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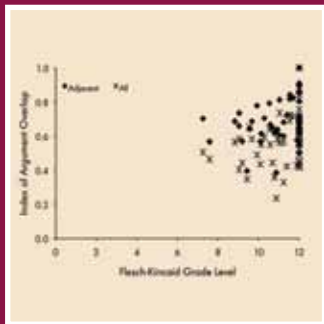
ELECTRONIC EDITION

The Resource for Medical Communicators



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More Efficient Editing



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Coverage of AMWA's 73rd
Annual Conference

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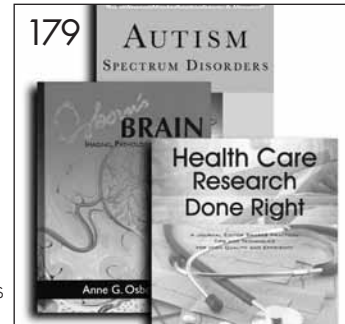
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READABILITY AND TEXT COHESION OF ONLINE COLORECTAL CANCER AND SCREENING INFORMATION

By **Chiung-ju Liu, PhD,^a Kristen E. Yates, MS,^b and Susan M. Rawl, PhD^c**

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ABSTRACT

A common goal of medical writers is to clearly communicate health information. When the intended audience is the lay public rather than health care providers and scientists, writers and editors have often turned to readability formulas in the quest to improve comprehension by readers. Although their use is widespread, these formulas leave out textual factors that are critical to comprehension, such as text cohesion. Recent advances in reading comprehension studies and computation technology have resulted in the development of automated linguistic analysis tools that writers may find useful to analyze text cohesion. We sought to evaluate in health education materials whether text cohesion is correlated with readability as assessed by a readability formula. The current study used an online linguistic computation tool, Coh-Metrix, to analyze text cohesion in addition to reading grade levels of 55 online texts of colorectal cancer and screening information. Indices of referential cohesion (argument and word stem overlap among sentences) and semantic cohesion (semantic and conceptual similarity among sentences) were selected to measure text cohesion. The Flesch-Kincaid Grade Level was selected to assess reading grade levels. Results showed that text materials written at lower reading grade levels as assessed by the reading formula seem to be low in text cohesion. Although text length is not associated with the degree of referential cohesion or semantic cohesion, the Flesch-Kincaid Grade Level is positively associated with both. Our study suggests that text cohesion may need to be considered in the effort to improve readability of written health information. Simply lowering the reading grade level of a given text may inadvertently decrease text cohesion and therefore comprehension. Medical writers and editors may wish to explore linguistic computation tools to analyze their documents and potentially increase comprehension by their readers.

“Easy reading is damn hard writing.”

This quote from Nathaniel Hawthorne reflects many careful writers' struggle and ambition. Creating reader-friendly health information is an essential task for many medical writers in the era of patient-centered care. This task is often time consuming and requires much mental effort. The difficulty of the task may inspire writers to search for tools that can be used to improve the end result. Readability formulas have been used for decades, although their efficacy in improving comprehension and their usefulness to writers have been questioned. New tools are emerging, including Coh-Metrix (www.cohmetrix.com), an online linguistic and discourse computational tool.¹

Readability formulas, which include the Flesch-Kincaid Grade Level, the Gunning Fog Index, the Fry Readability Graph, and the Simple Measure of Goobledygook (SMOG) index, were developed several decades ago from studies that assessed correlations between children's comprehension and the length of sentences and words, or the correlations between a newly developed formula and prior established formulas.^{2,3} These formulas use word length and sentence length as proxy indicators for word difficulty and syntactic complexity.⁴ They convert results to a variable referred to as reading grade level, which is meant to signify the number of years of education required for a reader to understand the written information. Many people have assumed—perhaps incorrectly—that greater ease of reading is associated with the use of shorter word and sentence length.

It is uncertain, however, whether or not these formulas are valid measures of readability of health information for today's adults. Today's adults may read on a different level compared with children a few decades ago. Additionally, readability formulas do not include crucial text variables and are not grounded in comprehension theory.^{3,6} Estimates from readability formulas do not reflect organization of content; that is, they do not distinguish between organized sentences and scrambled ones. Texts with low reading grade levels may not necessarily be highly readable or understandable, especially if text cohesion is low.

Text cohesion is the degree to which words and sentences can be tied together for interpretation. Text cohesion supports the continuity of ideas within a text. To help the reader connect ideas, a writer carefully uses words, phrases, or sentences to increase text cohesion. Rather than simply counting the number of syllables and words, text cohesion takes the reader's comprehension process into account.^{7,8} During reading, ideas are extracted from the text to build a cohesive representation of the text. This extraction involves a construction phase and an integration phase.⁸ In the construction phase, ideas extracted from the text form a network by linking to each other and to earlier ideas. The degree of relevance determines the strength of the link. In the integration phase, the stronger links are kept in working memory for further processing. Comprehension is derived from a series of cycles involving construction phases and integration phases as the text unfolds. The weak links fade away after a few cycles. Therefore, text cohesion assists the integration phase of comprehension. On the other hand, if there is little or no explicit overlap between succeeding

ideas or sentences within a text, readers must bridge the cohesion gap by making an inference; otherwise the information would be lost from working memory. To make referential reasoning, readers either have to slow down or reread previous text.⁹ When readers are unable to make such inferences, they have a limited understanding of the information in the text.

Coh-Matrix, an online linguistic and discourse computational tool, was developed to overcome the shortcomings of readability formulas by incorporating additional text features that are critical to reading comprehension, including text cohesion.¹ Coh-Matrix provides valid indices of text cohesion.^{1,10,11} In previous research, the first author (LIU) used the tool to analyze health materials written for adults 65 years and older, and identified six cohesion indices that account for the most variance of cohesion of these materials.¹² These six indices are: 1) argument overlap for adjacent sentences, 2) argument overlap for all sentences, 3) stem overlap for adjacent sentences, 4) stem overlap for all sentences, 5) latent semantic analysis (LSA) for adjacent sentences, and 6) LSA for all sentences. The first four of these are related to referential cohesion; the latter two are related to semantic cohesion.

Referential Cohesion

The “argument” mentioned in the first two indices can be a noun, pronoun, or noun phrase. When an argument is used to refer to another argument in the text, these two arguments are considered to be overlapped. “Argument overlap for adjacent sentences” measures the proportion of adjacent sentences that share one or more arguments, and “argument overlap for all sentences” measures the proportion of all sentence pairs in a paragraph that share one or more arguments. Similarly, “stem overlap for adjacent sentences” measures the proportion of adjacent sentences that share one or more word stems, and “stem overlap for all sentences” measures the proportion of all sentence

pairs in a paragraph that share one or more word stems. Cohesion indices 1 to 4 indicate referential cohesion. A text with high referential cohesion has a high proportion of overlapped arguments and shared word stems. Two examples below illustrate texts written with relatively high and relatively low referential cohesion.

High referential cohesion. *The colon and rectum are parts of the digestive system. The colon is where waste material is stored. The rectum is the end of the colon where the waste material passes out of the body. Together, the colon and rectum form a long muscular tube. The long muscular tube is also called the large intestine or the large bowel.*

Low referential cohesion. *The colon and the rectum are parts of the digestive system. Together, they form a long muscular tube called the large intestine. It is also called the large bowel.*

Semantic Cohesion

LSA is a method for representing the contextual-usage meaning of words by statistical computations of a large number of texts.¹³ It determines the similarity of meaning of words, sentences, and passages by analysis of large text corpora. The “LSA for adjacent sentences” measures how a sentence is similar to the next one; the “LSA for all sentences” measures how a sentence is similar to every other sentence within the text. Both indices reflect semantic cohesion. Two examples illustrate texts that are written with relatively high and relatively low semantic cohesion.

High semantic cohesion. *Colorectal cancer is not contagious. A person cannot catch the disease from a cancer patient. Some people are more likely to develop colorectal cancer than others. Factors that increase a person's chance of developing colorectal cancer include...*

Low semantic cohesion. *Colorectal cancer is not contagious. We can't exactly pinpoint what causes it. Your risk for colorectal cancer may be higher than average if...*

Readability formulas have been a popular tool to try to improve text readability because they are easy to apply and yield objective results. However, if the text is written so that it receives a low reading grade level as assigned by the formula, it may not have the text cohesion necessary for comprehension. The main purpose of this study was to examine whether reading grade level is correlated with text cohesion. We analyzed text cohesion, reading grade levels, and text length of selected online colorectal cancer (CRC) and screening information. We selected CRC because it is the most common cancer that affects both men and women in the United States¹⁴ but is highly preventable through screening. We chose online texts because the Internet is often used by the public when seeking cancer-related information.¹⁵ Providing easy-to-read online cancer screening information is part of cancer prevention efforts.

METHODS

Selection of online CRC and screening texts.

A series of searches was conducted between May and June 2012 to identify and select qualified online texts. We used “colorectal cancer,” “colon cancer,” and “bowel cancer” as search terms in the top five ranked search engines: Google, Yahoo, Bing, Ask.com, and AOL.com. The first 20 websites identified by each search term in each search engine were screened, excluding news, advertisements, and video links. Online texts with information about CRC symptoms, risk factors, and screening tests were selected for further analysis.

Studies on Internet search behavior have indicated that Internet searchers spend the most amount of time viewing the top two links of the results list, with a dramatic decline in attention after

the tenth link.¹⁶ Advanced searchers click farther down the results list and frequently click past the first results page.¹⁷ Therefore, we determined that the first 20 websites would provide a sufficient sample of commonly accessed information by lay people as well as various text styles for analysis.

Measure of text cohesion, reading grade levels, and text length.

We used Coh-Metrix to analyze selected online CRC and screening texts. Texts on CRC symptoms, risk factors, and screening tests were entered in a text window of Coh-Metrix one at a time. The tool generates output in a table that shows numerous indices of text cohesion as well as word and text information; the output includes the six cohesion indices of interest (argument overlap for adjacent sentences, argument overlap for all sentences, stem overlap for adjacent sentences, stem overlap for all sentences, LSA for adjacent sentences, and LSA for all sentences), Flesch-Kincaid Grade Level,¹⁸ and text length. Each cohesion index can range from 0 (low cohesion) to 1 (high cohesion). The Flesch-Kincaid Grade Level is a function of word length and sentence length. Texts with a high reading grade level contain more multisyllabic words and long sentences than texts with a low reading grade level. Text length is the total number of words for a given text.

Statistical Analysis

IBM SPSS statistical software was used to analyze the results. The Spearman rank correlation test was used to test the correlation between reading grade levels and text cohesion. The level of significance was set at 0.05 (two-tailed test).

RESULTS

We screened 300 websites. After we removed duplicate and ineligible websites that did not meet our inclusion criteria, 55 texts were selected for this study. The mean word count of these 55 texts is 914 (range: 113–2611 words;

standard deviation, 581). The mean Flesch-Kincaid Grade Level is 11 (range: 7th–12th grade level; standard deviation, 1). The referential cohesion of these texts, in general, is moderate. However, the semantic cohesion is relatively lower.

Figures 1 to 3 show the scatterplots of Flesch-Kincaid Grade Level and the cohesion indices of the 55 texts. Texts written with lower grade levels appear to have relatively low text cohesion. Additionally, more texts written with high Flesch-Kincaid grade level are also highly cohesive. There is no statistically significant correlation between the Flesch-Kincaid Grade Level and text length, $\rho = -0.17, P = 0.21$. Table 1 shows descriptive results of the six text cohesion indices, and correlations between the six indices and Flesch-Kincaid Grade Level as well as text length. No significant correlations were found between text length and any text cohesion index. Positive correlations were found between the Flesch-Kincaid Grade Level and “stem overlap for adjacent sentences,” “stem overlap for all sentences,” and “LSA for all sentences” (all P values are less than 0.05). The results indicate that higher Flesch-Kincaid Grade Level is positively correlated with higher text cohesion on these measures. The strength of these correlations is moderate. The correlations between reading grade level and the other three text cohesion indices were not significant.

DISCUSSION

Recent advances in reading comprehension research and computing technology have made labor-intensive linguistic analysis easier than before.

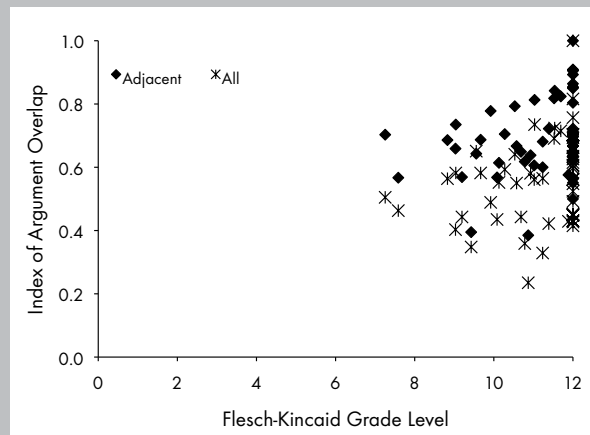


Figure 1. The scatterplot of argument overlap (for adjacent sentences and all sentences) and Flesch-Kincaid Reading Grade Level.

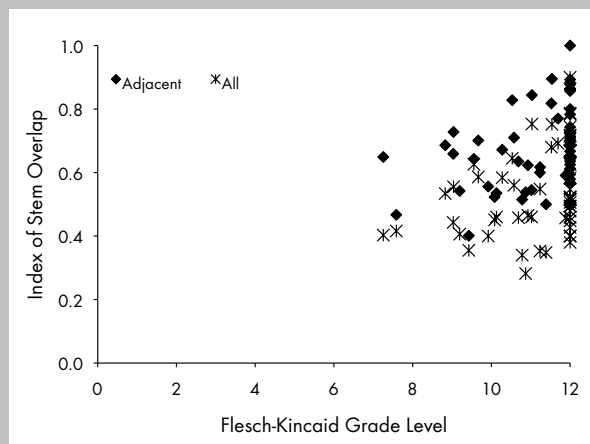


Figure 2. The scatterplot of stem overlap (for adjacent sentences and all sentences) and Flesch-Kincaid Reading Grade Level.

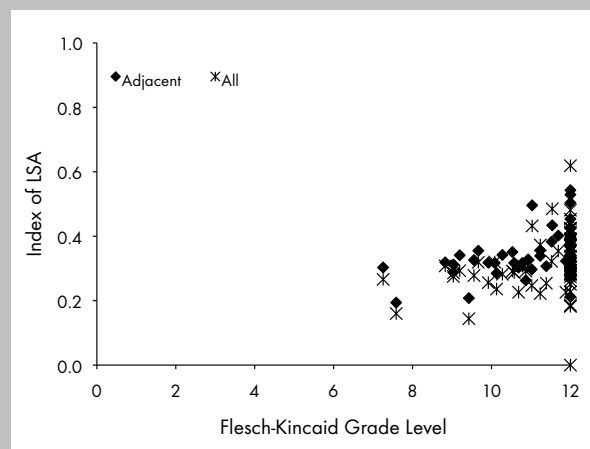


Figure 3. The scatterplot of latent semantic analysis (LSA) (for adjacent sentences and all sentences) and Flesch-Kincaid Reading Grade Level.

Table 1. Correlations between Text Cohesion, Flesch-Kincaid Grade Level, and Text Length of Selected Colorectal Cancer and Screening Information Texts (N=55).

Text Cohesion Indices	Range Mean (SD)	Flesch-Kincaid Grade Level		Text Length	
		Spearman's rho (ρ)	P value	Spearman's rho (ρ)	P value
Argument overlap for adjacent sentences	0.39 to 1.00 0.69 (0.12)	0.25	0.07	-0.13	0.33
Argument overlap for all sentences	0.24 to 1.00 0.55 (0.14)	0.26	0.06	-0.04	0.79
Stem overlap for adjacent sentences	0.40 to 1.00 0.68 (0.13)	0.36	0.007*	0.02	0.88
Stem overlap for all sentences	0.28 to 0.90 0.54 (0.14)	0.31	0.020*	0.03	0.85
Latent semantic analysis for adjacent sentences	0.19 to 0.54 0.34 (0.07)	0.22	0.11	0.001	0.99
Latent semantic analysis for all sentences	0.14 to 0.62 0.31 (0.09)	0.35	0.009*	-0.14	0.33

These advances include the development of online computation tools to help writers analyze the readability of their work.^{1,19} These tools allow the writer to check readability factors beyond rudimentary word count, spelling, grammar, and reading grade levels to include writing content elements such as text cohesion. The current study used an online linguistic computational tool, Coh-Metrix, to analyze the Flesch-Kincaid Grade Level, text length, referential cohesion, and semantic cohesion of 55 online CRC and screening texts. Associations among the analysis outcomes were examined.

We found that texts written with a lower Flesch-Kincaid Grade Level are also lower in some measures of text cohesion. Although most texts in this study were primarily written with a high Flesch-Kincaid Grade Level (greater than the 8th grade), texts with relatively high grade levels are more varied in the degree of referential cohesion and semantic cohesion. Moreover, text length is not correlated with the Flesch-Kincaid Grade Level. Text length also is not associated with the degree of referential cohesion and semantic cohesion. The Flesch-Kincaid Grade Level is associated with results of stem overlap and LSA.

The finding that most texts were written with a high reading grade level is consistent with previous research

that found high reading grade levels on websites that contain CRC prevention information.²⁰ Lowering reading grade levels, usually to lower than the 8th grade, has been widely recommended to increase readability of written health information.²⁰⁻²⁷ However, educational researchers have shown that only applying this strategy to revise text failed to improve reading comprehension.^{5,28-30} Traditional readability formulas do not distinguish between organized sentences and scrambled sentences because they measure only word difficulty (number of syllables) and sentence complexity (number of words in sentences).^{2,18} Recommendations to use readability formulas to try to improve readability assume that words with fewer syllables and sentences with fewer words are easier to understand. If writers just “write to formulas” to improve readability of cancer prevention material, they may ignore text cohesion.

On the other hand, increasing text cohesion has been shown to have positive results in comprehension and recall.³¹⁻³⁵ These studies increased text cohesion by repeating arguments between sentences and adding background information. Such revision is likely to increase either referential cohesion or semantic cohesion.

Our study also shows that a text with low reading grade level is not nec-

essarily cohesive. We found a positive relationship between Flesch-Kincaid Grade Level and some measures of referential cohesion and semantic cohesion. If writers try to improve readability of written CRC and screening information by lowering the reading grade level, truncating word and sentence length alone may disrupt text cohesion and leave out key information that connects ideas in the text. It requires mental effort or prior knowledge to bridge a cohesion gap.^{33,34,36,37} Cohesion gaps, therefore, may increase comprehension difficulty and misunderstanding, especially for people who have little knowledge about the topic. In short, writing to readability formulas may inadvertently lead to misapplication of these formulas.

In contrast, if writers try to preserve or increase text cohesion while lowering the reading grade level, the readability can, in fact, improve. A recent correlation study conducted among older adults has shown that reducing reading grade levels of written health information is not sufficient to improve comprehension unless text cohesion is also increased.¹² Compared to reading grade level, text cohesion is a more abstract construct, which makes it challenging to analyze and interpret. However, writers can increase text cohesion, such as referential cohesion, by repeating nouns or noun phrases, or

using words that have the same word stems. Coh-Metrix can be a tool used to check text cohesion after writing and rewriting. Some writers and editors may, however, find the output of Coh-Metrix overwhelming because it generates more than 100 indices. Another similar but simpler tool is the “Text Easability Assessor,” which provides five indices including referential cohesion of a given text.³⁸ Figure 4 shows an example of the output. Note that the output does not indicate where the text needs revision. It is up to the writer or editor to decide. We caution writers and editors, however, not to revise their texts merely to get a “good score” on any of these measures but rather to consider whether such assessments and the concepts they represent can aid them in their work.

One limitation of our study is that findings of correlations may be an artifact of our selection of texts and text cohesion indices. We selected a small number of texts and we did not study other types of text cohesion such as the use of conjunctions.³⁹

CONCLUSION

This study shows that the Flesch-Kincaid Reading Grade Level is positively correlated with some measures of the degree of text cohesion. Therefore, relying solely on reading grade level to indicate readability of medical information may overlook the importance of text cohesion. Research on improving readability from the perspective of text cohesion has grown in the fields of education and psychology.³⁷ These advances have stimulated the development of automated linguistic computational tools that have potential to benefit the community of medical writers to improve their work and increase the reading comprehension of their audiences.

Author disclosure: *The authors report that they have no commercial associations that may pose a conflict of interest in relation to this article.*

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References

1. Graesser AC, McNamara DS, Louwerse MM, Cai Z. Coh-metrix: analysis of text on cohesion and language. *Behav Res Methods Instrum Comput.* May 2004;36(2):193-202.
2. Ley P, Florio T. The use of readability formulas in health care. *Psychol Health Med.* 1996;1:7-28.
3. Klare GR. *The Measurement of Readability.* 1st ed. Ames, IA: The Iowa State University Press; 1963.
4. Rubin A. How useful are readability formulas? In: Osborn J, Wilson PT, Anderson RC, eds. *Reading education: Foundations for a literate America.* MA, Lexington: Lexington Books; 1985:61-77.
5. Davision A, Kantor RN. On the failure of readability formulas to define readable texts: A case study from adaptations. *Read Res Quart.* 1982;17:187-208.
6. Bailin A, Grafstein A. The linguistic assumptions underlying readability formulae: A critique. *Lang Commun.* 2001;21:285-301.
7. Kintsch W, Vipond D. Reading comprehension and readability in educational practice and psychological theory. In: Nilsson L-G, ed. *Perspectives on Memory Research: Essays in Honor of Uppsala*

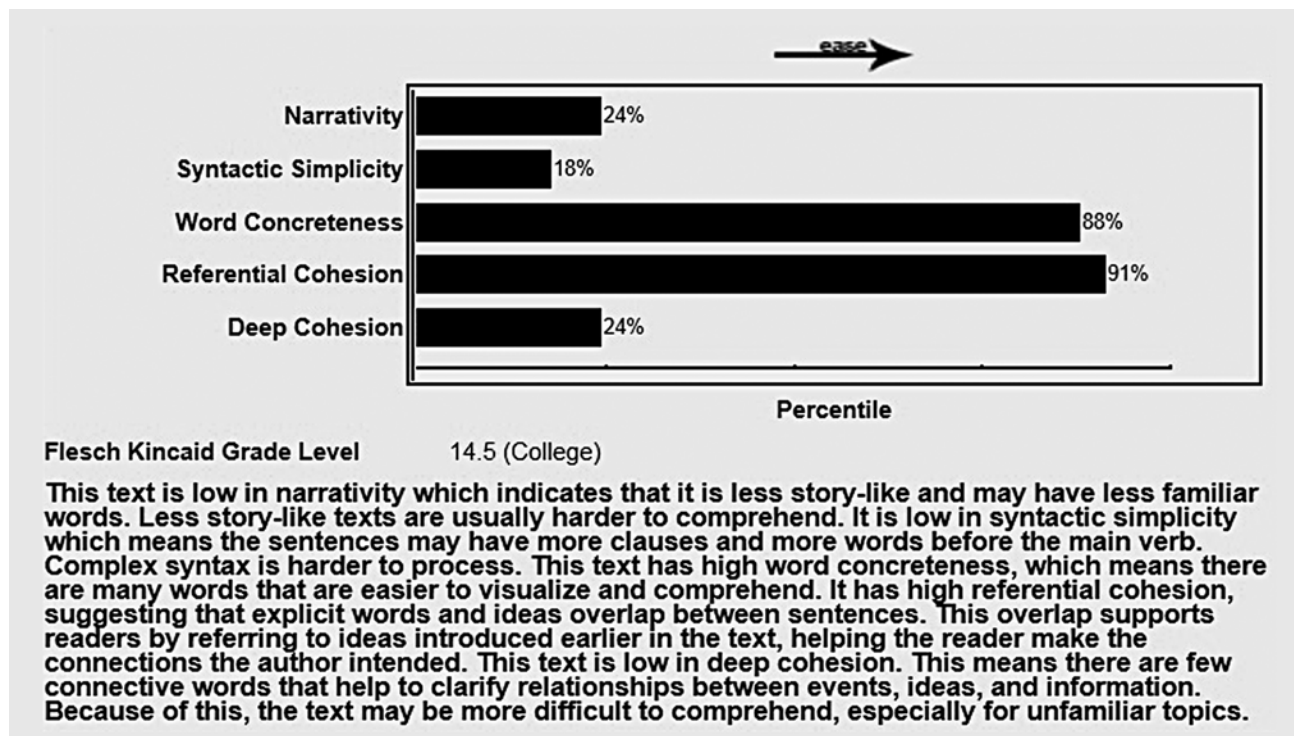


Figure 4. Output example of the Text Easability Assessor.

- University's 500th Anniversary.* Hillsdale, NJ: Lawrence Erlbaum Associates; 1979.
8. Kintsch W, van Dijk TA. Toward a model of text comprehension and production. *Psychol Rev.* 1978;85: 363-394.
 9. Ehrlich MF. The processing of cohesion devices in text comprehension. *Psychol Res.* 1991;53(2):169-174.
 10. Duran N, McCarthy P, Graesser A, McNamara D. Using temporal cohesion to predict temporal coherence in narrative and expository texts. *Behav Res Methods.* 2007;39: 212-223.
 11. McNamara DS, Ozuru Y, Graesser A, Louwerse M. Validating Coh-Metrix. In: Sun R, Miyake N, eds. *Proceedings of the 28th Annual Conference of the Cognitive Science Society.* Mahwah, NJ: Erlbaum; 2006:573-578.
 12. Liu CJ, Kemper S, Bovaird JA. Comprehension of health-related written materials by older adults. *Educ Gerontol.* 2009;35(7):653-668.
 13. Landauer TK, Dumais S. A solution to Plato's problem: the latent semantic analysis theory of acquisition, induction and representation of knowledge. *Psychol Rev.* 1997;104: 211-240.
 14. Jemal A, Siegel R, Xu J, Ward E. Cancer statistics, 2010. *CA Cancer J Clin.* Sep-Oct 2010;60(5):277-300.
 15. Ling BS, Klein WM, Dang Q. Relationship of communication and information measures to colorectal cancer screening utilization: results from HINTS. *J Health Commun.* 2006;11 Suppl 1:181-190.
 16. Granka LA, Joachims T, Gay G. Eye-tracking analysis of user behavior in WWW search. *Proceedings of the 27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval.* 2004:478-479.
 17. Aula A, Khan RM, Guan Z. How does search behavior change as search becomes more difficult? *Proceedings of the 28th International Conference on Human Factors in Computing Systems;* New York, NY. ACM; 2010: 35-44.
 18. Flesch R. *Marks of Readable Style: A Study in Adult Education.* New York: Bureau of Publications. Teachers College, Columbia University. Contributions to Education, No. 897; 1943.
 19. Proulx J, Kandula S, Hill B, Zeng-Treitler Q. Creating consumer friendly health content: implementing and testing a readability diagnosis and enhancement tool. *System Sciences (HICSS), 2013 46th Hawaii International Conference on System Sciences:* IEEE; 2013:2445-2453.
 20. Kaphingst KA, Zanfini CJ, Emmons KM. Accessibility of web sites containing colorectal cancer information to adults with limited literacy (United States). *Cancer Causes Control.* 2006;17(2):147-151.
 21. Singh J. Research briefs reading grade level and readability of printed cancer education materials. *Oncol Nurs Forum.* 2003;30(5):867-870.
 22. Friedman DB, Hoffman-Goetz L, Arocha JE. Readability of cancer information on the Internet. *J Cancer Educ.* 2004;19(2):117-122.
 23. Friedman DB, Hoffman-Goetz L. A systematic review of readability and comprehension instruments used for print and web-based cancer information. *Health Educ Behav.* 2006;33(3):352-373.
 24. Adams RC, Smith TP, Metts JK, Ross JW. Readability—its applicability to education of patients by pharmacy. *Hosp Pharm.* 1979;14:654-662.
 25. Cotugna N, Vickery CE, Carpenter-Haeefele KM. Evaluation of literacy level of patient education pages in health-related journals. *J Community Health.* 2005;30(3):213-219.
 26. Eaton ML, Holloway RL. Patient comprehension of written drug information. *Am J Hosp Pharm.* 1980; 37(2):240-243.
 27. Johnson JL, Stern EB. Readability of patient education materials: a comparison of rural and urban cardiac rehabilitation sites in Minnesota. *J Cardiopulm Rehabil.* 2004;24(2):121-127.
 28. Coleman EB. Improving comprehensibility by shortening sentences. *J Appl Psychol.* 1962;46: 131-134.
 29. Duffy TM, Kabance P. Testing a readable writing approach to text revision. *J Educ Psychol.* 1982;74: 733-748.
 30. McCrackern RA. An experiment with contrived readability in fifth and sixth grades. *J Educ Res.* 1959;52:277-278.
 31. Britton BK, Gülgöz S. Using Kintsch's computational model to improve instrumental text: Effects of repairing inference calls on recall and cognitive structure. *J Educ Psychol.* 1991;83: 329-345.
 32. Vidal-Abarca E, Martinez G, Gilbert R. Two procedures to improve instructional text: effects on memory and learning. *J Educ Psychol.* 2000;92:107-116.
 33. McNamara DS, Kintsch E, Songer NB, Kintsch W. Are good texts always better? Text coherence, background knowledge, and levels of understanding in learning from text. *Cogn Instr.* 1996;14:1-43.
 34. McNamara DS. Reading both high-coherence and low-coherence texts: effects of text sequence and prior knowledge. *Can J Exp Psychol.* 2001;55:51-62.
 35. Beck IL, McKeown MG, Sinatra GM, Loxterman JA. Revising social studies text from a text-processing perspective: evidence of improved comprehensibility. *Read Res Q.* 1991; 26:251-257.
 36. McNamara DS, Kintsch W. Learning from texts: effects of prior knowledge and text coherence. *Discourse Process.* 1996;22(3):247-288.
 37. Ozuru Y, Dempsey K, McNamara DS. Prior knowledge, reading skill, and text cohesion in the comprehension of science texts. *Learn Instr.* 2009;19:228-243.
 38. Coh-Metrix Text Easability Assessor. <http://141.225.42.101/cohmetrixgates/Home.aspx?Login=1>. Accessed June 24, 2013
 39. Halliday MAK, Hasan R. *Cohesion in English.* Hong Kong: Longman; 1976.



POWERFUL WORDS

By **Cindy W. Hamilton, PharmD, ELS**

Principal, Hamilton House, Virginia Beach, VA

I am honored and humbled to accept an award named for Dr Harold Swanberg. He was one of the founders of the American Medical Writers Association in 1940. He “must have...conceived [AMWA] with great depth of vision judging by its steady and vigorous growth.”¹

Membership has now grown to 5,000, and many members have made significant contributions to AMWA and our profession. One member has become my AMWA hero because of his incredible vision and passion for quality and integrity. Dr Eric Martin is responsible for the AMWA Code of Ethics. Do not underestimate the effort required to develop the Code. Dr Martin lobbied for a code of ethics for at least a decade. As director of medical communication at Lederle Laboratories in 1963, Dr Martin wrote:

The printed word can be very dangerous. False claims for medicines ... cause great harm.... The quality of medical information ... is just as important as the quality of the product being prescribed. Control of medical communication is just as important as control of potency, purity, and stability of drugs.¹

He emphasized the need for integrity and other ethical principles in medical communication, which gradually evolved into the AMWA Code of Ethics. Each principle was carefully

worded and reworded until AMWA formally approved the code in 1973.

I have to make a confession. I didn't know anything about the code when I joined AMWA in 1984 and didn't learn much more while renewing my membership for the next 15 years. From my naïve perspective, the code was window dressing on the membership directory.

I would like to take this opportunity to tell the story about how I discovered the AMWA Code of Ethics, its history, and its implications for me and our entire profession.

I first woke up to the vision of AMWA leadership in 1991. That's when the US Food and Drug Administration (FDA) threatened to impose restrictions on industry-sponsored medical writers because of concerns about ghostwriting and other unethical practices. Those restrictions would have severely limited the services that could be provided by medical writers and editors. At that time, AMWA leadership took important steps, such as meeting with the FDA and educating the FDA about medical communication services. In addition, AMWA leadership developed new workshops on ethics and other educational programs. They also revised the Code of Ethics. Collectively, their efforts appeared to have satisfied the FDA because the restrictions did not appear in the FDA's final guidance.²

At about the same time, I launched my freelance business. I felt good about helping authors and pharmaceutical sponsors prepare manuscripts for submission to medical journals. My authors and sponsors were grateful and said many manuscripts would not have been published without my services. I was proud of my contributions to medical research.

Meanwhile, the ghostwriting controversy persisted—sometimes prompting a flurry of media coverage and sometimes slowly simmering—but never completely disappearing. Therefore, each new author or sponsor had to be educated about the differences between my professional contributions and ghostwriting. My dentist and other local colleagues couldn't understand why I became insulted when they described my work as ghostwriting. My own family didn't have a clue about what I did in my home office. Tired of being defensive, I resolved to do something about the controversy even if it meant revising our entire Code of Ethics.

Serendipitously, AMWA appointed a task force in 2001 comprising representatives from the 1990s leadership group and newcomers like me. Our task force began by identifying our goals and the steps needed to achieve them. The first step was to research the ghostwriting controversy and relevant resources. Imagine my delight to discover that the AMWA Code of Ethics remained comprehensive, generalizable, and relevant to AMWA members providing many different types of medical communication services. I learned that AMWA had strengthened the code and added “scientific rigor” and “fair balance” in response to the FDA flap in 1994. That was the most significant change to the code. Other revisions were minor editorial changes, such as making the principles gender neutral.

So our task force did not need to recommend major revisions to the Code of Ethics. Instead, we simply recommended tactics to increase awareness of the code, such as placing it on the membership form,³ developing new ethics workshops, and requiring

** Delivered November 8, 2013, at AMWA's 73rd Annual Conference, Columbus, OH.*

an ethics workshop for completion of each AMWA certificate. In addition, we prepared a position statement about the contributions of medical writers to manuscripts for submission to scientific journals.⁴ We recommended disclosure of both substantial contributions as well as any potential conflicts of interest by non-author contributors. Preparing that paragraph, however, was not easy. Do you know what happens when writers edit each other's work? It

Importantly, we also communicate with the public, including both healthy individuals and patients, their families and caregivers, and many others.

Today we are 5,000 medical communicators working in many places and collaborating with tens of thousands of scientists to convey words to billions of readers around the globe. Envision what happens when we own the integrity of what we write or edit, and honor our Code of Ethics.

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took 218 e-mails and 11 drafts for the task force to agree on a paragraph suitable for submission to the AMWA Board of Directors. In view of the effort needed to prepare one paragraph, I am awed by the vision that must have been required to prepare an entire code of ethics with a preamble and eight principles.

In the preamble, Dr Martin wrote that the AMWA Code of Ethics "takes into account the important role of medical communicators in writing, editing, and developing materials in various media and the potential of the products of their efforts to inform, educate, and influence audiences." Who are our audiences? We routinely communicate with leaders and other members of the

- pharmaceutical industry,
- medical communication and education companies,
- contract research organizations,
- universities and medical schools,
- health care facilities,
- research institutes,
- government agencies and contractors,
- journal offices and other publishers,
- advertising agencies and public relations firms,
- health information services,
- nonprofit organizations, and
- professional societies.

Envision 5,000 medical communicators recognizing and observing the statutes and regulations that are relevant to the materials that we write and edit. Of course, most of us recognize and observe relevant statutes and regulations, but how many of us honor copyright law by always obtaining permission to reproduce tables and graphs from other publications? How would being a stickler for relevant statutes and regulations affect our colleagues in our work settings? Would our actions inspire our colleagues to actively seek potentially relevant statutes and regulations? Would our colleagues become our partners and encourage others to comply with statutes and regulations?

Envision 5,000 medical communicators applying objectivity, scientific accuracy and rigor, and fair balance to the materials that we write and edit. For example, how would encouraging our colleagues to publish negative study findings affect the medical community's opinion of the pharmaceutical industry? Would journal editors and other skeptics begin to recognize us as ethical partners within the enormous team required to develop and market new drugs and other products?

Envision 5,000 medical communicators meeting the highest professional standards, regardless of whether the

materials that we write or edit come under the purview of any regulatory agency. In addition, envision attempting to prevent the perpetuation of incorrect information. For example, how would applying the standards for regulatory documents to web-based media affect the public and others who rely on the Internet for health information? How would our actions affect the public's understanding of health information? Would a better understanding help the public make informed decisions and choose evidence-based therapeutic strategies instead of unsubstantiated fads?

Envision 5,000 medical communicators accepting assignments only when collaborating with a qualified specialist in the area, or when adequately prepared to undertake the assignments. In addition, envision working only under conditions or terms that allow proper application of our judgment and skills, and refusing to participate in assignments that require unethical or questionable practices. For example, how would obtaining input from the authors before beginning to prepare outlines affect the process of preparing manuscripts for submission to medical journals? Would clinical trial investigators and other authors better understand their roles as the scientific experts who determine content? Would they recognize the difference between their roles and our roles as the technical communication experts who convey content? Would our actions teach the scientific community to recognize truly excellent medical communication? Once they learn to recognize quality, would the scientific community become champions for our profession and increase the demand for medical communicators? Would this lead to better collaboration and more efficient preparation of manuscripts and other materials?

Envision 5,000 medical communicators expanding and perfecting our professional knowledge and communications skills. Of course, we are doing just that by attending the 2013 Annual

Conference in Columbus. How would inviting a new member to attend next year's conference in Memphis affect us? How would improving professional knowledge and communication skills among an even larger community of medical communicators affect the future of our profession?

Envision 5,000 medical communicators respecting the confidential nature of materials provided to us. Of course, most of us strive to maintain confidentiality, but how many of us truly comprehend the nuances of not divulging any type of confidential information? For example, consider a medical writer seeking a coveted regulatory position at a major pharmaceutical company. As part of the job application process, the candidate is asked to provide a writing sample. What would a prospective employer think of the candidate who honored this seemingly innocuous request by redacting the name of the investigational drug and deleting any other sensitive information in a clinical study report that he or she had prepared? Would the prospective employer be more impressed if the candidate offered a letter of recommendation instead of a redacted sample? Would the prospective employer recognize that the alternative approach demonstrates an understanding of the difficulty of anonymizing a regulatory document and appreciate his or her respect for confidentiality?

Envision 5,000 medical communicators expecting acknowledgment of their services, and honoring the terms of any contract or agreements into which we enter. For example, how would honoring the terms of a pre-existing contract affect future business? Let me explain. Juggling the feast-or-famine life-style of a freelance writer sometimes requires declining a potentially lucrative project to allow time to finish a project that has languished through several annual rate increases. Even after having been in business for 23 years, it is hard to say "no" because that might diminish the likelihood of future work. That's just plain silly! If experience has taught me anything, I should realize that saying "no" because of a previous commitment conveys integrity to my clients. They respect dedication and often invite me to let them know when I have an opening.

Envision 5,000 medical communicators considering their membership in AMWA an honor and a trust, and conducting ourselves accordingly in all of our professional interactions. Envision accepting these ethical principles and engaging only in activities that bring credit to our profession, to AMWA, and to ourselves.

Envision 5,000 medical communicators ...

- being inspired by our collective vision for our profession,
- routinely taking the steps and time needed to ensure the highest quality for all materials that we write or edit, and
- applying integrity to all materials that we write or edit.

Together, with our words and with each other, we have the power to change the future of medicine.

➔ For more about Cindy's contributions to AMWA, see page 183.

Acknowledgments

I thank all AMWA members, past and present, for inspiring this presentation.

Author disclosure: *The author is active in national and international not-for-profit associations that encourage ethical medical writing practices. She provides ethical medical writing services to professional organizations and pharmaceutical clients.*

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References

1. Martin EW. Modern medical communication. In: Swanberg H, ed. History of the American Medical Writers Association and its Previous Associated Organizations. Quincy, IL: American Medical Writers Association, 1965; 201-202.
2. Royer MG, Hamilton CW. The story behind the AMWA Task Force on the Contribution of Medical Writers to Scientific Publications. *AMWA Journal*. 2002; 17(3)5-6.
3. Hamilton CW, Hudson S, Gegey T. AMWA Code of Ethics added to membership application and renewal forms. *AMWA J*. 2008; 23(4):177-179.
4. Hamilton CW, Royer MG. AMWA position statement on the contributions of medical writers to scientific publications. *AMWA J*. 2003; 18(1)13-15.

Logan Science Journalism Fellowships at the Marine Biological Laboratory in Woods Hole, Mass.



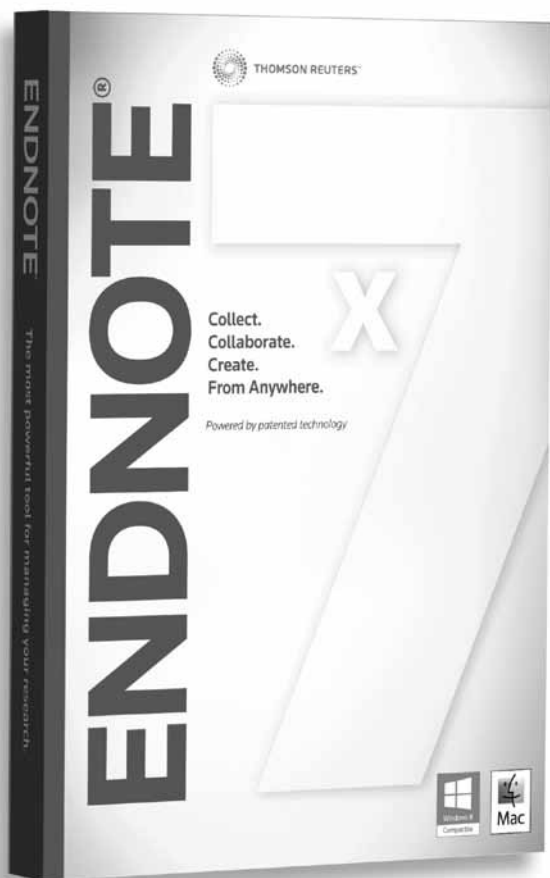
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MEDICAL DEVICES: POLICY AND POLITICS

Speaker: Gregory D. Curfman, MD

Executive Editor, New England Journal of Medicine, Boston, MA

By Jim Hudson

This year's Walter C. Alvarez Award was given to Gregory D. Curfman, MD, executive editor of the *New England Journal of Medicine* and a cardiologist who recently gave expert testimony to the US Senate and House of Representatives on the regulation of medical devices.

In his award lecture at this year's annual conference, Curfman gave a brief overview of how politics and policy have shaped the regulation of the medical device industry, with results that can at times put patients at risk or limit their ability to sue when harmed by new devices.

"One of the main points I am going to try to make is that we all strive for innovation," Curfman said. "Innovation is not easy to come by, and there are very often bumps in the road. We have to learn to deal with the bumps in the road."

Curfman noted that medical device regulation in the United States is a relatively recent phenomenon, dating back to 1976, whereas drug regulation has been in existence since 1938.

He outlined the three classes of medical devices, which are regulated in different ways: a Class I device (eg, a tongue depressor) with the least potential for harm, a Class II device, (eg, a battery-powered wheelchair, with intermediate risk), and a Class III device (eg, an implantable cardiac pacemaker) with the highest risk. He noted that higher-risk devices might logically be required to have some form of randomized controlled clinical trials to prove their safety and effectiveness, but for some medical devices, that turns out not to be the case. Curfman cited two reasons for this situation: policy and politics.

POLICY

In contrast to the regulation of drugs and biologics, the US Food and Drug Administration (FDA) regulates some higher-risk medical devices with a grandfathering loophole. If a manufacturer can prove that a medical device is "substantially equivalent" to a similar device made before May 28, 1976, the effective date of the Medical Device Amendments of 1976, the FDA clears the medical device for market, no matter how great the patient risk. To be considered "substantially equivalent," a device must be at least as safe and effective as its pre-1976 device predecessor. Because the area in the Federal Food, Drug, and Cosmetics Act that defines this policy begins with paragraph (k) of Section 510, "substantial equivalence" is often referred to as a 510(k).¹ Obtaining 510(k) clearance does not mean that the FDA is asserting that a device is safe and effective; it means the FDA *clears* it for sale.

The FDA device policies have created some problems. Curfman's first example was the metal-on-metal hip implant (the DePuy ASR XL Acetabular Cup System) that the FDA cleared in 2008 under the 510(k) loophole. No clinical trials had been conducted. In this instance, the successful designation for the DePuy device of "substantial equivalence" was based on three pre-1976 devices, each with a different equivalent characteristic. Ironically, each of the three pre-1976 hip devices themselves had high revision rates, ie, patients had to return for corrective surgery caused by problems with the designs. The new metal-on-metal hip was also beset with problems.²

Curfman cited a second example of a medical device policy with unintended consequences. The Boston



Dr Gregory Curfman. Photo by Picture America Event Photographers.

Scientific Wingspan Stent for intracranial stenosis was approved in 2005 by the FDA via a humanitarian device exemption³ based on preliminary data in 45 patients.

"They expected it to be so good, they wanted to get it out there quickly," Curfman said.

A later trial of 451 patients was stopped early because patients who received the stent had a significantly higher risk of stroke or death than patients who did not (15% versus 6%, $P = 0.002$).⁴

"The lesson is that unless proper clinical testing is done with these apparently innovative, very exciting implantable medical devices, there may be problems lurking around the corner," Curfman said.

Curfman's final example of a potential policy problem with device regulation was the Medtronic Sprint Fedelis defibrillator lead, which was approved by the FDA through its premarketing approval (PMA) process, FDA's most stringent approval process.⁵ This lead, which is used with an implantable cardiac defibrillator, proved to be susceptible to fracture and malfunction. However, hundreds of patients' lawsuits concerning these problems were

thrown out because the law governing the PMA process prohibits lawsuits in state courts for PMA-approved devices.

POLITICS

The major lobby for medical devices is the Advanced Medical Technology Association (AdvaMed), whose primary goal is to strengthen the market by encouraging innovation. Congress passed the FDA Modernization Act of 1997, which directed the FDA to consider the “least burdensome” means of showing device effectiveness. In addition, a manufacturer directly pays the FDA a user fee for each 510(k) filed. These constraints on the FDA encourage rapid clearances for new products, paid for in large part by manufacturers.

Though seriously flawed, the 510(k) clearance process will probably persist for some time, Curfman said. However, the FDA’s recently announced rule requiring unique device identification systems will increase the effectiveness

of postmarketing surveillance.⁶

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References

1. US Food and Drug Administration. Medical Devices. Premarket Notification (510k). www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketNotification510k/default.htm. Accessed Nov. 24, 2013.
2. Ardaugh BM, Graves SE, Redberg RE. The 510(k) ancestry of a metal-on-metal hip implant. *N Engl J Med*. 2013; 368:97-100.
3. US Food and Drug Administration. Medical Devices. Humanitarian Device Exemption. www.fda.gov/medicaldevices/deviceregulationandguidance/howtomarketyourdevice/premarket submissions/
4. Chimowitz MI, Lynn MJ, Derdeyn CP, et al. Stenting versus aggressive medical therapy for intracranial arterial stenosis. *N Engl J Med* 2011;365:993-1003.
5. US Food and Drug Administration. Medical Devices. Premarket Approval (PMA). www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketApprovalPMA/default.htm. Accessed November 24, 2013.
6. US Food and Drug Administration. Medical Devices. Unique Device Identification (UDI). <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification>. Accessed November 24, 2013.

McGOVERN AWARD LECTURE

THE IMPERATIVE FOR PUBLIC UNDERSTANDING OF HEALTH, MEDICAL, AND SCIENTIFIC INFORMATION

Speaker: Cynthia Baur, PhD

Senior Advisor, Health Literacy, Office of the Associate Director for Communication, Centers for Disease Control and Prevention, US Department of Health and Human Services, Atlanta, GA

By Peggy Robinson, ELS

AMWA’s John P. McGovern Medal is awarded annually to honor a preeminent contribution to medical communication. The 2013 recipient was Cynthia Baur, PhD, senior advisor for health literacy and the Plain Writing Act at the Centers for Disease Control and Prevention (CDC). The award recognizes Baur’s work as chair of the CDC Health Literacy Council, her oversight of the CDC health literacy website and blog, and a variety of other activities aimed at improving health literacy.

Baur emphasized that medical communication specialists have a professional responsibility to make it easier for audiences to find, understand, and—most important—use health, medical, and science information. In her view, professionals who prepare materials for lay audiences often invoke a false trade-off between accuracy and ease of understanding, which excludes some people from accessing information they need to protect and improve their health.

Baur also stressed the importance of identifying and conveying a coherent



Cynthia Baur, PhD. Photo courtesy of the CDC.

narrative when presenting health information to the public. She said, how-

ever, that medical information for lay audiences more commonly follows a familiar narrative arc of triumph or tragedy. Personal stories easily catch the reader's attention but often represent missed opportunities to explain the underlying science and situate the information within a broader social context. For example, a newspaper article about treatments for heart disease may appeal to readers because high-tech solutions are inherently dramatic, yet journalists could probably achieve a greater public health impact by highlighting the social costs of high rates of heart failure and describing ways to reduce the number of people with this condition.

To underscore the scope of literacy challenges that communications professionals should be aware of, Baur summarized survey data showing that greater proportions of US adults have low literacy, numeracy, and technology skills than adults in other developed countries. These data were from the 2011–2012 Programme for the International Assessment of Adult Competencies (PIAAC), sponsored by the Organisation for Economic Co-operation and Development and conducted in the United States by the federal Department of Education.

Providing further context for these data, Baur reminded listeners that a large proportion of the population simply doesn't interact with health care professionals, in large part because lower literacy levels lead to limited understanding of how the health care system works. Importantly, the PIAAC study also revealed that, on average, US adults who said they were less healthy scored lower on literacy skills tests than healthier adults. In other words, Baur said, those who most need public health and health care information are least able to access it.

Other researchers are examining civic scientific literacy, which is the understanding of basic science constructs such as DNA and the solar system. A 2008 study reported that only about one-third of US adults had this form of literacy. Yet, as emphasized by the study's lead researcher, Jon Miller of the University of Michigan, civic scientific literacy is a prerequisite to full participation in modern society. The same holds true for health literacy, Baur said.

With this research as a backdrop, Baur reminded her audience that communication is affected by the facts, opinions, values, and assumptions that people bring to an interaction. Facts represent verifiable, testable information, whereas opinions are aggregates of beliefs and attitudes. People's values and assumptions influence what they consider to be facts or opinions. Despite common perceptions, she added, facts are not the exclusive domain of scientists; lay people also can generate and marshal facts. Similarly, scientists' values, opinions, and assumptions can affect how they construct and present information. The role of professional communicators, including AMWA members, is to help distinguish among facts, opinions, values, and assumptions. Professional communicators then choose how to present health, medical, and scientific information, or help others make these choices.

CDC's role in fostering health literacy includes implementing the federal Plain Writing Act, Baur said. The law requires federal agencies to use plain language in public communication. Specifically, CDC is training its staff to use plain language, applying those skills to public communication, and tracking and reporting on plain language use. To achieve these goals, CDC has developed a research-based Clear

Communication Index that professionals can use to develop and revise public communication materials. This index is freely available in the public domain (www.cdc.gov/healthcommunication/ClearCommunicationIndex/). CDC also sponsors a health literacy website (www.cdc.gov/healthliteracy/), which offers myriad resources to a broad spectrum of users. For example, this website offers health literacy training for public health professionals, which should be of particular interest to AMWA members.

Baur closed her speech by asking the audience to "commit to making *all* materials clear and easy to use." This means using plain language and the Clear Communication Index; asking sources, such as members of government agencies, to use plain language; encouraging readers and listeners to request plain language; making plain language resources available; avoiding jargon; and paying special attention to the use of plain language in headlines, visuals, and other elements that draw attention first.

Baur noted that the McGovern Award will encourage and motivate her and her colleagues as they strive to ensure that audiences can understand public health information, especially at times when their efforts seem to go unnoticed. This sentiment, in turn, validates AMWA's efforts to recognize best practices in medical communication. What more could AMWA ask of its awards program?

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THE WEST AND THE REST: WORKING WITH NON-NATIVE ENGLISH AUTHORS AND READERS IN ASIA AND EASTERN EUROPE

Moderator

Noelle Demas, MS

*Independent Medical Writing Consultant
San Diego, CA*

Speakers

Lee Seaman

*President, Seaman Medical, Inc
Bellingham, WA*

Mary (Mimi) Wessling, MS, PhD, ELS

*Consultant, Language Matters Santa Cruz
Corralitos, CA*

Mieko Onuki

*President, EDIT, Inc
Tokyo, Japan*

By John Stroman, MEd, MA

This annual conference open session provided crucial guidance for medical translators and writers whose clients are non-native English speakers in Asia and Eastern Europe. The room was filled to overflowing, highlighting the growing importance of this topic in the medical and pharmaceutical writing market.

The pharmaceutical industry is rapidly changing, particularly in Asia, said speaker Lee Seaman, who has more than 20 years of experience as a Japanese to English translator of pharmaceutical documents. Asian researchers and pharmaceutical companies must produce more and more documents in English, she said, which has spurred demand for translation and medical writing services.

Customers who prepare these documents now shop internationally for translators, writers, and editors who can meet their needs, Seaman added. Clients expect the final product to be written in clear, readable, and appropriate medical and pharmaceutical English.

For clients in Japan, the most often outsourced tasks were editing and proofreading, translating to English, or preparing journal articles for submission, said speaker Mieko Onuki, president of EDIT, Inc, in Tokyo.

Onuki presented these and other results from a questionnaire of Japanese clients. Sixty percent of respondents worked in the pharmaceutical industry, 17% in newspapers or publishing companies, 13% in research institutes, and 10% in publicity or advertising agencies, Onuki said. In all, 67% of respondents had worked with native English-speaking medical writers who live in Japan or overseas. Respondents described good native English-speaking freelancers or contractors as

- speedy, reasonably priced, and able to work without errors and omissions;
- sufficiently skilled in Japanese to improve wording rather than simply correct grammar;
- willing and able to read relevant reference materials in advance and to suggest useful phrases from these documents.

Conversely, inadequate contractors

- produce low-quality work (delivered late or with many errors in numbers and content);
- communicate poorly (don't make requested changes or respond to questions);
- deliver inconsistent documents (appear to use multiple translators, or return deliverables with inconsistent terminology and corrections);
- produce work that peer reviewers criticize as requiring proper editing.

Fully 79% of respondents wanted translators and writers to produce high-quality writing that is easy for non-native English speakers to understand. Therefore, translators and writers should use shorter sentences and a subject-verb-object structure, Seaman said.

She illustrated these principles with a 62-word sentence that was difficult to read, but that could easily be broken into three sentences that were shorter, structurally simpler, and far more readable.

The survey results also indicated that clients most often want translators and writers to use simple English,

communicate requirements briefly and clearly, and work harder to understand client requests.

Translators and writers should strategically repeat words and phrases to ensure the customer clearly understands, Seaman added, and should remember that non-native English-speaking clients take longer to understand English messages.

Speaker Mary (Mimi) Wessling then described how translators and writers can work more effectively with agencies that serve as intermediaries between customers and contractors. Drawing on her extensive experience with Eastern European customers, Wessling emphasized that cross-cultural communication in written English can be difficult because English is less exact than some languages. Misunderstandings can arise if translators or writers fail to clarify a project's scope and requirements. For example, the translator or writer should ask if the end user wants the document rewritten, and if so, to what extent.

From a business standpoint, added Wessling, the translator or writer only should wait about 2 days for a written contract from an agency because offers are sometimes canceled.

The translator or writer should also check a document's quality before taking an assignment. This practice helps prevent impossible demands such as being asked to handle an incomprehensible machine translation or a transcript that requires extensive rewriting.

Choosing to work with agencies gives translators and writers more scheduling flexibility, but they should ask themselves if they are happy with the lower pay scale, Wessling said. And they should allocate additional project time for unexpected problems. "Do plan for some flex time. It *will* be filled," she said.

Moderator Noelle Demas presented questions from the audience to the panelists. When asked about the greatest concern of non-native English-speaking customers, Onuki reiterated that customers value good communication with translators/writers and that simple, straightforward English

• OPEN SESSION SUMMARIES •

is increasingly appreciated in today's global marketplace.

Regarding what translators and writers need from non-native English-speaking customers, Seaman reemphasized the importance of verifying the customer's requirements by asking, "What do you want, and when do you want it?"

"In Asia, indirectness is an art form," Seaman added. "When a client says, 'Please take care of it,' it can be difficult to know exactly what is

needed. Restate, clarify, confirm. You need to be more blunt."

Wessling agreed, noting it is important to check if the translator or writer has the flexibility to edit and make changes, especially if the customer might be unavailable for contact. She pointed out that using plain English is a good start for communicating with customers.

Seaman also discussed Globish, a simplified version of English for professional communication, but noted that

the Globish vocabulary of 1,500 words may not be sufficient for medical and pharmaceutical communication. Learn more about Globish at www.globish.com.

John Stroman, MEd, MA, has been a freelance biomedical and pharmaceutical Japanese to English translator since 1989. He is president of Stroman and Associates, Inc, in London, Ohio.

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HOW TO WRITE A MANUSCRIPT FROM A CLINICAL STUDY REPORT

Speakers

Cyndy Kryder, MS, CCC-Sp

Freelance medical writer

Phoenixville, PA

Brian Bass

President, Bass Global, Inc

Robbinsville, PA

By **Amy Karon, DVM, MPH, MA**

Even seasoned medical writers can feel daunted when distilling a lengthy clinical study report (CSR) into a 2,500-word manuscript for submission to a peer-reviewed journal.

CSRs summarize all aspects of clinical trials and can exceed 5,000 pages. These regulatory documents "have become more sophisticated and less manageable over time," said Cyndy Kryder, MS, CCC-Sp, a freelance medical writer. "If you are new to working with them, they can be quite overwhelming."

Speaking at an open session at AMWA's recent national conference, Kryder and AMWA President Brian Bass, of Bass Global, Inc, offered tips for writing concise, effective manuscripts from CSRs.

"We can only charge so much for our time," Kryder said. "So we have to be as efficient as possible."

Read on to learn how.

1. Navigate the clinical study report.

CSRs include hundreds of pages of patient narratives, lists of laboratories

that participated in the clinical trial, and other data usually not relevant to the manuscript. Kryder and Bass suggested that writers avoid endlessly scrolling through these sections by using the clickable table of contents to navigate to specific sections of the document.

In addition, they recommend using the synopsis, which typically spans several pages and highlights methodology and results that writers should include in the outline and manuscript.

"The [CSR] synopsis and the table of contents are your best friends," Bass said.

Bass also suggested searching the CSR for specific words and combinations of words to locate information and confirm that results are accurate.

2. Ensure author input from the beginning.

Authors must guide writers from the start of the manuscript project. Guidance should include providing input into the manuscript structure and outline, and identifying which results to emphasize and how to interpret them.

"Authors need to give a lot of input into the discussion section," Kryder said, adding that writers might ask, "What conclusions should be drawn about the safety and tolerability of the treatment based on the data in the results section?"

The AMWA Code of Ethics specifies that authors are responsible for the data, ideas, and conclusions of a manu-

script. Kryder said she once turned down a request to write a manuscript when a client had not identified the manuscript's authors and had no start-up meeting planned.

3. Use the CONSORT checklist and flow diagram.

The Consolidated Standards of Reporting Trials (CONSORT) Group publishes a 25-item online checklist of best practices for writing clinical trial manuscripts. These range from identifying the study as a randomized clinical trial in the title to addressing the generalizability and limitations of the study results in the discussion section.

This checklist should serve as the roadmap for the manuscript, Kryder said. "Our role is to help authors use CONSORT to report the study as accurately as possible."

Bass and Kryder added that CONSORT also publishes an editable flow diagram to depict patients' progress through a randomized clinical trial; the diagram can be included in the manuscript. Writers can visit the CONSORT website at www.consort-statement.org and download the checklist and flow diagram as PDF and Microsoft Word documents.

4. Annotate the outline and the clinical study report.

Programs such as Adobe Acrobat and doPDF enable users to highlight and add notes to PDFs. These are invaluable tools when working with a lengthy document, Bass said.

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Writers can save even more time by annotating the manuscript outline, he added, eliminating the need to hunt through the CSR repeatedly for information.

If the finished outline looks cluttered because of annotations, he said, an identical version without the annotations can be shared with authors for approval.

5. Ensure the abstract is complete.

Studies show that abstracts—even those published in journals with high impact factors—often lack essen-

tial details, Kryder said. Commonly omitted elements include the study's primary outcome, the number of participants randomly assigned to each treatment arm, and the number lost to follow-up. Abstracts also tend to underreport adverse events. Kryder and Bass recommended using CONSORT's checklist for abstracts and the CSR to identify methods and results that must be included in both the abstract and manuscript body.

It can be challenging to write, within a target journal's word count, a complete abstract on a randomized

clinical trial. Bass suggested first ensuring all necessary components of the abstract are in place. "Once you've put the flesh on the bones," he said, "you can always go back and add a bit more meat."

"Your job is to guide the authors to report the clinical study completely," Kryder added. "Key details cannot be omitted."

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STATING YOUR CASE (STUDY)*

Speakers

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By Donald Harting, MA, ELS, CCMEP

The ability to craft compelling case studies is a marketable skill for medical writers in continuing medical education (CME). Two seasoned CME writers shared tips on planning, organizing, drafting, and evaluating case studies during the AMWA annual conference in Columbus, Ohio.

Case studies encourage adult learners to apply new knowledge or skills, rather than simply regurgitate facts. Case-based education also helps learners integrate previous experience and creates a sense of immediacy during the learning process. For these reasons, many CME providers incorporate case studies in face-to-face and online learning activities.

But a good case study doesn't simply write itself, said AMWA session

*A version of this article was published first on the AMWA Delaware Valley Chapter's website (resources section) at www.amwa-dvc.org.

leaders Scott Kober, MBA, CCMEP, and Eve Wilson, PhD, CCMEP, ELS. Skill is required to ensure the learning exercise is engaging, accurate, and appropriate to the learner's level of expertise.

The typical teaching case proceeds through a series of stages, Kober said. The narrative first describes the history and symptoms of a patient. A decision point follows, often conveyed as a multiple-choice question that sparks further discussion and moves the case to the next stage. The narrative then describes how the decision affects the patient. Subsequent events lead to the next decision point in the form of another multiple-choice question. The case may end there, or the pattern may continue with more decision points.

The key to planning a successful case study is to ask plenty of questions beforehand, Wilson added. Are the learners physicians? Nurses? Pharmacists? What key learning objective will the case address? What can we assume learners already know, and what new information must the narrative supply?

Expect to perform ample research before beginning to write. Seek expert input. Search the Internet for other cases published in the same therapeutic area. Consult current clinical practice guidelines. Familiarize yourself with pertinent laboratory tests and standard and abnormal laboratory values. If you are a freelance, ask your client if a template is available.

When organizing your case, make sure you address the basic questions journalists answer in a news story: Who? Where? When? Why? And how? You are essentially telling a short story, so you need a cast of characters and a plot.

Narratives usually follow a logical time sequence to avoid confusing learners, but more complicated cases might include flashbacks. Wilson advised adding enough human-interest details to make the case engaging, while being careful to avoid red herrings that distract learners. When preparing decision-point questions, she said, be sure the correct answer is evidence-based, supported by clinical practice guidelines, and tied to specific learning objectives.

Photographs and medical images add realism and visual appeal. X-ray films, magnetic resonance imaging, positron emission tomographic, or computed tomographic scans, and 3-D computer models can enhance the learning experience. So can snapshots of lab reports or treatment diaries, Wilson said, but if they are from patient records, all identifying information must be removed.

Information on drug dosing must be accurate and appropriate. There is no quicker way to lose credibility with learners, Kober said, than to draft a multiple-choice question in which the correct answer involves a dosing schedule or route of administration that clinicians never use.

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The best multiple-choice questions are challenging, align with learning objectives, and have a single correct answer, Kober said. Lists of answers that include “all of the above” and “none of the above” are signs of laziness, he added, and should be used sparingly. If a question relates only tangentially to the learning objectives, or if the language meanders through a

series of confusing negations, revise it.

It is worthwhile to spend the hours perfecting the art of writing case studies. Peer-reviewed guidelines on writing case reports were published in September during the Seventh International Congress on Peer Review and Biomedical Publication. The guidelines include a checklist of points to cover in the narrative, and align well

with Kober and Wilson’s material. To download a free copy of the guidelines, visit www.jmedicalcasereports.com/content/pdf/1752-1947-7-223.pdf.

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WHERE DOES THE SUN SHINE? THE REGULATORY ENVIRONMENT FOR EDUCATION AND PROMOTIONS*

Speakers

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By Donald Harting, MA, ELS, CCMEP

Physicians who are freelance medical writers for drug or device companies may find their professional lives becoming a bit more complicated in 2014, thanks to the new National Physician Payment Transparency Program, commonly called the sunshine law. Other health professionals, including nurses, may also be affected in unexpected ways. But so far, it appears faculty honoraria for accredited continuing medical education (CME) activities will largely remain unaffected.

These key points were made by Pam Oestreicher and Marissa Seligman in their presentation on the sunshine law during the AMWA annual conference in Columbus, Ohio. Oestreicher organizes promotional education for oncology nurses, and Seligman is chief operating

**A version of this article was published first at the AMWA Delaware Valley Chapter’s website (resources section) at www.amwa-dvc.org.*

officer of a CME provider. Both agreed the sunshine law would have far-reaching consequences, perhaps in ways federal lawmakers did not intend.

Federal officials say the overall purpose of the law is to provide the public with accurate information about financial ties among physicians, teaching hospitals, and corporations. This transparency is meant to discourage inappropriate influence on research, education, guidelines, standards, and clinical decision-making. The new program, created as part of the Affordable Care Act, is administered by the Centers for Medicare and Medicaid Services (CMS).¹

The sunshine law requires drug and device companies to report to CMS any payments made to physicians and teaching hospitals. CMS then verifies the payments and publishes the information annually on a public website. Corporations were required to start collecting payment information in August, and CMS is scheduled to publish partial-year data for 2013 next September.

Although the program sounds simple, Seligman said, “the devil is in the details.”

Physicians who perform services—including medical writing—for drug or device companies will have their payments reported to CMS, Oestreicher said. The law defines a physician as a doctor of medicine, osteopathy, chiropractic, podiatry, dentistry, or optometry.

Many forms of direct and indirect payments must be reported, including consulting fees, complimentary

food and beverages, entertainment, honoraria, and grants. Physicians who choose to register with CMS will be notified as their payment information is submitted.¹ Physicians can dispute information they think is inaccurate.

In theory, only payments to physicians are reported to CMS, Oestreicher said. But drug and device companies that pay for promotional meetings also are collecting data on payments to some other categories of health professionals in case regulations are expanded. For this reason, when nurses attend promotional meetings, their badges are scanned or they are asked to sign in. When they find out their payment information is being collected and tallied, Oestreicher said, “nurses are flabbergasted.”

Some payments remain exempt from reporting requirements, including honoraria paid to physician faculty members of accredited CME activities. To be exempt from reporting, an educational activity must be accredited by AAFP, ACCME, ADA, AMA, or AOA, Seligman said. An earlier version of the bill made no provision for accredited

BOX 1. ABBREVIATIONS

AAFP: American Academy of Family Physicians

ACCME: Accreditation Council for Continuing Medical Education

ADA: American Dental Association

AMA: American Medical Association

AOA: American Osteopathic Association



Using Editing Checklists for More Efficient Editing

By Kelly Schrank

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Checklists are a vital component of many professions: aviation, construction, and medicine, to name just a few. Although medical communicators are not flying airplanes, building skyscrapers, or performing life-threatening operations, our work is important and deserves our full attention—even if we are distracted, interrupted, or forced to multitask. Like professionals in many industries, we are being asked to do more with less; we must edit more documents in less time but with the same level of care. But editing in a hurried state interferes with the average editor's ability to edit closely, to read carefully, and to remember to check the many small things that require our attention. An editing checklist can bring back focus by making evident what has been done and more important, what is yet to be done.

In his book *The Checklist Manifesto*, Atul Gawande describes the use of checklists in a variety of industries, including his own profession of medicine.¹ Although he does not mention editing or writing as activities that could benefit from the use of a checklist, many of the reasons for needing checklists in other industries apply to editors as well. Gawande writes:

In a complex environment, experts are up against two main difficulties. The first is the fallibility of human memory and attention, especially when it comes to mundane, routine matters that are easily overlooked under the strain of more pressing events.... A further difficulty, just as insidious, is that people can lull themselves into skipping steps even when they remember them.... Checklists seem to provide protection against such failures. They remind us of the minimum necessary steps and make them explicit. They not only offer the possibility of verification but also instill a kind of discipline of higher performance.^{1(pp35-36)}

Many publishing professionals use checklists to make sure that a myriad of small and large tasks are completed before publication, but not all editors use editing checklists to guide their daily tasks. Although you can create a generic editing checklist to cover the many types of documents you edit in a given job, this article focuses on how using an editing checklist tailored to a type of document you encounter on a regular basis can help you be more efficient.

Memory Tool

The type of editing checklist discussed in this article is especially effective for short similar documents, documents that must adhere to a strict format, and documents edited within processes or styles that change frequently.

Short Documents

For editors who are responsible for many short documents that can be quite similar, it can be difficult to remember what you have done in each document as you progress through the day. Do you want your brain to work on retaining whether you checked the headings in this document or to think strategically about its organization? As Gawande wrote in *The Checklist Manifesto*, "The checklist gets the dumb stuff out of the way, the routines your brain should not have to occupy itself with...and lets it rise above to focus on the hard stuff."^{1 (p177)}

Strict Formats

Although adhering to a strict format is not complex, if the elements of the formatting have not been presented well or were provided in many different formats or locations, it can be time-consuming to investigate the current format if you happen to forget which project has which heading levels or how this document spells a particular term. When the correct format is shown visually in the checklist, it is much quicker to verify the correct format and continue on.

Changing Processes/Styles

Many processes change over time, and it can be hard to keep up with new responsibilities. By creating a checklist that walks you through the current process (and keeping it updated as things change), you know you are following the right process. Similarly, especially in a new project, styles may change often, and keeping your checklist up to date with style changes allows you to not second-guess yourself.

Productivity Tool

An editing checklist can act not just as a memory tool but also as a productivity tool. There are two components to an editing checklist being a productivity tool: (1) actual increase in efficiency because you have tested the optimal

order for performing certain actions, and (2) ability to pick up where you left off with confidence.

As Gawande points out in *The Checklist Manifesto*, creating a checklist requires an upfront investment of time, but it is time well spent. Gawande's discussion of an anonymous director of a major fund company worth billions shows how a checklist helped boost his productivity:

*When he first introduced the checklist, he assumed it would slow his team down, increasing the time and work required for their investment decisions. He was prepared to pay that price. The benefits of making fewer mistakes seemed obvious. And in fact, using the checklist did increase the upfront work time. But to his surprise, he found they were able to evaluate many more investments in far less time overall.*¹(pp168)

The checklist had made the team much more methodical in their steps and discussions. This led to their being more confident in their decisions because they knew they had done the required work. And the analysis was more objective because they were following the checklist instead of getting tied up in factors that could play on their emotions.

Similar increases in productivity were noticed by the editors and writers I surveyed in 2011. I asked members of the AMWA writing/editing e-mail list and the Society for Technical Communication's Technical Editing Special Interest Group e-mail list if they used editing checklists. The 176 respondents were about evenly split into thirds of those who use editing checklists, those who don't, and those who sometimes use them. One survey respondent said that an editing checklist is a "good place to start the process because I tend to jump into a piece too quickly." By creating an editing checklist that presents the items to be accomplished in the order that you should perform them, and by testing that your order is optimal, you provide a structure to the editing task that allows you to move more quickly through it. Because you begin in the same place and end in the same place, you know that in between you have done everything you are supposed to do.

Another respondent uses editing checklists "because they make editing faster and less dependent on my sharpness or 'mood' on a given day." If you're having a great day, interruptions don't seem to faze you. But on those off days, an editing checklist can help you to quickly resume the editing task after an interruption. Maybe you repeat the task that you were in the middle of when you were interrupted, but you know which task you were working on based on the last item checked. The ability to quickly "pick up where you left off" can increase productivity and motivation.

Creating a Good Editing Checklist

How do you get started? Choose a particular type of document that you edit often. Good candidates have similar

formats and styles and need similar levels or kinds of edits. Sit down with a good representative document (or the next one in your queue) and a blank piece of paper. As you start to edit the document, write down everything you are doing in the edit—not the actual reading of the text where you analyze organization and clean up sentence structure, but all the formatting items you check, such as the headings and page numbers. You are looking for "easy wins." These are style or formatting issues that either creep up (like two spaces after a period or missing serial commas) or are so important that even though they are rarely incorrect, it would be really embarrassing if they were (spelling the company name or a product name wrong). Other types of items to document: formatting issues that are common to the type of document, common errors for that type of document, and unique style issues for the document type, such as deviations from house style. Then there should be mechanical actions like performing the spell check, saving the edited file in a particular location or with an appended file name, or other actions that are necessary with every document of this type.

Once you have a pretty good checklist draft, try to organize it in the order that you would optimally perform the steps. For example, you might start with checking the headings, move to scanning for abbreviations, then end with fixing references and checking spelling. Put all the checkboxes in, so you can actually use it like a checklist. Leave some space for notes at the end. Then print it out and try to edit another one of these types of documents with it. As you go, edit the checklist. Look for things you routinely check but did not have on the checklist. When you are done, update your checklist and edit another one of these types of document with the new checklist.

Testing

What's working? What's not? What did you forget to do? What did you forget to document? Keep editing your checklist until it includes all of the formatting and style items you could reasonably put in there. You will not recreate your style guide on the checklist; you are mainly looking for items that are often wrong from the writers you work with, that you often forget to check, or that are so important that you cannot take a chance of not checking them. By creating this list, you are essentially affirming what is important to check and how some of those items should look. The checklist can act as a cheat sheet for how various items should appear, such as heading levels, headers, and footers. By getting all of the copyediting items out of the way and cleaned up, you can perform your substantive edit with the distracting stuff out of the way (Box 1).

Gawande described his discussion with Daniel Boorman, who creates aviation checklists for Boeing, Boorman: "First drafts always fall apart, he said, and one needs to study how, make changes, and keep testing until

the checklist works consistently.”^{1(p124)} This approach also works for an editing checklist (Box 2). Why do pilots use checklists? Because they trust them to work when they need them. Similarly, editors can create and use dependable checklists that are accurate and up-to-date, and that effectively walk them through their current processes.

Box 1. Comparison of good and bad checklists.

Bad Checklist	Good Checklist
Check heading levels	Check heading levels: Heading Level 1: Bold <u>Heading Level 2: Underlined</u> <i>Heading Level 3: Italics</i> <u><i>Heading Level 4: Italics and Underlined</i></u>
Check abbreviations	Check abbreviations: Ensure that there are no periods in abbreviations (eg, ie, US). Ensure that abbreviations and acronyms are defined on first use.
Check font	Check font and font size: Body text: 12 pt Times New Roman Table text: 10 pt Times New Roman

Box 2. Checking your checklist.

How Do You Know When You Have a Good Editing Checklist?
<ul style="list-style-type: none"> • When you start a new project without a checklist and you feel lost! • When you find an error that the checklist told you look for. • When you feel like your edits are consistently more thorough, and faster, and you are confident that you have done all you can in the time allotted.

Conclusion

When I ask editors why they don't use editing checklists, they really can't say why they don't. It probably has something to do with some of the reasons laid out in *The Checklist Manifesto*: "Some physicians were offended by the suggestion that they needed checklists."^{1(p40)} I am guessing that this is true with editors as well; like physicians, many of us may "believe our jobs are too complicated to

reduce to a checklist."^{1(p35)} But it is not our jobs that are being put in a checklist; it is particular editing tasks. When going through a flight simulation with Boorman, Gawande noticed that there were many actions that were not listed on any of the checklists. Boorman explained that "experience has shown that professional pilots virtually never fail to perform them when necessary."^{1(p128)}

In other words, the aviation checklists do not tell the pilots how to fly a plane. Similarly, an editing checklist is not used to teach someone how to edit a document; it helps an experienced editor keep track of details for particular types of documents. Use of a tested, up-to-date editing checklist can increase efficiency and provide peace of mind.

Author disclosure: *The author reports that she has no commercial associations that may pose a conflict of interest in relation to this article.*

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References

1. Gawande A. *The Checklist Manifesto: How to Get Things Right*. New York, NY: Henry Holt & Co, 2010.

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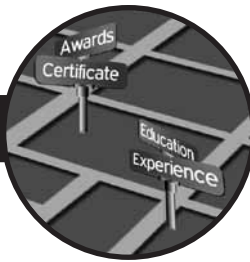
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Working in the Nonprofit Sector: 10 Job Search Tips for Medical Writers

By Donald Harting, MA, ELS, CCMEP
Freelance Medical Writer, Downingtown, PA

Within the US nonprofit sector, health-related organizations employ the most people and command the largest share of revenue. Job prospects in health-related organizations appear promising because employment is predicted to increase 22% from 2008 through 2016, compared to 11% for the rest of the nonprofit sector, generating an estimated 3 million new jobs nationwide.¹

Nonprofit employers in the health sector include not only hospitals, colleges, and universities, but also treatment centers, research institutes, and membership associations devoted to medical specialties or disease states. Nationwide, AMWA members have found employment at nonprofit organizations ranging from the US Pharmacopeial Convention in Rockville, Maryland, the American Board of Radiology in Tucson, Arizona, the American Medical Association in Chicago, Illinois, and Harvard Health Publications in Boston, Massachusetts.

With the economy gradually improving, some AMWA members who have been freelancing may begin to explore other options during 2014. If a staff job with a nonprofit employer appears on your career radar, here are some tips to keep in mind.

1. Don't expect to earn as much money as you would in the corporate sector. The average salary reported in 2011 by AMWA members employed by medical schools, government agencies, research organizations, and professional associations was \$76,450. That's just 78% of the \$97,450 average salary reported by AMWA members employed by clinical research organizations, medical device companies, pharmaceutical companies, biotechnology companies, medical education companies, and advertising agencies.²

2. Don't expect to work with a recruiter. Those headhunters who leave messages on your answering machine or ask to connect on LinkedIn want to help you find work at a large biotech or pharmaceutical company because salaries are highest there, and the recruiter's fee would include a percentage of your earnings. Salaries at nonprofit organizations are typically below the threshold that would interest recruiters. Katherine Ott, MSW, ELS, an AMWA member who works as a professional development editor at the American Society of Radiologic Technologists in Albuquerque, New

Mexico, says that nonprofits typically only use recruiting firms to fill top slots, such as board president or CEO.

3. Don't expect to be called a medical writer. Few nonprofit organizations use this job title. You're much more likely to be called a communications manager or health information specialist. A variety of other titles are in use as well, including communications director, communications officer, newsletter editor, web editor, and editorial director. Monica Gould, a management consultant from Mechanicsburg, Pennsylvania, who specializes in nonprofit operations, says that social media have transformed the communications function for many of her clients in the past 5 years. Almost every nonprofit organization now has an easily updatable website along with a presence on Facebook, LinkedIn, and Twitter. Posting fresh content on these sites has become part of the communications function, Gould says, and in some organizations, people who formerly communicated on the telephone or face-to-face are now spending the entire day composing updates and tweets on a computer.

4. Don't expect to do the same thing all day, every day. Most nonprofit organizations have small staffs—Gould estimates 80% of nonprofits have fewer than 10 employees—so workers are frequently asked to wear multiple hats. During an association's annual meeting, for example, expect to roll up your sleeves and help with exhibits and fund-raising.

5. Expect to be asked to help write grants. After its famous nosedive in 2009, the stock market has regained its altitude. Wealthy investors are in a position to give to charities again, and nonprofit development professionals have resumed submitting applications.

6. Look for where you might fit in. Some of the larger nonprofits have developed internal career ladders. On the website or journal masthead, look for a hierarchy of positions that might start with a title such as assistant editor or associate editor, then progress to publications manager, associate director of communications, and finally director of communications. Chances are, your mix of skills and experience will fit in somewhere along the way.

7. Consider writing continuing professional education articles as a way to break in. Many AMWA members find jobs this way, either as contract or staff writers. Membership associations frequently publish continuing education articles on paper or online, along with quizzes to help health professionals earn credits and keep their licenses up to date.

8. Look for organizations that are growing. This is the kind of job market intelligence you may be able to gather simply by finding an organization on LinkedIn and clicking the follow button. For example, the staff of the Pennsylvania Academy of Family Physicians, a nonprofit association, recently grew by about 50% during the 2-year period ending December 2012.

9. Build your online network by visiting websites where nonprofit professionals congregate. A good place to start is in the capital city of your state because many nonprofit organizations do at least some legislative lobbying or have other business interests with state government. If you happen to belong to AMWA's largest chapter, Delaware Valley, start with the Pennsylvania Association of Nonprofit Organizations (www.pano.org) in Harrisburg, the Center for Nonprofits (www.njnonprofits.org) in Trenton, or the Delaware Alliance for Nonprofit Advancement (www.delawarenonprofit.org) in Wilmington.

10. Spruce up your page on LinkedIn. Update your photo, add your most recent AMWA certificate, and ask a colleague

to write you a reference. If you endorse a fellow AMWA member's medical writing expertise on LinkedIn, there's a good chance he or she will return the favor.

This professional networking platform was the focus of a cover story in *Fortune*.³ LinkedIn's stock price has been climbing, and the CEO has ambitious plans for growth. Chances are, therefore, that the time spent on your LinkedIn profile will not be wasted. "If I'm looking for a communications person, I want to meet them on the web," says Eve Glowacki, operations manager for Talley Management Group, an association management company located near Philadelphia. "If they're not on LinkedIn, how are they going to be my communications manager?"

Author disclosure: The author provides consulting services to both corporate and nonprofit clients, including the American Society of Radiologic Technologists.

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References

1. Cryer S. *The Nonprofit Career Guide*. St. Paul, MN: Fieldstone Alliance; 2008.
2. Bairnsfather S. AMWA salary survey 2011 [PowerPoint presentation]. American Medical Writers Association website. www.amwa.org/jobs_salary_survey. Accessed October 7, 2013.
3. Hempel J. LinkedIn: How it's changing business (and how to make it work for you). *Fortune*. http://money.cnn.com/magazines/fortune/fortune_archive/2013/07/01/toc.html. Accessed October 28, 2013.

Education in the Digital Age: MOOCs, TED Talks, and Other Nontraditional Educational Offerings

By Hilary Graham, MA

Medical Writer, INC Research, Austin, TX

Career demands can put steady pressure on biomedical communicators to keep learning. Fortunately for professionals, the opportunities to learn have never been greater or more convenient. And the price of many offerings—free—is difficult to beat.

Diverse educational opportunities are available online. The emergence of the MOOCs—massive open online courses—has reinvented the traditional model of higher, online, and continuing education. High quality continuing education can be found in a variety of places.

Web Wanderings

Since the analog age, **The Great Courses** has been providing audio and visual courses in biology, genetics, chemistry, and statistics, as well as in the arts, history, and religion.

Established in 1990, The Great Courses offers more than 1,000 courses that range in cost from under \$40 to more than \$500 in a variety of formats that include digital downloads, DVDs, and CDs. With no homework, quizzes, or credit, The Great Courses (www.thegreatcourses.com) offers an excellent option for the lifelong learner.

TED (Technology, Entertainment, Design), a nonprofit established in 1984, operates under the motto "Ideas Worth Spreading." TED talks (www.ted.com) are designed to succinctly enlighten the listener with short (18 minutes or less), fascinating lectures. These free lectures, available through the TED website, YouTube, and iTunes, showcase the work of today's leading researchers, entrepreneurs, social activists, and inventors. Science and medicine are the topic of many

talks, which can be found in the website's medicine section (www.ted.com/topics/medicine). Recent lectures have explored personalized medicine, drug development, applications of 3-dimensional printing, and visualization of big data. If you are interested in attending a talk in person, TED has a local lecture series known as TEDx (www.ted.com/tedx). Additionally, there are TED conferences that focus on a single topic, such as education, medicine, or women's issues.

TED talks have their fair share of detractors; in the *New Statesman*, for example, author Martin Robbins asserts that "their coverage of science topics is at best superficial, and sometimes downright misleading."¹ Personally, however, I find that the TED franchise excels at selecting some of the most interesting and revolutionary people to provide lectures. I have learned of worthy research, trends, and ideas. By no means are these lectures intended to provide listeners with a comprehensive understanding; instead they should serve as a catalyst for further research.

Khan Academy (www.khanacademy.org), founded by Salman Khan in 2006 to help his cousin who was struggling in math, is a website that offers quick free audio lessons with visual components on a variety of topics in genetics, cell biology, immunology, physiology, chemistry, and disease pathogenesis. These lessons are a great way to get a quick introduction of the basic concepts and vocabulary of a topic. More than 150 universities provide high-quality education content through **iTunes U**. To access iTunesU, download the iTunes software to your computer or the iTunes U app to your mobile device.

Many universities (examples in Table 1) offer online continuing education opportunities in a variety of formats. These courses are often part of a university extension program. Many programs offer specialty certificates and course credit that may be transferable to a degree program. For in-person options, browse your local university or community college's website.

Table 1. University Online Courses

University of California, Berkeley	http://webcast.berkeley.edu/
Yale University	http://oyc.yale.edu/
University of California, Los Angeles	www.uclaextension.edu/pages/Default.aspx
Harvard Extension School	www.extension.harvard.edu/open-learning-initiative
University of California, San Diego	http://podcast.ucsd.edu/

MOOCs

Although the term MOOC was coined in 2008, only in the past couple of years has the idea become a mainstream reality.^{2,3} MOOCs are Web-based classes designed to support a large number of participants. Course content is delivered via video lectures. Because of the large number of participants, competency is usually tested by online tests or quizzes with multiple-choice answers. Some classes may involve the completion of assignments to be reviewed by peers.

MOOCs provide learners with the ability to work at their own pace and to receive high-quality course content from anywhere in the world with Internet access. Both synchronous and asynchronous course formats are available. Synchronous courses have specific start and end dates; students move through the content at a similar pace. The courses may feature live or prerecorded lectures. They also may offer contact with instructors in office hours via Skype or Google+ Hangouts. In contrast, asynchronous courses have flexible start dates but generally lack personalization.

MOOCs are free for participants, and enrollment is open to all. They do not offer course credit. The number of students who complete each course is only a fraction of those who initially register.

Coursera (www.coursera.org) and **Udacity** (www.udacity.com) were both founded by Stanford University faculty members after their first MOOCs enrolled more than 100,000 students each. Coursera currently offers 452 courses provided by 75 university partners. Udacity is asynchronous and offers 28 courses with a focus in math and computer science.

EdX (www.edx.org), founded in 2012 by Harvard University and the Massachusetts Institute of Technology, currently offers 73 courses through partnerships with elite universities.

FutureLearn (www.futurelearn.com), a United Kingdom-based platform launched in 2013, offers 20 courses, many of which will begin in 2014. Medical writers will find a substantial number of relevant biomedical course offerings at Coursera and EdX and a limited but growing offering at Udacity and FutureLearn (Table 2).

If you are interested in learning more about MOOCs, Juliana Marques and Robert McGuire authored an excellent overview,⁴ and the *New York Times* has a detailed chronology of important milestones in the development of such online courses.⁵ Additionally there are informative articles that cover the rise of MOOCs, the economics of MOOCs, the opportunities MOOCs make available for students, and the challenges MOOCs pose to traditional higher education institutions.⁶⁻¹⁰

MOOCs are not for everyone, but consider trying one if you are interested in learning more about a topic. I have participated in a few MOOCs and have completed none, which is actually quite common, as only 7% of enrollees complete a course on average.¹¹ My first MOOC experience was in Drug Discovery, Development, and Commercialization, offered by the University of California, San Diego. The course was brought to my attention by AMWA colleagues. I have since enrolled in Take Your Medicine—The Impact of Drug Development offered by the University of Texas at Austin. These two courses were of interest to me as I had recently started a new job and wanted to quickly learn terminology and concepts in drug discovery and development. I

have also participated in Writing in the Sciences offered by Stanford because I was curious about the course content and references.

With such a variety of continuing educational opportunities currently available, there is likely a course available to meet your needs.

Author disclosure: *The author reports that she has no commercial associations that may pose a conflict of interest in relation to this article.*

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References

1. Robbins M. The trouble with TED talks. *NewStatesman*. September 10, 2012. www.newstatesman.com/martinrobbins/2012/09/trouble-ted-talks. Accessed November 13, 2013.
2. Alexander B. Connectivism course draws night, or behold the MOOC. *Infocult*. July 10, 2008. <http://infocult.typepad.com/infocult/2008/07/connectivism-course-draws-night-or-behold-the-mooc.html>. Accessed November 13, 2013.
3. Cormier D. The CCK08 MOOC – Connectivism course, ¼ way. *Dave's Educational Blog*. October 2, 2008. <http://davecormier.com/edblog/2008/10/02/the-cck08-mooc-connectivism-course-14-way/>. Accessed November 13, 2013.

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Table 2. Massive Open Online Courses Related to Medical Writing

COURSES	UNIVERSITY PARTNER	WEBSITE
Coursera		
Introduction to Pharmacy	The Ohio State University	www.coursera.org/course/intropharma
Writing in the Sciences	Stanford University	www.coursera.org/course/sciwrite
Drug Discovery, Development & Commercialization	UC San Diego	www.coursera.org/course/drugdiscovery
Fundamentals of Pharmacology	University of Pennsylvania	www.coursera.org/course/pharm101
Nanotechnology: The Basics	Rice University	www.coursera.org/course/nanotech
Design and Interpretation of Clinical Trials	Johns Hopkins University	www.coursera.org/course/clintrials
Clinical Terminology for International and US Students	University of Pittsburgh	www.coursera.org/course/clinicalterminology
edX		
Fundamentals of Clinical Trials	Harvard University	www.edx.org/course/harvard-university/hsph-hms214x/fundamentals-clinical-trials/941
Genomic Medicine Gets Personal	Georgetown University	www.edx.org/course/georgetown-university/medx202-01/genomic-medicine-gets-personal/837
Introduction to Bioethics	Georgetown University	www.edx.org/course/georgetown-university/phlx101-01/introduction-bioethics/811
Introduction to Statistics: Descriptive Statistics	UC Berkeley	www.edx.org/course/berkeley/stat2-1x/introduction-statistics/1138
Health in Numbers: Quantitative Methods in Clinical & Public Health Research	Harvard University	www.edx.org/course/harvard-university/ph207x/health-numbers-quantitative/354
Take Your Medicine—The Impact of Drug Development	UT Austin	www.edx.org/course/utaustin/ut-4-01x/take-your-medicine-impact-drug/669
Introduction to Biology—The Secret of Life	MIT	www.edx.org/course/mit/7-00x/introduction-biology-secret-life/1014
FutureLearn		
Exploring Anatomy: The Human Abdomen	University of Leeds	www.futurelearn.com/courses/anatomy
Good Brain, Bad Brain: Parkinson's Disease	University of Birmingham	www.futurelearn.com/courses/good-brain-bad-brain-parks
Inside Cancer	University of Bath	www.futurelearn.com/courses/inside-cancer
Understanding Drugs and Addiction	King's College London	www.futurelearn.com/courses/understanding-drugs-and-addiction
Udacity		
Tales of the Genome		www.udacity.com/course/bio110
Introduction to Psychology		www.udacity.com/course/ps001



5 Tips for E-mail Marketing Without Becoming a Spammer

By Jeanne McAdara-Berkowitz, PhD

Principal, Biolexica LLC, Longmont, CO

Savvy business owners recognize the importance of maintaining regular contact with current and potential customers. Staying connected increases the chance that, when a client needs a service, he or she will think of that vendor first.

Many freelancers and consultants whose business is based on a handful of large-budget, long-term engagements prefer to manage their client relationships through direct personal contact. However, for providers whose models are based on steady client turnover, high-volume, lower-priced services, and short timelines, the personalized, so-called “high touch” methods of customer relationship management can be prohibitively time consuming. For these situations, or for companies seeking to enhance their brand or increase sales volume to fuel business growth, mass e-mail marketing—either in the form of limited campaigns or recurring newsletters—can be a useful marketing tool.

E-mail marketing has its limitations, though, and in the face of increasing public frustration with e-mail spam and other intrusive marketing tactics, businesses can risk damaging their credibility with customers and even be black-listed by Internet service providers.

Here are some tips for wise approaches to e-mail marketing that can help businesses engage with clients without crossing the line into overcommunication and spam.

1. Use a professional distribution service that facilitates opt ins and opt outs. A number of AMWA members use services like Constant Contact (www.constantcontact.com) and Emma (<http://myemma.com>) to help responsibly manage their mass e-mail marketing communications. Such services can provide professional-looking templates, track responses, and help manage subscriptions, requests to unsubscribe, and bounced e-mails. Trustworthy subscription management is a key feature of these services, because permission marketing is an important part of trust-building in the vendor-customer relationship.

“We have about 17,500 people on our e-mail distribution list and send out two e-mails per week, and everyone has filled in a form saying they want to receive our e-mails,” says Patti Peeples, president of HealthEconomics.com (Ponte Verda Beach, Florida). “We’ve had many unsubscribes, of course, but only from people who opt in and then decide they don’t want the newsletter after all and opt out.

Consequently, in more than 5 years and more than 7 million e-mails, we have received only five spam reports through Constant Contact.”

Peeples acknowledges that some businesses may want to start building their lists from current contacts who did not explicitly subscribe. In that case, she suggests, “Don’t send marketing e-mails to anyone unless you’ve communicated with them in a different arena.” In other words, if you’ve met this person at a conference, worked on a project together, or otherwise had personal contact, it’s probably OK to add them to your list, as long as they can easily opt out.

2. Use an interesting and provocative subject line, and make sure the content is brief, useful, and follows through.

Marketing e-mails are less likely to be tossed in the virtual trash or reported as spam when the recipient finds them useful and personally relevant. “I get good feedback on my newsletter because it’s personal and I try to include something of value,” says Debra Gordon, president of GordonSquared (Williamsburg, Virginia). “Last time I sent out nearly 2,000 e-mails and received only a handful of requests to unsubscribe.”

Adds Peeples, “A huge factor in whether a customer opens an e-mail is the subject line. It should be provocative so that they want to know more, reasonably short, and should offer the chance for recipients to either learn something or get something. And most importantly, the content of the e-mail must match the subject line. Don’t make the subject line interesting and provocative, and follow with content that isn’t closely aligned. That just makes people mad.”

3. Don’t give away everything in your e-mail, and provide a clear call to action.

A marketing e-mail should contain just enough content to leave the recipient wanting more. Companies wishing to offer gift resources or other promotions should consider including a call to action link that redirects to the company’s website.

4. Don’t share, rent, or trade lists. Although it can be tempting to make additional money off of customer contact lists, selling such information can undermine customer trust and increase overall levels of frustration with e-mail marketing.

5. Tailor the frequency of contact to the product, business model, and client tolerance. “I have to spend a few minutes each morning, getting rid of spam that wasn’t filtered and lands in my Inbox,” says Christine Welniak, principal of Upside Communications (Brooklyn, New York). “For commercial solicitations that are legitimate businesses, I have to take the time to request to be taken off the mailing list. Not a lot of time in itself, but it disrupts my writing flow.”

Wasting customers’ time can damage a company’s brand, and businesses should carefully consider how often their clients really want to hear from them. The answer will depend on what kinds of services are offered, the length of the sales cycle, the usefulness of the content being provided, and the frequency of sales promotions. It’s also wise to consider that customers are likely receiving a barrage of e-mail solicitations and newsletters from many sources. If a ven-

dor’s marketing contacts are overwhelmed by information overload and the vendor’s e-mails are part of the problem, they may never hear about it. Instead, those carefully crafted newsletters may end up auto-sorted into the virtual trash bin or worse, reported as spam.

Despite the potential downsides, mass e-mail marketing can be a useful tool for staying in touch with—and in front of—current and potential customers. Judicious planning can help enhance the chances that a marketing email will be read and receive a positive, relationship-building response.

Author disclosure: *The author reports that she has no commercial associations that may pose a conflict of interest in relation to this article.*

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TECH TIP

By **Jeanne McAdara-Berkowitz, PhD**
Principal, Biolexica LLC, Longmont, CO

At Long Last, FDA Issues Final Guidance for Mobile Medical App Developers

After a 2-year wait, so-called mHealth developers finally have official guidance on how the FDA will regulate the rapidly growing mobile medical app sector. The final document, issued September 25, 2013,¹ represents a significant overhaul from the July 2011 draft guidance and is based on an unusually extensive period of public comment and deliberation. Topics include clarification about how mHealth apps are defined, the FDA’s intended regulatory approach, and examples that help to distinguish apps that will be regulated as medical devices from those for which the FDA will choose to exercise enforcement discretion. Although there are still areas of ambiguity, and the practicalities of compliance and enforcement remain to be worked out,² the guidance is a welcome tool for the mHealth industry.

References

1. US Department of Health and Human Services. Mobile Medical Applications: Guidance for Industry and Food and Drug Administration Staff. US Food and Drug Administration website. <http://1.usa.gov/nKd3bA>. Published September 25, 2013. Accessed September 26, 2013.
2. Thompson B. FDA (Finally) Returns Industry’s Calls for Mobile Medical Apps Guidance. MDDI website. <http://bit.ly/1bIhHMh>. Published September 25, 2013. Accessed September 26, 2013.

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4. Marques J, McGuire R. What is a massive open online course anyway? MOOC News & Review website. June 7, 2013. <http://mooconewsandreviews.com/what-is-a-massive-open-online-course-anyway-attempting-definition>. Accessed October 1, 2013.
5. Online Education (MOOCs) Chronology. *New York Times* website. <http://topics.nytimes.com/top/reference/timestopics/subjects/e/elearning/index.html>. Accessed October 1, 2013.
6. The attack of the MOOCs. *The Economist* website. July 20, 2013. www.economist.com/news/business/21582001-army-new-online-courses-scaring-wits-out-traditional-universities-can-they. Accessed October 1, 2013.
7. MOOCs: The fall of the ivory tower? *The Economist* website. August 1, 2013. www.economist.com/blogs/schumpeter/2013/08/moocs-fall-ivory-tower. Accessed October 1, 2013.
8. Rodriguez G. Massively online and offline too: how MOOCs will evolve in the physical world. *Forbes*. August 25, 2013. www.forbes.com/sites/giovannirodriguez/2013/08/25/massively-online-and-offline-too-how-moocs-will-evolve-in-the-physical-world. Accessed October 1, 2013.
9. Heller N. Laptop U: has the future of college moved online? *New Yorker* website. May 20, 2013. www.newyorker.com/reporting/2013/05/20/130520fa_fact_heller. Accessed October 1, 2013.
10. Carey K. Into the future with MOOC’s. *The Chronicle of Higher Education*. September 3, 2012. <http://chronicle.com/article/Into-the-Future-With-MOOCs/134080>. Accessed October 1, 2013.
11. Parr C. Not staying the course. *Inside Higher Ed* website. May 10, 2013. www.insidehighered.com/news/2013/05/10/new-study-low-mooc-completion-rates. Accessed November 12, 2013.



Q—*Is it possible to develop a viable freelance career right after graduating from college? Would you advise instead to get a few years' experience being employed by someone else?*

A—Launching a freelance medical writing business after graduating from college would be like climbing Mount Everest, an arduous and—for most people—unnecessary journey. Succeeding in freelance medical writing takes experience and an understanding of the medical writing marketplace, both of which you gain by working for a company. Most clients only consider freelancers with experience in medical writing. Some will consider you if you have experience in either writing or medicine/science (eg, a physician or a bench scientist). It's very unlikely that a client will consider someone just out of school with no experience in medical writing, writing, or medicine/science. Also, to market yourself to the right clients, you should spend some time learning about the medical writing marketplace and where you fit in the marketplace.

Freelancing part-time while working for a company is a great way to launch a freelance medical writing business. That's what I did. Although you work a lot, this lets you explore freelance opportunities without the pressure of earning a living, expand your portfolio so you are more attractive to future clients, and build relationships so that when you do take the plunge, you already have some clients and some income.

—Lori De Milto

A—It may be possible, but I think it is highly unlikely. I would definitely advise getting work experience before embarking on a freelance career. It takes time to build a freelance business, so unless you have someone—husband, wife, or parent—who is willing and able to pay the bills while you get started, it can be difficult and stressful to make enough money to live on while building a lucrative client base. In addition, high-quality clients—the kind that pay reasonably well—would expect you to be able to provide samples of your work and other evidence that you have the experience and ability to do the job.

—Donna Miceli

A—No one is a bigger proponent of freelancing than me. I love it for all the personal, professional, and financial benefits it affords my family and me. But freelancing isn't for everyone, and I do believe it's not the best way to start out. Note, I didn't say it's impossible. But I don't recom-

mend it for people just breaking into the field—whether you have just graduated from college or are transitioning from another career (eg, research or journalism).

All medical writers face an uphill challenge in starting a freelance business. No matter what experience or expertise you possess, it never seems to be enough, or the right kind of experience or expertise to break in. But eventually, those of us who freelance found a client who was willing to take the risk, which gave us our first big breaks.

Freelance opportunities typically arise urgently and with little warning. Face it, clients only call someone new when their usual solutions don't work out, and usually that is only discovered at the last minute or after it's already too late. So for a client to give you your first big break, they have to have some level of confidence that you can deliver. They don't have the time to be wrong. Their confidence in you will come from a referral or from your relevant knowledge or background. It's not enough that you are breathing and available.

Employers seeking staff medical writers are more likely to take the risk of breaking in a writer who has no on-the-job experience because they have the time, resources, and desire to mold you into what they need. For the writer, it is an excellent opportunity to be paid and trained. Once you have had enough of the staff life and are ready to come over from the dark side to the wonderful world of freelancing, we will be here to welcome you with open arms, and you will have a leg up on the skills and experience you will need to become a successful freelance.

—Brian Bass

Q—*I like to write and edit, but marketing and record-keeping do not come as naturally to me. Any tips for motivating yourself to stay on top of the parts of your business that you do not like to do or are not good at?*

A—Freelancing is like a muscle: You have to constantly work at it to make it strong. Even the most successful freelancers have tasks they have to do that they dislike or aren't as good at as others. But we work at it all the time to make ourselves stronger and better. It is always a work in progress.

One of the most surprising areas in which freelancers have trouble is keeping track of finances. I have that problem from time to time, too. I get so busy working, so caught up in what I am doing, and so focused on meeting deadlines, that invoicing gets put on the back burner. After all, I can always invoice later. If I miss my deadline, I might not have that client to invoice much longer. But as my accoun-

tant always reminds me, “cash is king.” If I do not invoice promptly, I might find myself without enough money to pay my mortgage the next month. I have since trained and strengthened myself to invoice within 1 or 2 days of when a project is delivered, and that helps me stay on top of my finances. I know writers who set aside a specific part of a specific day each week for invoicing, which is another great way to do it.

Another part of record-keeping that can be difficult for freelancers is managing all the e-mails, references, drafts, and other materials that accompany a typical project. Especially when you are juggling more than one project at a time, or if you are like me, managing a team of writers who are working on other projects for me as well, the details and the logistics seem to increase exponentially. I learned long ago to be well organized right from the start.

When a new project comes in I assign it a job number. In my computer, I have a folder for the year. That folder has a subfolder for every client, and every client folder has a separate job folder for every project, each designated by its job number. In Outlook, I similarly have a separate folder for each client and a subfolder for every job for each client. This way it is easier to keep my inbox clean and every e-mail where I need it. When a project is finished, I copy the e-mails associated with the job into an e-mail subfolder for the project on my computer, then I delete the folder from Outlook to keep that clean, too. At the end of the year, everything is archived (I keep it all backed up daily), then deleted from my hard drive. Then I open a new folder for the coming year.

Marketing is especially challenging for many freelance medical writers. I think this is because so many medical writers are steeped in medicine and the sciences, and less so in marketing and promotion. In 2010, I introduced a new credit workshop at the AMWA annual conference on “Fundamentals of Freelance Business Marketing” that has been growing in popularity. I love leading this workshop because it is perfect for freelancers who are not necessarily strong marketers. Between the pre-workshop homework and the workshop itself, participants come away with a solid plan for promoting themselves and their services to potential clients.

There is so much to consider when marketing your freelance business. I highly recommend advertising in the AMWA Freelance Directory. I began advertising in the directory when I joined AMWA in 1994. My listing that year brought in more revenue than all my directory listings combined have cost since—and plus all they will likely cost between now and the time I decide to retire (or slow down) at 105. There are lots of other methods for marketing yourself, such as direct mail, websites, business cards, social media, and attending meetings where you can network.

My tip is that there isn't a right or wrong way to market your freelance business. Do what feels right for you while embracing the fact that you are really not comfortable doing it at all. And do it often. Every day we have countless opportunities to market ourselves to current and potential clients. The fewer of these opportunities that pass you by, the stronger your marketing muscle will become.

—Brian Bass

CALENDAR OF MEETINGS

American Medical Writers Association

October 8–11, 2014
Memphis, TN

Alliance for Continuing Education in the Health Professions

January 15–18, 2014
Orlando, FL
www.acehp.org

American Association for the Advancement of Science

February 13–17, 2014
Chicago, IL
<http://meetings.aaas.org>

Science Online

February 26–March 1, 2014
Raleigh, NC
<http://scienceonline.com>

DIA Medical and Scientific Writing Communications Annual Forum

March 9–14, 2014
Orlando, FL
www.diahome.org

Association of Health Care Journalists

March 27–30, 2014
Denver, CO
<http://healthjournalism.org/hj14>

American Pharmacists Association

March 28–31, 2014
Orlando, FL
www.aphameeting.org

American Society for Indexing

May 1–2, 2014
Charleston, SC
www.asindexing.org/category/conference/

Council of Science Editors

May 2–5, 2014
San Antonio, TX
www.councilscienceeditors.org

Society for Technical Communication

May 18–24, 2014
Phoenix, AZ
<http://summit.stc.org>

AMWA CHAPTERS

Mid-Atlantic Chapter

March 14, 2014
Gaithersburg, MD
www.amwa-midatlantic.org

Delaware Valley Chapter

Freelance Workshop
March 22, 2014
Philadelphia, PA

Princeton Conference

April 26, 2014
Princeton, NJ
www.amwa-dvc.org

Pacific Regional Conference

April 27–30, 2014
Pacific Grove, CA
www.amwa-pacsw.org

Carolinas Chapter

May 2, 2014
Chapel Hill, NC
www.amwacarolinas.org/wp/spring-conference



Four Social Media Predictions for 2014

By Cyndy Kryder, MS, CCC-Sp

Medical Communication Specialist, Phoenixville, PA

Experts in social media marketing began sharing their predictions about next year's social media trends way back in August. As we turn the calendar to 2014, here are some forecasts that may help you plan for the social media year ahead.

It will be common to experiment with multiple social media networks before finding those that meet your needs.

Whereas we used to be able to concentrate our social media efforts on the big three—Facebook, LinkedIn, and Twitter—today new social media channels pop up all the time. Granted, some of these sites never gain much traction; other platforms, such as Pinterest, Tumblr, and Instagram, have become widely popular. More options mean more opportunities for medical communicators to connect with their audience, but it will also require more experimentation and more time before finding the ideal platform.

Look for more social media users to tap into the power of Google+. Months after Google+ was launched in 2011, experts criticized the social networking site for lacking meaningful content and social engagement. Since then, however, Google+ has gained a huge following. Data released in April 2013 by GlobalWebIndex, an Internet analytics firm, showed that Google+ had 356 million active users and had outpaced Twitter to become the world's second most popular social network, behind Facebook.¹ Making Google+ a part of your social media strategy might be a good idea since the popularity of a Google+ account is now one of the criteria Google uses in its search algorithm to rank website pages in Google search results. In the future, if you want your website to rank highly, you just might need a robust Google+ account.

If you're not on LinkedIn, you'll be missing out on a value source of business networking. LinkedIn continues to get better and better and now boasts about 238 million users, largely consisting of small-business owners, entrepreneurs, and executives.² As the number one networking site for professionals, LinkedIn enables its members to build relationships, research people and companies, identify business opportunities, and increase their online marketing presence. In 2014 it will likely attract even more users and debut additional enhancements to make connecting with other professionals even easier.

Image- and video-based content—and the social media sites that support it—will continue to grow. Just as the incorporation of figures and other graphics enhances medical communications, incorporating images enhances what we share via social media. In 2014, you will hear more often the buzz phrase shareability of content to refer to content users can share easily across multiple platforms, especially mobile channels. Similarly, it is likely you will enter into more discussions about how best to use infographics to explain topics and report data derived from research. Keep an eye on image-centric social media platforms such as Tumblr (www.tumblr.com), Slideshare (www.slideshare.net), and Mobli (www.mobli.com), which are predicted to grow.

With regard to video, look for a trend toward chunking content into short, bite-sized pieces. Microvideos, 3 to 15 seconds in length, already are popping up on Instagram (<http://instagram.com>), and Twitter's Vine application (<https://twitter.com/vineapp>) allows users to share short, looping videos via iPhones or Android-based platforms. Whether microvideos will grow in popularity or fizzle is open for debate. But if parsing out information in small chunks continues, we may want to revisit our websites, online profiles, and other marketing materials and revise our content with an eye toward less is more.

Experts make all sorts of predictions that never materialize, and forecasts about social media are no different. Nevertheless, being aware of potential social media trends can enable medical communicators to refine their social media marketing strategies and tactics so they can use social media effectively and efficiently to promote themselves and their skills.

Author disclosure: The author notes that she has no commercial associations that may pose a conflict of interest in relation to this article.

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References

1. Watkins T. Suddenly, Google Plus is outpacing Twitter to become the world's second largest social network. *Business Insider*. May 1, 2013. www.businessinsider.com/google-plus-is-outpacing-twitter-2013-5. Accessed October 2, 2013.
2. LinkedIn announces second quarter 2013 financial results [news release]. LinkedIn website. August 1, 2013. <http://investors.linkedin.com/releasedetail.cfm?ReleaseID=782275>. Accessed October 2, 2013.



A Day in the Life of a Medical Librarian

By Michelle A. Kraft, MLS, AHIP

Senior Medical Librarian, Cleveland Clinic Alumni Library, Cleveland, OH

I have become used to the glazed eyes as I tell people that I am a medical librarian. The vast majority of people are familiar with public librarians and school librarians, but the concept of a medical librarian is unusual to them. After a few blinks, people usually ask me what medical librarians do. The short cocktail party answer is: We connect people to medical information and resources because everything on the Internet is not free nor easy to find. The long answer is a bit more complicated because there are many types of medical librarians. There are solo hospital librarians who are jacks-of-all-trades who provide resources and services to an entire hospital or even hospitals. There are academic medical librarians at universities and medical schools who are a part of a large staff with focused job specialties. Then there are embedded medical librarians who are often employed by large institutions and may not even be based in the library at all. In hospitals, clinical embedded librarians go on rounds with patient care teams. The most successful of these librarians are often embedded within research departments or clinical care groups and work as a part of that team.

As a hospital librarian in a large academic medical institution, I am a blend of a hospital librarian and an academic librarian. In a hospital, there are no closed times. Our library, therefore, does not have a typical 9 to 5 workday. We are open almost 12 hours each weekday, and we are also open 8 hours on Saturday. Electronic resources effectively make our resources open for use even when our doors are shut and our library staff have gone home.

It is not surprising to hear people question whether libraries or librarians are needed now that so much information is available online. Our library is conveniently located

and has the largest concentration of publicly available computers in the hospital, so we still have very healthy foot traffic. However, some medical libraries have seen fewer people come into the physical library because library resources are easily accessed online. Many of us consider our library web page to also be the “library.” If you count the number of people who use our library resources online, it far exceeds the number of people we served before the Internet age. Of course, not everything *is* available online. Furthermore, the resources that are online often are not free or naturally connected in an easy to find way. That is where I come in.

A typical day has me answering questions at our front desk and doing my job of providing access to online resources. The other library staff members and I typically each spend 1 to 2 hours sitting at the desk answering questions from people who walk into the library or who telephone or send an e-mail message. There is a wide range of questions. Some questions are very simple. “Where is the

bathroom?” “How do I get this key article from 1892?” Many questions are more complicated. “Can you give me information comparing toll-like receptors in endothelial cells and vascular smooth muscle

cells in different organs?” For research questions, I use the library’s database subscriptions to find information. Each database is unique. MEDLINE relies on a specific Medical Subject Heading (MeSH) indexing language to most accurately store and retrieve journal citations. However other databases have their own indexing language or rely on a mixture of specific controlled indexing terms and natural language keywords. In general, the questions we receive at our library are now more complicated and require more in-depth research and creative digging in comparison to the

It is not surprising to hear people question whether libraries or librarians are needed now that so much information is available online.

pre-digital era. Many people who now seek our services have already tried to find the information on their own but find they need our help. My job as a librarian is to know the most effective methods for searching databases and to use that knowledge to retrieve relevant information for our customers.

In addition to our job of finding information for our patrons, each of our librarians has a job that makes information retrieval easier. For example, the cataloging librarian adds books, multimedia, journals, and other items to our online catalog so people know what we have. Our user-education librarians create and teach classes to our patrons on the use of databases or reference management software, evidence-based medicine, and other topics. I work with the systems librarian to make sure our databases are easily found on the library's website and to establish connections between the databases and our journal subscriptions so that patrons can easily retrieve full-text articles. I am also heavily involved with mobile technology, with the

goal of providing easy access from tablets and smartphones to library resources such as e-books, e-journals, databases, and the library's website.

These days, librarians aren't usually holed up in the library with our noses in books. Even librarians who aren't embedded in research or clinical teams are often involved in providing patient education literature, serving on hospital committees, task forces, or institutional review boards, and participating in other activities outside of the library. Just as the Internet has brought information resources to people, librarians are bringing our information services to our customers. You are more likely to see a librarian carrying an iPad on rounds or troubleshooting an online database and full-text journal problem than you are to see one shelving books.

***Author disclosure:** The author notes that she has no commercial associations that may pose a conflict of interest in relation to this article.*

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Quote...and Misquote

By Arnold Melnick, DO

You and I know hundreds of famous quotations (aphorisms, comedic sayings, philosophic observations). And we just *know* who said them. I'll bet every one of you—well, almost everyone—can recite Lincoln's Gettysburg Address without an error. But many of the quoted lines we claim to *know* are in error, either the statement or the originator of it. For example, Tarzan never said, "Me Tarzan, you Jane." That is a distortion of what he said.

Blood, sweat, and tears. Actually, Winston Churchill said, "I have nothing to offer but blood, toil, tears, and sweat." But most people remember it as "blood, sweat, and tears." However, it was uttered much earlier in slightly different form by Cicero and Livy, and in 1611, in a poem by John Donne.

Academic politics are so vicious because the stakes are so small. So often attributed to Henry Kissinger, this sentiment had been voiced by several people years before Kissinger. It probably was an old maxim and possibly originated with Woodrow Wilson.

There's more old drunkards than there are old doctors. This quotation is usually credited to Poor Richard, but Francois Rabelais (1483–1553) seems to have said it first. It has also been stolen by a few modern comedians.

If men could get pregnant, abortion would be a sacrament. In 1971, Gloria Steinem said that this was a John Kennedy salty observation. Decades later, Steinem confessed that the real author was an Irish cab driver, an elderly woman who was driving Kennedy around Boston in the early 1970s.

And here are a few related to writing and editing:
The editor is someone who separates the wheat from the chaff and then prints the chaff. This statement is often attributed to Adlai Stevenson, who, yes, passed it off as his own. However, records seem to show that Elbert Hubbard years before had written it, BUT Hubbard was known to "borrow" extensively, so we must merely credit him with bringing to the fore an old cliché.

So I became a newspaperman. I hated to do it, but I couldn't find honest employment. This has been attributed to Twain, but there is no record that he said it. But it sounds like him, so generally we give credit to Twain.

The only way for a newspaperman to look at a politician is down. This one too is disputed and sometimes attributed to Twain or H. L. Menken. More reliably, it is traced to journalist Frank Simonds.

Nobody likes to write, but everybody likes to have written. This is a chapter title from *If You Can Talk, You Can Write*, a book by Joel Saltzman. Recently, I found a similar quote *I do not like to write—I like to have written* attributed to Gloria Steinem. Research shows that Steinem is the usually credited author of that thought and Saltzman rarely is.

Writers are always selling somebody out. Often attributed incorrectly to Nora Ephron or Janet Malcolm, this quote probably belongs to Joan Didion.

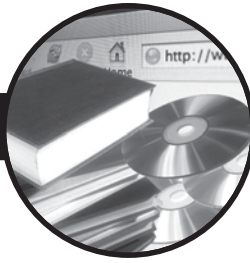
Your manuscript is both good and original. But the part that is good is not original, and the part that is original is not good. Frequently attributed to the famed Samuel Johnson, it apparently it is not found in any of his writings. So we are stuck with an awesome quote and a reasonable guess regarding who first said it.

Their output isn't writing at all—it's typing. Even though Gore Vidal has often used this line, it seems to have been originated by Truman Capote.

Freedom of the press belongs to those who own one. Attributed to several personalities, including H.L. Menken, it apparently was introduced by A.J. Liebling in the *New Yorker* in 1960, who hinted that it might come from a previous source.

Finally, here's one for my readers to solve: Who said, *I hope my readers enjoyed my column on misquotes?* You hit it right on the nose—my nose.

My deep appreciation to Ralph Keyes, author of The Quote Verifier, for some of this material.



First-Place Winners in the 2013 AMWA Medical Book Awards Competition

FIRST PLACE, PUBLIC CATEGORY

Autism Spectrum Disorders: What Every Parent Needs to Know

Alan I. Rosenblatt, MD, FAAP; Paul S. Carbone, MD, FAAP, editors with Winnie Yu
Elk Grove Village, IL: American Academy of Pediatrics, 2012; 320 pp

This guide on autism spectrum disorders (ASDs) was published by the American Society of Pediatrics as the latest book in the society's authoritative series on parenting. The book is remarkable for striking exactly the right balance between compassion and candor. That balance has to be due, in some respect, to the fact that one of the editors (Dr Carbone) is the father of a child with an ASD diagnosed nearly 10 years ago. He acknowledges having gone through a grieving process on first hearing the diagnosis but learned that "parenting a child with an ASD is not 'better' or 'worse' than parenting any other child ... it is simply different."

This is probably the book that Dr Carbone would have wanted close at hand as he explored the options for helping his son achieve his full potential.

The goal of the book is to provide parents with a scientifically sound basis for understanding the symptoms of a spectrum of conditions categorized as ASDs. Having heard the diagnosis, parents should then be able to make informed decisions about behavioral and developmental therapies, the possible use of medications, and the role of complementary or alternative interventions. Alternative interventions, including dietary approaches and mind-body therapies, have received a lot of attention in recent years. Although the discussion is respectful, the editors clearly favor evidence-based medicine and list the therapies to avoid as ineffective and even potentially harmful. Nevertheless, they conclude that many treatments once considered complementary are now mainstream and even offer tips on finding a practitioner.

The guidance offered throughout the book is very practical and specific. For example, the editors devote an entire

chapter to the effect of ASDs on marriages and siblings. They are reassuring about these issues, stating that, according to a 2010 study conducted at the Kennedy Krieger Institute, "64% of children with an ASD remain with both parents, a percentage that is no different than for children without an ASD." They also find that "most siblings of children who have ASDs fare well" and give helpful tips on promoting sibling harmony. These tips include setting aside one-on-one time with each child, remembering the important events in the life of each child, setting reasonable expectations of the child with an ASD, and modeling a healthy perspective on how to remain positive and resilient when faced with a life challenge.

Overall, the book is well written and engaging. Excellent use of anecdotes, especially those contributed by parents, enlivens the text. The contents are well organized, and the layout includes clear headings and tables that are well designed and make the book very readable. Parents will find it easy to pick up the book and quickly find the information they seek. Although it was written as a guide for parents, this book would be of more than passing interest for anyone who knows a child with an ASD.

—Michele Vivirito

The members of the Medical Book Awards, Public Category, Committee were David Caldwell, PhD; Heather Gorby, PhD; Michele Vivirito; and Qing Zhou, PhD (chair).

FIRST PLACE, HEALTH CARE PROFESSIONALS (NONPHYSICIANS)

Health Care Research Done Right: A Journal Editor Shares Practical Tips and Techniques for High Quality and Efficiency

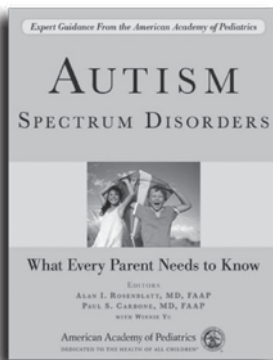
Kathleen A. Fairman

Denver, CO: Outskirts Press, Inc, 2012; 356 pp

When I was a kid, everyone wanted to be a rock and roll star. But if you really want to do something creative, fun, and stimulating, then science is as good as it gets.

— Richard Ransohoff, research neurologist

So begins the first chapter of Kathleen Fairman's comprehensive book, *Health Care Research Done Right*. I'm sure most medical communicators would agree with this sentiment because our professional lives revolve around science



and scientific research. The trick is making sure the science, and the reporting of the science, is accurate. There's the rub.

As a journal editor and principal investigator who has authored numerous peer-reviewed articles, Fairman quickly gets to the heart of the research problem: The quality of

published research in many areas of study is widely recognized as being far from ideal. In her book, Fairman challenges anyone involved in health care research to aim for excellence rather than mediocrity, and in the book's 11 chapters she explains how to do so.

After stating the problem, the text moves forward to address multiple issues health care researchers encounter, such as

how to plan research to prevent problems later, conduct an accurate literature review, avoid common errors when analyzing data, use secondary data sources appropriately, and write and administer accurate surveys. Of particular interest to me were chapter 9, which focuses on how to respond to feedback from peer reviewers, and chapter 10, which highlights good research-reporting practices—useful information for writers engaged in any type of writing.

The author effectively uses headings, subheadings, tables, and figures to clarify information. Chapters begin with bulleted lists to inform readers what they will learn, and the text is peppered with quotes and real-life examples that drive readers' interest. Fairman's writing style is clear, easy to read, and occasionally humorous, which can be a tough task with statistics and research methodology as the subject matter. Collectively, these elements made *Health Care Research Done Right* the winner in this category.

I would be remiss, however, if I did not report the spirited debate that ensued over the author's comment on page 2:

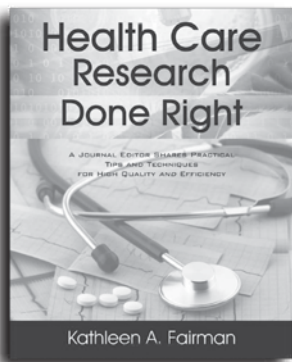
Some study sponsors will even pay for medical writers who will do much of the "grunt work" on behalf of the named author, such as gathering references or drafting initial versions of the text.

Can our contributions be perceived as grunt work? Most committee members said yes, whereas others were offended by that perception. The consensus among the judges was that we would prefer that Fairman did not use this terminology in future editions of the book because the writing and editing we do meets the highest professional standards. However, we recognize that there continues to be a lack of understanding in the medical publishing and health care communities about the nature and value of the contributions made by medical communicators to manuscript preparation. Fairman has now joined AMWA and I had the

opportunity to discuss the committee's concern with her at the annual conference. She apologized for using terminology that could be perceived as offensive to medical writers and mentioned that she had learned much at the conference about AMWA's ethics workshops and position with regard to the scientific contributions of medical writers.

—Cyndy Kryder, MS, CCC-SP

The members of the Medical Book Awards, Health Care Professionals Category, Committee were Melissa Bogen, ELS; Linda Felcone, MA; Hope Lafferty, AM, ELS; Cyndy Kryder (chair), and Phil Vinall, MBA.



FIRST PLACE, PHYSICIANS

Osborn's Brain: Imaging, Pathology, and Anatomy

Anne G. Osborn, MD, FACR

Salt Lake City, UT: Amirsys Publishing, 2012; 1,200 pp

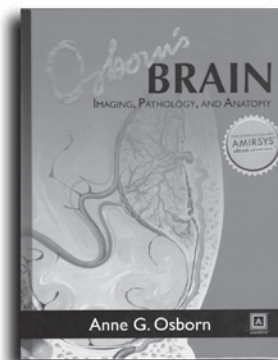
The winner of the 2013 AMWA Medical Book Awards, Physician Authors, is *Osborn's Brain: Imaging, Pathology, and Anatomy* by Dr Anne G. Osborn, professor of radiology at the University of Utah School of Medicine. This impressive reference is an update to the 1993 text *Diagnostic Neuroradiology* and is directed to the resident or practicing radiologist as well as other health care providers involved in the care of patients with brain injuries and related issues.

"The brain is probably the most complicated organ of the body," says Anne Osborne. "This book was written to give the reader an approach to problems, an approach to diagnoses."

Written in in detailed prose paragraphs rather than a traditional bullet structure found in many medical textbooks, *Osborn's Brain* helps the reader understand the issues and information essential to the practicing radiologist and those involved in brain pathology. The book includes core information about brain imaging techniques, relevant examples of pathologies, and anatomic illustrations to guide the reader. The book is organized for curriculum-based learning. Each section throughout the book includes summary boxes that highlight the most important points.

This book is impressive at 1,200 pages of text and more than 3,300 vividly reproduced images, including high-resolution radiographic images. The detailed medical illustrations are accompanied by explanatory text written to place each image in context, especially for diagnostic relevance.

The purpose of *Osborn's Brain* is to provide the reader with an educational resource that shows how to think about diagnoses, types of diagnoses, and the various pathologies that can affect the brain. In fact, the author of this text



describes her goal for this book is to “take readers by the hand” into the world of brain imaging, including information about new concepts and diagnoses of vital importance to today’s practicing neuroradiologist.

Members of the committee who selected the winning book were uniform in their praise of this book: “Strong use of images and figures.” “Enjoyed the presentation and layout of the book.” “A beautiful book with stunning figures and graphs that have detailed and directive captions/arrows/notations.” The few critical comments received during its consideration had to do with the book’s narrow niche, possibly limited audience, and large physical size, which in a print format could make the book a challenge to navigate. However, these points aside, this book was the clear winner in this award category and is an admirable publishing achievement.

Osborn’s Brain: Imaging, Pathology, and Anatomy provides an excellent example of clear writing, consistent style and readability, scientific accuracy, originality, up-to-date relevance, and usefulness to its intended audience—all elements that were part of its assessment by the AMWA Medical Book Award-Physician Committee. In particular, the use of images and the organizational structure of this book made it stand apart and worthy of the 2013 Book Award in the physician category. *Osborn’s Brain* is a visual delight and achieves its goal of providing the information needed by today’s radiologists, clinical neuroscientists, and other health care providers involved in the study and care of the human brain.

—**Deb Whippen, AMWA Awards Administrator, 2012–2013**

The members of the Medical Book Awards, Physicians Category, Committee were Pamela Hines, MD, MBA; Evelyn B. Kelly, PhD; Deborah Kostianovsky, MD (chair); and Deb Whippen.

The Ageless Generation: How Advances in Biomedicine Will Transform the Global Economy

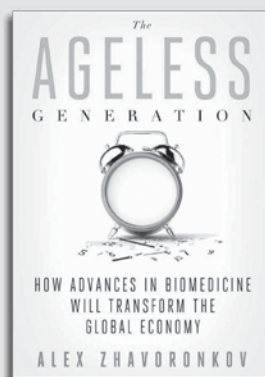
Alex Zhavoronkov, PhD

New York, NY: Palgrave MacMillan, 2013; 256 pp

In *The Ageless Generation*, Alex Zhavoronkov, PhD, a director of the Biogerontology Research Foundation, a UK-based think tank, offers a look at how biomedical advances that combat aging may also affect the global economy. According to research by the author, over the past 20 years, the research community has delivered hundreds of breakthroughs that can extend the human life span to years beyond the imagination. Much basic research is now being done to counter the diseases of aging, such as dementia, diabetes, heart disease, and cancer. Unfortunately, most of this research is not well publicized and is not being used in clinical practice.

The author underscores how the era of longer life is approaching the tipping point as 10,000 people in the United States turn 65 every day. Programs for older adults are the fastest growing federal budget items, as millions become eligible for Social Security and Medicare. The US life expectancy is currently more than 78 years. *Life expectancy* is an actuarial term and should not be confused with *life span*, which is the maximum age that has been achieved by a member of the species and is the possible age that the human species could live if untouched by disease. In the first half of the 20th century, life expectancy increased more than 20 years because of higher survival rates in infancy, childhood, and early adulthood. For humans, the maximum life span today is 122, achieved by Jeanne Calment of France in 1997.

In chapter 2, the author presents a history of longevity and tells the story of how 65 became the age of retire-



ment. Otto von Bismarck, chancellor of Germany in 1885, conceived of the idea of a system like Social Security to get his “old” generals to retire so he could promote younger generals. Proponents of the New Deal in 1935 picked up 65 as the age of retirement for benefits from Social Security. Many people even resisted the idea

of retirement until, with a stroke of marketing genius in the early 1960s, real estate developer Del Webb had the idea of building a city with multiple amenities in Arizona, away from the freezing snows. He marketed it as Sun City. When it opened on January 1, 1960, cars were backed up for miles to see this “new way of life.” Other entrepreneurs opened places in Florida. By the 1980s, retirement was entrenched and seen by many as a right.

In part 2 of the book, Zhavoronkov discusses how one must understand aging as a complex lifelong process that occurs so slowly that we seldom notice the subtle changes. It does not have a single cause but is a combination of complex reactions within the body, as well as external forces such as pollutants, unhealthy lifestyles, and other assaults on the body. In this section, he discusses how aging affects each body system. He also explores the recent advances in biogerontology (the study of how and why we age) and regenerative medicine (restoring or establishing normal function by replacing or regenerating parts).

Aging is now the most universal problem facing mankind. The issues face all ages because social programs for

older adults will be largely funded by taxes on younger workers, and the costs of these programs are increasingly unsustainable. Zhavoronkov encourages policy makers to look at the possibilities of overcoming current obstacles and plan to keep people working past 65. He outlines plans for embracing the new older worker, especially by surmounting psychological and cultural perceptions about aging.

The author also is convinced that biomedicine will make the idea of old age a concept of the past. When people are living longer without disease or with the ability to correct disease through regenerative medicine, society will change. Thus, rather than draining resources through pensions and health care, people will live longer, continue to work, and contribute to the economy. The breakthroughs in regenerative medicine can cause an unprecedented boon to the global economy. However, part of the current problem lies in the fact that our policy makers are unaware of the potential of regenerative medicine. The author's major point is that that regenerative medicine is the best answer to prevent an economic collapse from the burden of senior health care expenses. In the long run, it also holds the potential for tremendous prosperity.

As someone who studies and writes about aging issues, I am very interested in the book's ideas. I thought that the author achieved his goal of showing how regenerative medicine can transform the global economy. I think this admirable goal, however, will probably never come to fruition as he visualizes it. The author appears to see only one factor of entitlement changes in programs for older adults; he does not address the impact of other social programs, which are also part of serious economic demands. I think a more balanced and credible view would have included discussing cuts to social and welfare programs.

However, I found the book very stimulating and readable. I was especially interested in the discussion of the history of longevity, a subject most of us have little knowledge of, and the chapters on biological aging and regenerative medicine. I think that medical writers, in general, can benefit from reading this book. The reader will gain a surprising look into how biomedical advances that combat aging may also affect the global economy.

—Evelyn B. Kelly, PhD

Evelyn Kelly is a freelance writer in Ocala, Florida. She has a certificate from the Institute of Gerontological Studies at the University of Florida.

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SWANBERG AWARD: Cindy W. Hamilton, PharmD, ELS

By **Barbara Snyder, MA**

Chair, 2013 Swanberg Award Committee

Long considered the ultimate AMWA award, the Harold Swanberg Distinguished Service Award is presented each year to “an active member who has made distinguished contributions to medical communication or rendered unusual and distinguished services to the medical profession.” From among the talented and dedicated nominees, the Swanberg Award Committee chose Cindy W. Hamilton, PharmD, ELS, as this year’s recipient.

After receiving her PharmD from the Philadelphia College and Pharmacy and Science in 1977, Cindy worked as a practicing pharmacist, university instructor, clinical research scientist, writer, and editor. In 1990, Cindy struck out on her own and opened Hamilton House, the medical writing company she still runs today. In the early days, Cindy tried her hand at almost every type of medical communication, from writing for lay audiences to regulatory writing.

Over time, Cindy learned that each type of medical communication requires specific skills and knowledge—as well as an understanding of personal strengths and weaknesses. With experience, she learned that she enjoyed collaborating with a diverse group of professionals and helping them figure out how to work efficiently and ethically—all while working from a home office. She gradually gravitated toward helping clinical investigators and pharmaceutical companies disseminate research findings as conference abstracts and posters and as articles published in medical journals. It was during this early work with authors that Cindy became aware of the ethical issues involved in the writing of articles and recognized that AMWA was the right organization to address them.

Cindy has served AMWA in many roles, including administrator of chapters, administrator of the annual conference, treasurer (4 years), president-elect, and president. During her stint as treasurer, she supported creation of the AMWA Endowment Fund (some of us remember her bringing a hat to the Executive Committee meetings for donations), which now provides \$3,000 to \$5,000 in interest each year to fund special projects to benefit AMWA’s members (eg, partially funding MD Consult).

Within and outside of AMWA, Cindy has distinguished herself as an author, a teacher, a mentor, and something of a firebrand (an image that may, for some, appear to be at odds with her diminutive physical stature and soft Virginia drawl).

As an author, Cindy has to her credit more than 60 articles in peer-reviewed journals and book chapters. She was the co-editor of the *Pharmacotherapy Handbook* for four editions and has written two of AMWA’s self-study modules



Barbara Snyder with Swanberg Award winner Cindy Hamilton. Photo by Picture America Event Photographers.

(Essential Ethics for Medical Communicators, and Tables and Graphs).

As a teacher, Cindy has shared her knowledge and expertise with pharmacy students at the University of Sciences in Philadelphia, the Virginia Commonwealth University, the University of Tennessee, and the University of North Carolina School of Pharmacy. She has also taught hundreds of AMWA workshop attendees, and led seven different workshops at AMWA’s national and regional conferences. In recognition of her excellence in education, Cindy received AMWA’s prized Golden Apple Award in 2011.

As a mentor, Cindy has a long history of helping AMWA members and especially of encouraging pharmacists to consider medical communication as a career. Since 1996, she has held an adjunct appointment at the Virginia Commonwealth University School of Pharmacy, through which she offers a 4-week clerkship to pharmacy students who are interested in medical communication. To help pharmacists make the transition to medical communication, Cindy developed a fellowship program that offers practical experience and education, which was recently expanded to include a research project. The model is suitable for any medical communicator who is willing to mentor an individual who is eager to learn and willing to invest the time and energy.*

But it is Cindy’s long-standing passion for promoting ethics within the medical writing profession that unequivocally sets her apart. For more than a dozen years, Cindy has been writing letters to editors in an effort to distinguish professional medical communication from ghostwriting in the peer-reviewed medical literature and other unethi-

* For more information, see <http://hamiltonhouseva.com/fellowship.html> and “Medical Writing Fellowship for PharmD Professionals at Hamilton House,” *AMWA J* 2012;27(4):170–171.

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cal practices. She was instrumental in placing the Code of Ethics on AMWA's membership form and making completion of an ethics workshop a requirement for the Essential Ethics Certificate and the four specialty certificates. She has collaborated with AMWA members to develop new ethics workshops and recruit workshop leaders, and she created AMWA's self-study module on Essential Ethics for Medical Communicators. In early 2012, she became one of the five founders of the Global Alliance of Publication Professionals (GAPP), collaborating with other GAPP members to "provide a timely and credible response to influential stories about medical publication professionals (eg, professional medical writers, publication planners)" and to "be a 'go to' group for those needing timely input from international leaders of medical publication professionals." To date, the most common topic has been ghostwriting. (For more information on GAPP, see www.gappteam.org.)

To quote from the person who nominated Cindy:

It is Cindy's tireless work in promoting ethical practices that, in my opinion, qualifies her for the Swanberg Award. Cindy developed AMWA's position statement on professional medical writing, which was published well before

those of any other organization. She was the very first one to stand up and say that biomedical writers are valuable contributors to the publication team and that their contributions should be recognized and their pertinent professional or financial relationships should be disclosed. This was a bold move at the time it was made. Cindy tipped the balance between sweeping our contributions under the rug or standing up and saying that there is nothing unethical about what we do as long as we acknowledge the part we play and disclose our funding. This all seems quite tame now, but at the time it was a very, very brave thing to do. Cindy should be recognized for her vision, courage, and promulgation of ethical principles.

It is for this vision, this courage, this dedication, and this passion that the Committee chose Cindy W. Hamilton, PharmD, ELS, as the recipient of this year's Harold Swanberg Award.

The 2013 Swanberg Committee included Elliott Churchill, MS, MA; Dominic De Bellis, PhD; Bart Harvey, MD, PhD; Jane Krauhs, PhD, ELS(D); Donna Miceli; and Susan Krug, CAE (ex officio).

➤Read the text of Cindy Hamilton's Swanberg address, page 152.

GOLDEN APPLE AWARD: LANIE ADAMSON, MS

By Faith Reidenbach

Administrator of Education, 2012–2013

Lanie Adamson, MS, is this year's recipient of the Golden Apple Award, the highest honor an AMWA workshop leader can achieve. Established in 1986, this prestigious award honors workshop leaders who have demonstrated consistent excellence in teaching in AMWA's educational program. Each year, the Education Committee selects the Golden Apple winner after thoroughly reviewing the teaching records of all workshop leaders who meet the criteria for the award. To be eligible, a workshop leader must have taught at least 12 workshops at AMWA's annual or chapter conferences and maintained an overall score of 4.4 (out of a possible 5.0) on participants' evaluations for all workshops he or she has taught. Other criteria considered include the difficulty of the workshops, the diversity of workshops taught, the number of new workshops developed, and the number of years the leader has volunteered to teach these workshops.

Lanie joined AMWA in 1986 and began leading workshops in 1993. Since then she has taught 23 workshop sessions at annual conferences, at chapter conferences, and onsite in corporate settings. The committee was particularly impressed that Lanie has led six different workshops, including two that she created: Developing Clinical Research



Faith Reidenbach with Golden Apple Award winner Lanie Adamson. Photo by Picture America Event Photographers.

Materials into Articles and Writing for the Medical Device Industry.

Developing and teaching workshops have not been Lanie's only contributions to AMWA. At annual conferences, she has generously shared her expertise and experience as a speaker at open sessions and roundtables. In 1995 to 1996 she was the administrator of the Development Department Administrator, and in 2001 she served on the Nominating

• 2013 AMWA AWARDS •

Committee and as the Editing/Writing Section chair. She was a long-time leader of the Pacific Southwest Chapter, including 3 years as its president-elect or president, and she codirected the popular Asilomar Conference four times. In 2008, Lanie was honored with the President's Award for dis-

summaries, and competitive summaries for the company's glaucoma product line. She produced a variety of materials for Allergan Medical Optics, the company's medical device business, specifically in cataract surgery. When Allergan spun off its medical device line as Advanced Medical Optics

I am so honored. I very much appreciate this award. It has touched me to my core. You are so kind. I love AMWA workshops. I love them for the synergy that they have between the instructor who gives all the information that you need to know for that particular topic and the student who then comes up with the different questions that you don't think of when you are researching.... And so for all past and present AMWA instructors and students, thanks for those synergies.

—Lanie Adamson, upon receiving the Golden Apple Award

tinctive contributions to our association at the chapter and national levels.

In her paying career, Lanie was employed at the Saddleback Women's Hospital, which opened in 1988 in Laguna Hills, California. She wrote *all* of the policies and procedures in time for the hospital opening. The policies and procedures spelled out the care of birthing mothers and their babies, whether healthy or in the newborn intensive care unit.

Lanie later joined Allergan, Inc as a senior medical writer, and her career took her into both scientific and marketing writing in the company's pharmaceutical and medical device businesses. She produced technical reports, product

(now Abbott Medical Optics), Lanie went on to be manager of Global Scientific Communications for the new company. She retired in 2006 but remains a dues-paying member of AMWA.

The Education Committee is honored to add Lanie Adamson's name to the list of distinguished recipients of the Golden Apple Award. We thank her for her outstanding contributions to AMWA's educational program.

The 2013 Golden Apple Award Committee included Marijke Adams, PharmD, PhD; Susan Aiello, DVM, ELS; Cindy Hamilton, PharmD, ELS; Scott Kober, MBA, CCMEP; Hope Lafferty, AM, ELS; Marianne Mallia, ELS; Sharon Nancekivell, MA; Faith Reidenbach, ELS, CMPP (chair); and Scott Thompson, ELS.

STUDENT SCHOLARSHIP RECIPIENT: JOSEPH DONOHOE

By Alyssa Wu-Zhang, PhD

Chair, 2012–2013 Student Scholarship Committee

The winner of the 2013 AMWA Annual Conference Student Scholarship is Joseph Donohoe, currently a doctoral student in the Bioinformatics and Computational Medicine graduate program at the University of Michigan. The AMWA Annual Conference Student Scholarship, open to any student enrolled full-time in an accredited institution of higher learning, is sponsored by the University of the Sciences in Philadelphia and provides the scholarship recipient with funds to cover the costs of transportation to the conference, lodging for 4 nights at the conference hotel, conference registration, three conference workshops, a ticket to the awards dinner at the conference, and a 1-year student membership in AMWA.

Joseph became interested in medical writing as a career for two reasons: its emphasis on writing and its varied scientific focus. Among the variety of tasks performed by medical and scientific researchers in academia, such as generating hypotheses, conceptualizing hypotheses into grant appli-



Kelleen N. Flaherty, MS, University of the Sciences in Philadelphia, with Joseph Donohoe. Photo by Picture America Event Photographers.

cations, gathering data, analyzing data, and reporting results, Joseph has enjoyed the challenge of the writing tasks the most. For example, he recently wrote the first

• 2013 AMWA AWARDS •

draft of a National Institutes of Health grant application for his research group and found the task of maintaining the application's focus while incorporating the input of various collaborators to be difficult but rewarding. Joseph has also found, as a result of his diverse research experiences, that he values scientific variety. He completed a bachelor of arts in psychology from Shippensburg University in Pennsylvania and a master of science in biology from Bucknell University before pursuing his PhD in bioinformatics and computational medicine at the University of Michigan. Joseph believes that a career in medical writing, which requires the ability to synthesize disparate ideas in writing and which spans a variety of therapeutic areas and audiences, can provide both the writing tasks and the scientific variety that he values.

Joseph first learned about medical writing when he reached out to two local medical writers, one who worked at a medical communications company and another who was a regulatory writer at a major pharmaceutical company. Both suggested that he look into opportunities to get involved with AMWA. That advice led him to apply for the student scholarship, as the AMWA annual conference

seemed to him to provide a terrific educational and networking opportunity. Joseph was gratified to learn that the effort he had put into the scholarship application, in particular the effort he had put into a required essay that demonstrated how writing style affects the communication of a current medical or scientific event to different audiences, had paid off.

Joseph knew that the conference would provide numerous formal networking opportunities for the beginning or potential medical writer, but he was also looking forward to the sort of serendipitous connections that might be made during an informal chat over coffee. Joseph also hoped to gain insight into the type of medical writing he would like to pursue.

With his graduation planned for next spring, Joseph was excited to attend AMWA's 73rd Annual Conference in Columbus, Ohio, a career development and educational opportunity that was sure to be an important step in his career search.

The Annual Conference Student Scholarship Committee also included Beth Ann Garni-Wagner, PhD, and Randy Howard.



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Results of the 2013 Needs Assessment of Medical Communicators

By Cynthia L. Kryder, MS,^a Faith Reidenbach, ELS, CMPP,^b Lauren Ero, MS, MEd,^c and Susan Krug, CAE^d

^a2013-2014 Administrator of Member Resources; ^b2012-2013 Administrator of Education; ^cEducation and Certificate Program Manager; ^dExecutive Director

As the leading professional organization for writers, editors, and other communicators of medical information, AMWA has the mission of promoting excellence in medical communication and providing educational resources in support of that goal. To better discern the educational and resource needs of medical communicators, AMWA conducted a needs assessment survey online via SurveyMonkey in June 2013. The survey was developed by AMWA senior staff members, the Education Department, and the Member Resources Department. Unlike past surveys, which were designed to assess AMWA member satisfaction only, this survey was intended to take an in-depth look at the types of educational programs, services, and resources that medical communicators want and need.

Invitations to participate in the survey were distributed by e-mail to approximately 5,000 current AMWA members and 2,000 people whose memberships had lapsed during the previous 3 years. Invitations also were posted on LinkedIn, Facebook, and Twitter. Altogether, 1,043 people started the survey and 944 (91%) completed it. Seventeen percent of AMWA members participated in the survey. Percentages in this article were calculated based on the number of people who responded to a particular item. For most questions, at least 900 people responded; specific numbers are provided for items with a lower number of responses. Survey participants were anonymous.

Survey Participants

Most survey respondents indicated that they were current members of AMWA (Table 1). Medical communicators are a diverse group of professionals, and this diversity was reflected in the respondents' ages, locations, work settings, and levels of experience (Table 1).

Multiple Challenges for Medical Communicators

Respondents were asked to identify up to three top challenges they faced in their work. The results showed that the most common challenge was establishing a healthy work/life balance (34%), with inadequate recognition of the value delivered by the profession a close second (32%) (Figure 1). In addition, the following items were selected by 23% or more of respondents: achieving high-quality outcomes/deliverables, breaking into the field, and the current economic climate.

Many questions in the survey allowed respondents to type narrative (open-field) comments. The most common theme that emerged in the narrative comments about work challenges

Table 1. Survey Respondents.

Characteristic	n (%)
AMWA membership (n=943)	
Yes	810 (85.9%)
No	133 (14.1%)
Age (n=936)	
20s	41 (4.4%)
30s	194 (20.7%)
40s	235 (25.1%)
50s	304 (32.5%)
60s	140 (15.0%)
70+	22 (2.4%)
Sex (n=929)	
Women	771 (83.0%)
Men	158 (17.0%)
Work Setting (n=917)	
Advertising agency or public relations firm	15 (1.6%)
Contract research organization (CRO)	52 (5.7%)
Government agency or contractor	26 (2.8%)
Health information service	15 (1.6%)
Hospital, clinic, or other health care facility	55 (6.0%)
Journalism setting	5 (0.5%)
Medical writing/communication agency	79 (8.6%)
Medical device company	27 (2.9%)
Nonprofit organization	27 (2.9%)
Pharmaceutical/biotechnology company	129 (14.1%)
Professional society	8 (0.9%)
Publisher or journal office	20 (2.2%)
Research institute	24 (2.6%)
Self-employed/freelance	342 (37.3%)
University or medical school	65 (7.1%)
Not currently practicing	28 (3.1%)
Work Experience (n=942)	
0-5 y	300 (31.9%)
6-10	193 (20.5%)
11-15	165 (17.5%)
16-25	181 (19.2%)
≥ 25 y	103 (10.9%)
Work Type (n=876)	
Writer	274 (31.3%)
Editor	139 (15.9%)
Both writer and editor	301 (34.4%)
Educator	30 (3.4%)
Researcher	54 (6.2%)
Supervisor or manager	78 (8.9%)

was the need for continuing education (CE) opportunities to enable respondents to remain up-to-date with skills and technology. Some respondents commented on the lack of adequate funding to cover registration and travel costs for CE opportunities, as well as the lack of employer recognition of the importance of CE.

Participation in Continuing Education and Professional Development

At the national and chapter levels, AMWA offers multiple opportunities for CE and professional development. Several questions were designed to evaluate respondents' participation in CE activities in general and AMWA activities in particular. To the question, "Is AMWA your primary resource for professional development/continuing education in medical communication?" 76% of respondents answered yes. The 24% who said no most commonly mentioned DIA (32 respondents), the International Society for Medical Publication Professionals (25), self-guided programs (22), medical/scientific associations (22), and in-house training (20).

When asked how often they took advantage of AMWA's opportunities for professional development, 55% of respondents said they had attended the AMWA annual conference at least once in the past 5 years, 50% had attended a chapter conference during that interval, and 58% had participated in an AMWA workshop. Twenty percent of respondents reported that they attend the annual conference every year. Conversely, 45% of respondents reported that they had never attended an AMWA annual conference, 50% had never attended an AMWA chapter conference, and 42% had never participated in an AMWA workshop (Figure 2). Regarding the *AMWA Journal*, 68% reported reading it more than once a year, and 11% never read it.

The survey also asked about participation in activities sponsored by other associations. The results showed that 47% of respondents had never attended other association conferences, and 54% had never participated in online education provided by other associations, while 23% reported participating in online education at least once a year. With regard to publications, 45% reported reading other association journals more than once a year, but 40% never did so.

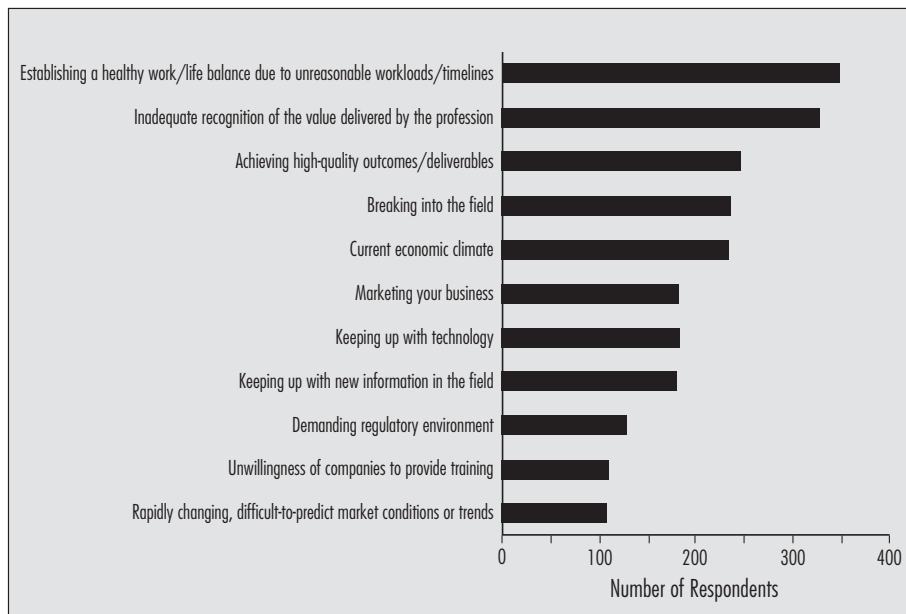


Figure 1. The top challenges faced by medical communicators. Respondents could select up to three choices. In addition to items listed in the figure, other choices included inadequate supply of capable professionals to support your work (91); managing your business (87); increasing international competition (86); employer/client requirement for advanced degree (79); increasing domestic competition (41); and liability exposure and risk management (39).

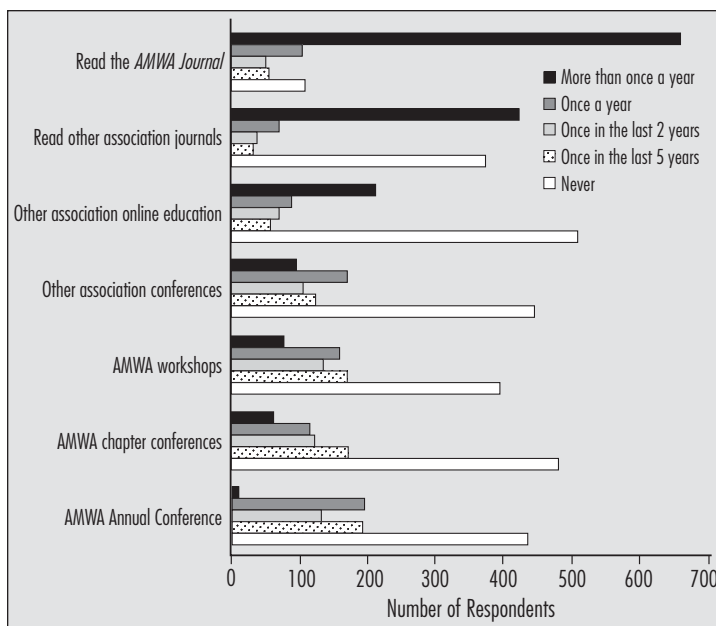


Figure 2. Respondents' frequency of participation in various professional development and continuing education activities.

Interest in Continuing Education Formats

Given AMWA's commitment to developing new learning opportunities that appeal to medical communicators, several survey questions focused on identifying respondents' preferred formats for CE. The first question asked respondents to choose one most-preferred format. Top-ranked in this question were annual conferences/national meetings and on-demand online events (each rated as the first choice of 23% of respondents). The next most-preferred formats were chapter conferences/regional meetings, self-guided

print publications, and online live webinars (each selected by 15% to 16% of respondents).

Respondents also were asked to rate how likely they would be to participate in a variety of online formats for CE (Figure 3). The most-preferred online format was the 10-minute video tutorial, with 82% of respondents indicating they were very likely or somewhat likely to participate, followed closely by web-based self-study modules (81%), 1-hour on-demand webinars (76%), and text-based downloadable materials (71%). Other formats that ranked high were 20-minute podcasts, 1-hour videos of a conference presentation, and 1-hour live, interactive webinars, with 65% to 66% of respondents indicating they were very likely or somewhat likely to participate. The least-preferred formats were an interactive app and an online study group, with nearly half of respondents indicating that they were somewhat unlikely or very unlikely to participate. Narrative responses indicated that the likelihood of respondents participating in any of these online activities was dependent on the quality of the content and the cost of the activity.

When asked to select webinar topics they were most interested in, respondents reported being most likely to attend programs about tips and tricks for software (78% very likely or somewhat likely to attend), new information in the field (76%), topics related to clinical trials (68%), and epidemiology or statistics (67%). The least-popular topics were getting a start in the field (57% somewhat unlikely or very unlikely to participate), and basic science (48%). The most-popular categories identified in the narrative comments were regulatory writing, which was inadvertently not listed among the choices, and software tips.

When respondents were asked to indicate their interest in attending a 1-day, fee-based intensive educational program about a particular topic, almost half (49%) said they would be somewhat likely or very likely to attend a program about regulatory writing. Smaller percentages were interested in an Essential Skills boot camp (41%) or an intensive program about business aspects of freelancing (42%). Workshop leader training was not a popular topic, with 53% of respondents stating that they were somewhat unlikely or very unlikely to attend. When asked to identify other topics of interest, the majority of respondents indicated “none.”

Respondents who had enrolled in or had completed an AMWA certificate were asked to select up to their top three reasons for doing so. The top reasons were to enhance professional credibility (75%, 356/473) and to develop skills and expertise (70%, 330/473). For respondents who had not completed or enrolled in any AMWA certificate program, the most common responses were “not cost effective for me” (44%, 191/430) and “I don’t see the benefit” (37%, 158/430).

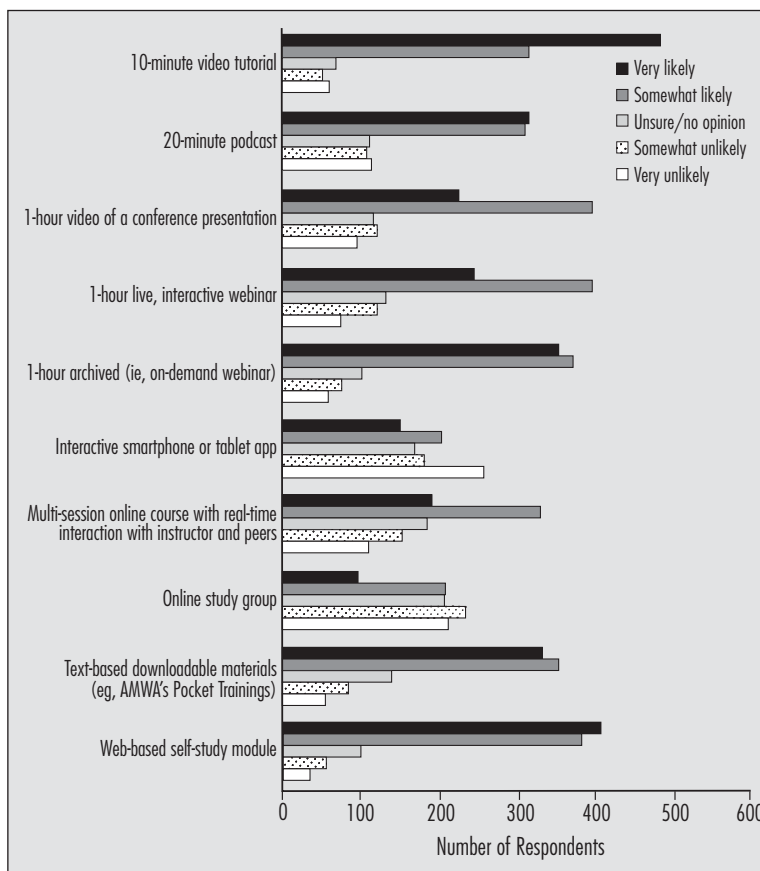


Figure 3. Respondents' preferences for online learning.

Most-Used Resources

AMWA is dedicated to providing its members with more services and benefits, and several items on the survey were designed to identify which software and online resources medical communicators use regularly. The results showed that respondents regularly or occasionally use *The New England Journal of Medicine* (85%), *The Journal of the American Medical Association* and its 9 specialty journals (78%), *Nature* (62%), Elsevier's Science Direct (54%), and the Cochrane Library (51%). Nearly 30% of respondents were unfamiliar with Elsevier's ClinicalKey database that replaced MDConsult. About half of respondents were unfamiliar with Faculty of 1000, *Health Affairs*, and UpToDate.com.

When asked to identify software they use regularly, 900 people provided more than 1,700 responses, which were sorted into 12 categories. The most popular categories were Microsoft and Adobe products, reference management software, content/project management software, and graphic design products. Within these categories, hundreds of specific products were named.

AMWA's Value to Medical Communicators

Several items in the survey referred to AMWA member benefits and their importance for member retention. Nearly two-thirds of respondents (63%) consider AMWA to be their primary professional organization, with 86% somewhat or very likely to recommend AMWA membership to a colleague.

Seventy percent of members identify AMWA as their primary professional organization compared to 20% of nonmember respondents. Ninety percent of members and 63% of nonmember respondents would recommend AMWA membership to a colleague. Many respondents reported being members in other organizations; the most common were DIA (16%, 97/618); the Board of Editors in the Life Sciences (14%, 89/618); the International Society for Medical Publication Professionals (9%, 55/618); and the Council of Science Editors (9%, 53/618). Forty-eight percent (295/618) of respondents indicated that they were not members of any other professional organizations.

Respondents were asked whether access to certain member benefits influenced their decision to join AMWA or remain an AMWA member. The top resources were communication about what is going on in the industry (somewhat influential or very influential for 83% of respondents), opportunities to network (76%), data on trends in the field (74%), and employment opportunities (67%). Two areas that had little or no influence on membership were awards or recognition, with 64% (575/893) indicating that it had influenced their decision “not much” or “not at all,” and opportunities to gain leadership experience through volunteering (55%, 488/886, indicating “not much” or “not at all”).

In a separate question, respondents were asked to choose up to three potential AMWA benefits that would most favorably address their professional needs. The most desired were a list of recommended resources (selected by 51% of respondents), access to an online library of AMWA conference presentations (50%), an online career center (48%), and special interest groups (43%). In the “other” category of potential benefits, the most frequently mentioned were online resources and access to journal articles and textbooks.

Several themes emerged when respondents were asked the open-ended question, “What is one thing that AMWA could provide to help you do your job better?” Common answers included online education, resources, or communities; mentoring; improved access to scientific publications; and more local chapter offerings and educational programs. Some respondents suggested specific education topics.

Conclusions

The results of the 2013 needs assessment will guide the AMWA Education Department and the Member Resources Department in their review of current and future educational programs and membership benefits. Understanding the needs of medical communicators in their different roles and at different stages of their careers will enable volunteers and staff to identify programs and services to develop, revise, or eliminate.

In addition, the data collected will help AMWA's Executive Committee and Board of Directors determine the best way to allocate resources within the current budget so that the organization continues to provide value to its members at a reasonable cost.

Acknowledgment

The authors gratefully acknowledge Tamara Ball, MD, 2012–2013 administrator of member resources, who was one of the key developers of the needs assessment survey.

What Did We Do in 2013?*

By Douglas Haneline, PhD
2012–2013 AMWA President



As president of AMWA, I want to report on what we've accomplished together in the past year. Last October in Sacramento, I made my inaugural speech and said that I wanted to make the theme of 2013 “AMWA: Building on Our Roots and Growing into Our Potential.” This theme expressed my core feeling about AMWA at this point in its history: We are well positioned for success, but we need to make changes so that when opportunity knocks on our door, we are ready to open it.

Thirteen months later, I can report that we have met the challenge we set for ourselves. Among the many goals we have accomplished, these stand out:

- implementing a new database system and website
- communicating more systematically with our members about our strategic priorities/goals
- implementing a new call for volunteers and engaging more members in committee work
- reorganizing departments and committees
- initiating monthly chapter leader calls
- conducting item-writing sessions for the certification exam
- developing criteria to apply to take the certification exam to be ushered in in 2015
- developing, sending, receiving, and analyzing a member-needs assessment survey to guide our assignment of priorities
- implementing new call for programs and new program formats for the annual conference
- creating tracks for the annual conference program
- making a successful transition to a new *AMWA Journal* editor
- increasing AMWA's social media presence

Through the work of volunteers and staff, we have made improvements to our infrastructure and enhanced member resources, are poised to expand our educational and product offerings, and furthered AMWA's commitment to serving as a beacon for our profession. So we've made a great start, and Brian Bass, in his inaugural speech, will lay out his goals for 2014.

This work of last year and next year is necessary, as I have argued in messages to the membership and in *AMWA Journal* columns, because every aspect of medical writing—from terms of employment to writing and editing tasks to the multiplication of evermore sophisticated tools of the trade—is changing more rapidly than it ever has. The comprehensiveness and pace of these changes mean that AMWA's great challenge is to constantly enhance the value of membership.

On behalf of the Executive Committee and Board of Directors and the AMWA staff, I want to thank everyone who has contributed to our efforts this year—you've made a difference.

**Delivered at the 2013 AMWA Annual Conference in Columbus, Ohio.*

Inaugural Presidential Address*

By Brian Bass, 2013–2014 AMWA President

As I have often said, I am among the least qualified to do what I do for a living. But then, most of us are unqualified in one way or another. If you're not currently in your 20s or perhaps your early 30s, you probably did not graduate knowing you would become a professional medical communicator. Rather, the door swung wide or opportunity knocked—or you got pushed off a cliff, and here you are. Here we all are, in AMWA.

When I attended my first annual conference in Baltimore in 1995, I was intimidated, surrounded by people with more letters after their name than I have in my name. A man walked up to me, affixed an adhesive apple to my name badge (which was the way new members were identified back then), cupped my face in his hands, and planted a big wet one on my cheek. Then he smiled and exclaimed “Welcome to AMWA!” That man, a leader and real character of AMWA at the time, immediately became a dear friend, and thanks to him, I knew I was home.

Your first experiences may have been a little different. But we have all found our way to AMWA, found our home in AMWA. Over the years I like to think I have become pretty successful, and I have AMWA to thank for that. The unequalled education program. The selflessness and generosity of members. The camaraderie and networking, and the sharing of experiences and horror stories. This is what the AMWA experience is all about. Within 5 years of my joining AMWA, people were telling me (or was that, warning me?) that I would one day be president. But given the chance, I will always run with scissors, so today I stand before you. I am humbled, grateful, excited, and the only reason you can see me behind this lectern is because I am standing on the shoulders of giants.

One year ago today as the AMWA meeting calendar goes, Doug Haneline took his place at the helm and continued to pilot this ship forward as so many presidents have done before him. Doug outlined our plans and initiatives for the coming year. As Doug mentioned in his welcome address at this conference, AMWA has made great strides this year—the work of many volunteers and a dedicated and talented staff. We have made vital and long-overdue improvements to our



infrastructure so we can continue to move boldly into the future. We have enhanced member resources and are on the precipice of more exciting enhancements that will expand our educational and product offerings, and extend our reach. We have improved our internal and external communications, furthered AMWA's commitment to serving as a beacon for our profession, and made important strides in our effort to launch certification by 2015. As president, I will continue to steer our ship into the future.

But the future means change, and change isn't always easy. The thing about change is, it happens to all of us every day. You just get comfortable with your smartphone and they change a perfectly good operating system into something you no longer recognize. You have to upgrade a perfectly good version of Word because your 7-year-old computer died and your old software won't run on your new computer. Heck, there isn't even a CD drive to load it! One thing I've learned by being a business owner for the past 24 years is that you can get behind change and follow wherever it goes, you can get in and steer it where you want to go, or you can get in front of it and get run over. There's no stopping it.

“Progress is nothing without relevance.”

The challenge, and the beauty, of AMWA, is that this is not an organization we just belong to. We own it. We have a personal stake in AMWA. And when something changes, we take it personally. It's not a matter of “What are you doing to AMWA?” It's a matter of “What are you doing to *my* AMWA?” Well, here's what we're doing. We're working tirelessly to make our educational program—the gem in our crown—both relevant and accessible in a world that demands 24/7/365 access to whatever it wants. We're working tirelessly to make sure AMWA addresses the ever-evolving needs of its members while also attracting and keeping new members. And we're working tirelessly to make the member experience as great as it can be for everyone, as diverse as that is.

This process is not perfect. At the start of my Creative Process workshop I tell participants, “If you can't make a mistake, you can't make anything.” It's an iterative process. Every day, scores of volunteers and an amazingly small staff of super-humans work together for the benefit of AMWA. Sometimes we're going to make mistakes, but that's how we're going to make progress.

**This article is based on the address delivered at the AMWA Annual Business Meeting, November 9, 2013, Columbus, Ohio.*

Progress is nothing without relevance. We can't afford to change for the sake of change. That's where all of you come in. We need your continued feedback. Your input. A heads-up when something isn't working quite right. And an acknowledgment when things do work right wouldn't hurt. We need your partnership, which means talking about solutions, not just problems. To do that we need open, honest, productive,

and respectful discourse so we can continue to grow without losing what brought us to AMWA, what brought us together, in the first place.

I look forward to working with you, and to serving you, this coming year.

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Quarterly Update from the Medical Writing Certification Commission

By Karen Potvin Klein, MA, ELS, GPC

2012–2013 Chair, AMWA Medical Writing Certification Commission

The Medical Writing Certification Commission was established to initiate, evaluate, maintain, and oversee the credentialing program for medical writers. The commission seeks to represent the diversity that exists within the profession and serve as a voice for stakeholders who have an interest in maintaining high standards in medical writing.

Second item-writing session: Progress continues toward creating the first medical writing certification examination. Since the last report, a second item-writing session took place on September 26-28. The group met in Clearwater, Florida, at the office of our test vendor, Schroeder Measurement Technologies (SMT). Participants were Lori Alexander, Anne Dubois, Kelleen Flaherty, Tom Gegeny, Bart Harvey, Joan Lorenz, Kathleen Maguire (attended part of training via phone), Marianne Mallia, Susan Ventilla-Friedman, and Mary Ann Wojcik. Lauren Ero (AMWA staff) also attended.

The item-writers from our May and September sessions have now created and finalized 120 test questions, which are stored in the SMT secure online system. At this writing, another 40 to 50 questions remain in revision. Item-writers from the September session are continuing to review and approve questions through the SMT online system.

Eligibility criteria: The commission met by conference call on October 16 to discuss eligibility criteria for the examination. Their recommended criteria were submitted to the Executive Committee for review and comment during the annual conference in Columbus, Ohio. Briefly, candidates should have 2 years of experience as a medical writer, or the full-time equivalent number of hours of paid work as a medical writer. This experience would need to be documented as part of the materials submitted by candidates seeking to take the examination.

Policies and procedures: We continue the process of building the commission's administrative structure.

- We have begun creating a comprehensive Policies and Procedures Manual for the commission's use that will outline the processes needed to maintain a high-quality certification program. Examples of topics in the manual include the charge (tasks and responsibilities), adminis-

trative organization, and potential subcommittee structure of the commission, as well as procedural matters related to examination policies.

- We are also creating a candidate handbook, which will codify eligibility criteria for the examination, explain procedures, and provide guidance on preparing for the examination.
- Lauren Ero is compiling a repository of materials that serves two purposes. First, this series of materials (books, online sources, and the AMWA self-study module series) was used to verify test questions for the examination, so that each question has a credited source for documentation. Second, we envision that this material also could be helpful for prospective examination takers to prepare for the examination.

Timeline: The commission is revising the timeline for the examination creation process. The plan is to offer the examination at the 2015 AMWA Annual Conference. Stay tuned for future reports from the commission in this journal, the monthly AMWA Update, and on the AMWA website.

Commission leadership change: Astute readers of this column will note a difference in my term of office as chair of the commission. I am now president-elect of AMWA, and so we have made some changes in the leadership of the Certification Commission. Two current commission members, Tom Gegeny and Marianne Mallia have agreed to be co-chairs. Tom's term will run from December 2013 to December 2014, and Marianne's term will run from December 2013 to December 2015. However, the three of us have worked closely together on the commission for many months, so this change is not an abrupt one. As I have done for the past several years, I will be the liaison to AMWA's Executive Committee on behalf of the commission while I serve as president-elect. My deepest thanks go to Tom and Marianne for embracing the opportunity to carry on this very important work.

In closing, I would like to thank the dedicated members of the commission for their thoughtful guidance: David Clemow, Barbara Gastel, Tom Gegeny, Sue Hudson, and Marianne Mallia. Special thanks also to Lauren Ero and Susan Krug from AMWA headquarters; their steady support has been invaluable in our progress to date.

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ERIC W. MARTIN AWARDS: JANE BUCHWALD AND ELEANOR MAYFIELD, ELS

By Victoria J. White, MA, ELS

Editor, AMWA Journal

The Eric W. Martin Award honors excellence in medical writing; it is given in recognition of outstanding articles that were written and published by members of AMWA in the previous year. The 2013 winners are:

Jane Buchwald

Professional audience: [A Review of Unmet Needs in Obesity Management and Obesity Surgery](#). *Obesity Surgery* (March 2012).

Eleanor Mayfield, ELS

Public audience: [Myelodysplastic Syndromes](#). *Women* (Summer 2012)

I spoke with both winners to learn a little about who they are and what they do.

JANE BUCHWALD

Q: Where do you live and work?

A: I live in the bluff country of western Wisconsin, overlooking the Mississippi River, about 60 miles from my hometown of Minneapolis, Minnesota.

Q: What kind of work do you do?

A: The business I founded is called Medwrite Medical Communications. We're a 28-year-old nationally distributed medical-writing company with writers, statisticians, and editors. My company's work expanded gradually along the lines of my own areas of interest and based on the opportunities that came to us primarily through referral. We have worked in a variety of fields from implantable medical devices to gastroenterology, diabetes, obesity management, wound care, cardiology, cardiac rhythm management, pharmaceuticals. For the last 13 or so years, much of our business has focused on the bariatric surgery and obesity management field.

Q: Who are your audiences?

A: We specialize in writing and performing analyses for the professional medical audience, particularly surgeons. We've focused on developing expertise in the peer-reviewed article genre.

Q: How did you get started in medical writing?

A: I guess in one way or another, I've been interested in medical writing for a very long time. As a child, I watched



Jane Buchwald (left) receives her award from Deb Whippen, awards administrator. Photo by Picture America Event Photographers.

my mother—a writer, editor, and publisher—and my father, an academic surgeon, exchange ideas across their respective disciplines, something that clearly cross-pollinated their work and lives. I'm not very original—their conversations inspired me and I became interested in figuring out a way to keep both science and literature together in my own life in a future career. I had no idea how that might look.

During high school summers, I dabbled in my own prose writing, but I also worked in several surgical research laboratories. I kept thinking wistfully, "How can I get these interests squished together somehow so that I don't have to give up one in favor of the other?"

Q: What did you study in school?

A: At Macalester College in St Paul, Minnesota, I was an English major and on the pre-med track. I couldn't decide which way to jump. To prolong the indecision, I chose graduate school in English literature at the State University of New York at Stony Brook. It became really clear to me there that I needed to find a way to reconnect with science, and I took a leave from graduate school at the PhD candidate stage to take a stab at this strange new idea I had—medical writing.

Q: Are you involved in any associations other than AMWA?

A: In addition to AMWA, I'm also a member of COPE, the Committee on Publication Ethics. I'm a proud member of the International Federation for the Surgery of Obesity and Metabolic Disorders, otherwise known as IFSO. I look upon it as a second professional home for me; I've had the privilege of collaborating on a fair number of research manuscripts in this domain, and the organization has welcomed my participation as an invited speaker and postgraduate course director.

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Q: What do you do for fun?

A: I've been married almost 25 years to my wonderful husband, a statistician, and we work together often. We spend most of our free time with our four very different, interesting children and close extended family. We very much enjoy walking and running along the rolling terrain by the river, playing with our dogs, and enjoying the wildlife and quiet of the countryside around us. I love to write, read, travel, and plan compelling writing projects.

Q: Thank you again and congratulations.

A: I would like to have the chance to thank AMWA for the honor of the Eric W. Martin Award. In particular, I want to express my gratitude to AMWA for making it their mission to work so consistently and thoughtfully over the long term to establish an ethical writing and publication standard, as well as guidelines for excellence in medical writing. These things clearly benefit everybody in scientific communications and medicine, but are especially beneficial to patients—that is, all of us. As we are all patients at one time or another, medical writing is important work.

I would also like to thank AMWA expressly for working to break down the barriers to acceptance of medical writers and statisticians as fully credited publication contributors. That is a truly valuable AMWA achievement; in addition to creating a more transparent and fair professional environment, this accomplishment works to reduce bias and thereby improve the quality of the medical literature. I give my sincere thanks and respect to those who have worked for these worthy aims through AMWA.



Deb Whippen (right) with Eric W. Martin Award winner Eleanor Mayfield.
Photo by Picture America Event Photographers.

ELEANOR MAYFIELD, ELS

Q: Where do you live and work?

A: I've lived in Pittsburgh, Pennsylvania, for 9 years. Before that we lived in Maryland, outside of Washington, DC, for 14 years. I began freelancing when we were living in Ann Arbor, Michigan. I've been an independent medical writer for nearly 25 years now in three different states.

Q: What kind of writing do you do and for what kind of audiences?

A: When we lived in Maryland, I sort of fell into the government contracting niche, working for federal agencies, either directly or indirectly through federal contractors, doing a lot of different types of writing, mostly for the National Institutes of Health and the other Public Health Service agencies. I've continued to work for a number of federal clients although I no longer live in the DC area. I also do magazine writing. Other clients over the years have included hospitals, medical research organizations, health care professional societies, and patient advocacy organizations. Another aspect of my work is substantive editing, or what I sometimes call reconstructive editing, in which I start with a document that's very badly written and organized, take it by the scruff of the neck and completely rework it to make it readable.

Q: What do you especially like to do professionally?

A: I get a lot of satisfaction out of consumer health writing. I hope that what I'm writing will help people to be more empowered in their own health care decision-making. I like to feel I'm contributing to helping people have a little bit more control over their health care lives.

Q: How did you get started in medical writing?

A: My first couple of jobs were in newspapers. I was a reporter, then a copy editor and a feature writer in a couple of different places. My professional interest in health care began as a reporter when I had the opportunity to do some reporting about health care issues. I eventually had the opportunity to move into a health care media relations position. I strengthened my knowledge about health care through doing that job for several years. So when I decided to go out on my own, focusing on health and medicine was kind of a natural direction to go in.

Q: You've been involved with AMWA for years, as a member (since 1989) and a workshop leader. Are you involved with other professional societies or groups?

A: I belong to the American Society of Health Care Journalists, BELS (Board of Editors in the Life Sciences), and the Editorial Freelancers Association. I consider AMWA my primary professional association.

Q: What do you think belonging to AMWA has done for you? Why have you kept up with it all these years?

A: Networking, contacts, and professional development. I have gotten work through people I've met through AMWA. I've made friends through AMWA. I've been involved in AMWA at the chapter level. I was in leadership positions in the Mid-Atlantic Chapter when we were living in Maryland. I don't have a formal title now, but I'm involved in the local subgroup of the Ohio Valley Chapter here in Pittsburgh. I've always found the people that I've met through AMWA to be

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people I've felt very much in sync with. Most people you meet, you say you're a medical writer and they sort of look at you blankly and say, "Huh? What does that involve?" This happened to me just this morning, actually. It's one of the things that's nice about AMWA: Even though people in AMWA do a lot of different things, there is overlap, and we all kind of understand to some extent what we do better than other people do.

Q: Any hobbies or anything you like to do for fun?

A: My husband and I ride a tandem bicycle and like going on bicycling vacations. This past summer we were in southern France on a trip that turned out to be rather more rugged than we had expected, but it was a beautiful part of the world to be in. The previous summer, we went on a bicycling tour of Prince Edward Island in eastern Canada. We've also cycled in Austria, the Netherlands, and Ireland. It's a good way to visit different places, see the countryside, and get some exercise at the same time.

Q: Congratulations on the award from AMWA. You won another recently too, I understand.

A: It's turned out to be quite a year, really. I was very gratified to win the Eric Martin Award, obviously. And my article "Genetic Abnormality Predicts Treatment Benefit for Patients with Rare Brain Tumor," published in the *NCI Cancer Bulletin*, received an Award for Excellence in the health and medical writing category in the 2013 APEX Awards for Publication Excellence.

The members of the 2013 Eric W. Martin Award Committee were: Norman Grossblatt, ELS(D) (chair); Leslie E. Neistadt, ELS; Theresa E. Singleton, PhD; and Christine F. Wogan, MS, ELS.

PRESIDENT'S AWARD



AMWA's 2012–2013 President Douglas Haneline, PhD, with Elaine Crabtree, MA, ELS, the 2013 recipient of the AMWA President's Award. The award is given to a member for distinctive contributions to the association. To be eligible, the recipient must have been an AMWA member for 10 years and cannot have served on the Executive Committee. Elaine, a senior medical writer with inVentiv Health, has volunteered for nearly every leadership position in the Indiana Chapter since 2000 and has also served as a proofreader for the AMWA Journal. "Her volunteer spirit is truly exceptional and serves as a model for other members," Haneline said in presenting the award at the annual conference in Columbus, Ohio. Photo by Picture America Event Photographers.

THREE MEMBERS WIN PRESTIGIOUS AMWA FELLOWSHIPS

By Melanie Fridl Ross, MSJ, ELS

Chair, 2013 AMWA Fellowship Committee

AMWA's members make innumerable contributions to the organization and to the profession of medical writing. Each year, AMWA Fellowships are presented to up to three members whose efforts have significantly influenced the goals and activities of AMWA, and whose professional accomplishments have earned them recognition from their peers. To be eligible for an AMWA Fellowship, candidates must be active members in good standing for at least 5 consecutive years immediately before they are nominated. This year, the AMWA Fellowship Committee selected three members for consideration by the Board of Directors. This year's recipients embody AMWA's spirit of service and have contributed toward the organization's vision and goals for many years. We are grateful for the difference they have made.



Three AMWA Fellowship winners from left: Anne Marie Weber-Main, PhD; Jennifer Grodberg, PhD, RAC; and Jude Richard, ELS. Photo by Picture America Event Photographers.

JENNIFER GRODBERG, PhD, RAC

Jenny has more than 19 years' experience in the pharmaceutical industry. She serves as senior director of regulatory affairs at Trius Therapeutics, a wholly owned subsidiary of Cubist Pharmaceuticals Inc. Jenny joined AMWA in 1996 and has been an active member ever since. She has been involved as a workshop leader, open session moderator, or open session speaker at every AMWA annual conference since 2003, and served on the Executive Committee as annual conference workshop coordinator for the 2011 and 2012 conferences. Jenny also has served her local Pacific Southwest Chapter in a variety of leadership roles, most notably as the 2011–2013 chapter president. In addition, she was co-chair of the 2013 Pacific Regional Conference Organizing Committee and was the 2013 Asilomar Conference co-director.

JUDE RICHARD, ELS

Jude Richard has been a medical editor and writer since 1990. His contributions to AMWA have ranged from serving as a Department of Awards trade books judge to president of the Southwest Chapter. Jude has twice served as the Southwest Chapter's secretary. He has been actively involved in AMWA annual conferences in a variety of educational and leadership roles. He has been an annual conference workshop leader and roundtable leader on many occasions. In 2011, he was the annual conference klatch coordinator, an open session moderator and speaker, a workshop leader, and a roundtable leader. Jude has served as a peer reviewer and manuscript editor for the *AMWA Journal*.

ANNE MARIE WEBER-MAIN, PhD

An AMWA member since 1998, Anne Marie has been actively involved at the chapter and national levels. A peer reviewer for the *AMWA Journal*, she also has served as a manuscript editor and has participated as a member of the Editorial Board. She was instrumental in helping to select the new *AMWA Journal* editor as a member of the search committee.

Anne Marie has made substantial contributions to the Executive Committee through her role in leading the Department of Publications, twice. Within the North Central Chapter, she served as president from 2005 to 2006 and was a member of the Program Planning Committee from 2005 to 2012. She has been an annual conference workshop leader, has presented at conference open sessions, and has coordinated poster presentations for the meeting. In addition, Anne Marie has been a member of the Education Committee and the Chapters and Membership Committee.

The 2013 Fellowship Committee members included Larry Liberti, MS, RPh, Donna Miceli, Sharon Nancekivell, MA, and Victoria White, MA, ELS.



2013-2014 EXECUTIVE COMMITTEE

President: Brian Bass is an award-winning medical writer with 34 years of professional writing experience. He has specialized in medical communications for 28 years and has been a full-time freelance medical writer for 24 years. Brian's company, Bass Global Inc, is a medical communications content development company that provides medical writing and editing services to medical communications and education companies and medical advertising agencies. A member of AMWA since 1994 and an AMWA Fellow since 2001, Brian has served on the national level as president-elect, administrator of the annual conference for Sacramento, and administrator of special projects. He has been a workshop leader and open sessions presenter, and has chaired and been a member of numerous committees. At the chapter level, Brian is a past president of the Delaware

Valley Chapter, and he served as the chair of the Princeton Conference for the past 16 years. Coauthor of *The Accidental Medical Writer*, Brian spends much of his free time giving presentations and writing books, a monthly newsletter, and other resources for people who want to launch and build their own successful freelance businesses. He loves to read, attend any type of live music concert, and occasionally sleep.

President-elect: Karen Klein, MA, ELS, an AMWA member since 1989 and Fellow since 2006, is the director of grant development and medical editing in the Translational Science Institute at Wake Forest University Health Sciences in Winston-Salem, North Carolina. Karen was secretary in 2011-2012 and has previously served on the EC as adminis-



The 2013-2014 Executive Committee (back row from left): Deborah Whippen, Nick Sidorovich, Lori Alexander, Kristina Wasson-Blader, Scott Kober, Cyndy Kryder, and Hilary Graham; (front row from left): Susan Krug (executive director), Douglas Haneline, Karen Klein, Brian Bass, Christine Wogan, and Stephen Palmer. Photo by Picture America Event Photographers.

trator of special projects/communications, annual conference workshops, publications, and public relations. Most recently, she was chair of the Medical Writing Certification Commission from 2012 to 2013, and remains the liaison to that group on the Executive Committee. She has led workshops, roundtables, open sessions, and coffee klatches at AMWA annual conferences. Karen has served as chair and member of numerous committees and task forces and has been published in the *AMWA Journal*. She earned the Editor in the Life Sciences designation from the Board of Editors in the Life Sciences (BELS) in 1991 and the designation of Certified Grant Professional in 2008 (successfully recertified in 2011). When not meeting grant deadlines—and to recover from them—she practices Bikram yoga, follows the Carolina Hurricanes with her son Ben, and chips away at the eternal reading list generated by her husband, Scott, an English professor at Wake Forest. She is honored and excited to serve as president-elect.

Immediate Past President: Douglas Haneline, PhD. A career teacher of literature and writing, Doug taught at four different universities starting in 1971. He finished his academic career at Ferris State University in Michigan, where he taught from 1984 until 2013, when he retired. He taught research writing, advanced composition, medical writing, science fiction, American and British literature, and introductory Latin. Doug is a doctoral graduate of Ohio State University, with prior degrees from Middlebury College and the University of Delaware. Doug has been an AMWA member since 1986 and a Fellow since 1992. Doug has been AMWA president, president-elect, and secretary, and administrator of awards, education, and the annual conference. He has chaired numerous committees and task forces and also served as president of the Michigan Chapter. Outside of AMWA, Doug served on the Michigan Humanities Council, the state affiliate of the National Endowment for the Humanities. He was a peer reviewer for the Higher Learning Commission, an accrediting agency for academic institutions. He continues to work as a freelance writer and editor.

Secretary: Stephen (Steve) Palmer, PhD, ELS, is an author's editor in the Section of Scientific Publications at the Texas Heart Institute in Houston, Texas. After earning his doctorate in social and health psychology at SUNY Stony Brook in 1999, Steve moved to Houston to conduct pain research as a postdoctoral fellow at the MD Anderson Cancer Center. He joined AMWA in 2002 and became a full-time medical writer at the Texas Heart Institute in 2003. Steve has served the Southwest Chapter in several capacities, including president, chapter delegate, and coordinator of the chapter's biannual conference. Steve is now serving as AMWA secretary for a second year; his previous EC positions were administrator of chapters, chapters and membership, annual conference, and awards. He has also served

on the Membership Committee, and the Constitution and Bylaws Committee. He has been a judge for the Medical Book Awards and coordinator for poster presentations at the annual conference. He has also authored three articles published in the *AMWA Journal*. In his spare time, Steve embraces a variety of hobbies, which currently include cycling, knife throwing, and cheese making.

Treasurer: Christine F. Wogan, MS, ELS, is a publications program manager at MD Anderson Cancer Center, where she provides a “one-stop editorial shop” for clinicians, scientists, and trainees in radiation oncology, physics, and biology. Her previous experience includes having a freelance grant-preparation business in the greater Boston area and being an experiment support scientist and later a senior scientific editor at NASA's Johnson Space Center. She holds a BA in biology from Swarthmore College and an MS in human physiology from the University of Houston at Clear Lake. An AMWA member since 1989, Chris received AMWA's President's Award for exceptional and devoted service in 2010 and was named a Fellow in 2012. She was AMWA's administrator of awards in 2010–2011 and also has served on the Budget and Finance Committee. For the Southwest Chapter, she has been director-at-large, treasurer, president, and immediate past president. She also has been active with AMWA annual conferences on the planning committee and as a workshop leader, open session panelist and moderator, and roundtable leader. She earned the Editor in the Life Sciences designation from BELS in 1991 and is also a member of the Council of Science Editors. In her spare time, Chris is an avid reader, hiker, downhill skier, and devotee of Asian cuisines. Though still a dyed-in-the-wool liberal Yankee at heart, after 25 years in Houston she reluctantly admits to a fondness for country music but still prefers traveling to cold climates.

Administrator of the Annual Conference: Lori Alexander, MTPW, ELS, is annual conference administrator for the second consecutive year. She joined the EC last year after serving for 10 years as the *AMWA Journal* editor, a position she was genuinely honored to hold. She is president of Editorial Rx, Inc, an independent medical writing and publishing company. Lori has more than 25 years of experience in medical communication, first as a medical editor at Lahey Clinic and at the *Journal of Bone and Joint Surgery*, and then as a writer and editor in the Publications Department at the American Society of Clinical Oncology. A member of AMWA since 1998, she is a past president of the Florida Chapter and coordinated several chapter conferences for both the Mid-Atlantic and Florida chapters. She has been a member of numerous AMWA committees, including the Job Analysis and Item Writing committees supporting the development of AMWA Medical Writing Certification. She has contributed to the annual conference as a roundtable leader, open

session moderator and speaker, and workshop leader. She was recognized with the AMWA President's Award in 2009, AMWA Fellowship in 2010, and a special award for her service to the *AMWA Journal* in 2012. She graduated from the University of New Hampshire with a degree in English (concentration in journalism) and earned a master's degree in technical and professional writing at Northeastern University in Boston. A Massachusetts native, she enjoys Florida living now, although she still roots for her "home teams." Lori's passions are humor, live theater, travel, seasonal decorating, penguins...and AMWA.

Administrator of Awards: Hilary Graham, MA, is a medical writer at INC Research in Austin, Texas. Previously, she spent nearly 5 years at MD Anderson Cancer Center writing a variety of science-related materials, including grant applications, manuscripts, press releases, feature articles, and website content. She has a bachelor's degree in biochemistry from the University of California, Davis, and a master's degree in cell and molecular biology from University of Texas at Austin. She is working toward a doctor of philosophy in technical communications and rhetoric at Texas Tech University. She has been an AMWA member since 2009. Serving on the Southwest Chapter leadership since 2010, she is currently chapter president and 2014 chapter conference coordinator. Her previous chapter roles include: program chair, assistant program chair, chapter communications coordinator, and 2012 chapter conference coordinator. At the national level she has served as a chapter delegate, Facebook administrator, LinkedIn administrator, and editor for the *AMWA Journal's* Around the Career Block section. She has co-taught the Molecular Biology workshop at two national conferences and led open sessions.

Administrator of Chapter Relations: Nick Sidorovich, MEd, is president of Rolling Hill Media, LLC, a medical communications company based in Chatham, New Jersey. An AMWA member since 2009, Nick has served as a workshop leader, poster presentations coordinator, Website Advisory Committee member, co-chair of the Princeton Conference, Freelance Conference roundtable leader, and writer for the Media Reviews section of the *AMWA Journal*. He was a pre-med student at New York University, then received his MEd in exercise physiology from Queens College of the City University of New York and completed doctoral level coursework in health education at Teachers College of Columbia University. Formerly an independent fitness consultant, Nick ultimately assumed staff positions managing employee wellness programs at Paramount Communications and, later, Bristol-Myers Squibb. His exposure to the entertainment industry while at Paramount rekindled his love of movies and writing. He has penned numerous screenplays and earned awards in several screenwriting competitions. He was hired to write *The Miracle of*

Santa Rosa for a former Miramax executive. This film is currently in development as are other screenplays that he has written. Nick taught screenwriting at Fairleigh Dickinson University and enjoys working on both multimedia and print projects. He is also a songwriter and plays guitar, bass, and drums in his church band. An avid outdoorsman, Nick volunteers with the Boy Scouts of America at the local and district level and is looking forward to backpacking through the High Sierras with his son, Matthew.

Administrator of Education: Scott Kober, MBA, CCMEP, is senior director of educational design at the Institute for Continuing Healthcare Education, an accredited provider of continuing medical education in Philadelphia, Pennsylvania. Scott earned a BA in journalism from Syracuse University in 1996, a certificate in biomedical writing from the University of the Sciences in Philadelphia in 2006, and graduated with an MBA from Drexel University in 2012. Scott worked for newspapers in Arizona, Illinois, and Delaware before transitioning into health care writing and, later, medical education. He is a regular presenter at both local and national AMWA meetings, as well as the national Alliance for Continuing Education in the Health Professions conference. Scott has been an AMWA member since 2006 and last year chaired the New Education Products Subcommittee. He also moderated AMWA's first-ever Google Hangout On Air in October. Scott spends his free time with his wife and 2-year-old son, serves as a volunteer tour guide in Philadelphia's Independence National Historic Park during the summertime, and cooks lavish dinners year-round.

Administrator of Member Resources: Cyndy Kryder, MS, CCC-Sp, has worked in the field of health care in some way ever since she earned her master's degree in communication disorders and launched her first career as a speech-language pathologist, working primarily in pediatric rehabilitation. Cyndy transitioned to full-time freelance medical writing 22 years ago, thanks to her mentor, AMWA Fellow Donna Miceli. An AMWA member since 1993, Cyndy has served as editor of the Social Media section of the *AMWA Journal* for the past 5 years. She is past president of the Delaware Valley Chapter, has been an open sessions and roundtable presenter, and chaired the Nonphysician Book Awards Committee in 2012 and 2013. Cyndy currently writes promotional, educational, and scientific pieces for professionals and lay audiences in a number of different therapeutic areas and for a wide range of media. She also assists companies in their publication-planning efforts. Coauthor of *The Accidental Medical Writer* and author of *Nude Mice and Other Medical Writing Terms You Need to Know*, Cyndy enjoys developing resources for both new and experienced medical writers. An avid reader of fiction and nonfiction, Cyndy is an active member of two book clubs. In her rare spare moments, she shops for shoes with her two twenty-

something daughters, weeds her large perennial garden, and teaches quilting to beginning quilters at a local studio.

Administrator of Online Community: Kristina (Tina) Wasson-Blader, PhD, ELS, is a technical writer at the University at Buffalo and owns Clearly Communicating Science, LLC. In both roles, Tina helps research scientists write grant proposals and peer-reviewed manuscripts. After earning her doctorate in biology from the University of Alabama at Birmingham in 1998, she moved to Palo Alto, California, to conduct research in reproductive biology as a postdoctoral fellow at Stanford University. Tina joined AMWA in 2002 and transitioned to medical communications full-time as a freelance while living in Oklahoma. She is a past president of the Southwest Chapter. On the national level, Tina was on the Publications Committee and contributed to the *AMWA Journal* as an editor of the Professional Development section and annual conference open session reports. She was the administrator of web and information technology for 1 year and is beginning her second year as administrator of online community. Now living in western New York, Tina is looking forward to learning snowshoeing and cross country skiing.

Administrator of Publications: Deborah Whippen has an extensive history of overseeing medical journals and leading publication efforts at nonprofit organizations. She currently is vice president of Editorial Rx, Inc, a small medical writing and publishing company located in northern Florida, where she manages publications projects and journals, develops electronic applications, oversees educational materials, and is a continuing medical education consultant. Deb specializes in working with organizations whose missions involve the improvement of health care through educational and technologic means. Deb has been a member of AMWA since 1989 and has served on the Public Relations and Publications committees, as president of the Florida Chapter, and as chapter delegate. She enjoys making regular contributions to anysoldier.com, and loves her family life (which includes rescue cats Grayson and Ellie), Florida, the ocean, words, the wind, and needlepoint.