Storytelling: The Write Stuff

New book explains how to present analytics to a nontechnical audience. Hint: Shorter and clearer is better.



BY DOUGLAS A. SAMUELSON



in the opening paragraph," one member of an analytical team recounts. "A federal

agency was soliciting congressional support for a multi-million-dollar IT cloud system that would serve several agencies.

The technicians invested substantial effort composing papers that explained the concept, operational benefits, customers, timetable, financial savings and cost in hopes of securing needed funds. But the authors had failed to make their case understandable to non-IT people."

Fortunately for this effort, the team member telling the story is Carla D. Bass,

he battle was already lost colonel (retired), U.S. Air Force, who was asked to "enhance the congressional readability" of the papers. She completely rewrote the papers and accompanying presentations, working closely with the subject matter experts to ensure her revisions didn't inadvertently skew the message. Here is an example of how the writing techniques found in her recent book [1] transformed the products, ultimately persuading Congress to fund the project:

> Before: Currently, there is a multiplicity of non-interoperable collaboration IT tools in use across the various agencies. This not only limits information sharing potential, but also generates increased

costs. (Italics added to emphasize unhelpful wordiness.)

After: Government agencies use many incompatible IT tools for collaboration, a costly practice that impedes sharing information.

Analysis: Identify the subject and verb, the first step to transforming verbal mush into a succinct statement. The subject is "government agencies" and the verb is "use." These modifications eliminate, "There is ... in use across the various." Eliminate useless words. Don't use words that hog space (e.g., replace multiple with many and non-interoperable with incompatible). Hogging space also includes the practice of using two words when one will suffice. Thus, replace "limits ... potential" with "impedes." And "generates increased costs" with "costly." Finally, clarify "This ...," a confusing word in the complexity of the preceding sentence.

Bass was subsequently asked to compose a series of 90-word elevator speeches on various aspects of this same cloud system: What is an IT enterprise? How does the IT enterprise function? Is the cloud secure? What is the IT enterprise implementation timeline? How do you manage information in the cloud? How do you access information in the cloud? What about information sharing, security and the IT enterprise?

"Given the intended audience, the project at stake and constraint on length of the text," she notes, "every single word mattered!" These elevator speeches were subsequently used in testimony and included in other updates to Congress.

Many similar experiences and thankful teammates convinced Bass to write her book.

Do analytics professionals really need such guidance? Here's the opinion of one of her acquaintances, a senior military operations research analyst who teaches in a military graduate school:

"My course in combat modeling and simulation was intended for graduate students who were going to become operations research analysts. They took the course as they were preparing their thesis en route to graduation. The point of the course was the use of modeling and simulation to accomplish various Department of Defense studies, and many bright students used models in their research. Since I was known as a stickler about communicating study results, many came to me as thesis advisor or reader. They often got bogged down in getting their work described and were mostly unsuccessful in reaching their intended audience with the results and merits of their research.

"In review sessions, we often banged away at their writing which was usually too technically deep and unclear in describing results. The process of revision for clarity

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and creating only strong purposeful written descriptions usually produced a shorter and more understandable product. It always worked, and in two years some 25 students turned into O.R. analysts and accomplished study report writers."

The professor continued, "My first attendance at an operations research symposium was marked by one of the senior mentors telling everyone from the podium, 'No decision was made on analysis that was not understood.' The room went dead silent as we all tried to get meaning from these strange words. While it took a while to sift through the audience, it was apparent something cerebral had taken place. Several months later I was preparing for my first decision briefing. The presentation was to be given to a non-analyst highranking decision-maker. It dawned on me that the usual analyst thoughts were just not going to work, and these would only be ignored rather than be useful in helping to reach a decision. To this day, I believe mentors' words, rewriting the briefing, cutting out the colorful mathematical jargon, and clarifying the facts while explaining the merits and disadvantages, got me the 'thank you very much,' and 'I know exactly what I want to do' at the end of briefing."

GENERAL PRINCIPLES

In the book, Bass details 10 basic principles for how to improve writing:

- Eliminate useless words.
- 2. Shorter is better; don't hog space. Shorter words, shorter sentences.
 - Eliminate redundancy.
 - Lead with the basics.
- 5. Rely on verbs. Instead of "served in a coordinating capacity," say "coordinated."
- 6. Avoid professional jargon, unnecessarily detailed information and phrasing that requires the reader to dig for the message. When you must use a professional term of art, explain it - preferably in a footnote or technical appendix - or cite an explanatory reference.
- 7. Use tethers; all terms in a phrase should refer back to a clear base. For example, "She composed and translated technical information into layman's language" leaves the sharp-eyed reader wondering how the person composed information into layman's language. The reference is unclear. Better: "She composed technical information and translated it into layman's language."
- 8. Be clear: Who does what to whom? Instead of "Significant efforts by the staff went into the creation of a new dining facility," write "The staff worked hard to create a new dining facility."
- 9. Keep the focus. Lead the reader to your conclusion with as few distracting, irrelevant topics as possible.
- 10. Proofread carefully; your credibility is at stake. Misspellings and

grammatical errors quickly undercut the effectiveness of your writing. And don't rely on just the computer's spelling and grammar checker; many of them are too forgiving of misuses that lead to making you look silly.

Begin with a "hook" that quickly engages the reader: What is this about and why should you care? Conclude by repeating and summarizing the most important point and indicating what the reader should do about it.

NOT JUST FOR TECHNICAL REPORTS

Bass' approach works for fundraising letters, performance appraisals, awards nominations and resumes, too. She recounted (not in the book) a friend who purchased an historic building to renovate for his home design shop, banquet facility and guest rooms. He had written a letter to solicit investors. She spent two hours rewriting a one-page letter reorganized it, sharpened the language, added focus and better explained the unique opportunities this building in a country town offered. "As he'd written it," she said, "the key headline (need money) was buried in the second paragraph, following a rambling opening paragraph. Financial specifics were located at the end of the letter. I grouped these and opened the letter with them.

I relocated how funds would be applied from the opening paragraph to after the proffered opportunity to invest. I recast the entire tone, infusing it with focused excitement. Instead of, 'We need your help in order to open these businesses,' I phrased, 'We offer you the opportunity to participate in this singular transformation.' I added a colorful, enticing, brief description of the surrounding area and activities that will draw clients. I concluded on a strong note of community support: "We hope you will join us and participate in this exciting and prosperous business venture.

"He got the \$75,000 he needed."

In another example from the book, consider the following rewriting of a colleague's resume:

Before: Assisted the Office of Computer Defense with technical and programmatic support of the portfolio with over \$400 million in annual budget. Developed numerous highly technical proposals and presentations through substantial research and analysis of data from multiple sources to inform senior corporate leader and gain further support in delivering improvements to existing technology and the development of new technology aimed at keeping corporate computer networks ahead of the adversary.

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After: Developed and presented to senior corporate leaders technical proposals to improve current technology and develop future IT capabilities to better defend computer networks from attacks by both state and non-state adversaries. Supported a portfolio valued at \$400 million, annually.

Analysis: "Assisted with ... support of" is a boring, unfocused opening that also begs the question, "Assisted how?" Begin each bullet in a resume with a solid, action verb – in this case, "Developed and presented." Again, write concisely "With over \$400 million in annual budget" is more concisely stated as, "valued at \$400 million, annually." Eliminate useless words (italicized). Delete "Substantial research and analysis of data from multiple sources" because this is expected as foundational for proposals and presentations; therefore, these steps should not be mentioned.

I can state from my own experience that even very good writers can benefit from a critique by other good writers. For all the times I've advised others to emphasize accomplishments rather than capabilities in a resume, I was surprised several years ago when a professional told me I had failed to do that in my own resume. My summary statement began, "Experienced operations research analyst with extensive

background in..." listing methods and techniques. After that rude awakening, it begins, "Proven trustworthy problemsolver with a solid record of successes in..." and a list of application areas. This works much better.

I can also state from experience that just reading Carla D. Bass' book and working through the many instructive examples and exercises in it will make you a better writer, but it is not sufficient. It often takes in-person critiques to help you identify your bad habits, and - again from my experience - the people who most need improvement are often the last to realize it. (This observation applies to more than just writing skills.) Having a few non-technical people review your writing and point out what they don't follow readily is a fine quality control method. The ancient Jewish sages had it right: The truly wise person is the one who learns from everyone. The book is a good start, though.

Douglas A. Samuelson (samuelsondoug@yahoo.com), D.Sc. in operations research, is president and chief scientist of InfoLogix, Inc., a small R&D and consulting company in Annandale, Va. He is a contributing editor of OR/MS Today and Analytics magazine.

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