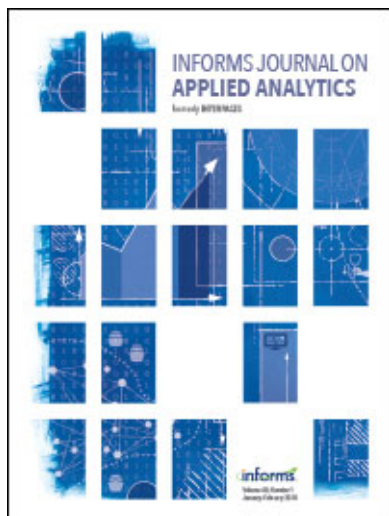




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Editorial: A Retrospective from the Editors-in-Chief on the History of *Interfaces/INFORMS Journal on Applied Analytics*

Gary L. Lilien,^a Frederic H. Murphy,^b Terry P. Harrison,^a Jeffrey D. Camm,^c Srinivas Bollapragada,^d Michael F. Gorman^e

^a Smeal College of Business, Penn State University, University Park, Pennsylvania 16802; ^b Marketing and Supply Chain Management, Fox School of Business, Temple University, Philadelphia, Pennsylvania 19122; ^c Wake Forest University School of Business, Winston-Salem, North Carolina 27109; ^d General Electric Global Research, Niskayuna, New York 12309; ^e University of Dayton, Dayton, Ohio 45419

Contact: g5l@psu.edu (GLL); fmurphy@temple.edu (FHM); hbxx@psu.edu (TPH); cammjd@wfu.edu (JDC); bollapragada@ge.com (SB); mgorman1@udayton.edu (MFG)

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Abstract. As the *INFORMS Journal on Applied Analytics* (formerly *Interfaces*) reaches its 50th year, the current editor-in-chief (EiC) and each of the five former (surviving) EiCs recount the major events and developments of his tenure. Our objective is to trace the evolution of the journal and trends of the publication from its roots until today. The editorial closes with a discussion of the trends and likely future directions for the journal.

Keywords: OR practice • business analytics • OR implementation • *Interfaces* • *INFORMS Journal on Applied Analytics* • history

Introduction

Over its 50 years, *Interfaces/INFORMS Journal on Applied Analytics* (IJAA) has featured nine editors-in-chief (EiCs), six of whom wrote sections of this article. Table 1 lists the EiCs, their years of service to the journal as EiC, and the final issue under their lead.

Over those years, over 3,300 pieces with unique digital object identifiers (DOIs)—full-length articles, practice summaries, and columns, as well as book and application reviews, interviews, editorials, and the like—have been published. These include papers from both the winners and finalists of the INFORMS Franz Edelman Award for Achievement in Advanced Analytics, Operations Research, and Management Science (Edelman); and the Daniel H. Wagner Prize for Excellence in the Practice of Advanced Analytics and Operations Research (Wagner) competitions, which celebrate the best applications of analytics each year; and the winners of the INFORMS UPS George D. Smith Prize, which highlights the country's best applied analytics programs in universities.

The journal has evolved in its style, content, coverage, and focus. Each EiC describes the developments of his tenure below, with various EiCs contributing to describe the events under the leadership of those now deceased. (Hence, the reader will find a mix of first and third person, in violation of the journal's editorial policies.)

Leonard Simon:¹ 1972–1976

(Contributed by Michael Gorman)

Naming the Journal

The first EiC, Leonard Simon, had his work cut out for him. He took the reins of the journal, initially dubbed “THE BULLETIN,” after Peter Norden (then-president of The Institute of Management Sciences (TIMS)) announced its formation in 1970. Predictably, the first order of business was the journal name. In the first issue, he wrote the following:

There's only one problem: We don't have a title for this new journal yet. Elsewhere in this issue you are asked to consider some titles proposed by Council and editorial staff members, or create one entirely on your own. Do respond to this request and help us name the new baby! (Norden 1970)

We found some information about the name change written in the journal at the time of the change. The first issue to carry the title of *Interfaces* was published in June 1971 (Volume 1, Issue 4) and included the “Rubber Duck” competition on page 69, where an announcement read as follows:

The Rubber Duck Contest to help find a new name for THE BULLETIN evoked a considerable response from the readership. Over a hundred suggestions were received. The suggestions were narrowed to a small number of choices and then the Council created a subcommittee to provide a final recommendation. The name finally chosen was not precisely that chosen by any entrant. Several individuals came extremely close with their suggestions. We plan to give each of these individuals a rubber duck for his efforts.

Although no rationale of that subcommittee was given for the name *Interfaces*, we know that the journal

Table 1. The Table Lists the Nine Editors-in-Chief in the 50-Year History of *Interfaces/INFORMS Journal on Applied Analytics*

Editors-in-Chief of <i>Interfaces/INFORMS Journal on Applied Analytics</i>	
2017–Present:	Michael F. Gorman (term will end with Vol. 52, No. 6, 2022)
2011–2016:	Srinivas Bollapragada (term ended with Vol. 46, No. 6)
2005–2010:	Jeffrey D. Camm (term ended with Vol. 40, No. 6)
1999–2004:	Terry P. Harrison (term ended with Vol. 34, No. 6)
1994–1999:	Michael H. Rothkopf* (term ended with Vol. 29, No. 1)
1988–1993:	Frederic H. Murphy (term ended with Vol. 24, No. 3)
1982–1988:	Gary L. Lilien (term ended with Vol. 18, No. 3)
1976–1982:	Robert E. D. (Gene) Woolsey* (term ended with Vol. 12, No. 4)
1970–1976:	Leonard E. Simon* (term ended with Vol. 6, No. 2)

Source: <https://pubsonline.informs.org/page/inte/editorial-board>.

*EiCs who are now deceased.

operates at the interface of theory and practice. A recent interview with Peter Norden did not uncover insights into alternatives or the ultimate source for the new name; however, the rationale in retrospect is clear: The journal acts as the interface between theory and practice.

In the first issue in which *Interfaces* was first identified (Bucatsinsky 1971), the journal was referred to as “THE BULLETIN”:

THE BULLETIN is a forum for brief NEWS items of general interest to the membership, and for REPORTS of management science techniques applied to new problems or used in new ways (p. 43).

In the same issue (p. 48), the author referred to it as *Interfaces*:

ALL NEWS and REPORTS should be sent to Julio Bucatsinsky, *INTERFACES* Associate Editor.

The “Bulletin Board” functionality of the journal had largely been eliminated by 1973; however, the journal did report on preliminary exploration into Operations Research Society of America (ORSA) and TIMS collaborations (Blumstein et al. 1973) in that year.

Early Content

With only six pieces published in 1970, the journal was off to a slow start. Three of these were “news” articles from chapters and colleges. Not a single mathematical model was presented. The earliest format of the journal was quite informal, as exhibited in one of the first articles of 1970, entitled “Dr. Mead, Could You Come Here a Minute?” (with no subsequent mention of Dr. Mead in the article); the lead sentence was

We ain’t managin’ near so good as we know how now (Kastens 1970, p. 2).

In 1971, the first mathematical model appeared in the journal in an application of plant expansion for the Joseph A. Schlitz Brewing Company (Rosen 1971). Early articles often featured interviews of leaders in the operations research and management sciences (OR/MS) field and corporate CEOs, discussing the future of the discipline and the difference between OR and MS, the importance of communication and leadership, and general management theory and practice mismatches.

By 1972, the journal had hit its stride, publishing 19 articles. Leonard grew the number of papers per year into the mid-20s for most of the duration of his tenure. The papers included a mix of types, from interviews to collections of abstracts to conference programs. During Leonard’s tenure, there was a fair influence of management information systems (MIS)-related topics, practitioner-based submissions of nontechnical nature, and editorials. One of the most unusual applications was the explanation of the Peter Principle (that managers are promoted to their highest level of incompetence) via calculus (Patz 1975)!

Although the Edelman Award was initiated in 1972, the first eight Edelman finalist papers appeared in 1975, which may have been a watershed event for the journal. The applications were numerous and varied: check clearing (Hess 1975), investment decision making (Ahlers 1975), financial analysis of decisions at Getty Oil (Cooper et al. 1975), New York City fire deployment strategies (Ignall et al. 1975), satellite communications (Nigam 1975), facilities expansion at Babcock and Wilcox Company (Drayer and Seabury 1975), and setting standards for navigation in the Atlantic (Machol 1975). These were led by Debanne (1975), the winning entry, which described export natural gas pricing decisions of the Canadian National Energy Board. Those eight submissions seemed to set the standard for the journal going forward, with clearly defined applications, methods, and benefits attained from each project, as well as management responses and implementation challenges.

Leonard Simon deserves kudos for establishing a journal in its infancy and helping to develop its mission in its early years.

Robert E. D. (Gene) Woolsey:² 1976–1982 (Contributed by Jeffrey Camm)

Gene Woolsey, the second EiC of *Interfaces*, was laser-focused on the practice of operations research. He emphasized what operations research was in its origins, before it became more academic. A survey of *Interfaces* shows that (excluding Ben Lev’s book reviews), Gene made more contributions to the journal than any other author. Figure 1 shows the distribution of Gene’s contributions to *Interfaces* over time. As EiC, Gene was relentless about verification letters

Figure 1. Gene Woolsey Contributed More Articles (Other than Book Reviews) than Any Other Author

Count of IJAA Articles By Gene Woolsey By Year



Notes. Gene's articles appeared in issues from 1972 to 2011. In the graph, we use *IJAA* to reference articles published in *The Bulletin*, *Interfaces*, and *IJAA*.

attesting to the validation of the claimed benefits of work published in *Interfaces*. He also promoted and accepted "think pieces" with relevant thoughts and examples on practice. Many of his own contributions fell into this latter category.

For a short listing of some of Gene's more well-known articles, as well as some of his other approaches to promoting the practice of OR, we refer the reader to the tribute to him in Camm (2015).

Gene was his own person, and nothing reflects that and the spirit with which he managed the journal better than some excerpts from his editorial statement (Woolsey 1976):

Publication Standards.

Any article submitted to *Interfaces* as an application of MS/OR must meet the following requirements:

- The method must have been used by a customer.
- The result of the application of the method must have resulted in either a provable saving of costs or a provable increase in profit to the enterprise.
- Authors asserting results under (b) above must supply either letters from the customer supporting same names of individuals who can be contacted by this editor for verification. Cost savings or profit increases must be provable in accordance with generally accepted accounting practices or auditing principles.

Opinion papers are presentations of philosophical viewpoints as springboards for discussion. The widest possible latitude will be allowed for such papers, up to and including ad hominem attacks on the present editor

and his fellow practitioners. In short, the limits of such papers are defined by the elastic bounds of the editor's good taste and the applicable laws of libel.

Presentation Format.

In academic journals, the presentation format is usually in the following order: (1) derivation of the model, (2) collection of data (if present), (3) solving the model, and (4) conclusions. However, papers that have the following format will receive preferred treatment at my hands: (1) what the problem was, (2) what you did, (3) how you did it and troubles along the way, including how you sold it to the customer, and (4) appendix of the model and data as needed.

Note that the above format gives the managerial reader what he wants to see first, thus motivating him to read on. What interests the technician comes last. This is, I believe, the proper order for this journal.

Gene was difficult to predict. But, given the emphasis industry has placed on analytics, I am guessing he would have been very approving of the name change from *Interfaces* to the *INFORMS Journal on Applied Analytics*.

Gary L. Lilien: 1982–1988

I took over the editorship of *Interfaces* in 1982 at a delicate time in its history. I succeeded Gene Woolsey, a larger-than-life figure, whose presentations at ORSA-TIMS meetings were standing-room only. You had to experience Gene to understand, and if you read some of his many *Interfaces* articles—his Fifth Column series—you will get some idea. He was

a champion of the common-sense practice of OR/MS, often focusing on how simple insights could often lead to elegant solutions to problems without the need for higher-order math.

Gene brought much of that view to the articles he solicited for *Interfaces*. I knew I was no Gene Woolsey, and in Lilien (1982), I tried to articulate a path for *Interfaces* growth after Gene.

Although my 1982 article outlines a number of aspects of a growth path, it was clear to me that two main things had to happen. First, to attract the work of leading academics who were involved with and concerned about the practice of OR/MS, the journal needed a clear, consistent refereeing process so authors could get academic “credit” for an *Interfaces* publication. Although it was important to continue to publish editorials and opinion pieces (like Gene’s Fifth Column), the research articles published in *Interfaces* had to pass academic muster. And those articles that were formally refereed had to be clearly designated as such.

Second, there is a downside to soliciting articles for a refereed publication . . . the tortured, pompous prose many academic authors use when writing for an “archival” journal. Successful *Interfaces* articles had to be accessible to practitioners. Hence, as a condition of taking the editorship, I required that ORSA and TIMS (the joint publishers of the journal at the time) provide a budget for a half-time “managing editor,” whose job it would be to help authors turn their jargon-laden, turgid prose into material attractive for practitioners and students to read. Mary Haight took on that position in 1982, holding it for more than 20 years, ably serving under four editors.

Aside 1

After she had been on the job at *Interfaces* for more than 20 years, I remarked to Mary that she must really know a lot about OR/MS by now. She said “Not at all. I have worked hard NOT to understand OR/MS and its peculiar jargon, so I can make that material accessible to those without such an understanding.” Anyone (including this past editor) who was subjected to Mary’s dense editorial notes, challenging us to remove jargon, clarify our meaning, and write clear simple sentences in the active voice, can attest to her passion and determination. And the resulting articles were much clearer and easier to read.

Aside 2

Most, but not all, authors responded positively to Mary’s editing. The late Nobel Laureate Herbert Simon, a truly humble and gracious man, responded to Mary’s detailed editing of a piece he submitted to the journal with a personal letter, thanking her profusely for helping to clarify his article. Another, nearly

as well-known author, responded by rejecting all of Mary’s edits, saying he was a “master of the English language,” and his work would either be published exactly as is, or he would withdraw it. I acceded to his demand and published the article, adding a footnote indicating “this article is published precisely as submitted by the author, without any editing or modification.” The author should have accepted Mary’s edits.

I enjoyed my six-plus years as *Interfaces* editor immensely. The benefit of editing a young journal is that you can try many different things without too much concern about pushback or resistance. In 1981, I met with John Little, who was at the time Chairman of the Joint Publications Committee of TIMS and ORSA, about the possibility of my taking on the journal editorship. I expressed concern about what I saw as the uneven quality of the work published to date in the journal and was unsure what to do about it. His counsel was that an editor would be remembered for the best work published during the editorship, and the lesser work would be soon forgotten. In looking back, I was able to attract a great deal of exceptional work to the journal, either as individual articles or as special issues. And almost all of those articles still make good reading today, while the lesser stuff is, indeed, pretty much forgotten.

When I took over as the journal editor, it had a backlog of four articles, less than half of an issue. I had to scramble at the beginning to solicit papers, which turned out to be a good thing: It forced me to look hard for important applications and trends in the field and be proactive at ensuring that *Interfaces* was involved in shaping and publicizing those trends.

I hope I left Fred Murphy, my successor as editor, in a comfortable position. But I will let him tell his own story.

Frederic H. Murphy: 1988–1993

Two of the happiest days in my professional life were when I became editor of *Interfaces* and when I turned the files over to Mike Rothkopf. The journal always received a trickle of articles, but never enough to fill the pages. This meant that it had to be run differently from other INFORMS journals, in that the editor had to devote a large amount of time to recruiting papers. Although Gary left me with what seemed to be a substantial backlog, by the time the reality of the lack of flow and length of the lead times to generate material became clear, I had to scramble to fill the pages.

In a standard journal, the main job is managing the flow of submissions and reviews and mainly rejecting papers. The editor of *Interfaces* has to take a more positive view of regular submissions, by not rejecting imperfect papers and, instead, working with those authors who had submitted papers that had potential. That is, *Interfaces* must be much more author-friendly

without sacrificing quality. Gary had reduced substantially the number of weak papers. I had to find a way to increase the flow to fill the pages and further increase the quality of the articles.

Because I had been a practitioner for seven years, managing teams that built energy models and writing analyses of proposed policies and legislation in the U.S. Department of Energy, I understood the imperatives in practicing OR both from the technical side and as a manager. To address some of the issues in managing people and working within organizations, I brought in Bob Levasseur to write a column on the necessary people skills.

I also saw how hard it was for practitioners to keep up with advances in the field, while producing deliverables with critical deadlines. Consequently, I initiated a series of special issues on the practice of x , where x was a research area such as mathematical programming. Those issues consisted of a mix of tutorials on new methodologies, surveys of application areas in x , and practice articles using x . Some of the tutorials in those issues are among the most referenced articles in the journal because research articles rarely reference the practice papers that make their research areas worth pursuing, while a tutorial is handy to have in the references section of any paper.

Because so much of the work was hands-on with authors, I needed to redesign the editorship. I mainly focused on the special issues and on recruiting papers in general. I appointed Howard Weiss as Deputy Editor to handle regular submissions and the review process. Unlike a standard journal, we often overruled rejections and worked with the authors to produce a better paper. These authors often did not know how to write a journal article and needed help to turn an article's potential into something readers would enjoy. Howard and I worked on getting the ideas stated clearly, and Mary Haight saved the prose.

The Edelman competition took up one issue, and the regular flow, plus columns, filled up to three issues. This left me with having to generate two special issues. A fraction of the special issues would not succeed in generating papers. So, I corralled more special issue editors than needed, expecting to come out right on the number of pages. These editors were more successful than I expected. During my tenure, the Wagner Competition started, removing the need for the second special issue. The result was that I left Mike so much material that, even after coasting in my last year, he was covered for almost two years.

I would describe my tenure as building on the improvements Gary had made in professionalizing the journal and publishing practice papers with organizational impact. On top of that, I added a focus on what the practitioner needed to know as an OR professional. That is, I saw *Interfaces* as a vehicle for

OR professionals to stay on top of the research in the field, as well as a showcase for OR, which creates value in organizations and for society.

My biggest surprise since being editor has been how journal rankings have changed the profession. I find it nuts that in a field like ours, where the ultimate test of the value of research is that it is used, the ranking game values references in other journals higher than utility in organizations. Thus, a journal that is full of mathematical extensions of long unused theories rates more highly than a journal that brings practitioners and academics together on projects that generate millions and billions of dollars of benefits or that redesign important national policies, which have consequences for peoples' lives. Those of us who are attached to the journal are proof that it is possible to be rational in an irrational world.

Michael H. Rothkopf:³ 1994–1999

(Contributed by Michael Gorman)

Mike Rothkopf headed *Interfaces* at a great time in its history, and in a great time in the expanded use of OR/MS. Between vastly expanding computer speed and memory and contracting costs, successful applications of OR/MS were in growth mode.

Mike was prolific with the use of editorials during his tenure as EiC; these will form the primary basis of summarizing his contribution during those years. Of his 20 contributions to *Interfaces*, he wrote 10 editorials in approximately six years during his role as EiC.

Mike's time was marked by a number of major developments. He changed the review process to utilize double-blind reviewing; started a triennial report on what academic institutions are contributing most to the practice literature (now known as the Rothkopf Rankings in his honor); started electronic, online prereleases of articles on the burgeoning Internet; and presided over the first "Practice Abstract" column (later modified to "Practice Summaries").

During his years, *Interfaces* began the process of double-blind reviewing (Rothkopf 1994a). In his eloquently written editorial, he carefully discussed the documented and perceived advantages and disadvantages of single- and double-blind reviewing. He recognized that always hiding one's affiliation in an applied piece where the organization is usually identified in the title is impossible at times, making a double-blind process essentially impossible. Thus, he included "How blind should we be?" in his editorial title. However, he concluded that, in the face of weak evidence at the time both for and against double-blind reviewing, it made more sense to adopt it than not. That policy is in effect to this day.

Mike initiated the rankings of universities that contribute to practice research (Rothkopf 1996). In his opening sentence, he opined:

Organizations and professions get what they measure and reward. If we want educational programs to contribute to OR/MS practice, we have to figure out how to measure such contributions (p. 16).

Presciently, he named his article the “First,” in hopes of more to come, and now we are on number 11 of what has come to be known as the “Rothkopf Rankings.” These rankings celebrate the academic institutions that value applied research.

Mike realized the value of expediently publicizing research and was the first to adopt electronic prereleases (Rothkopf 1995). He also added an electronic “complement” to articles, which would allow authors to provide supplemental materials, details, results, and data sets in a timely, low-cost, and convenient way.

In addition, he pioneered “Practice Abstracts” (Rothkopf 1995). He noted that although academia is a “publish or perish” vocation, practice is more of a “publish and perish” domain; practitioners do not have the time, motivation, or incentive to publish, and any efforts in that area are likely to be detrimental to a practitioner’s primary responsibilities. Practitioners generally publish as an avocation. The goal of the practice summary is to inform at a high level, replacing the strenuous academic review process with more of a coaching and editorial role, and allowing a less technical and detailed account of an application. To reduce the strain on practitioner authors, he appointed a practice abstract editor who helped write the articles based on inputs that the practitioners provided. In this way, practitioners could inform academia in a lower-cost, lower-risk way. In 25 years, there have been 40 practice columns, with multiple articles per column, adding to our body of knowledge in a way that would otherwise be unlikely or impossible.

Finally, philosophically, he helped frame the importance of *Interfaces*, and the complementarity of theory and practice. His editorials helped to frame and evolve *Interfaces* and its approach to applied OR/MS. In Rothkopf (1994b), he eloquently outlined the dependence of theory and practice:

The value of research in the management sciences depends upon its ultimate usefulness for decision and policy making. The value of practice in the management sciences depends upon the existence of a base of relevant knowledge. Thus, researchers and practitioners in the management sciences are of necessity dependent upon each other (p. 111).

Mike’s contribution to the evolution of *Interfaces* was invaluable.

Terry P. Harrison: 1999–2004

I served as the sixth EiC of *Interfaces* for two terms from 1999 to 2004; however, my affiliation with the

journal began under Gary Lilien, where I coedited a special issue of *Interfaces* with Cornelis de Kluyver (Harrison and de Kluyver 1984). I also served as the Deputy Editor of Electronic Publications under Mike Rothkopf.

My time with Mike Rothkopf was especially formative. He was a relentless champion of OR/MS practice and instituted a number of important initiatives. As noted above, he started the *Interfaces* ranking of university contributions to practice (Rothkopf 1996), which still continues today. He also recruited me to bring *Interfaces* to the expanding world of the early Internet. *Interfaces* was the first INFORMS journal to have a major online presence. During my time as Deputy Editor of Electronic Publications, we scanned, by hand, every issue of *Interfaces* from Volume 1, Number 1, to Volume 26, Number 6, because INFORMS required a three-year embargo on the most current material. As each issue became freely available from the embargo, it was gratifying to see heavy download activity from parts of the world with a small INFORMS presence. When INFORMS ultimately moved to having all journal content scanned and placed online, the first 27 years of *Interfaces* remained untouched. To see the effect, view the PDF of any *Interfaces* article prior to 1997, and you will see ragged, bit-mapped graphics renderings, as opposed to the clean versions from 1997 onward. During my time as EiC, INFORMS continued to expand the online presence of *Interfaces* and, subsequently, other INFORMS journals.

Like all of the other *Interfaces* EiCs, finding good practice papers was an important focus. I would typically scan the abstracts of the Fall and Spring INFORMS meetings and write to authors of promising presentations to solicit a submission. We would especially nurture papers from practitioners who were unfamiliar with the publication process, but had a significant contribution to practice. Mary Haight, *Interfaces*’ managing editor for many years, was the critical contributor to this effort.

I also continued the practice of soliciting tutorials on a variety of topics. My aim was to provide an introduction to an area that would allow the reader to become familiar with the concepts and issues. We published tutorials on topics such as stochastic programming (Sen and Hagle 1999), constraint programming (Lustig and Puget 2001), auctions (Rothkopf and Park 2001), and computational complexity (Tovey 2002).

Overall, my experiences being affiliated with *Interfaces* are among the highlights of my INFORMS activities. Then, as now, the focus was to continue with *Interfaces* serving as the premier outlet for the practice of OR/MS (and analytics). It was an honor to play a role in that.

Jeffrey D. Camm: 2005–2010

I had the good fortune of following Terry Harrison as the seventh EiC of *Interfaces*. I had been nominated previously in the round when Terry was chosen. I recall a phone call from Fred Murphy informing me I had not been chosen. But, in that call, Fred went on to say, “If Terry gets hit by a bus, you’re it, so you need to get more involved on the editorial board to learn the ropes.” I served with Terry for six years as the functional editor for operations management. That experience did indeed prove invaluable training for the EiC position.

I inherited the journal in great shape from Terry. He had hired Kelly Kophazi as the managing editor. Kelly was local to the Penn State area, but she agreed to stay on when I took over as EiC. Kelly, who has continued ever since, was without a doubt critical to the success of the journal. She kept the trains running, which allowed me to focus on more strategic issues for the journal.

Working with Kelly, we made several notable changes to the operations of *Interfaces*. We moved the journal from paper submissions (visualize an out-of-date doctor’s office and those rows of manila folders) to electronic submissions, and eventually to (gulp!) Manuscript Central. Moving to an online submission system had to happen, but it was met with some resistance, more so from the referees than from the authors. I recall after several tries at submitting a report, a well-known referee wrote to me about the complexity of the new process. He ended his email with “geez, we’re not dealing with bank accounts here!” But we all adapted and got through the transition.

Mary Haight, a legend in her 25 years as the person who made your manuscript readable, stepped down during my first stint as EiC. We were quite concerned about the impact this would have on the journal. Alice Barrett Mack followed Mary, and we did not miss a beat. Ben Lev completed 23 years as Book Review editor, which resulted in Ben’s name appearing as an *Interfaces* contributor more than any other person. Book Reviews continue as a mainstay of the *INFORMS Journal on Applied Analytics*.

When I reflect on other contributions to *Interfaces* during my time as EiC, a few things come to mind. First, we changed the tagline from “An International Journal of the Institute for Operations Research and the Management Sciences” to “The INFORMS Journal on the Practice of Operations Research.” It seemed much more descriptive of the focus of *Interfaces*.

Second, we did not shy away from somewhat controversial submissions. Examples include Olson (2005), Lilien (2008), Wright and Armstrong (2008), Armstrong et al. (2008), and Amstrup et al. (2009). Heated emails to the EiC, which often followed these

articles, indicated at least that the articles were being read.

Finally, when I became EiC, I encouraged Gene Woolsey to submit as much relevant material as he could generate. Gene focused on practice and the principle that simple is better. His articles were always so entertaining. We published 12 articles by Gene in my six years as EiC (see Figure 1).

Serving as the editor-in-chief of *Interfaces* was an honor. I am grateful for all the support I had from the staff and the editorial board during my time as EiC.

Srinivas Bollapragada: 2011–2016

Interfaces had established itself as the premier practice journal of operations research and management science by the time I became the editor-in-chief, thanks to the efforts of its previous EiCs, editorial board members, and the INFORMS staff. Articles from the journal were helping advance the practice of OR/MS, stimulating research in academia and industry, and generating use for classroom instruction. Jeff Camm left me a journal that was in a great shape. Serving on his editorial board for six years as an associate editor for operations management prepared me well for this task.

Taking stewardship of *Interfaces* is one of the highlights of my professional career. I am proud to be the first nonacademic to lead the journal, and I wanted to leverage my unique experience in further improving its reputation and readership. Improving practitioner participation, increasing international submissions, and using special issues to focus on prevailing topics of interest were some of the goals that I set for myself.

Although the focus of the journal was the practice of operations research and management science, an overwhelming majority of the papers published in the journal were from academic authors. Practitioners come across numerous interesting real-world problems. However, they are often unable to publish their work for reasons of confidentiality or because they lack time to write full-length papers. To bring forward such work, Mike Rothkopf had started the “Practice Abstracts” column (described above) in 1995. To further increase practitioner contributions, I replaced the Practice Abstracts column with “Practice Summaries.” Practitioners now author a short, two- to four-page, stand-alone paper to describe their work as a practice summary instead of contributing material to an article written by the Practice Abstracts editor. The goal was to provide more credit to the authors for their work, while allowing their work to be better discovered as independent papers by a search engine. In a subsequent survey of the journal (Camm et al. 2015) to learn about the readership’s perception of the journal and the way its contents

are consumed, the authors discovered that faculty members found Practice Summaries very useful for both teaching and research; only the Edelman Award articles received a higher ranking in that area in the survey. I had also enlisted several practitioners as associate editors and reviewers to increase practitioner participation in running the journal.

To attract international submissions, I recruited editorial board members from Asia and Europe and requested their help in marketing the journal outside the United States. I encouraged the associate editors to be more careful in handling international submissions in order to identify papers with good content, even if the writing and presentation needed additional work. We then guided and encouraged authors in improving their presentations. The number of original submissions from authors outside the United States and Canada grew steadily from around 50% of all submissions at the start of my tenure to around 70% by the end of my tenure.

The special issues published during my tenure focused on operations research applications in sports, mining, freight transportation and logistics, and energy applications, and were all well received. I also commissioned a special issue on Big Data analysis, which was published after my tenure. I thank the special issues editors for their diligent and exceptional work. I also instituted outstanding-reviewer awards to recognize the services of reviewers. The awards were based on the quality, quantity, and timeliness of reviews.

I thoroughly enjoyed my time as the editor-in-chief of this premier journal. It was an honor and a pleasure to work with so many talented and outstanding people over my six-year period.

Michael F. Gorman: 2017–Present

I am proud to serve as editor-in-chief for *IJAA* as it enters its 50th year and look forward to another 50 years of progress. I felt that I was up for the task after 12 years as deputy editor, but my predecessors (Jeff Camm and Srinivas Bollapragada) had left me with a lofty precedent to meet. Although I have overseen a number of changes in my three years, I think my editorship will be marked by one of the biggest changes in the journal's 50-year history: the *Interfaces* name change to the *INFORMS Journal on Applied Analytics*.

From my first day as EiC, I wanted the journal to be more clearly and closely aligned with the booming analytics movement. In my first EiC statement (Gorman 2017), I stated that I wanted *Interfaces* to be known as the applied journal in analytics. Accordingly, we created a special issue in conjunction with the Innovative Applications in Analytics Award (Jaramillo and Wikum 2019), a partnership that I hope continues to grow.

I was planting the seed for aligning *Interfaces* with the INFORMS strategic direction to associate itself with the rapidly increasing interest in analytics.

In my second EiC statement (Gorman 2018), I made the case for why the name *Interfaces* was hampering its mission. Simply, although *Interfaces* was well known within our organization, the name did not convey its mission to those who were not familiar with the journal, and, as such, its outreach mission was hampered. It was a major cross in the road: Was *Interfaces* primarily, or solely, for our membership, or was its role as an outreach vehicle more important?

In my third EiC statement (Gorman 2019), I was proud to announce that the name change had become a reality. *Interfaces* would now be known as the *INFORMS Journal on Applied Analytics*, which clearly aligns *INFORMS* with analytics, promotes the academic integrity of the journal, and states clearly that the journal is about the application of a broad range of analytical methods. It is my hope that this name change will, over time, encourage a wider range of methods and applications in the journal, increase submissions, and increase the journal's overall quality.

In my fourth EiC statement (Gorman 2020), I was able to report that the *INFORMS Journal on Applied Analytics* was in full swing after a year in operation under the new name, with more developments to come. I am happy to say that, according to INFORMS journal reporting, in the year 2020, *IJAA* had over a 40% increase in downloaded articles over prior years, perhaps in part to the increased visibility due to the new journal name.

Other Initiatives

In the few years that I have acted as editor-in-chief, there have been a few other major trends, which I established or continued to encourage.

First, I have worked to find more varied applications for the journal, particularly in not-for-profit, humanitarian, and small-company applications. The newly appointed Associate Editor of Humanitarian OR, James Cochran, and I have found interesting applications, such as rural pipe networks (Babonneau et al. 2019, Hooda and Damani 2019), waste collection (Fadda et al. 2018), and crime patterns (Chohlas-Wood and Levine 2019).

Second, I have worked to expand the types of methods employed in published papers. As Jeff Camm would say, at its roots, OR is about problem solving, whatever the tool or tools. In particular, articles about artificial intelligence and machine learning methods have become frequent in the journal. Rudin and Ustun (2018) is one example; however, more papers on statistics, simulation, artificial intelligence, and the like are most welcome.

Third, the journal has connected with the winners of the UPS George D. Smith Prize, celebrating the best programs that produce the best analytics practitioners. Recent publications include descriptions of the Air Force Academy (Armacost et al. 2018), Carnegie Mellon (Krishnan et al. 2018), and MIT (Perakis and Rosenfield 2018), among others.

Fourth, as per INFORMS editorial board suggestions and goals for all INFORMS journals, one of my objectives is to refresh and update the editorial board. As a result of this effort, I (collaboratively) have replaced nine of 35 members (25% turnover). Apart from former EiCs, who traditionally hold honorary roles on the board and provided long-time service to the journal since prior to their EiC roles, the average tenure on the board has been reduced to 8 years from well over 12.

Finally, I have worked extensively to improve turnaround time at *IJAA*. The mean days until an author is given a first decision is now below 100 days (a 44% reduction). I thank my editorial board and reviewers for their cooperation and hard work in that area!

However, the reduction in flow time has resulted in the unintended (but clearly predictable, for Pete's sake) effect of reducing the inventory of papers in the pipeline, holding the quality and quantity of submissions constant. My efforts to fill that pipeline have focused on special issues on current hot topics like omni-channel marketing, data science for technical infrastructures, and customer-experience analytics. Notably, these efforts were led by practitioners from companies such as Facebook and Verizon. I also plan a special issue based on the companies that have won the INFORMS Prize, which "is awarded for effective integration of advanced analytics and operations research/management sciences (OR/MS) in an organization" (INFORMS 2020), and I hope for one on blockchain. Thank you to all of my special issue associate editors for their work!

I would be remiss if I did not give deep thanks to Kelly Kophazi, who is the backbone of the journal, for all her hard work; Matt Walls for providing excellent advice and guidance from an INFORMS journals perspective; and Alice Mack for her meticulous, helpful, and (mostly) positive editing advice on improving the final product that is published. I have truly enjoyed this role, clearly one of the highpoints of my INFORMS and professional career; the professional staff supporting the journal have made my job much easier.

Looking Forward

Looking forward, there are a number of ways that the *INFORMS Journal on Applied Analytics* can continue to build on its history and improve its position.

1. Continue to attract more and better submissions.

With a slightly broadened scope from core OR/MS to analytics, we have already seen a broader assortment of submissions. Hopefully, that translates to a larger quantity of submissions so that *IJAA* can continue to increase the quality of the articles published and further establish itself as the top outlet for all forms of applied analytics in the world.

2. Continue to make the case for *IJAA*'s excellence and importance to the discipline.

IJAA is often considered to be of less value and rigor because it is applied. Our measure of impact (i.e., citations) often misleads authors away from *IJAA*. As a result, *IJAA* receives approximately 1.3% of total INFORMS journal submissions; however, it represents 4.1% of the journal downloads, per INFORMS reporting.

3. Create a better feedback loop to research journals.

It is well known that *IJAA* is lightly cited. Applied work is often the "end product" of theoretical advances that result in improved methods in practice (or at least should!). However, *IJAA* projects are not often cited as the reason for a change in method or assumption, although they should be. What better justification is there for a change or improvement in existing methods and models than "it is needed in practice"?

4. Promote the complementarity of theoretical and applied work.

Authors at times wonder whether they should submit to *IJAA* or another, more theoretical journal. The simple answer is they should submit to both; this is often not an either/or decision. The theoretical advancements (motivated by practical applications), along with appropriate experimentation, proofs, tests of optimality, and the like, can be placed in the appropriate theoretical journal. However, the motivating application and its use in practice, along with the challenges and benefits of implementation, can be published in *IJAA*. Although there is overlap, the contributions are markedly different and, thus, publishable in both domains. This practice would clearly help bridge the gap between theory and practice and should increase researcher productivity with a two-for-one return on a research project.

5. Promote the complementarity of applied work and pedagogy.

There is a strong opportunity for authors to extend *IJAA* projects into teaching cases. Many case studies that are written for students are based on realistic, but imagined, scenarios and companies. What better way to motivate students than to have them work on projects that were actually implemented! One could have students work on a simple version of the problem, either complemented by or followed up by reading the actual real-world implementation.

This practice would continue to promote IJAA's value in pedagogical settings and increase awareness of the journal outside of our INFORMS organization.

As *Interfaces/INFORMS Journal on Applied Analytics* enters its next half century, we anticipate continued evolution and improvement in the journal, while staying true to its 50-year mission so far.

Endnotes

¹ Deceased.

² Deceased.

³ Deceased.

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