

CONFERENCE

2021 John P. McGovern Award Address Style and Substance

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The John P. McGovern Award is named in honor of John P. McGovern and is presented to a member or nonmember of AMWA to recognize a preeminent contribution to any of the various modes of medical communication. The McGovern Award is presented during AMWA's Medical Writing & Communication Conference.

Hello, AMWA attendees. I'm Stacy Christiansen, and I am incredibly humbled to be talking to you as the 2021 John P. McGovern Award winner. Looking through the list of previous winners leaves me a little starstruck; I am in incredibly good company.

I have been very fortunate to spend my medical communication career at one organization, the American Medical Association (AMA). I was hired in the last century (but very, very late in the last century) as a copy editor for the specialty journals published by the AMA. Their names at the time were *Archives of Dermatology*, *Archives of Internal Medicine*, and a handful of others. They have been successfully rebranded as *JAMA Dermatology*, *JAMA Internal Medicine*, etc.

After a few incredibly instructive years as a copy editor, I had the opportunity to move over to the flagship journal, *JAMA*. One of the main differences with *JAMA* was applying all of the skills and knowledge I had gained, but faster. I was up for the challenge and the rest is history. I moved from copy editing manager to managing editor of *JAMA*.

I've also been a member of the committee that produces the *AMA Manual of Style* since 2002. I worked on the 10th edition, and then became the co-chair for the eleventh, just published last year.

Before I dive in, I just want to take a brief minute to give thanks where it's due—to acknowledge the people who have mentored me, educated me, and supported me along the way. The person who fills all of these roles is *JAMA* Network Executive Managing Editor Annette Flanagin, who, by the way, won this award in 2009. Annette is a manager, educator, problem-solver, and cheerleader all in one, and she has

set the bar high at *JAMA*, but is always willing to give me a boost to reach it.

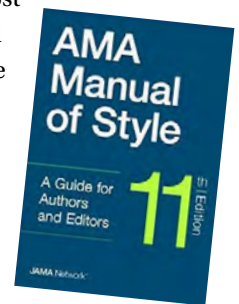
Another McGovern award winner has also been a huge influence on me, and that's Cheryl Iverson, the previous chair of the *AMA Manual of Style* committee. She won the award back in 2004. Cheryl is one of the most upbeat, can-do people I have ever met, and her support and encouragement helped me believe I could wrangle this stylebook, no problem.

There are a host of others who have been instrumental, including all sorts of folks at *JAMA*, from editors in chief to all of the amazing manuscript editors, systems administrators, editorial assistants, and production staff. Also, AMWA and Council of Science Editors (CSE) colleagues, a number of people at Oxford University Press, and even authors, readers, and tweeters who share their experience and feedback. I owe a debt of gratitude to a host of individuals for helping me along this path.

So, in thinking about this talk, I settled on *Style and Substance* as the title, because that's one phrase I feel sums up a lot of our work in medical communication. And then, I struggled with a subtitle.

My first idea was "But What Do You DO?" I'm sure I'm not alone in this scenario. You're at a gathering with people you're meeting for the first time, and they inevitably ask what you do for a living. And you reply, "medical writer," or worse, "medical editor." Medical writer at least is sort of clear: you write about medical stuff. But medical editor? One well-meaning older man asked if that meant I was a secretary—his word. Other times I've been met with a blank stare and the question, "Yeah, but what do you DO?"

So, I thought about that. What do we do? My personal philosophy can be summed up as ACC. That's an acronym I coined for accuracy, clarity, and consistency. As an editor, those are the paramount goals of anything I work on, from



a brief news item to a large groundbreaking clinical trial. A good editor should be behind the scenes helping an author ensure that the science is communicated accurately, clearly, and consistently.

There are varying perspectives about what editors actually do, from people who aren't sure, to those who are as invested in the product as editors are—namely writers—and, of course, the “track changes” reality.

There have been some attempts to place value on editorial work, such as a comparison of unedited papers with final publication. In this study from 2015,¹ readers were asked to read 4 articles in their unedited and edited versions. While these articles were principally news stories and not trial reports, I think the findings are relatable. Readers preferred the edited versions, and felt the quality was worth the cost.

Two papers published in 2007 in *Learned Publishing* also investigated the changes between author manuscripts and final published versions.^{2,3} In the first study, a review of 189 articles published in science, technology, engineering, and mathematics journals or humanities publications compared the author's version with the final article. A substantial amount of edits worked to correct citation errors, a third of the edits fixed grammatical or stylistic problems, and nearly 14% of the edits queried missing data. The authors concluded that editing contributes substantially to the accuracy of the paper and is therefore an important function for the integrity of the article of record.²

The second paper in *Learned Publishing* was by Goodman and colleagues, and it compared self-archived manuscripts with the published versions. This study looked at 24 papers in biochemistry or social sciences, and the results were similar to the first study. In general, the editing helped improve the readability of the paper, although no errors were serious enough to invalidate significant data, conclusions, or the overall validity of the findings, and none of them would warrant a correction or a retraction.³

A slightly older study was presented at the Peer Review Congress in 2001.⁴

This was a systematic review of the literature on technical editing, which has been posited to improve accuracy and clarity—2 of my ACC words. The authors found 11 studies of technical editing that concluded that editing improves readability, may improve quality, and increases the accuracy of references and quotations. It also elevates the accuracy of abstracts.⁴

The Ninth International Congress on Peer Review and Scientific Publication is set to meet in September 2022. Get your research done! Abstracts can be submitted now.

There have been some other efforts to validate the contributions of communication professionals, but I have yet to see any study that says, “nah, don't bother.”

As I mentioned earlier, I was hired at the turn of the century, and we still did a lot of things on paper. We were just learning how to edit in Microsoft Word, and some of us learned to write custom scripts. My first script removed the 0 before the decimal point in *P* values. I am still super proud of that very basic script that no one uses.

Among editorial staff, there was some general fear as technology evolved that editors might be replaced. Spellcheck and grammar checking in Word were the first software-based features that took on some of an editor's responsibilities, followed by more sophisticated programs such as software that autocorrects errors, or that fixes terminology based on preselected rules (for example, changing British spelling to US spelling).

Technology can be incredibly helpful to improve quality by spotting errors, but we've all had a good laugh over auto-correct or spell Czech. I get really tired of spellcheck's shirt; that process can go to he'll. I realize that correct spelling is impotent, but sometimes the corrected words aren't write.

And sometimes it's not individual words but sentence construction that editors need to fix. For example:

The patient has chest pain when lying on her right side for over a year.



The patient lives at home with his mother, father, and pet turtle, who is presently enrolled in daycare.

Editors work to preserve the credibility of a paper and of a journal or other publication as a whole. While I know we've all had a good chuckle about menu gaffes and not worried too much about how the food would be, the same is not true of more serious communication.

As the patient, if you were provided a document intended to address your concerns about a new medication or a diagnosis, what would your confidence be if it were riddled with errors? We might assume anyone or any company that did not take the time to do something as straightforward as proofreading might not have done the necessary quality checks on the product or information itself.

And although technology might be able to assist with some functions of a writer or editor’s job, it simply will never replace the judgment a human brings to the work. There is nothing misspelled or grammatically wrong with the sentence, “This medication is for diabetics.” But a well-trained writer or editor will tell you that it’s best to use patient-first language to avoid labeling people with a disease or a condition. Microsoft Word would pass over that sentence with nary a red squiggly line, but the editor would recast it as “This medication is for patients with diabetes.”

The same is true for language addressing people’s sex or gender, age, socioeconomic status, race and ethnicity, or disabilities. Writers and editors are in tune with inclusive language in a way that even the most sophisticated software cannot replicate, so clearly human editors are important. And as advanced as technology becomes, medical writers and editors will always be needed if the desired result is clear, accurate, and valid content.

Editors’ work with references is particularly important—ensuring that references are cited, are associated with the right content in the text, and are complete enough that they can link to the original source, allowing readers to access the primary information. Knowing when citations are needed, which citations are appropriate vis-à-vis the reference list, and ensuring citation accuracy really rely on well-trained medical writers and editors.

I realize some of you are saying, “Stacy, you’re preaching to the choir.” And I know that, but it doesn’t hurt to hear evidence to validate our work. Consider this your affirmation. Your work matters *tremendously* in helping communicate science clearly and accurately, with the ultimate goal of advancing science and helping patients.

You may remember that I mentioned earlier that I was toying with several subtitles for this talk. My second idea was along the lines of “Who Cares About Style?” or “Why Is It Important to Use a Stylebook?” Although we all carry knowledge in our heads, it’s much more efficient and consistent to share it. With the pace of information sharing continually accelerating, it’s inefficient to have to ask around if something is hyphenated. And of course, depending on who you ask or where you look, you might get different answers. Having one place to look up guidance will help establish consistent decision-making.

I would never ask anyone to read the *AMA Manual of Style* cover to cover—or any stylebook for that matter—unless you can’t fall asleep. A stylebook is a reference tool, like the dictionary.

Now, there are definitely sections of a style manual that lend themselves to narrative, and perhaps certain chapters

should be must-reads, like those that provide the history of certain policies to give you some context. But essentially, a stylebook is a resource for consultation and guidance.

So why should you use a stylebook? Because they provide guidance on how to handle small details, substantive issues, and even major problems. For example, you may not remember the rule for using en dashes with compound terms. Where does the hyphen go? When do you really need to use the en dash? Give me some examples! A style manual is happy to oblige.

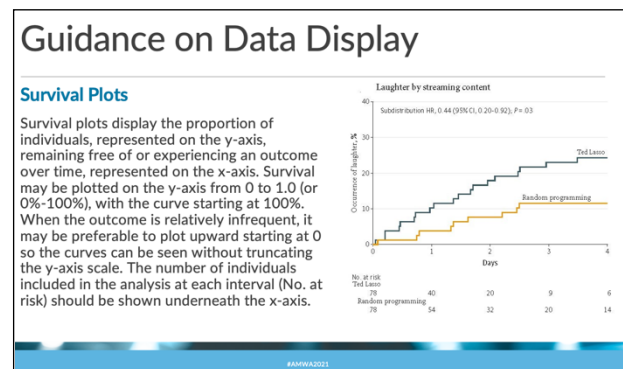
Same thing with comma use. Most style guides will share a preference for using the serial comma or not, and it’s important to use (or not use) it consistently. Following one main guide or adopting a house style on this point will ensure that all content is in agreement.



A collection of commonly used manuals.

Another guidance point a manual will assist with is what is capitalized in a title, especially if you don’t encounter terms such as *in situ* or *mendelian* very often.

Stylebooks also provide guidance on substantive issues such as data display, for example, the basic formatting of what should be included in a survival curve. The example here provides the general expectations for formatting, like using a nonbreaking scale starting at 0, or, alternatively, at 100. The guide also explains what elements need to be included to interpret the figure, such as the number of patients in follow-up and plotting the progression of time on the x-axis.



Other substantive guidance a manual will offer might involve language use, in this case guidance on inclusive language. Stylebook authors will have done their

homework on wording to be used in certain disciplines or in certain situations. In the examples here, there are specific recommendations for how to report on race and ethnicity, as well as disabilities and diseases. Note the theme here, which is asking authors and editors to use person-first language.

Guidance on Inclusive Language

- Racial and ethnic terms should not be used in noun form (eg, avoid *Asians*, *Blacks*, *Hispanics*, or *Whites*); the adjectival form is preferred (eg, *Asian women*, *Black patients*, *Hispanic children*, or *White participants*) because this follows AMA style regarding person-first language.
- Avoid labeling (and thus equating) people with their disabilities or diseases (eg, the blind, schizophrenics, epileptics). Instead, put the person first. Avoid describing persons as *victims* or with other emotional terms that suggest helplessness (*afflicted with*, *suffering from*, *stricken with*, *maimed*). Avoid euphemistic descriptors, such as *physically challenged*, *special*, or *special needs*.

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Finally, a style guide should also provide guidance on major issues, for example in medical articles what to do when an identifiable image of a patient is included with a document for publication. You can see here the manual provides a list of options for how to legally and ethically handle this situation.

Guidance on Major Issues

How do you handle a photograph of a patient?

- Written informed consent for publication (patient permission)
- Editing/deleting details
 - However, *altering* descriptive characteristics is not appropriate as it is a form of falsification and may be misunderstood by readers and others conducting secondary analyses of published reports.
- Cropping
- Omitting image altogether

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Another major issue that might arise in a writer or editor's work is dealing with authorship issues. A style manual will likely offer guidance on how to navigate authorship, or at least suggest resources for assistance.

Guidance on Major Issues

Resolving authorship concerns

1. Only those individuals who meet the criteria for authorship may be listed as authors.
2. The first author has contributed the most to the work, with other authors listed in descending order according to their levels of contribution. Note: Some groups choose to list the most senior author(s) last.
3. Decisions about the order of authors should be made as early as possible (eg, before the manuscript is written) and reevaluated later if needed by consensus.
4. Disagreement about order should be resolved by the authors, not the editor.
5. Authors may provide a publishable footnote explaining the order of authorship, if there is a compelling reason.
6. Editors may request documentation of authors' specific contributions.

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This can be very helpful for writers or editors because it provides an authoritative guidance to cite. I can't tell you how many times I've copied and pasted from the *AMA Manual* online to help explain what our policy is, or why it is.

Stylebooks usually also offer guidance on how to organize information, which helps readers digest the information. For example, readers expect an abstract in a clinical trial report, and some even expect that they can skip reading the whole thing, just reading the last paragraph (the conclusions). When the document is organized, ideas flow logically, tables and figures present data efficiently and in a logical order, and readers can skim the paper but still find what they're looking for, and come away with at least a basic understanding of the study.

Guidance on Organization

- Titles and Subtitles
- Author Bylines and End-of-Text Signatures
- Author Footnotes
- Abstract
- Parts of a Manuscript, Headings, Subheadings, and Side Headings
 - Introduction
 - Methods
 - Results
 - Discussion
 - Conclusions
- Data Display (Figures, Tables)
- Acknowledgments (Article Information)
- References

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You don't have to use the *AMA Manual*—although it would be great if you did! The important thing is to have a resource available that will provide guidance in your work, whether it's a question on comma use, or help with serious issues like conflicts of interest or handling retractions.

These are the tools medical writers and editors need to practice their craft: reference tools; software programs for word processing, data display, and reference management; and most importantly, your brains, skills, and experience. The end result is a well-equipped communicator whose work helps the science shine.

Remember, ACC (accuracy, clarity, and consistency) never go out of style.

Thank you, everyone, for your time and attention, and thank you, colleagues, for the McGovern Award.

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The 2021 Alvarez Award address by recipient Harriet A. Washington will be published in a future issue of *AMWA Journal*.

SCREENS FROM THE VIRTUAL CONFERENCE

