

Newsletter

IEEE Professional Communication Society

IEEE Tops 300,000 Mark in Total Membership

Institute is World's Largest Technical Professional Organization

The Institute of Electrical and Electronics Engineers, Inc. (IEEE) has surpassed the 300,000 member mark. According to IEEE 1988 President Dr. Russell C. Drew, the Institute's membership as of December 9, 1988 stood at 300,226—more than twice the size of the next largest engineering society. The IEEE, with headquarters at the United Engineering Center in New York City, is a transnational organization with members in more than 130 countries involved in advancing the theory and practice of electrical, electronics and computer science and related arts and sciences.

"Surpassing the 300,000 level in total membership marks a major milestone for the IEEE," said Dr. Drew. "Since the formation of the IEEE in 1963 from

(continued on page 14)

Inside

From the Editor	2
Tools of the Trade	6
PCS Newsletter—"New Look"	7
Write It Right!	8
Words I've Grown to Hate	10
IPCC '88 Memories	12
Leadership	17

CommuGuide Booklets Available for Purchase

The Institute of Electrical and Electronics Engineers Professional Communication Society CommuGuide Booklets contain practical, step-by-step guidance, written in understandable layman's language, ready for easy application to your individual communications needs. Booklets now available for purchase are:

How To Publish An Anthology—Booklet No. 1 (THO148-7)

How To Write An Invention Disclosure—Booklet No. 2 (THO149-5)

Additional titles will be published each year. You may purchase CommuGuide Booklets at \$5.00 per copy, including postage and handling. Maryland residents should add 25 cents for 5% MD sales tax; New Jersey residents, 30 cents for 6% NJ sales tax. Mail your orders, accompanied by check, made payable to IEEE PCS, to:

Lois K. Moore
Series Editor
The Johns Hopkins University
Applied Physics Laboratory
Laurel, Maryland 20707

OR

IEEE Service Center
Cash Processing Department
445 Hoes Lane
Piscataway, New Jersey 08854-4150



From the Editor . . .

Start packing your bags now for Garden City, New York, site of IPCC '89. From all the preliminaries, it looks like a winner!

Wearing my IPCC '89 Exhibits Chairman's hat, I recently visited our 1989 conference site, the Garden City Hotel, for an on-site check. I was duly impressed.

My excursion began on the Long Island Railroad. The trip from New York City was a quick 35 minutes. Best of all, the hotel is across the street from the Garden City train station.

We couldn't have a better setting for IPCC '89. The hotel is small, quiet, and well appointed. The hotel also has a pool and fitness center. The exhibits will be held in the Cotillion Room, perfectly sized to provide the hustle and bustle that a good exhibits session should have.

If you know of any potential exhibitors, please have them contact me soon—I'm sure we'll have lots of takers given the location of IPCC '89. I can be reached at (201) 953-7098 (Days) or (201) 755-0365 (Evenings).

On another note, we'll be expanding the publication frequency of the *Newsletter* to five issues in 1989 and to six issues in 1990. I would appreciate your suggestions as to how we might improve the *Newsletter*. We are also sponsoring a student contest to redesign the *Newsletter*. Look inside for details!



Newsletter Deadline

Articles, news and comments for publication must reach the editor by the following dates:

Issue	Deadline
June	April 21
September	July 21
November	September 22

Send your contributions to Deborah Flaherty Kizer, AT&T-International, 1200 Mt. Kemble Avenue, Room A2B19E, Basking Ridge, NJ 07920.



Come To Order

When your role on a corporate or volunteer board requires you to preside over a formal meeting—the kind where you take the floor, make and debate motions and take minutes—you may need a crash course in parliamentary procedure. Gloria W. Resnick, a professional registered parliamentarian who trains people in meeting procedures, has boiled down the basics into a pamphlet, "The Meeting Manager: A Guide for Business Meetings Based on *Robert's Rules of Order*." You can order a copy of the pamphlet for \$2.00 postpaid (quantity discounts available) by sending a request to The Meeting Procedures Co., 27500 Cedar Road, #203, Cleveland, OH 44122 or by calling (216) 464-1514.



IEEE Professional Communication Society

Officers

James Hill, **President**
Rudy Joenk, **Vice-president**
Nancy Corbin, **Secretary**
William Kehoe, **Treasurer**

Staff

Deborah Flaherty Kizer, **Editor**

IEEE Professional Communication Society Newsletter is published five times a year, January, March, June, September and November, by the Professional Communication Society of the Institute of Electrical and Electronics Engineers, Inc., 345 E. 47th St., New York, NY 10017. One dollar per member per year (included in Society fee) for each member of the Professional Communication Society. Printed in U.S.A. Second-class postage paid at New York, NY, and at additional mailing offices. Postmaster: Send address changes to IEEE Professional Communication Society Newsletter, IEEE, 445 Hoes Lane, Piscataway, NJ 08854.

Editorial correspondence: AT&T-International, 1200 Mt. Kemble Avenue, Room A2B19E, Basking Ridge, NJ 07920. Articles, letters, and reviews from readers are welcome.

Les Mots "Injustes," or Words That Are Not Words

Suffixes such as *-ize* and *-ness* are seemingly almost magical to many in the military and high technology. Add one of them to any word or even acronym and—presto!—you've got a new verb or noun. The trouble is that these new formations are not words.

Intel Corp., Santa Clara, CA, is guilty of two egregious examples of this philosophy in action. When it brought out its 80386 chip, it began to talk about *80386-ization*—the incorporation of the 80386 into products. More recently, a June 27 *Electronic Engineering Times* article on Intel's decision to shut down its application-specific IC products group mentioned the "migration of 'ASIC-ness' throughout the company."

Most engineers know what an ASIC is, but just what is ASIC-ness? An Intel spokeswoman was not really sure but thought that it was probably "the ability to improve Intel's standard products with knowledge gained from producing ASICs." She added helpfully, "It's a way of *ASIC-izing* our method of design and production."

Such words appear to be a by-product of *productization*—turning an idea or concept into a product. *Technically Speaking* first heard of this word when a spokesman for General Electric's Calma Co., in Milpitas, CA, told an *IEEE Spectrum* editor that the company had no plans to productize a piece of software.

Some of the best examples of this penchant for creating "words" can be found in military documents. Standouts found by the technical-editing departments of one Government contractor include: *roadability*—an object's ability to stand up to road travel; *devanition*—the removal of an object from a van in which it has been transported; and *nomenclatured*—named.

Engineers usually take great pains to use the correct technical terms. If only they were as vigilant about using the English language correctly. . .

The Name Is The First Thing To Go

When a company wants to lay claim to something, it displays its name prominently on the object. General Electric Co., Fairfield, CT, says that it is merely following this logic in renaming one of its recently ac-

quired buildings. The building in question, however, already has a company name associated with it: RCA Corp.

GE, though, having bought RCA in 1986, has taken over the lease on the skyscraper at 30 Rockefeller Center in New York City, which has been known as the RCA Building since it was built in 1932. To reflect the building's new ownership, said a GE spokesman, the company has decided to call it the GE Building.

When GE acquired RCA, however, it bought not an electronics company but an institution. The RCA Building, as part of Rockefeller Center, was declared a New York City landmark in 1985 by the city's Landmarks Preservation Commission, with special recognition given to its distinctive architecture and history. Today, the building houses the headquarters of the National Broadcasting Co., which as a part of RCA was also acquired by GE.

GE's lease on the RCA Building allows the company to determine the name, landmark or not. All the same, according to Lillian Ayala, the landmarks commission's director of public affairs, no one may change the building's facade without first submitting a petition to the landmarks commission, which would then hold a public hearing. GE will soon submit the paperwork required to let it replace all RCA signs on the building, including the neon one on top, the GE spokesman said.

Whether many people will refer to the building any differently remains to be seen, the spokesman said. If people are to call the building anything other than the RCA Building, its popular nickname—30 Rock—seems more likely to stick. That may be fortunate because GE's New York City headquarters at 570 Lexington Avenue is also known as the GE Building.

Since GE is willing to rename a historic landmark to proclaim its ownership of RCA, one wonders just how far the company will go. Will Radio City Music Hall, also part of Rockefeller Center's Radio City complex, be rechristened the GE Music Hall? Will all of Radio City be turned into GE City? Is even Nipper, RCA's trademark of a cock-eared dog listening to "his master's voice," safe?

—Reprinted from *IEEE Spectrum*, September 1988



IEEE, IEE and UMI Join Forces

The Institute of Electrical and Electronics Engineers, Inc. (IEEE), the London-based Institute of Electrical Engineers (IEE), and UMI (University Microfilms, Inc.) of Ann Arbor, MI have entered into a joint agreement to create and test a CD-ROM image database system for IEEE and IEE publications issued from January 1988 onward.

The ultimate aim of the test program, called IEEE/IEE Publications Ondisc (IPO), is to serve the organizations' members better by making a complete source of annual publications available in an easily accessible form. On as few as 25 to 30 CD-ROM discs, the entire collection of IEEE and IEE 1988 journals and conference records/proceedings, IEEE 1988 magazines, plus a complete set of IEEE standards—a total of about 200,000 pages of text—can be stored. New 1989 information will be added to the test as it is published. The IPO program enables users to call up information quickly by subject or author, using INSPEC searching terms, and obtain exactly the information they need.

The 12 corporate, university, and government library test sites selected for the experiment include: Polytechnic Institute, New York City; University of Michigan, Ann Arbor, MI; University of Illinois, Urbana, IL; Stanford University, Stanford, CA; National Institute of Standards and Technology, Gaithersburg, MD; Naval Research Laboratory, Washington, DC; General Electric Company, Schenectady, NY; Xerox Corporation, Webster, NY; Hughes Aircraft Company, El Segundo, CA; Hewlett-Packard Company, Palo Alto, CA; Imperial College of Science and Technology, London; and GEC Hirst Research, Wembley, Middlesex, England.

UMI is responsible for encoding the literature on CD-ROMs, and is also providing the workstations and software for the search and retrieval of documents for the "user-friendly" systems. CD-ROMs of IEEE's and IEE's information are supplied, one CD-ROM for searching indexes and abstracts and others for images of published pages. Both IEEE and IEE maintain their ownership of their respective materials. Facsimile copies of the articles can be printed out on laser printers.

The experiment is designed to provide data on how practical and marketable the use of CD-ROM technology is as an alternative means of supplying technical information. Information on user patterns—both the frequency of use and the types of material re-

quested most often—will be examined, as will the differences in use at the university, government and business levels. Reactions to various pricing strategies for the system will also be explored. After the experiment has continued for six months, all results will be analyzed while the program continues. By the fall of '89, based on the program's findings, decisions will be made regarding the project's future.

It is estimated that less than 200 places in the world have all the documents contained in this experiment, while at least 15,000 libraries will have some of it. CD-ROMs, with their large storage capacity, could be issued every couple of weeks and contain whatever was published during that time. In concept, each library or information center could have a one-of-everything CD-ROM service. This might be of particular interest to individuals and organizations overseas where airmail service of publications is very expensive.

Both the IEEE and IEE are prolific publishers of technical literature; between the two institutes, they account for between one-quarter and one-third of the world's literature on electrotechnology. The IEEE is the world's largest technical professional organization, with over 300,000 members in more than 130 countries.

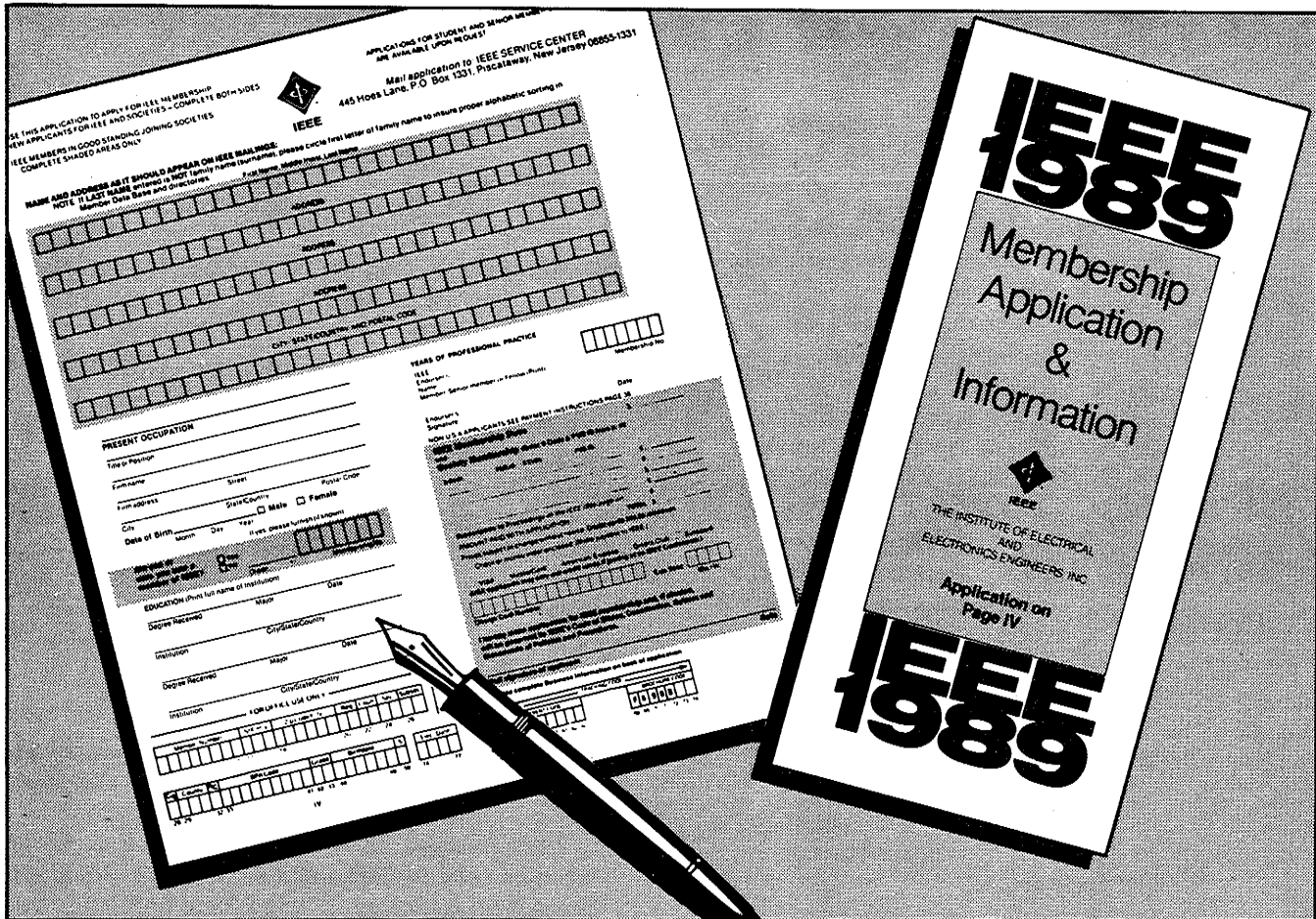


New USAB Publication

The 1988 IEEE U.S. Member Opinion Survey is available for sale. This comprehensive survey, conducted under the auspices of the USAB Opinion Survey Committee, focused on such topics as standards for membership in the profession; the condition of the profession; personal computers in the workplace; the influence of technology on public welfare; IEEE services; IEEE government; and demographics.

Copies of the report are available from the IEEE Service Center in New Jersey, (\$5.00 member, \$7.50 non-member), telephone (201) 981-1393. Please specify IEEE Catalog Number UH0179-2. Two related documents, "Comments on the Survey," written by the Opinion Survey Committee, and "Written Comments from the Respondents: A Compendium," are available free of charge from the IEEE-USAB Washington Office.





How would you like to write your own success story?

Discover IEEE... the professional society that will not only serve your intellectual and business needs, it will be the *single* most vital source of technical information and professional support to you throughout your entire working career.

Located in over 20,000 establishments throughout the world—including 50,000 members in 412 of the Fortune 500—The Institute of Electrical and Electronics Engineers, Inc. represents the largest *single* concentration of scientific/engineering professionals in the high technology field—over 300,000 members worldwide.

IEEE operates worldwide through 36 technical societies organized in hundreds of local chapters. We can put you in touch with a chapter near you.

Simply fill in the coupon below.

FOR A **FREE** IEEE MEMBERSHIP INFORMATION KIT USE THIS COUPON.

Name _____
 Title _____ Phone _____
 Firm _____
 Address _____
 City _____ State/Country _____ Postal Code _____

MAIL TO: IEEE MEMBERSHIP DEVELOPMENT
 The Institute of Electrical and
 Electronics Engineers, Inc.
 445 Hoes Lane, P.O. Box 1331
 Piscataway, N.J. 08855-1331, USA
 (201) 562-5524



Tools of the Trade

Secrets of the Great Communicators Part 3: Commitment



Cheryl Reimold is author of more than 100 articles and several books, including How To Write a Million-Dollar Memo and Being a Boss. Her firm, PERC Communications (6A Dickel Rd., Scarsdale, NY 10583, telephone (914) 725-1024), offers businesses in-house workshops and courses in communication, writing, negotiation, and creative problem solving.

In the past two columns, I've discussed two "secrets" of great communicators: passive interaction with others and seeing the "gold" in others. I've focused on the attitude to the listeners or readers because I believe *attitude*, not masterful use of language or powerful delivery or personal charisma, distinguishes great communicators from others.

A "great communicator" inspires people to change (to try a new method, work harder on a project, or support a proposal). How does he do it? He learns about people by listening to them, really listening. He can then speak to their concerns and interests. He encourages them, helps them discover their capabilities by seeing them himself. And he motivates them to follow his ideas by *proving his own commitment* to both his message and his listeners.

Knowledge and Enthusiasm Aren't Enough

I once had a geology professor who was a major figure in his field; if it was part of the Earth, he knew about it. Like many other humanities majors, I had signed up for geology because I needed a science course to graduate. I had chosen geology because I thought it exciting to learn about the beginnings and formation of our earth. My interest was philosophical, although I was willing to study the physical details to the best of my ability.

But this professor didn't suffer fools gladly, and, to him, that's what you were if you didn't love geology about all else. He lectured excitedly about details that would fascinate geologists, but he never considered

what might be meaningful to the rest of us. He knew his field and was enthusiastic about it, but he was a disastrous communicator. He was not sensitive to his students' interests and did not see anything worth salvaging in those of us who did not share his tectonic obsession. He ruined geology for me forever—to say nothing of my grade average!

I have a friend who writes and speaks beautifully. He has a deep, musical voice and "stage presence." He is well-educated and comes from a famous family. He can be amusing, entertaining, charming, and, initially, persuasive. But this friend's commitment is only to himself and his own advancement. Like the professor, he is not interested in other people. And, although they find him intriguing at first, people soon realize that they don't really matter to him. Despite his good looks, quick mind, mellifluous voice, and effective use of words, he does not manage to persuade others to follow his ideas. In his career, he has not advanced as far as he and many others thought he would go.

Get Credibility Through Honest Commitment

I know someone else who does not have either of these men's advantages. Bill is short, stocky, and by no means commanding. He does not have a famous name or a high degree. His words tumble over each other when he gets excited about something, and it is sometimes hard to figure out what he is trying to say. Bill's language and style could certainly use some streamlining, but Bill is a great communicator.

I met him when he was running an educational program that we were considering for our son. We were not at all sure that this was the program we wanted, but Bill convinced us that it was. He listened to our concerns and spoke to each one of them. If he couldn't meet a request, he said so honestly and promised to do what he could to accommodate us. And when he said that, he kept us informed of what he was doing; we didn't have to call him.

Bill asked us what we would like to see in the program. If we made a suggestion that he thought might be beneficial, he did all he could to implement it. He started projects on his own.

Bill was committed to the program and the people—parents and children—involved in it. His commitment showed in his actions: his efforts to try our suggestions, the extra hours he put into finding new projects for the program, the time he always had for us and our child. Bill developed an excellent program and has since advanced rapidly in his career.

Great communicators are committed. If they make promises, they keep them. If they say they will get back to you, they do. They think first about the people to whom they're speaking. They listen to understand, not to react. They believe in the people they're trying to reach. They are generous with their time.

Actions do speak louder than words. The nice thing about that is we all know how to act, so we all really know how to become great communicators—if we only want to!

—Cheryl Reimold



PCS Newsletter to Have a "New Look"

The PCS AdCom has adopted a subcommittee's recommendation to restyle the *Newsletter*. (The subcommittee consisted of *Newsletter* Editor Debby Flaherty Kizer, *Transactions* Editor Joan Nagle, and ad hoc member Ron Blicq.) The changes will take place gradually, starting with this issue, and will be completed by January 1990. The main changes are:

- Publication frequency will be increased to five issues for 1989 (January, March, June, September, and November) and six issues in 1990 (the June issue will be replaced by two: one in May and one in July).
- A new design will be created for the *Newsletter* front page, and will appear first in the September 1989 issue.
- A contest will be held for the new design and will be open to Graphic Arts students (see box).
- The *Newsletter* will have new "departments" focusing on special issues (such as Chapter News, Book Reviews, New Communication Technology, Conference Plans, Communication "Tips," and Legal Writing), with a department editor appointed to garner and prepare news.
- The *Newsletter* will carry advertising.

Newsletter readers are asked to advertise the competition among local graphic arts schools (particularly those in technical colleges) by clipping or copying the box and posting it on notice boards.



AI Information

Artificial Intelligence (AI) is no longer seen as so esoteric that it can support only a handful of expensive research reports. The four-color monthly *AI Expert*, billed as "the magazine for the artificial intelligence community," covers new developments, research results, commercial product evaluations, programming strategies, and case studies.

Single issues cost \$3.50; an annual subscription is \$27. Contact: *AI Expert*, Box 11328, Des Moines, Iowa 50350; (800) 341-7378.



GRAPHIC ARTS STUDENTS

Take part in a unique contest sponsored by a prestigious technical society.

The Professional Communication Society of the IEEE (Institute of Electrical and Electronics Engineers Inc.) is offering students the opportunity to design a "new look" for the Society's bimonthly *Newsletter*.

The winner will receive a healthy cash prize, have his or her design displayed at the October 1989 conference in New York, and have his or her name listed as designer inside the *Newsletter* for a full year!

Closing date for designs is July 2, 1989. For details write to:

Debby Flaherty Kizer
AT&T International
1200 Mt. Kemble Avenue
Room 2B19E
Basking Ridge, NJ 07920



Write It Right!

Grammar: A system of pitfalls thoughtfully prepared for the feet of the self-man, along the path by which he advances to distinction.

—Ambrose Bierce in *The Devil's Dictionary*

Man does not live by words alone, despite the fact that sometimes he has to eat them.

—Adlai Stevenson

I am one of those die-hards who blithely believes that "Grammar is alive and Writing is doing well!" In spite of the hi-tech marvels of the video world that continue to assault our eyes and ears, I staunchly support the view that progress in our civilization is directly proportional to our skills with the written word. Besides, what is so strange about a communication engineer being fascinated about the theory of written communication? Let us roam a little bit in the wonderful world of writing.

The history of writing starts with the cave paintings and stone carvings of prehistoric man [1]. The geometric designs of many Oriental writing systems (Sumerian, Egyptian, Hittite, Chinese, etc.) can be traced to pictures or logos. The coat of arms of Oxford (a rebus showing an ox crossing a ford) is a good example of such an origin. Since the number of word signs was limited, the next stage of development turned to signs of syllables. For example, the syllable *ti* in Sumerian originated from the word sign *ti* which meant "arrow." The final stage, of course, was the evolution of the alphabet, where vowels are expressed by separate signs or by special diacritical marks. The natural transition from signs and syllables to the alphabet makes a good story.

The history of grammar is an equally absorbing one and can be looked at from many different viewpoints. Sears [2] attempts to categorize the development of grammatical terminology by means of four periods. Due to the general belief in universal norms and ethical values that prevailed in the eighteenth century, Sears calls the early period "Normative." Then came the "Evolutionary" period, the grammatical terminology showing the influence of the great debate of religion versus evolution. Next came the "Physical Scientific" period. Influenced by communication theory, cybernetics and computers, the period we are currently in can be aptly termed as "Communicationist." "The linguists sniffed the change of air and spoke of sets and subsets, of encoding and decoding messages, of code switching and feedback, of frame

and base, of senders and receivers and semantic noise. Language now was seen in terms of input to generate an output." Sears predicts that future linguists will continue to respond to changes in the same manner, borrowing metaphors from the trendiest intellectual development.

Most people do not take kindly to writing; the main deterrent being grammar. Even mighty kings seem to have cringed before the cold, unrelenting glare of grammar. History reveals that Tiberius, the Roman emperor, was rebuked soundly by a grammarian for a verbal slip. A courtier tried to mollify the king by remarking that, if the word was not good Latin before, it would certainly become a good Latin word after having received royal recognition. The grammarian quashed all such hopes by reminding everyone that Caesar had the power to grant citizenship only to persons, not to words! Hence comes the saying, "Caesar is not above the grammarians."

Over the years, hordes of authors and language experts have been trying to demystify the rules of grammar. However, the simplest exposition is to be found in several versions of office graffiti that have been in circulation over the last twenty years. While several variations are known to exist [3-6], I give below the basic list:

1. Don't use no double negatives.
2. Make each pronoun agree with their antecedent.
3. When dangling, watch your participles.
4. Don't use commas, which aren't necessary.
5. Verbs has to agree with their subjects.
6. About those sentence fragments.
7. Try to not ever split infinitives.
8. It is important to use apostrophe's correctly.
9. Always proofread your writing to see you any words out.
10. Correct spelling is esential.
11. Prepositions should not be used to end sentences with.
12. Just between you and I, case is important too.
13. Watch out for irregular verbs which have crope into our language.
14. Don't write run-on sentences they are hard to read.
15. Join clauses good, like a conjunction should.
16. Parallel construction with coordinate conjunctions is not only an aid to clarity but also is the mark of a good writer.

17. Do not use a foreign term when there is an adequate English *quid pro quo*.
18. If you must use a foreign term, it is *de rigor* to use it correctly.
19. It behooves the writer to avoid archaic expressions.
20. Do not use hyperbole; not one writer in a million can use it effectively.
21. Avoid clichés like the plague.
22. Mixed metaphors are a pain in the neck and ought to be thrown out the window.
23. In scholarly writing, don't use contractions.
24. A truly good writer is always especially careful to practically eliminate the too-frequent use of adverbs.
25. Use a comma before nonrestrictive clauses which are a common source of difficulty.
26. Placing a comma between subject and predicate, is not correct.
27. Parenthetical words however should be enclosed in commas.

A poem summarizes such rules succinctly:

Once upon a time I used
 To mispell
 To sometimes split infinitives
 To get words of out order
 To punctuate,—badly
 To confused my tenses to ignore capitals
 To employ common or garden clichés
 To indulge in tautological repetitive statements
 To exaggerate hundreds of times a day
 But worst of all I used
 To forget to finish what I

We end the column with a few quotations about writing:

Masterpieces are no more than the shipwrecked flot-sam of great minds.

—Marcel Proust

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.

—Samuel Johnson

In composing, as a general rule, run your pen through every other words you have written; you have no idea what vigor it will give your style.

—Sydney Smith

Whenever you feel an impulse to perpetrate a piece of exceptionally fine writing, obey it . . . and delete it before sending your manuscript to the press.

—Sir Arthur Quiller-Couch

References

- [1] I. J. Gelb, *A Study of Writing*, University of Chicago Press, 1973.
- [2] D. A. Sears, "Grammar: The Terms Betray the Bias," *Verbatim*, vol. III, no. 2, pp. 296–299, Sept. 1976.
- [3] *IEEE AESS Newsletter*, p. 25, Feb. 1980.
- [4] W. R. Espy, *Say It My Way*, Middlesex, England: Penguin Books, p. 155, 1980.
- [5] M. Gardner, *Aha! Gotcha*, San Francisco, CA: W. H. Freeman and Co., p. 7, 1982.
- [6] A Dundes and C. R. Pagter, *When You're Up to Your Ass in Alligators . . .*, Detroit, MI: Wayne State University Press, p. 122, 1987.

—S. Pasupathy

Reprinted from IEEE Communications Magazine, September 1988



Overwriting

The Times once had a correspondent in Balkans called Bouchier. He was very distinguished, but his stories tended to arrive too late and too long. One day he overdid it from Crete.

The foreign manager cabled back: "An average copy of *The Times* contains about 160,000 words, and if you send us 1,400 words on Crete you are proposing to take up 1/115th of our space for that insignificant island, whose entire population in only 1/136th of even the British Isles and 1/540th of the British Empire. These mathematical calculations will, I know, be insuperably difficult to your Cambridge mind, but the net result may be intelligible."

The story is retold in Louis Heren's *Memories of Times Past* published by Hamish Hamilton.

—From the *Financial Times*.



Words I've Grown to Hate

I didn't always hate these words. Actually, I probably liked them the first dozen times or so that I used them myself. It was only after reading hundreds of draft proposals that my annoyance with these words blossomed into a full-grown hatred.

All of the words that made my hate list—and it seems that I add more every day—have certain things in common:

- They are weak, effete, and ambiguous
- They are not "honest" working words. They don't call a spade a spade. Instead they call it a hand-held personal ground extraction tool.
- They usually take up more space than their simpler counterparts.

"May" is first on my list. "May" has replaced "can." From what the engineers in my company say, our systems *can't* do anything but *may* do everything. My problem is that I don't know if our systems "might" do something, or if they have the engineers' permission to do something. Whatever happened to that good old American word, "can"? Remember those military organizations with the motto, "Can do"? Now they are the "May do" outfits. What nonsense. "Can" is a word that wears overalls. "May" is a word that wears designer jeans, ill-suited for the barn and out of place in the palace.

Also high on my list is "unique." I dislike this word because it's usually misused. And even when it isn't misused, it rarely serves any purpose. Our engineers would have you believe that everything we do or build is unique, that is, it has no equal or is the only one of its kind. In fact, some engineers say that what we do or build is VERY unique. If this were true, we'd be in real trouble on a production line because each system would be different. A lot of companies can do what we do. Sometimes we are better than other companies and sometimes we're not. But we're rarely unique. Even if we were unique, being the only one of a kind would not necessarily be desirable. Among four-footed vertebrates, unicorns were unique. You don't hear much about unicorns any more.

"Utilized" is way up there on my hate list. Much of what I said about "can" applies to "utilized" as well. No one around here "uses" anything any more. But

"utilization" rates are high. Ironically, even software engineers who have a penchant for coining funny words so that they don't have to write much seem to prefer "utilize" to "use." Actually, I dislike most words that end in "ize," but that's another story.

In addition to disliking words that end in "ize" I also dislike most words ending in "ion." Most "ion" words need an article or an adjective preceding them and they almost always need a preposition following them. In addition to requiring more words, words that end in "ion" are weaker than their counterparts that end in "ing." Compare "He will be responsible for the integration of the system" with "He will be responsible for integrating the system." The second version is shorter and has more clout. Words ending in "ion" are like cream puffs. They take up space but have more air than substance.

I have developed a loathing for "via." This is unfortunate. It's such a neat, compact word that stands for three other words. The problem is that most people don't know that "via" means by *way* of, and not by *means* of. So we have writers who say that "an operator controls the device via a switch" when they mean "by means of a switch." To add insult to injury, one writer recently stated that the operator controlled the device *vis-a-vis* the switch. That's really facing up to technology.

"Impact" is beginning to make a bad impression on me. It used to be a good word, too. The problem is that "impact" is overused, abused, and misused. Nothing is simply "affected" any more. Everything is "impacted" (struck forcibly) now, as for example, "The schedule will be impacted [sic] by the late delivery of materials." Admittedly, I can envision some manager pounding his fist on a schedule when he is informed that a delivery will be late, but I don't think that this is what the writer had in mind. An "impact" is always an "effect," but not all "effects" are "impact." The wrong formula can affect the baby's digestion, but "have an impact on?" Come on.

I've begun a "which" hunt because many writers avoid using "that." Many think that "which" is the preferred usage in written text and that "which" and "that" can be used interchangeably (which they can be in some cases). I've given up trying to explain restrictive (essential) and nonrestrictive (nonessential) clauses. Most of the time the writer's eyes glaze over when I begin my litany.

"Comprise" constitutes the current culminating contribution from my culpable clients. The rule used to be that the whole *comprises* the parts. Now most people think that "comprise" is synonymous with "constitutes" or "makes up" and, as such, the parts *comprise* [sic] the whole. "Composed of" or "constitute" are rarely seen any more. Too bad. They were strong unambiguous words. Now we see that "the system is comprised of various subsystems." Soon this will be accepted usage because Gresham's law works with words as it does with money: Bad words drive out good words.

In terms of bad words driving out good ones, "enhanced" is a good example of a bad thing. Remember those good old words like "increased," "faster," "improved," "larger"? We don't see them often any more. They have been replaced by "enhanced." Never mind that for something to be enhanced it must already be desirable. Anyone who uses "enhanced" indiscriminately probably wouldn't see the irony in "enhanced kill ratios" anyway.

I don't want to be a nit-picking pedant. But I have a healthy respect for words. And I like them to be used to their best advantage. The overriding rule of good writing is clarity. Simple, honest, unambiguous words that contribute to clarity are endangered species. They are being supplanted by pompous, vacuous words that are invariably used incorrectly. That's why I'm making a list of these words and I'm checking the manuscripts twice.

—Jerome K. Clause
HRB Systems, Inc.



Seven Beacons of Excellent Writing

Extracted from *Writer's Digest*, March 1984, pp. 35-38; copyright 1984 by *Writer's Digest*, Cincinnati, Ohio.

1. *Brevity.* When you write and rewrite, don't think about what you can put in. Think about what you can leave out. Writing shorter doesn't mean saying less. It means saying as much, but with fewer words.

2. *Clarity.* To be clear is to say what you mean. The good writer makes the meaning as clear as possible and leaves no room for doubt what is being read.

3. *Precision.* To be precise is to say *exactly* what you mean. Don't make a sentence more precise by hooking a freight train of details to it. Make it more precise by whittling all the possible word combinations to those few that say exactly what you want to say.

4. *Harmony.* When you write well, you create "music" that is pleasant to the ear. It is harmonious. Read aloud everything that you write. Listen to the sound it makes. Listen for dissonance. Listen for the sour notes. And, finally, listen for the word that "just doesn't sound right." Even if you don't know why it doesn't sound right, get rid of it.

5. *Humanity.* Write about people. Even a how-to article should be largely about a person called "you." The endless interest that each human being has for all the others is reason enough for you to populate your nonfiction also with living, breathing people.

6. *Honesty.* Don't glut your prose with references that are new to you, so that you appear learned when you are not. Don't try to bulldoze your way into a personal writing style that simply is not you. Don't use the thesaurus to find words you never saw before; use it to find words you already know.

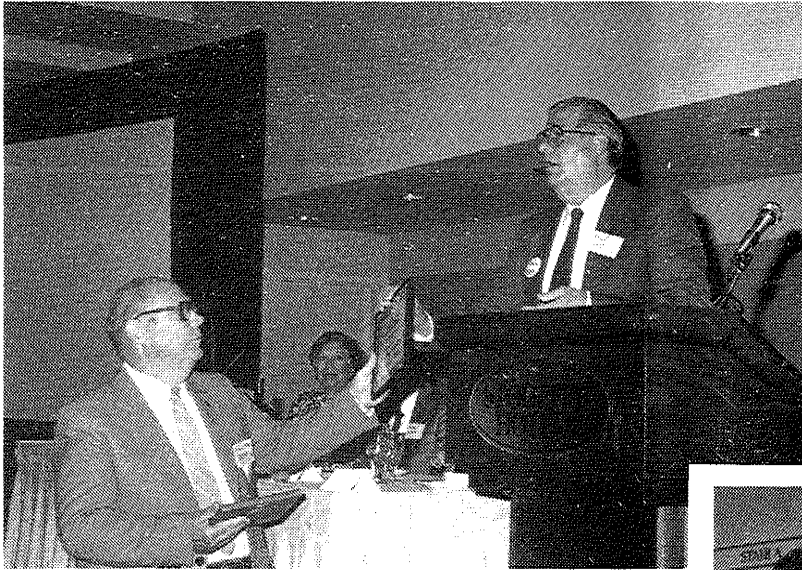
7. *Poetry.* Good writing entertains, informs, advises, illuminates. It cannot simply be. It must *do*. In much that you write there is the opportunity to do more than tell the reader what will happen or when or how or even why. Is there a figure of speech that will enhance your meaning as well as etch across the reader's mind a vision that will endure beyond the last page? Can you choose words with such care and arrange them in such a way that they reveal not just *your* point but also a point about life? This is poetry.

—Gary Provost
Writer's Digest Contributing Editor
Reprinted with permission of *Writer's Digest*,
Cincinnati, OH



IPCC '88 Memories





IEEE Tops 300,000

(continued from page 1)

the merger of the American Institute of Electrical Engineers and the Institute of Radio Engineers, IEEE membership has grown from 154,500 to the present level, effectively doubling during the past 25 years. During this time, the Institute had added almost 146,000 new members to its rolls, a figure surpassing the size of the next largest professional engineering society. This growth underscores the vitality of the organization and the success we have achieved in serving our profession and in meeting the needs of our individual members."

Of its approximately 300,000 members, some 252,000 hold higher grade memberships while 48,000 are students who attend some 600 educational institutions throughout the world. Reflecting its transnational nature, 63,000 IEEE members reside outside of the United States.

The 300,000th member of the IEEE has been identified as Susan Rudy Sanicky of San Jose, California. Ms. Sanicky has a bachelor of science degree in electrical engineering from the University of California at Davis, and she is currently a senior engineer/manager at IBM following 16 years of professional practice. In addition to her Institute membership, she has also elected to join the IEEE Circuits and Systems Society.

To meet its objectives worldwide, the IEEE sponsors conferences and meetings, publishes a wide range of professional papers and provides educational programs. In addition, the Institute works to advance the professional standing of its members and carries out a voluntary standards program with some 600 published standards affecting all aspects of the electrical, electronics and computer industries. It also has a mandate to enhance the quality of life for all people through the application of its technologies, and to promote a better understanding of the influence of these technologies on the public welfare.

According to Dr. Drew, the growth of the IEEE has paralleled the pervasiveness of electrotechnology which now undergirds the economics of many of the developed nations. Reflecting this scope, the Institute has 36 individual Societies active at the cutting edge of technology in areas ranging from aerospace, computers and communications to biomedical technology, electric power and consumer electronics.



Management Proposal

General Experience

A detailed reference to the large number of programs which we have mismanaged would be beyond the scope of this proposal (see report 789-2, AF Board of Inquiry; see also report of Congressional Investigating Committee, 1209-A). We feel, however, that the experience gained from these miserable failures puts us in a strong competitive position since it is unlikely that these mistakes will be repeated. Our competitors may have a greater number of failures, but we would like to point out that our errors were made on larger and more important projects. Furthermore, we have absolutely no experience in the specialty areas required for this design and will therefore approach the problem without prejudice.

Organization

We have reviewed this question carefully and find that we are unable to determine the precise instant of time at which the customer desires to see the organizational structure, and are therefore at a loss as how to present it. We have investigated the use of high speed movie cameras and magnetic recorders as means for presenting a changing organization, but feel that these do not meet the requirements. We therefore request that the customer specify the moment desired. We suggest a time during the interval from 0200 to 0700 on a Sunday would be best as experience has shown that the rate of change is at a minimum during this period.

We have found on recent proposals that our key personnel received offers from one of our competitors a few days after the submission of a list of personnel. Since there seems to be evidence of a security leak in the customer's organization, we request that a need-to-know be established before this information is supplied.

Technical Approach

Our plan for this project is to hire engineers from the companies which lose the competition. Our technical approach will therefore be determined by these people and can be obtained from our competitors' proposals. We do have a few guiding principles. We have found that on a project of this nature, about 12-18 months are required to catch up with the art. This time is spent in visiting other companies, universities, and test sites and in reading classified reports and *Aviation Week*. This period is followed by a 6-month study phase. At the end of this time it is usually desirable to

start traveling again because of the extremely rapid changes that take place in the State-Of-The-Art environment.

Schedule

In order to improve the appearance of our proposal the art department had made up a 7-color schedule using stereoscopic plexiglass overlays. The dates in this schedule represent a weighted average between the estimates of the Research and Sales divisions (they are the Sales division figures). In any event, company practice is to terminate a project when the personnel are needed on a new and more profitable contract.

Subcontracts

It is a firm company policy to never let a dollar get out of the house.

Cost Information

Engineering—we do not plan to spend much here. We have found that engineers make changes and this reduces profits.

Facilities—this is a large item. We view this contract as an excellent opportunity to build up our plant.

Testing—no charge has been put in since we do not plan to test. In the past, test programs have shown up faults and caused cancellation of contracts years before the mistakes would have been discovered in the field.

Entertainment—this item was inadvertently omitted from the request for proposal—we have added it.

Contract Forms and Profits

An exhaustive study will be made during the first 6 months of the contract to consider these factors. All of the modern techniques of operational analysis, game theory, and high speed computing will be applied to the problem of profit optimization.

Key points in this study will be legal loopholes, tax dodges, and evasively written clauses. It is expected that several nationally known consultants will be retained for this work due to the overriding importance of the problem.

Physical Resources

An excellent survey of our physical facilities is contained in the Receiver's Report prepared during our most recent bankruptcy proceedings. A copy of that report is appended.

Additional Facilities Required

It is our belief that an important project such as this should not be carried out in our shabby plant. We plan to use government furnished facilities exclusively. We would like to point out that several directors of the company have excellent property which they would be willing to sell to the government for the erection of these facilities.

—Submitted by Leon Pickus



Early Computers

The Computer Museum, in Boston, is now almost four years old. Among the offerings in the new catalog from its museum store are two sets of slides covering significant machines in the short but eventful history of calculating devices and computers.

"The History of Computing" contains 48 slides of manual and automated calculating devices, early computers, logic and memory technologies, classic integrated circuits, and supercomputers. One example is Thacher's Cylindrical Slide Rule, patented in 1881. Its rotary and longitudinal movement together provided accuracy equivalent to that of a 60-foot-long slide rule. The slide set is \$45.

The second set, "Personal Computers," features 20 slides of entrants from 13 countries in the museum's 1986 contest to find historic PCs. The slides show the first PCs, hobbyist milestones, single-board and homebrew computers, early commercial machines, and classic commercial PCs. The Kenbak-1 was established as the first microprocessor, was built in 1971 from standard small- and medium-scale integrated circuits. It had 256 bytes of memory; after two years, 40 of the \$750 machines had been sold. This set of slides costs \$20.

The museum store's catalog is free; museum members receive a 10 percent discount on all items. Slide sets can be ordered by mail (\$2.50 for postage and handling). *Contact: Computer Museum Store, 300 Congress St., Boston, MA 02210; (617) 426-2800.*



Isn't it time we got together?

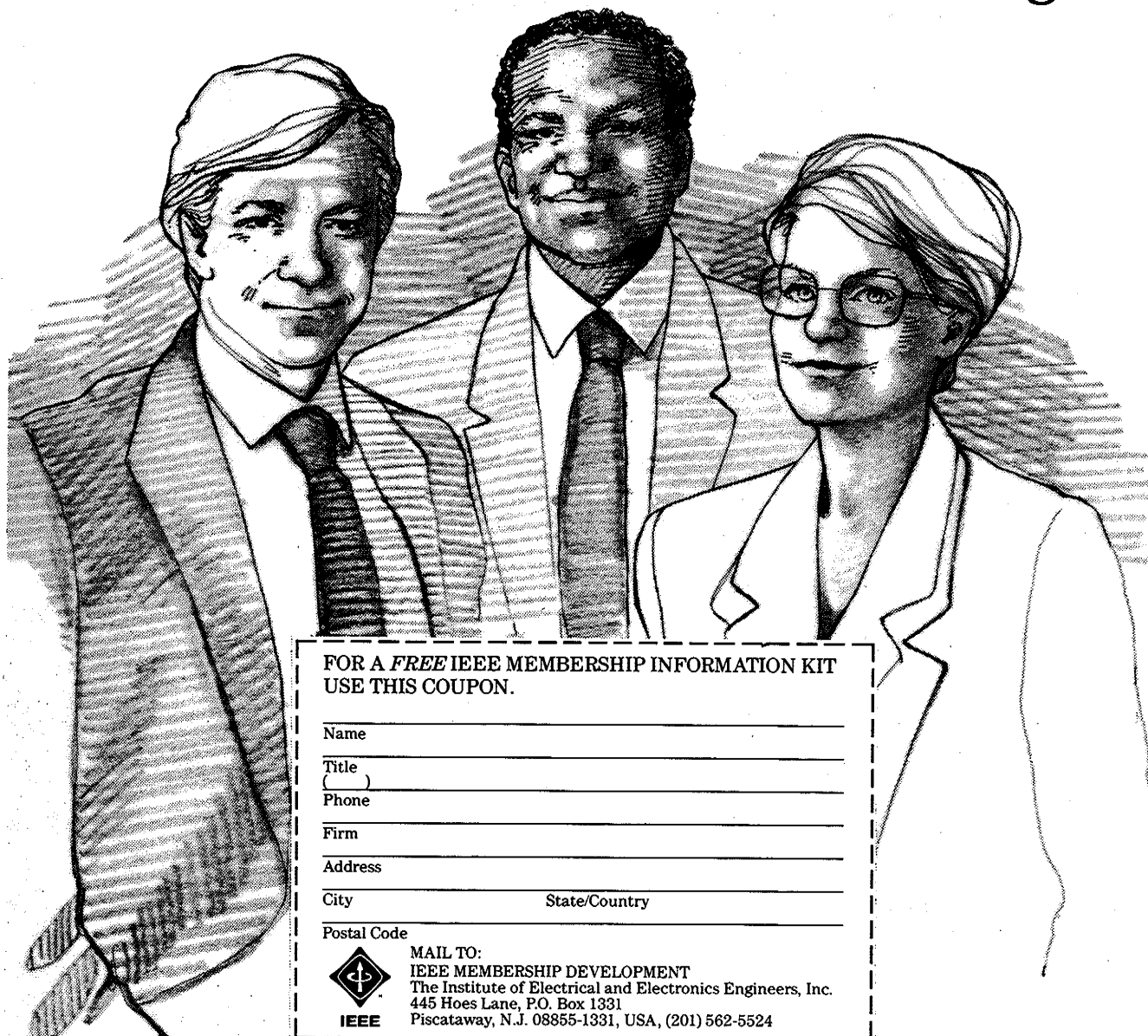
Consider the personal and professional benefits that only IEEE can offer you.

Being a member of IEEE—the world's largest technical society—makes it easier for you to meet the established professionals in your field; to have ready access to all the latest state-of-the-art information, technical meetings and conferences.

IEEE can be the *single* most vital source of technical information and professional support to you throughout your working career.

No doubt, you're already established in your field. Now gain that competitive edge. Become the best informed—an IEEE scientific/engineering *professional*.

Clip This Ad and Pass It On To A Colleague!



FOR A **FREE** IEEE MEMBERSHIP INFORMATION KIT
USE THIS COUPON.

Name _____

Title
() _____

Phone _____


Firm _____

Address _____

City _____ State/Country _____

Postal Code _____

MAIL TO:
IEEE MEMBERSHIP DEVELOPMENT
The Institute of Electrical and Electronics Engineers, Inc.
445 Hoes Lane, P.O. Box 1331
Piscataway, N.J. 08855-1331, USA, (201) 562-5524

 IEEE

Leadership

Points for Participants

1. Listen to the other fellow.

Sharing problems, experiences, and ideas about how problems can be solved is the "meat" of the meeting. To profit by this interchange, the participant must cultivate the art of active listening. Listening is a high form of cooperation and participation. It is particularly important to be non-judgmental in listening to the other fellow's ideas. Nothing threatens people so much as an overcritical judgment of an idea, value, or point of view.

2. Let's not pretend.

The purpose of the meeting is to solve real problems. The participant will be most helpful—and most helped—if he/she will share real concerns with the group in an open and frank fashion. To withhold views because someone might disapprove is a real disservice to the group and frustrates the goals of the meeting. Expressing one's real feelings and ideas is not easy. Sometimes the inability to state a problem is related to the self-expectation that everything one states must be tied up in a neat package before it can be handed over to the group. Remember that some of the most valuable contributions come from speech which is halting and from minds which are groping to give clarity to thought. That which is glib is usually not profound. And it is, the function of the group to help the individual express what he/she is thinking, and contribute what the group may need most.

3. Don't let George do it all.

The function of the participant not only is to contribute ideas, but to help develop the goals of the meeting, to set the limits of the discussion, and to help inaugurate procedures which will be effective in problem-solving. If there is a sense, for instance, that the discussion would profit by more illustrations, or a case history, it is the duty of the participant to make this suggestions. An effective group member plays whatever role he/she feels at the time will help the group.

4. Don't overvalue "sweetness and light."

Meetings help people share different points of view. Inability to reach solutions frequently comes from the fact that people do not feel free to state openly the issues about which they feel there is conflict.

5. You may get "shot down."

In a productive group your ideas are bound to be challenged. One should expect this to be so. Moreover, one's habits of thought may receive some slight jolts, may even be disputed. Often the process of working together in the solution of common problems means that the individual gives up some precious way of thinking.

6. You can change things.

Since the meeting is organized to help you with problems of concern, it is your responsibility to see that there is evaluation of its objectives, methods, and procedures. If you have failed to achieve what you thought should be achieved, and you believe it was because things were not organized properly, you have the responsibility to say so. Groups have functioned at higher levels of accomplishment because someone who was dissatisfied performed the constructive role of initiating evaluation and change.

7. Remember where it counts.

Whether the participant is working on a problem which is essential, or whether he/she is working with a group on a problem of common interest, it is well to remember that the solution must be workable in the practical "back-home" situation. It is easy to indulge in fantasy, and sometimes the enthusiasm of the group may carry work far away from the world of reality. The participant needs to keep in mind that the ultimate test of ideas and solutions is whether or not they will work back home.

8. You can get help if you give it.

In most meetings the resources of members and staff are such that the individual or the group can get help. But often help is dependent on the way problems are presented, on the richness or poverty of information, and on the openness or defensiveness of attitudes. Getting help is a two-way communication process. We have to work hard in clarifying our own communication in order to get the help we need.

—A Meloni

Reprinted from the IEEE Instrumentation and Measurement Society Newsletter, July/August, 1988



IEEE: A Vintage Model?

Getting the students into the IEEE fold is a classical marketing problem. And the problem is that we are not selling them on IEEE. In other words, the students are not buying. Then you can ask yourself, "Why not?" Well, there must be some kind of a mismatch between the product and the people who are potential buyers.

The Membership Development Committee deals with the techniques of how to sell; however if you don't have something that is really saleable, regardless of how good the techniques are, regardless of how excellent the Membership Development is, the product, IEEE, isn't going to be bought.

So we need to concentrate on two separate things. Is the Membership Development Committee using the right techniques to sell what we have? And, more importantly, what is it that we have to sell? We are dealing with the student generation, by definition "the new generation." Some of the things that appeal to us don't appeal to them. For instance, one thing that is important to us *esprit de corps*. Students have a different *esprit de corps*; not that it is dead, but it's a different type of *esprit de corps*.

Frequently, I've been asked by my neighbors and elders (if they still exist), "How come, Arthur, you could afford to join such and such country club and you don't."

I say, "Because it doesn't mean anything to me."

They automatically respond, "How is that possible it doesn't mean anything to you? It's the thing to do!"

"No, it used to be the thing to do. Now it's meaningless," I tell them.

I think we are facing that kind of problem with IEEE. If we are just trying to sell IEEE on what IEEE used to be, and the *esprit de corps* it used to represent, and the prestige that it used to convey. It won't work with the students. You know, I have never understood why I continue to be a member of the Swiss Electro-technical Association when I left Switzerland nearly 40 years ago. But it has meant something to me. I'm not today's generation. Today's generation doesn't think that way.

So what I'm saying is: look at the product. And the product has got to be a multi-faceted product. It's got to be an IEEE which appeals to the student when he

or she is 20 years old, when he or she graduates at 23 or 25, when he or she goes through graduate school. And most of them don't. Remember that. We constantly cling to those who go to graduate school. What is it that we are offering to those who don't go to graduate school? What are we offering to those who are taking the average type of engineering job? Who are our publications aimed at? Think over the whole career of a person, through that person's life. At every stage of that career, IEEE has got to offer something. And, I say, we don't do that. We don't offer something to every stage of that person's career. That is IEEE's recruiting problem.

—Arthur P. Stern
Past President of IEEE
RAB INTERFACE
"The Executive Newsletter"
June/July 1988



Curing Hang-ups

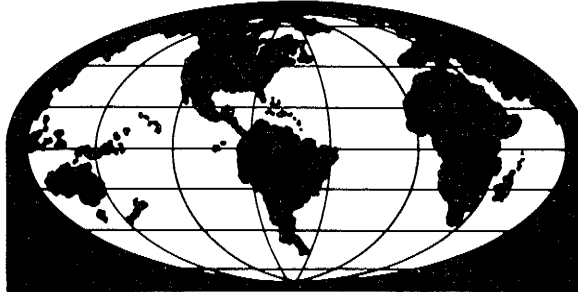
Nancy Friedman of St. Louis, Missouri, is a former actress who, in her current role of "the telephone doctor," prescribes strong telephone skills as a tonic for business. Friedman, who trains employees at corporations like Ralston-Purina, Union Carbide and AT&T, says that more business is lost because of poor customer service than because of poor products. She teaches her clients to forswear the following five "forbidden phrases," replacing them with more positive responses:

Don't Say	Do Say:
"I don't know."	Say, "Let me find out."
"We can't do that."	Tell them what you <i>can</i> do for them.
"You'll have to . . ."	Say, "You'll need to . . ."
"Hang on a second. I'll be right back."	Substitute, "I'll need to put you on hold for a few moments, if you are able to hold."
"No."	Start your answer with another word. A "no" up front makes people stop listening to your explanation and start thinking about what they'll say next.



COMMUNICATING TO THE WORLD

The theme for 1989 fits well with the New York location, and underscores the international character of communication. The health and growth of world culture in information-based societies truly depends on expert communicators creating comprehensible messages.



The three-day conference will focus on topics related to the conference theme, and on other issues of concern to technical professionals. We encourage your proposals for original papers, complete sessions devoted to an issue, demonstrations, panel discussions, or workshops.

ANNOUNCEMENT

SUGGESTED TOPICS

- International Communications ☐
- Systems
- Managing Communications ☐
- Usability Testing and ☐
- Communications Research
- On-line Data Base Systems ☐
- Computer Bulletin Boards ☐
- Sharing Information Internationally ☐
- by Satellite
- Buying and Managing ☐
- Communication Technologies
- Partnerships: University and ☐
- Industry
- Networking: Pros and Cons ☐
- Wide Area Networks ☐
- Impact of Networks on ☐
- Communication Patterns
- The Editing Process in a Desktop ☐
- Environment

CALL FOR PAPERS

SUBMIT
A 300-500 WORD
ABSTRACT BY
JANUARY 15, 1989
DEADLINE EXTENDED!



IEEE

SUGGESTED TOPICS

- ☐ Communicating in Multi-cultural Markets
- ☐ Computer Aided Graphics
- ☐ Handling Professional and Public Information in Multi-national Environments—Banks, Airlines
- ☐ Communicating Technology to the Public
- ☐ Translation of Technical Information
- ☐ Marketing and Proposal Development
- ☐ Graphics for Multi-cultural Applications
- ☐ Automating Proposal Preparation
- ☐ Video for Proposals, Reports, or Public Information
- ☐ Managing for Productivity in the Contemporary Communication Environment

Submit your abstract to:

Dr. Robert Krull & Dr. Philip Rubens
Department of Language, Literature, and Communication
Rensselaer Polytechnic Institute
Troy, NY 12180

For general IPCC 89 information contact:

Mr. Richard M. Robinson
Grumman Corporation, MS C39-05
Bethpage, NY 11714
516-575-5472

DON'T MISS THIS OPPORTUNITY TO COMMUNICATE WITH YOUR PEERS !

IPCC 89

International Professional Communication Conference, October 18-20, 1989 • Garden City Hotel, Garden City, NY

Profile On Dr. Daniel L. Plung—A PCS Member In Action

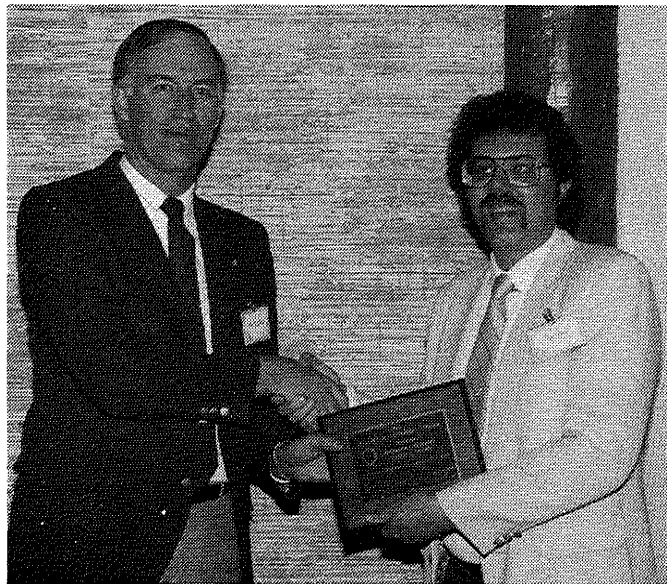
Many of us have had the chance (and pleasure) to know and work with Dan Plung over the years. Others have gained knowledge of Dan's efforts through his IEEE Press Books, *Marketing Technical Ideas and Products Successfully!*, co-edited with Lois Moore; and *A Guide for Writing Better Technical Papers*, co-edited with Craig Harkins; and the *CommuGuide Series*, which he co-edits with Lois Moore; and the many papers he has delivered at PCS conferences. We thought you'd like to know even more about this talented professional, so let's take a deeper look at our astute colleague and his work.

Currently, Dan Plung is Manager of Project Services at the Waste Isolation Pilot Plant (WIPP), a \$700 million facility to demonstrate the safe geologic disposal of nuclear waste. Located in southeast New Mexico near Carlsbad, WIPP is owned by the Department of Energy and operated by the Waste Isolation Division of Westinghouse Electric Corporation.

In his capacity as Project Services Manager for Westinghouse, Dan manages five administrative functions: Publications and Procedures, responsible for preparing and issuing operating documents; Presentations Support, responsible for preparing all formal project presentations; Support Services, which provides general services, e.g., library, records management; space and property management, responsible for all government-owned equipment, space utilization, and site development; and special services, responsible for administering commercial contracts, e.g., copier and vehicle leases.

Dan has made major contributions in each of these areas. Three of Dan's accomplishments since transferring from a Westinghouse contract in Idaho to WIPP in early 1985 should be of particular interest to professional communicators. The first accomplishment was the development of a new procedures format. Dan introduced a procedures design based on logic flow diagrams; this procedure design has allowed greater user comprehension and satisfies the criteria the Nuclear Regulatory Commission (NRC) recommended in the aftermath of the Three-Mile Island (TMI) accident in 1979. The success of this procedure design has earned WIPP the status of being a Westinghouse Center of Excellence in technical communication, has been the subject of several articles, and is under review for possible use at other Westinghouse operations.

A second success was the development of a Presentations Support organization. This organization provides the project with fast, quality presentations. Several steps were completed to make this system work. Vulnerabilities—especially in graphics and photography—were eliminated by training backup personnel for critical functions and developing an appropriate spare parts and equipment inventory for film processing. In addition, by standardizing products and systematizing the production process, Dan increased production capability while decreasing production time. And, in accomplishing this level of increased support, WIPP maintained the same small presentations staff (one photographer, one photographic assistant, and three graphic artists); has become self sufficient, producing all work in-house without the support previously required from outside service contracts; and has developed an efficiency that allows high priority jobs to be completed in one day.



Dr. Daniel L. Plung (right) receives the 1988 annual Quality Achievement Award for management from Peter VerColen, Manager of Administrative Services, Westinghouse Electric Corporation, Waste Isolation Division.

The third accomplishment is in records management. Being that WIPP has had different contractors for architect-engineering support, operations, construction management, and research and development created a complicated records management task, especially since all records are ultimately submitted to Dan's organization. Working with the different contractor systems, Dan developed an integrated

Master Records Center that has been regularly complemented by the numerous independent review agencies that have requested records as part of the final preoperational reviews currently in progress at WIPP.

Dan attributed his success to two factors: first, his mixed background in science and English. Having graduated from the Bronx High School of Science, Dan entered the City College of New York as a physics major. As the allure of physics faded, he switched to English, since, as he says, he was taking English courses as "relief valve courses." They were fun, challenging, but not as formulaically structured as calculus and physics. Throughout the remainder of his undergraduate and doctoral studies, and now in his professional assignments, Dan has felt that the analytical training he received as a physics major laid an excellent foundation for the rhetorical orientation of his English studies. The relationship between the disciplines is that English majors "must develop highly-refined analytical skills comparable to those practiced in the scientific disciplines; the difference is, however, that there are no formuli in English: one must rely on one's own abilities to analyze and synthesize in order to develop a defensible, arguable thesis."

Second, Dan credits his success to the environment at WIPP. "Everyone, from the Department of Energy that owns the facility on down, has striven to make this a world-class project. Sound operational strategies have been complimented by an atmosphere that encourages ideas, innovation, and initiative." The Senior Westinghouse management continually emphasizes that WIPP will be a "model" project, with as much attention devoted to administrative activities as engineering or operations. Consistent with this vision individuals are encouraged to look for improvements, to do things better.

And, though being geographically remote may, at times, create some inconvenience, it also creates opportunity. "There is a greater need to be self reliant, to take initiative, to promote and encourage greater expectation from yourself and your staff. It is a unique opportunity to be part of a top Fortune 500 Company while still benefitting from the familial cohesiveness of a small project. Senior management is not only accessible, but right with us! I can think of few other work environments where the sense of identity, accomplishment, and growth are such an indelible part of the culture," said Dan.

The enthusiasm and this positive "culture" may be good explanations why Dan continues to make significant contributions to AdCom, PCS and the technical communication field.

Dan Plung—we salute you!

—Lois Moore
PCS Public Relations



Recruiting a Recruiter

Kremple & Meade, a Los Angeles search firm, suggests asking these key questions before you decide to use an executive recruiter's services:

1. How long have you been in business?
2. What is/are the background(s) of the principal(s)?
3. How many recruiters are there in the firm and how are they compensated?
4. Who will be handling our search?
5. Is there a separate research department? Please describe it.
6. What is the fee and how is it billed?
7. What are your firm's experiences in my industry/product line?
8. Who are some of your clients? Can we contact them?
9. Which companies in our industry will you be unable to recruit our executive from because they are your clients?
10. What is your search completion record?
11. What is the average length of time it takes to complete a search?
12. How many candidates can we expect to see and when can we expect to see the first one?
13. At what stage do you check references? How do you screen candidates for drug or alcohol abuse?
14. How much personal time did you spend getting to know the last key executive you recommended?



New IEEE Press Book Published

The IEEE Press Book Publishing Division of the Institute of Electrical and Electronics Engineers, Inc., announces the publication of *High Voltage Integrated Circuits*, edited by B. Jayant Baliga. This book of selected reprints is published under the sponsorship of the IEEE Electron Devices Society.

Most of the activity in the development of integrated circuits has focused on signal processing applications. Technology has broadly classified circuits in either the digital or analog categories. But, during the past five years a new category of integrated circuit has evolved to meet the needs of today's power electronic systems: high voltage integrated circuits (HVICs). A hallmark of these circuits is integration of high voltage device structures with low voltage circuitry on a single silicon chip.

The development of HVICs and power MOS-controlled output devices has allowed a tremendous simplification of power circuits, with up to a tenfold reduction in the size, weight, and cost of power electronics in aerospace, industrial, and consumer products.

High Voltage Integrated Circuits focuses on the rapidly growing area of application-specific integrated circuits (ASICs). The introduction gives the reader a broad perspective of power semiconductor technology and the evolution of HVICs, while the rest of the book addresses the specific needs for particular applications.

This book consists of an Introduction, followed by eight sections: I—Review of High Voltage Integrated Circuit (HVIC) Technology; II—Lateral High Voltage Devices; III—HVIC Process Technology; IV—Smart Power Devices; V—High Voltage Display Drives; VI—Power Amplifiers; VII—High Voltage Telecommunication Chips; VIII—High Voltage Dielectric Isolation Technology. These eight sections contain a total of 54 reprinted papers.

Ideal as a self-study guide for practicing engineers in the electronics industry, this book can also be adopted as a teaching aid in university courses.

B. Jayant Baliga is a Coolidge Fellow and Manager of High Voltage Device and Integrated Circuits Unit at the General Electric Research Center, where he continues his pioneering studies of MOS-bipolar func-

tional integration for the development of superior power switching devices. Since 1974, he has served as an Adjunct Faculty Member at Rensselaer Polytechnic Institute. He is the recipient of numerous awards and honors, and has written over 200 books and papers. He holds 25 patents in the field, with over 50 more pending.

High Voltage Integrated Circuits (Order Number PC02329) contains approximately 352 pages and is priced at \$52.75 (\$39.55 for IEEE members). The book may be ordered from the IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. Make check payable to IEEE. Please add the following shipping and handling charges: for orders totaling \$1.00 to \$50.00, add \$4.00; \$50.01 to \$75.00, add \$5.00; \$75.01 to \$100.00, add \$6.00; \$100.01 to \$200.00, add \$8.00; over \$200.00, add \$15.00. Credit card orders (MasterCard, VISA, American Express, and Diners Club) are accepted for orders over \$10.00.



What Was That Course Again?

"Memory Made Easy" is one of five audiocassette courses available to IEEE members; the author of the three-cassette course, Robert Montgomery, pledges to increase memory retention by 300 to 400 percent and even improve joke-telling skills, all for \$37.95.

Two of the other courses are new: "Power Writing," which teaches skills for everything from drafting a memo to composing a scientific report, and "Putting the One-Minute Manager to Work," which shows how to use the "three secrets" of the popular book *The One-Minute Manager*.

Also available are "Speech Power," for improving verbal skills in conversation and on the podium, and the "Vocabulary Program." Prices range from \$28 to \$95.95, and all five courses are backed by a 15-day money-back guarantee. Contact: IEEE Service Center, Box 1331, Piscataway, NY 08855-1331; (201) 981-1393.





THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Announces the 17th Annual Competition for

1989-1990

Congressional Fellowships

A CONGRESSIONAL INTERNSHIP FOR MEMBERS OF IEEE

PROGRAM: Electrical and Electronics Engineers and Allied Scientists are competitively selected to serve a one-year term on the personal staff of individual Senators or Representatives or on the professional staff of Congressional Committees. The program includes an orientation session with other Science-Engineering Fellows sponsored by the American Association for the Advancement of Science (AAAS).

PURPOSE: To make practical contributions to more effective use of scientific and technical knowledge in government, to educate the scientific communities regarding the public policy process, and to broaden the perspective of both the scientific and governmental communities regarding the value of such science-government interaction.

CRITERIA: Fellows shall be selected based on technical competence, on ability to serve in a public environment and on evidence of service to the Institute and the profession. Specifically *excluded* as selection criteria shall be age, sex, creed, race, ethnic background, and partisan political affiliations. However, the Fellow must be a U.S. citizen at the time of selection and must have been in the IEEE at Member grade or higher for at least four years. Additional criteria may be established by the selection committee.

AWARDS: IEEE plans to award two Congressional Fellowships for the 1989-1990 term. Additional funding sources may permit expansion of awards.

APPLICATION: Further information and application forms can be obtained by calling W. Thomas Suttle (202) 785-0017 at the IEEE Washington, D.C. Office or by writing:

Secretary, Congressional Fellows Program
The Institute of Electrical and Electronics Engineers, Inc.
1111 Nineteenth St., N.W.
Suite 608
Washington, D.C. 20036

Applications must be postmarked no later than March 31, 1989 to be eligible for consideration.

A Different View of PCS' AdCom

At the February 10th PCS AdCom Meeting, Gary Mays' pencil was hard at work capturing the likeness of five of our members. Gary is a popular Maryland artist, noted for his imaginative styling in creating oil paintings, murals and portraits. Many of his art pieces will be on exhibit in the Baltimore area this spring.

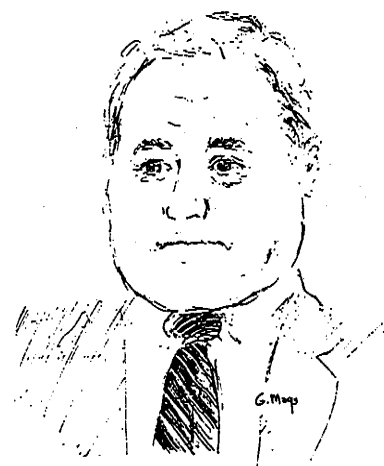
—Lois Moore
PCS Public Relations



IEEE AdCom,
New York, NY '89

Top Row:
Lacy Martin,
Chapters Chairman
Richy Robinson,
IPCC '89 Chairman

Bottom Row:
Jim Hill,
President
Rudy Joenk,
Vice President,
Dan Rosich
Past President



Newsletter

IEEE Professional Communication Society