*
Lee, Sang M.
Luthans, Fred
Mabert, Vincent A.
Malhotra, Manoj K.
Malhotra, Naresh K.
Markland, Robert E.
McMillan, Claude *
Miller, Jeffrey G.
Monroe, Kent B.
Moore, Laurence J.
Moskowitz, Herbert
Narasimhan, Ram
Neter, John
Nutt, Paul C.
Olson, David L.
Perkins, William C.
Peters, William S.
Philippatos, George C.
Ragsdale, Cliff T.
Raiffa, Howard *
Rakes, Terry R.
Reinmuth, James R.
Ritzman, Larry P.
Roth, Aleda V.
Sanders, Nada
Schkade, Lawrence L.
Schniederjans, Marc J. *
Schriber, Thomas J.
Schroeder, Roger G.
Simone, Albert J.
Slocum, John W., Jr.
Smunt, Timothy
Sobol, Marion G.
Sorensen, James E.
Sprague, Linda G.*
Stecke, Kathryn E.
Steinberg, Earle
Summers, George W.*
Swink, Morgan L.
Talluri, Srinivas
Tang, Kwei
Taylor, Bernard W., III
Troutt, Marvin D. *
Uhl, Kenneth P.*
Vakharia, Asoo J.
Vazsonyi, Andrew*
Voss, Christopher A.
Ward, Peter T.
Wasserman, William *
Wemmerlov, Urban
Wheelwright, Steven C.
Whitten, Betty J. *
Whybark, D. Clay
Wicklund, Gary A.
Winkler, Robert L.
Woolsey, Robert E. D. *
Wortman, Max S., Jr.*
Zmud, Robert W.

*Deceased

In order for the nominee to be considered, the nominator must submit in electronic form a full vita of the nominee along with a letter of nomination which highlights the contributions made by the nominee in research, teaching and/or administration and service to the Institute. Nominations must highlight the nominee's contributions and provide appropriate supporting information which may not be contained in the vita. A candidate cannot be considered for two consecutive years.

Send nominations to:
Chair of the Fellows Committee Decision Sciences Institute
C.T. Bauer College of Business 334 Melcher Hall, Suite 325
Houston, TX 77204-6021
info@decisionsciences.org

INSTITUTE CALENDAR

2020

November 21–23	DSI Annual Conference Online

2021

February 17 – 19	SEDSI Annual Conference Location TBD
March 17 – 20	SWDSI Annual Conference Location TBD
March 25 – 27	NEDSI Annual Conference Location TBD
March 30 – April 2	WDSI Annual Conference Location TBD
May 30 – June 2	EDSI Annual Conference Lund, Sweden

Visit the DSI website for details on these upcoming events.

MEMBERSHIP RATES

DSI Membership Rates

Based on the GDP per Capita (PPP)

All dues amounts are in United States dollars ($)

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Bermuda	Cyprus	American Samoa	Cote d'Ivoire	Kazakhstan	Nigeria	Sri Lanka
British Virgin Islands	Estonia	Angola	Croatia	Kenya	Niue	Sudan
Brunei	European Union	Anguilla	Cuba	Kiribati	N. Mariana Islands	Suriname
Canada	Faroe Islands	Antigua and Barbuda	Curacao	Korea, North	Pakistan	Swaziland
Cayman Islands	Finland	Argentina	Czech Republic	Kosovo	Palau	Syria
Denmark	France	Armenia	Djibouti	Kyrgyzstan	Panama	Tajikistan
Falkland Islands (Islas Malvinas)	Greenland	Aruba	Dominica	Laos	Papua New Guinea	Tanzania
Germany	Guam	Azerbaijan	Dominican Republic	Latvia	Paraguay	Thailand
Gibraltar	Israel	Bangladesh	Ecuador	Lebanon	Peru	Timor-Leste
Guernsey	Italy	Barbados	Egypt	Lesotho	Phillippines	Togo
Hong Kong	Japan	Belarus	El Salvador	Liberia	Poland	Tokelau
Iceland	Korea, South	Belize	Equatorial Guinea	Libya	Puerto Rico	Tonga
Ireland	Lithuania	Benin	Eritrea	Macedonia	Romania	Tunisia
Isle of Man	Malta	Bhutan	Ethopia	Madagascar	Russia	Turkey
Jersey	New Caledonia	Bolivia	Fiji	Malawi	Rwanda	Turkmenistan
Kuwait	New Zealand	Bosnia and Herzegovina	French Polynesia	Malaysia	Saint Helena, Ascension, and Tristan da Cunha	Tuvalu
Liechtenstein	Oman	Botswana	Gabon	Maldives	Saint Kitts and Nevis	Uganda
Luxembourg	Portugal	Brazil	Gambia, The	Mali	Saint Lucia	Ukraine
Macau SAR China	Saint Pierre and Miquelon	Bulgaria	Georgia	Marshall Islands	Saint Vincent and the Grenadines	Uruguay
Monaco	Slovakia	Burkina Faso	Ghana	Mauritania	Samoa	Uzbekistan
Netherlands	Slovenia	Burma	Greece	Mauritius	San Marino	Vanuatu
Norway	Spain	Burundi	Granada	Mexico	Sao Tome and Principe	Venezuela
Qatar	Taiwan	Cabo Verde	Guatemala	Micronesia	Senegal	Vietnam
Saudi Arabia	Trinidad and Tobago	Cambodia	Guinea	Moldova	Serbia	Virgin Islands
Singapore	Turks and Caicos Islands	Cameroon	Guinea-Bissau	Mongolia	Seychelles	Wallis and Futuna
Sweden	United Kingdom	Central African Rep.	Guyana	Montenegro	Sierra Leone	West Bank
Switzerland		Chad	Haiti	Montserrat	Saint Maarten	Western Sahara
United Arab Emirates		Chile	Honduras	Morocco	Solomon Islands	Yemen
United States		China	Hungary	Mozambique		Zambia
		Colombia	India	Namibia		Zimbabwe
		Comoros	Indonesia	Nauru		

Updated July 1, 2019