



Professional Communication Society Newsletter

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Meeting of PC's AdCom

At a meeting of PC's Administrative Committee on May 1 in Baltimore, business was transacted as follows:

1. The final version was approved of a recommendation to ABET, the engineering profession's Accreditation Board for Engineering and Technology, that a course in communication should be a requirement for accreditation of engineering curricula.

It was agreed that IEEE's EAB, through TAB, will be asked to endorse and transmit this recommendation, and to delegate to PCS the responsibility for formulating or approving the suggested requirement.

ABET, sponsored by engineering societies and approved by colleges and government organizations, is the authorized professional body for approving engineering programs in the U.S.

2. Ron Blicq, John Phillips, and Leon Pickus will discuss the development of training kits for instructors to use in

teaching PC's Technically—Write! workshop, and will also plan courses on other subjects.

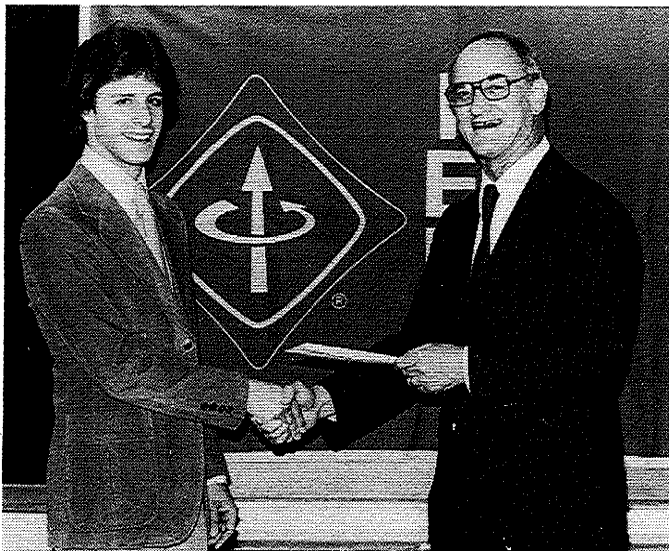
3. Thomas Lazisero of E. Northport, NY, was awarded PC's scholarship for 1981-82. See separate article.

4. Plans are being carried out and promotional material issued for PC's conference to be held in Arlington (VA) next September. Details appear elsewhere in this issue.

5. Individual PC-ers who might enjoy sponsoring local Student Paper Competitions were urged to communicate with Ron Blicq, Box 181, Station C, Winnipeg, Manitoba, Canada R3M 3S7 (204-632-2292).

6. PC-ers who might enjoy contributing to a *Transactions* issue on various aspects of employment (searching, interviewing, counselling, etc.) were urged to communicate with R. J. Joenk, IBM Corporation, Dept 588, Bldg. 022-1, P.O. Box 1900, Boulder, CO 80302 (303-447-5764).

Lanzisero Wins PC Scholarship



Thomas P. Lanzisero (left), of E. Northport (NY) and Manhattan College, receives PC Scholarship for 1981-82 from Eric Herz, IEEE General Manager.

Thomas Peter Lanzisero of E. Northport, N.Y. will receive the IEEE/PCS scholarship of \$1000 for the academic year 1981-82. Now an honors sophomore at Manhattan College in Riverdale (NY), Lanzisero is working for the BEE degree. Next year, he will be editor of the quarterly *Manhattan College Engineer* and will represent Manhattan College's Student Chapter at meetings of IEEE's New York Sections. He hopes to earn the MBA degree and become an engineering manager, but at present his particular interests are computer and microprocessor technologies, soccer, and basketball.

PC Conference

The highlights of nearly 30 papers on engineering communication will be presented in four consecutive sessions at PC's 1981 Conference at the Crystal City Marriott Hotel in Arlington, Virginia, September 16-18.

The Conference will begin Wednesday evening, September 16, with a workshop conducted by Ron Blicq from 6 to 9 PM—"How to Write Effective Technical Communications."

Lecture sessions on Thursday will concern "Communications Technology" (morning) and "Self-Protection and Job-Preservation" (afternoon). On Friday, aspects of written technical presentation will be discussed in the morning and aspects of oral presentation will be considered in the afternoon. Coffee and soda breaks have been planned, informal discussions will be encouraged.

Robert Fischell of Johns Hopkins University's Applied Physics Laboratory will deliver the keynote address on Thursday morning; his subject, "The Engineer as a Communicator." The two luncheon speakers will be Howard Clark of the National Bureau of Standards on "New Approaches to Technical Communications" and Gerre Jones of Gerre Jones Associates on "Press Releases with Punch."

PC's Name and Mission

On April 6, 1981, Basil Osborne, Chairman of PC's UKRI Chapter, sent the following letter to Dr. I.W.E. Proebster (Director of IEEE Region 8), to PC'er Bob Winton (Secretary/Treasurer of Region 8), and to PC's AdCom. Comments, anyone?

Professional Communication

At the November, 1980 Region 8 Committee Meeting in Rome, I was asked to discuss with others and to report on two separate topics, one being (a) whether and how best the PC Society can assist those IEEE members who have English as a second language; and the other being (b) whether the Society title "Professional Communication" is sufficiently self-explanatory to members in the various countries outside the U.S.A.

These subjects were referred to by Mr. Winton at the Region 8 Committee Meeting in Rome (November, 1980) and in his letters to the PC Society Newsletter (p. 2 of Vol. 23, No. 4, October 1980).

On (a), it must be remembered that we are talking about improving communication with members, including students, in the various countries. For the purpose of IEEE membership some knowledge of English is necessary, all Institute publications and the Region 8 Newsletter being in English.

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For the communication of ideas in engineering and science, the language is often of less importance than the logic and clarity of ideas, many of which can be expressed graphically or mathematically, i.e., in terms which recognize no language boundaries.

There is a special need for authors, when writing for an international readership, to avoid colloquialisms, abbreviations, and unnecessarily long paragraphs, sentences and words.

The objectives of the PC Society are therefore directly relevant. If the communicator can write (or talk) concisely, clearly and to the point, this must greatly assist all readers, and not only those for whom English is a second language.

(b) The question has also been put as to whether the title of the Professional Communication Society is sufficiently meaningful, in the European or African context.

There are many engineers both inside and outside the IEEE who do not know of the work of the PC Society, and who do not understand what is meant by "professional communication."

Some would query whether a "professional communicator" is better described as an "engineering communicator," and might regard the adjective "professional" as being somewhat derogatory. In my country there are certainly many different interpretations of the word "professional," not all being complimentary.

It is however argued that the term "Professional Communicator" has a unique meaning within the IEEE, and that this should be preserved—but surely not at the expense or loss of potential Society or Institute membership, for reason of our own inability to communicate to others the purpose of our activities.

The difference between a Society of communicators and one of communications is not as distinct as one would wish.

The word "communications" is widely used, and IEEE also has a Communications Society. A common mistake (which has occurred more than once even in the UKRI Section) is mistakenly to add an s, thus obtaining the term "professional communications." This has a different meaning, and confusion results.

As to which alternative title would be appropriate for the Society to consider, there has been some constructive correspondence, in particular from Mr. Brian Harrington and Prof. Eric Taylor, but it seems that there is no easy solution. Perhaps the right move would be to retain and *explain* the present title, by the use of a subtitle emphasizing "person-to-person" communication.

In short, I think that, as communicators, we in the PC Society may be placing ourselves at a disadvantage by using a title which is not widely understood, but to which there is no obvious alternative. There is a real need to communicate to IEEE members and to others the purpose of the Society, and thereby to gather greater support.

B. W. Osborne

New PC-ers

Welcome, New PC-ers! We are glad to have all 142 of you—84 from 24 of the United States, and 58 from other countries in the five continents. We hope that you will write to us as well as read our publications.

Australia

Blunder, G. N.
Brown, S. D. G.
Edwards, R. H.
Harrison, G. J.
Richards, I. R.

Brazil

Delforge, R.

Canada

Chamberlain, S. G.
Chmara, T. P.
Cross, J. G.
Fritz, E. O.
Haller, D. R.
Mackay, C. A.
McIntyre, C. R.
Morin, M.
Ng, K. F.
Posavad, L. R.
Sehayek, E.
Setosa, I. M.
Shkawrytko, V. N.
Siegel, K. C.
Slack, M. K.

Denmark

Kilden-pedersen, J.

England

Jones, R. L.

France

Hohmann, D. B.

India

Kohli, F. C.

Israel

Joffe, E. B.
Sinigaglia, M.

Japan

Uehara, S.

Korea

Koo, K. H.
Sul, Y.

Mexico

Sierra-Madrigal, V.

The Netherlands

Satyadharma, V. A.

Nigeria

Awe, J. O.
Gomes, E. A.

Peru

Munez, T. Z.

Philippines

Valeno, J. D. C.

Saudi Arabia

Alassaf, H. A.
Al-Bedah, B. M.
Hamid, M.
Robertson, D. C.

Singapore

Chee, J.

Spain

Alvarez, J. G.
Dhyver, M. S.
Moreno, J. A.
Paeze, J. M.
Seisdedos, J. A.
Torrellas, J. D.

Sweden

Bjorvell, A. W.
Lager, G.

Switzerland

Von Arx, B.

United Arab Emirates

Husam, A. M. A.

Uruguay

Caion, A. C.

Venezuela

Diez, E.

West Germany

Firpo, C.
Helwing, A. M.
Tendulkar, G. A.

Yugoslavia

Draganja, R.
Savic, M. D.

United States

Arizona

Brunner, G. D.
Wallace, H. V.

California

Bateau, J. C.
Carmen, J. M.
Cartmill, W. D.
Clarke, R. B.
Draekin, M.
Ehrlich, A. L.
Hurowitz, M.
Kung, K. C.
Martin, S.
Murphy, M. C.
Radmacher, D. S.
Wolfe, M. H.

Colorado

Emery, H. A.
McCracken, J. S.
Osburn, J. D.

Connecticut

Burnette, R. V.
Garrigus, J. C.
Ruey, J. F.

Florida

Bergman, R.
Coppola, P. V.
Schorrig, C. M.
Vann, B. J.

Georgia

Jackosi, K.
Morgan, C.
Sullivan, R. L.

Illinois

Chandra, S.
Jones, M. A.
Kulfiniski, J. A.
Mathey, J. D.
Pratt, M.
Yohanna, N. J.

Indiana

Cart, D. J.
Danielson, A. D.
Stange, D. C.

Kansas

Midgley, H. S.
Stephens, J. W.

Maryland

Ebert, K. M.
Franz, T. H.
Kantor, G.
Kaps, R. K.
Martinez, R. J.
Schreiner, C. L.

Massachusetts

Becker, N. M.
Chang, T.-S.
Grossman, P. A.

Morton, W. C.
Rosmarin, R. B.
Santino, A. J.
Servi, L. D.
Ward, E.

Minnesota

Theologides, M.

Missouri

Blaschak, M. M.
Hahn, A. W.
Strawhun, D. W.

New Jersey

King, T. E.

New York

Kimball, P. M.
Kornberg, F.
Levy, J. D.
Noel, A.
Seim, D. R.
Weinzler, R. K.

North Carolina

Harris, G. B.

Ohio

Duke, A. A.
Hanrahan, G. V.
Jobes, N.

Oklahoma

Gray, C. G.

Pennsylvania

Groh, J. A.
Patrick, M. P.

Tennessee

Clawser, P. A.

Texas

Luna, C. H.
Martin, J. S.
Morley, D. T.
Plumber, P.
Quezergue, P. A.

Virginia

Harbaugh, A. D.
Kabuka, M. R.
Loy, M. T.
Lunsford, L. E.
White, R. M.

Wisconsin

Daly, P. A.
Wahl, D.

Wyoming

Overeem, M. L.

Engineer-Translator Wanted

An engineering firm in Switzerland wants the names of British or American electronics engineers who can do any of the following:

- translate technical text from German to English
- edit text roughly translated by others
- write text from data and basic layout submitted in English
- proofread text translated by others

No "translators specializing in electronics material" need apply unless they are also professional, graduate electronics engineers whose mother tongue is English.

Write to Frank E. Ruegsegger, Electronics Engineer, 26 Alte Landstrasse, 8706 Meilen (Zurich) Switzerland.

Contribute! Participate!

In October, 1980, the *Capital Letter* of the Washington (D.C.) Chapter of the Society for Technical Communication, printed a Help Wanted ad. It said that the newsletter needed the following:

- Business Editor—to write about the activities and products of various companies
- Feature Editor—to write general or special articles related to technical communication
- Graphic Arts Editor—to be responsible for newsletter layout and make sketches or drawings
- Membership Editor—to write about the work or job changes of members
- News Editor—to write about meetings and Chapter activities
- Photographic Editor—to supply photos of members and Chapter functions
- Production Editor—to help with general publishing duties

PC's newsletter too needs more than one editor. How about it, members?

In the past, we have published, and you have enjoyed, words from a number of PC-ers in several countries. Won't you join this distinguished company by sending a letter, a word of wisdom, or even a "funny" to Emily Schlesinger, right now? In four years, we have heard from a dozen PC-ers. Keep the articles, letters, and suggestions coming!

Worry is the interest you pay on a note that never comes due.

URSI

The General Assembly of URSI (International Union of Radio Science), which meets every three years, will convene in Washington (DC), August 10-19, 1981. The Assembly last met in the United States 24 years ago.

An extensive program of more than 500 papers on electronics and electromagnetics from all over the world is being planned for the event in August.

Obtain further information from Mr. R. Y. Dow, URSI XXth General Assembly, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, DC 20418.

News from INTECOM

Forum '81, the next meeting of INTECOM (the International Council for Technical Communication), will be held in Vlaardingen, Holland, on September 23-24. On September 25, INTECOM will participate in the 20th Jubilee Meeting of STIC, the Studiskring voor Technische Informatie en Communicatie.

ISTC, the Institute of Scientific and Technical Communicators of the United Kingdom, will host INTECOM's Forum '82.

The Japanese Society for Technical Communication, formed on November 5, 1980, wants to apply for membership in INTECOM.

The Institute of Technical Communicators of South Africa has asked to join INTECOM.

The Israeli Society for Technical Communication has a membership of 110 and hopes to join INTECOM when financially able.

NAGC

The National Association of Government Communicators will hold its 1981 Annual Conference in Washington, DC, October 29-30.

Contributed papers will deal with evolving technology, the quality and quantity of communications, communication in relation to government programs, and communicators as professionals.

Obtain more information from Mrs. Sara R. Torrence, A640 Administration Building, National Bureau of Standards, Washington, DC 20234.

Research means that you don't know, but are willing to find out.

World Congress

The IX World Congress of the International Federation of Translators (FIT) was held May 6-13, 1981, in Warsaw. General subjects were discussed as follows:

1. Literary translation (practice, perspectives)
 2. Translation of scientific and technical literature
 3. Translation in developing countries
 4. History, theory, and criteria of translation
 5. Computer-aided translation
 6. Consecutive and simultaneous interpretation (film dialogs, dubbing, translation for radio and television)
 7. Legal and social status of translators
 8. Terminological centers and banks, lexicography and documentation.
-

SSP

The third Annual Meeting of the Society for Scholarly Publishing was held in San Francisco, June 1-3, 1981.

Sessions covered such subjects as

Agents of Scholarly Publishing
Aspects of Library Acquisition
Book Design and Technology
Economics and Systems of Publishing
Levels of Edit
Marketing Scholarly Publications
Organizing Editorial Departments
Problems of Copyright
Publishers' Services
Scholarly Publishing Worldwide

Two full-day seminars were offered—one on Book Manufacturing, the other on Word Processing.

At the Conference Banquet, PC-er Jim Lufkin presented his two-act communication drama, *The Fatal Slide*. Jim, sometimes called the Godfather of SSP, edits *The Scientific Honeyweller*.

IFSEA

The International Federation of Scientific Editors Associations, with Elsevier Science Publishers, held the Second International Conference of Scientific Editors in Amsterdam, October 13-17, 1980. Total attendance was 200.

Several different types of presentation concerned copyright, quality control, training, economics, and linguistics in relation to editing and publishing scientific material. There were 19 plenary lectures (organized in seven sessions), 24 discussion groups (held in three sessions), 17 poster presentations, three demonstrations, and one workshop.

Philadelphia was suggested as the site for the Third IFSEA Conference in 1983.

STC's Audio-visual Awards

Award-winning entries in the Fourth Annual Audio-visual Competition of the Society for Technical Communication have recently been announced.

Best of Show was "Words: Crayons of the Mind," produced by Jean O'Neill with photography by Perry Struse. Its illustration of passages from American literature were planned to motivate high school students to take new, alive, and colorful approaches to creative writing.

Many of the winners were promotional presentations for companies or corporations. Some of the more general ones were

The Secret of Good Service

—Dennis Holms and Associates

Balloons and Airships

Milestones of Flight

—SA Films, Inc. for National Air and Space Museum

Arson Unit 8: The Language of Fire

—National Fire Protection Assn.

Natural Resources: How Long Will They Last?

—Nahum Zilberberg, Harcourt Brace Jovanovich

The Body Against Disease

—Peter Cochran, IBIS Media

Dynamics of Fitness

Managing Stress, Anxiety, and Frustration

—Auson W. Schloat, Human Relations Media

Exploring the Marketplace: Your First Car, Part I

Exploring the Marketplace: Nutrition on the Run, Part I

—Jeanne Kiefer, Consumer Union of U.S.

Flashover: Point of No Return

—Ron Meininger, National Bureau of Standards

The Smoking Clinic

—Stan Malotte, Encore Visual Education, Inc.

Managing Your Checking Account, Part I

—Ellen Achiron, Personal Economics Program

Some people don't recognize an opportunity because it comes around looking like hard work.

Science, Anti-science, and Human Values

by

John J. Compton

The following paragraphs condense an article that appeared in the Winter 1978-79 issue of *The Key Reporter*, quarterly newsletter of the United Chapters of Phi Beta Kappa. This summary appears by permission of *The Key Reporter* and with editorial assistance from the author, who is Professor of Philosophy at Vanderbilt University.

Today there is one recurring subject of analysis—the impact of natural science and technology on human life. Humanists express deep misgivings, mistrust, and feelings of personal alienation. Scientists, as individuals, see their work becoming merely a job to be done; but as members of scientific associations they formulate codes of professional ethics and elicit public discussion of science policy.

Some of these expressions of unease may indicate failure of nerve in a time of general social discomfort. Others may reflect a sense of guilt for complicity in technical assaults on the environment or for unjustifiable reliance on the power of science to solve human problems.

Fundamentally, however, the concern and ambivalence are manifestations of a continuing problem with which we have not yet grappled successfully—that of assimilating science and technology into our culture. And behind this problem are philosophical issues and questions of self-understanding, as well as more obvious considerations of policy and the need for political action.

An impressive though flamboyant expression of doubt is Theodore Roszak's *Where the Wasteland Ends*. Roszak sees science as a form of consciousness which limits our rationality, our perception of reality, and our understanding of life-goals. His thesis is that however useful and liberating science and technology have been, however much they have added to our objective knowledge and material well-being, their psychic and social consequences have been destructive.

We have become insensitive and unimaginative, Roszak thinks; we despair, and feel in secret that we have failed as human beings. Nevertheless, we continue to rape our natural environment, augment our power and wealth, multiply diversions, depend irrationally on political stalemate, cultivate the exotic in art, poetry, and religion, and allow technocrats to control business, industry, national security, government, and even communication, education, and recreation.

This doctrine is one-sided, but the proponents of scientific and technical development devoid of any humanism take a simplistic view also. Human reality includes not only positive interest in scientific and technical knowledge but also the desire to lead a humanly fulfilling life. We

lack, however, a workable philosophy of "scientific progress"—that will adequately recognize, encompass, and sustain both aspects of human nature.

Three themes should be considered in formulating such a philosophy:

- A. The meaning and implications of scientific objectivity.
- B. The value of the reductive tendency in the scientific study of nature.
- C. The relation of scientific thinking to technology and to political life.

These themes will be considered in order in outline form:

A. Scientific objectivity.

1. *Scientific knowledge* is intended to be public knowledge that can, in principle, be checked by anyone.
 - a. It consists of controlled, quantitative measures of data and strict mathematical argument;
 - b. It is objective—separated from personal feelings and individual interests;
 - c. It gives the best available technical answers to particular questions;
 - d. It is nonhuman in that it is public and depersonalized.
2. On the other hand, the *search for scientific knowledge* is subjective, limited, and humanistic.
 - a. Scientific methodology is not omniscient.
 - b. The process of scientific inquiry is personal, emotional, imaginative, communal, historical, and nonmechanical.
 - c. Human passion, effort, failure, perception, and understanding are essential in the conduct of scientific inquiry and the application of scientific knowledge.
3. The capacity for being both objective and subjective thus appears to be a characteristic of human nature, not a consequence of scientific knowledge or method.
 - a. Individuals in all walks of life experience the tension between exercising critical, impersonal thought and experiencing joy, the pleasures of participation, and the satisfaction of self-fulfillment.
 - b. The psychic problems of assimilating science are particular aspects of becoming part of any civilized, structured, inhibitory community.

B. The reductive tendency of science.

1. Scientific method operates through radical, abstractive simplification.
 - a. It defines as fundamental those elements and events that are measurable and mathematically lawful.
 - b. It sees the world as a material system subject to exact laws.
2. This reductive approach has been useful in terms of
 - a. Information obtained,
 - b. Concepts formulated, and

c. Applications made possible.

3. We must interpret the knowledge and theoretical framework of science, and integrate them with other types of knowledge and experience—that is,
 - a. Recognize that scientific thought is open; nature now appears to be much more complex and hierarchical than it did in the seventeenth century, characterized by statistical as well as causal uniformity, and historical and evolving rather than static.
 - b. Sustain the hope that scientific analysis will eventually disclose greater coherence between the behavior of the physical world and that of living organisms and human beings.
 - c. Remember that the body of scientific fact and the validity of scientific claims rest upon human perceptual experience, conceptual thought, and free action.
 - d. Recognize, therefore, that although we do not now understand how it is so, people are material systems who also sense and feel and think and choose.

C. The impact of science on social and political life.

1. Urban society is an artificial world, the product of chemical and communication technologies.
2. The size and complexity of social institutions has made science policy a matter of political concern.
3. Decisions related to such subjects as energy, pollution, agriculture, and medicine are increasingly removed from the competence of ordinary people.

On the basis of these considerations, what can we consider a workable social philosophy of science? Clearly, it must consist of the affirmation and reconciliation of two principles:

1. The scientific and technical capabilities of human beings are valuable and not to be denied or rejected.
 - a. We have a "right" to try to improve the quality of human life by intervening in nature.
 - b. We must recognize and accept the social and industrial organizations that form as science and technology develop.
2. The benefits we receive from scientific and technical knowledge are often accompanied by perils. Therefore, we must
 - a. Understand that our foresight into the social and environmental effects of using any technical tool is limited.
 - b. Recognize the concentrations of special interest and power, in government and industry, that limit our ability to control the effects, existing or anticipated, of technological change.
 - c. Be prepared to invoke the legal and political processes of criticism and debate necessary to restrain abuses of technical power by governments and corporations.

The need to take such action lies in the fact that science is no longer purely theoretical or academic. Nor is it a sim-

ple matter of business and industry. Science has become largely social and political. Its costs and benefits and dangers are properly matters of widespread public concern because they affect so many people so intimately, so irreversibly, and often so disturbingly.

Even though individual scientists still seek the truth for its own sake, scientific inquiry and technological development have become communal activities. As parts of a larger project to predict and control nature, they serve a genuine human interest, but they themselves must be controlled by ethical and political considerations for the inclusive and long-term benefit of all human beings.

We must learn to distinguish between science and the scientism that considers science alone to be sufficient for human understanding. And similarly we must distinguish between technology and blind faith in the omnipotence of technology. Science and technology are deeply important tools. They produce liberating social benefits as well as serious dangers. Scientism and faith in technology on the other hand, are the socially destructive myths that critics of science should explode, both for the health of science and for the realization of the deepest human values.

Guglielmo Marconi

Two accounts of Marconi, the inventor of wireless telegraphy who received the Nobel prize in physics in 1909, appeared in a speech called "Reflections" that was given by John McCormick at an Awards Luncheon held in Dearborn (Michigan) in September 1980 and printed in the February (1981) Newsletter of IEEE's Vehicular Technology Society.

The first account was a tribute spoken by Jack Farrell, a retired General Manager of the General Electric Company at an "Old Timers' Reunion" in 1981:

"Despite the magnitude of their contributions, it was not Edison, Fleming, DeForrest, Coolidge, or Langmuir who should be considered the founder of the electronics industry. This honor must always be reserved for Marconi. Here indeed was a man of vision—a practical inventor, salesman, and promoter rather than a scientist.

"In his day and even before, many experimenters had managed to transmit and detect or receive Hertzian waves within the confines of a laboratory. It is not known now what end results these individuals had in mind, but clearly they failed to appreciate that they had a new means of communication at their fingertips.

"Only Marconi had the vision of a wireless system of telegraphy, and he put together an array of components that enabled him to communicate outdoors and over a considerable distance. At this point he went to England to obtain financial backing for developing a ship-to-ship system.

"Marconi's first act on arriving in England was to file for patents on his wireless system. In 1897, a group of wealthy Britons joined him in forming the Marconi Company. With almost unlimited funds at his disposal, he made rapid progress, and in 1900 he was granted his famous Patent 7777 in many countries. This was for 17 years the basic radio patent in the world."

The second account of Marconi was a story told by another GE pioneer, Colonel Irvin R. Weir, at his retirement party in 1962:

"The application of the first high-power water-cooled tube in 1922 stirred the imagination of many radio pioneers. Dr. Alexanderson (of GE) saw the possibility that all motor generators might be put out of business, even his own 200-kilowatt high frequency alternator. It was not long before he obtained authorization for developing a 200-kilowatt transmitter using water-cooled tubes.

"I was to help develop the transmitter at the RCA Station at Rocky Point, Long Island. This development was a cooperative venture between RCA and General Electric: GE was to furnish the tubes and the transmitter; RCA was to provide the station and the antenna.

"We finally got about 120 kilowatts into the antenna. The newspapers were given the story that a tube set was replacing the large Alexanderson alternator. This feature caught the eye of Marconi, whose yacht *Electra* was anchored in New York harbor. The news of a water-cooled tube putting out 120 kilowatts excited him, so he asked General Electric for a couple of the UV-207 tubes for his experimental work in England. I was instructed to deliver the tubes and to get a receipt from him personally.

"As soon as I went aboard the *Electra*, I was stopped by a sailor and taken to the captain, who wanted the two tubes. I told him that I must get a receipt from Marconi himself. After a few minutes' argument, we went below to Marconi's large room. He was at once interested in the tube characteristics and the special ways in which a water-cooled tube must be handled. Such things fascinated him, and I found his rather formal British manner soften to one of warmth.

"Most people think of Marconi as Italian. His father was Italian, but his mother was Irish, and her home was in London. His Irish blood gave him light hair and blue eyes. He looked more like a Britisher than like an Italian. He spoke perfect English with a slight British accent and wore a monocle, British-fashion, over his left eye. He told me that he had lost the use of his right eye in an automobile accident.

"As I sat talking to this soft-spoken, modest, unassuming man, it was hard for me to realize that I was in the presence of the most distinguished radio pioneer on earth. Years ago, as a boy, I had read about Marconi's experiments in radio, but, when I heard my first radio telegraph signals, little did I think that I would ever be sitting before this great man. It seemed like a dream.

"I asked him how he first became interested in wireless, and he said that as a young man he had wanted to do some sort of work that would enable him to travel all over the

earth. He told me that he and his mother had often gone from their home in Italy to visit his mother's folks in London. As he crossed France, he saw glacier-clad mountains, rivers, and chateaus of romance, and he got the urge to travel farther.

"Later, he felt that by experimenting with electric waves he would have many opportunities to journey to far-off countries. He told me that he could never stay cooped up in an office or workshop. This was the reason he used the *Electra* for a laboratory.

"He described some of the problems he had had in trying to transmit messages across the Atlantic. After several failures with using kites and balloons to hold up his receiving antenna, he finally got a kite to fly for hours. He listened and listened, without success.

"Suddenly, one day, he heard a faint click, then another, then another. Yes! That was it—the S-signal that had been agreed upon—from Cornwall, England. He longed to rush out and tell everyone, for he had realized his dream.

"But he did not do this, he told me, because he feared people would not believe him. He listened for 48 hours and told no one, for he wanted to be sure of the signals he heard.

"Then he cabled England the news of the trans-Atlantic success. This caused a great sensation. Newspapers on all five continents featured the story. Man had triumphed over space and time. His experiment was destined to change the world."

Adjective Substitution Noun String Findings Analysis

by
Robbin Battison

[Ed. Note: This article is reprinted from *Simply Stated* (May 1980) through the courtesy of author/editor Battison.]

What is this article about? A careful look at the words in the title shows that they are all nouns commonly used in government, business, and academe. Moreover, they are often used in "strings" like this, especially in the titles of projects, programs, agencies, and processes. These "noun strings" are one of the hallmarks of stilted, incomprehensible, bureaucratic prose.

Short noun strings are everywhere in our written and spoken language. Doublets are especially common and well-accepted: *day care*, *form letter*, *pressure cooker*, *case study*, *career choice*, *grant application*, *life style*. Strings of three or more nouns are not common in everyday speech or writing, but are very common in professional jargon: *Health service provider*, *management information require-*

ment, *system level specification*, *Document Design Center*, *human factors engineering support*, *video training system application*, *U.S. Army weapons systems*. These all may seem reasonable and familiar to you, even if you don't know exactly what they mean. But excesses are also quite common, particularly in the Federal government: just what exactly is a *host area crisis shelter production planning workbook*?

Why are noun strings so difficult to understand? Why do we usually spend some time poring over a new one we encounter, trying to decipher it? It cannot be because of the words themselves; they are usually fairly common and nontechnical. It must be because of the way that they are used together, and the complex process we must go through to decode them.

Let's look at the structure of a noun string first. A noun string is a sequence of nouns that functions as a unit: the final noun of the string is the "head noun;" all the other nouns preceding it (and any adjacent or intervening adjectives) function as adjectives that modify this head noun. If we understand only one thing about a phrase like *ozone probability target*, we know that it is about some kind of target. The head noun in a noun string is easy to identify: it's always at the end of the string.

But how does a reader find the end of a noun string? Nouns still look like nouns even though they may be functioning as adjectives. As a reader progresses through a noun string, each noun is a potential candidate for the head noun of that string or phrase—unless another noun follows. Everything in a noun string is therefore ambiguous until all the nouns have been identified. Consider *management information system plan*. The reader does not know whether it refers to information, a system, or a plan, until the end of the string; but in the meantime the reader has been forming and abandoning false hypotheses about the meaning of the phrase.

The other problem is that a string of nouns is really a condensed version of several phrases—usually prepositional phrases. A *career choice* is a choice of careers; a *grant application* is an application for a grant; a *video training system application* is an application of (or for) a system for training, but we can't tell if the system itself involves video or whether the training is about video. Ambiguities are common in longer noun strings.

The problems are evident. Because we must talk about complex processes and entities, we frequently have to make old familiar words function in new ways. This is the way that languages have always worked, and we may be witnessing a particularly good example of language stretched to its utmost. To avoid noun strings, we can unpack them, reorder them, and expand them. We can rewrite them as prepositional phrases and relative clauses. They may be slightly longer that way, but they are often more comprehensible. We can reduce the reader's uncertainty by leaving in those informative "little words." For example, the title of this article means "A Demonstration of How to Substitute for Adjectives: An Analysis of the Findings on Strings of Nouns."

[Ed. Note: The article concluded with a request for examples of readers' "favorite" long, ambiguous, or unclear noun strings. Responses printed later in *Simply Stated* (July-August 1980) include highly strung nouns as follows:]

Dr. Diana Sims sent an article from the *Dallas Times Herald* (8/7/79) entitled "Cable prompts Hanoi to rescind Congress refugee panel visit ban." Five is a good score, but most newspapers are capable of rising to the challenge.

S. Valakis sent a "six" from the *Commerce Business Daily*, one of those repositories for other peoples' over-condensed prose: "Fluidized Bed Waste Heat Recovery System Demonstration" (6/18/80). Now that's great, but he immediately topped it with a "seven" from the same source. "Roof Rock Bolt Bond Integrity Tester Development" (6/18/80).

The top score of eight, however, goes to a zealous fan who made up his own sentence. Dr. Art Pfeffer wrote: "In my document information newsletter prose enjoyability level assessment survey, you're tops." Unfortunately, the judges were not swayed by flattery, and ruled that the top official score for a published noun string stands at seven. Any challengers out there?

Plain English

Simply Stated is the monthly newsletter of the Document Design Center, American Institute for Research, 1055 Thomas Jefferson Street, N.W., Washington, DC 20007. Handsome and highly readable (usually four pages), it first appeared in November 1979 as *Fine Print* but adopted the name *Simply Stated* in issue No. 8 to remove conflict with another publication.

The policy of editor Robbin Battison is to print "news, announcements, and discussions about document design, clear writing, and language simplification." Readers are asked to send word of their own activities, legislative and judicial action related to clear writing, and inquiries.

Articles in an early issue (February 1980) commented on President Carter's Executive Order 12044 of March 1978 for regulatory reform and the use of "plain English" in Federal documents. The program called for elimination of unnecessary regulations, review of documents to verify that they ensure compliance with underlying policy, and revision of systems for managing and implementing regulations.

A guest editorial, however, called this program a "reform that might have been," because the President did not insist that persons who sign regulations should read them first, become thoroughly familiar with what they sign, and be held responsible for documents issued in their names.

Some government departments today are "trying to make it work." In Health, Education, and Welfare, for example, every major division is working on Operation

Common Sense, a program of review, recodification, and revision of Department regulations—a total, when the review began, of some 6000 pages.

The Environmental Protection Agency too is attempting to make sure that regulations are written clearly and issued carefully. The Communication Staff in the Planning and Evaluation Division now has twelve members instead of the former two. It is developing a computerized system for monitoring the progress of regulations through deliberation, writing, and review, and is planning workshops for Agency personnel on document content and principles of clear writing.

A similar effort is the Federal Acquisition Regulation Project (FARP), organized to rewrite and recodify Federal regulations on procuring goods and services.

In a later issue of *Simply Stated* (September 1980), a contributor protests the use of "military outlining"—systems of decimal-point numbering used to show the levels of organization within a text. Texas Instruments, for example, is working to eliminate paragraph headings like .02.22.030.130. Systems of centering, capitalizing, indenting, and underlining can be used; and sometimes reorganization is possible.

Simply Stated's recent discussion of noun strings is reprinted in full elsewhere in these pages.

Plain Language in the U.S.

The State of Colorado is trying to get lawyers to write in simple English and use standard 8½" × 11" paper—for ease of typing, reading, and comprehension. Will outsize legal pads and confusing legalese go out of style in the Rockies?

The Food and Drug Administration recently issued a set of guidelines for preparing the small leaflets—patient package inserts (PPI)—that accompany prescription drugs to inform users about the risks, benefits, and side effects. Among other requirements was the statement that the writers should use "non-technical language."

For example, don't say, "In the event of an accidental overdose..."; "say" If you think you have taken too much..."

Members of The Document Design Center of American Institutes for Research are working with the National Institutes of Health to solve problems related to medical consent forms—the legal documents signed by patients to show that they consent to experiments, understand procedures, are aware of the risks and possible benefits of drugs, and know that they can withdraw from treatment whenever they wish.

The State of New Jersey's Department of Motor Vehicles has a Plain English Task Force at work revising the 2000 forms used to tell drivers what they should and should not do. Every week the Department sends out about 4000 notices for different purposes to different groups of people about licenses, registration, and training to teenagers, middle-agers, and senior citizens who own or operate cars, buses, trucks, motorcycles, or mopeds.

The Task Force has already eliminated 400 forms and is translating the 100 most-used remaining ones into easily understandable English.

Less paper, less inventory, less postage, less misunderstanding, and less confusion are the expected benefits of the project.

—Information via *Simply Stated* (February 1981).

Be an Editor I

Engineers and technicians aren't the only ones who write poorly. As you read the following paragraphs by a member of the book trade, note especially that the removal of unnecessary words would improve it:

I am in receipt of your letter of March 2nd and note your interest in possible employment with us. We have no position open at this time, though I'll be happy to keep you in mind in case something develops across the future.

We have been somewhat in a state of retreat from an overexposed position brought about from having to move 3 bookstores over a 3 year period. Our publishing department which at one time employed 5 people today has been reduced down to just 1 part-time worker. It is our hope to gradually be able to get this division back in operation again although it may take some thime. Suggestions for improving the bookman's letter:

1. Remove *with us*
be happy to
somewhat
down
just
gradually be able to
yet
1. Change *though* to *but*
across to *in*
back in operation to *operating*
3. Do something—anything—perhaps strike out—the first sentence.
4. Write out *three*
three-year
five
one

Be An Editor II

Here is another letter from the garrulous tradesman, this time to someone who wants to buy books and sell a trophy:

Since receipt of your card, I tried to reach you 2 or 3 times by phone, and failing in that will now resort to this letter. I talked to you a few days ago, before receipt of your card, at that time you expressed a willingness to sell the crocodile hide at the minimum figure previously quoted not to go below that.

We have a young man who is interested in it who hasn't come forward with any definit offer. If I can get him to come up to your minimum figure shall we sell it to him?

Your comment on being interested in scarce books, also needs some explanation. If we're unable to sell it for cash within a reasonable period, we might possibly be willing to allow you some book credit up to a certain point if you still want to dispose of your skin.

PC-ers, if you don't want to go through the exercise of editing these paragraphs, or rewriting them in fewer words, at least reread and note the points of awkwardness. Some of these are

confusing repetition
run-on sentences
faulty punctuation
incorrect spelling
pronouns with vague antecedents
poor word-choices

Can you find the bloopers?

Be an Editor III

Here is another letter from the garrulous bookman. Everything about it is wrong except the friendly tone. In particular, all of the sentences are wordy, at least one is confusing, and at least one is out of order. Try to find the "errors."

To a Librarian:

Thank you for your note of Feb. 23rd. Several of your boxes of the return shipment of our books arrived yesterday and we're hoping for the others soon. We will run a tape on everything to see if our figures agree with yours. The payment of the first shipment arrived last week for which we're deeply appreciative. Unless you hear from us to the contrary, the figure of \$1725 will prove correct and payment of the balance when received will be in turn appreciated.

When the time comes that you have more money to spend, we'll be happy to examine our stock again for quotations on shipment for additional materials on your area.

Machines Don't Fail—People Do

EDWIN F. SHELLEY

On the evening of April 24, 1980, the United States launched a dramatic military operation to rescue the 50 American hostages held in Teheran. In the early hours of the following morning the rescue mission was aborted because of the mechanical failure of three out of eight helicopters assigned to the mission. Eight American servicemen died during the withdrawal operation.

More recently, on June 3rd and then again on June 6th a computer failure in our air defense system triggered an erroneous warning that Russian missiles were launched and speeding toward targets in the United States. Nuclear countermeasures were initiated, and retaliatory strikes were finally called off after several minutes of frantic checking to determine the validity of the computer signals.

The avalanche of political comment on the tragic failure of the rescue mission and on the close brush with nuclear Armageddon has obscured a crucial lesson for all Americans: if we wish to preserve our independence as a nation and our freedom as a people we must overhaul our attitude toward personal responsibility in our work.

Machines do not fail—the people who design, build, operate or maintain them fail. There was a time when trains rarely derailed, when cranes rarely buckled, when roofs rarely collapsed and when standard military gear functioned even in a storm. A failure rate of three out of eight (almost 40%!) would have destroyed the U.S. space program long before we landed on the moon. It would have paralyzed the invasion forces on D day and lost World War II for the Allies. An airline failure rate of three planes out of eight would stop all air travel. An unresolved failure in the air defense computer system could launch World War III.

Yet a high failure rate, routinely blamed on machines, is becoming typical of much of American society today. When your department store keeps dunning you for a bill that you have already paid, the so-called "computer error" was caused by an ordinary clerk pressing a wrong key or an ordinary programmer who didn't allow for contingencies. When you buy a new automobile and spend the next six months in and out of the shop getting it to run properly, it is not machine failure, it is a failure by a careless designer, assembler, inspector or manager responsible for the car's production or delivery. When you get your wedding invitations back from the printer and the middle initial is wrong, it was not the automatic press which substituted initials. Of course, the printer does the job over at no charge, but obviously the cost of such errors must be built into the price of the wedding announcements—and the price of the automobile, and the department store merchandise.

Thus, in the commercial sphere, our growing carelessness and lack of personal responsibility is reflected in lower productivity and higher costs for goods and services. We compete less effectively with other countries, and our national standard of living declines. "Nobody's perfect" and "I'm only human" and "Work isn't everything, you know" translates into "I can't make ends meet," "I can't afford a vacation this year" and "I need a raise."

Increasingly frequent examples of "machine failure" simply represent the failure of people to take reasonable care in performing their jobs. They are not the failures of some inanimate devil called a machine—machines do precisely what their designers, builders, operators and maintainers tell them to do. Although some machines are more complicated than others, they all obey the same laws. Assuming that the basic knowledge exists for designing, building, operating and maintaining a particular machine, its reliability is determined by the care taken by the people engaged in each of these tasks. The railroad locomotive built in the last century under an earlier standard of care, and now retired to a museum after 50 years of operation, could roar out of the museum tomorrow to resume the task for which it was designed.

The military effects of this alarming syndrome of personal irresponsibility and carelessness can be catastrophic. The failure of a dramatic rescue mission with the loss of eight lives, the resulting scorn of our enemies and the shaken confidence of our friends—these are just curtain raisers. The crucial drama comes when we must defend our allies, and ultimately ourselves, against the escalating advances of practitioners of realpolitik. Our military power—real or perceived—is an important stabilizer in today's world. Any advantage which we may possess in sophisticated weaponry becomes a terrible disadvantage if the weapons fail to work. And they *will* fail to work if the people—from top to bottom—responsible for their design, construction, maintenance and operation are not imbued with a strong and continuing sense of responsibility for their respective jobs. Competent leadership is obviously important, but in the end it may be the degree to which we practice individual responsibility that determines whether we survive as a free nation. ■

Reprinted from IEEE TECHNOLOGY AND SOCIETY, September 1980. To get a free copy of the latest issue of TECHNOLOGY AND SOCIETY, write or phone Frank Kotasek, Jr., 73 Hedges Ave., E. Patchogue, NY 11772, (516) 475-1330. Edwin F. Shelley (Senior Member, IEEE) is Director of the Center for Energy Policy and Research at New York Institute of Technology. He was a flight test engineer during World War II.

Disagree Agreeably

—Listen. Give other people a chance to have their say. Don't interrupt. Let them finish. They could be right, or partly right, or cite some facts that never occurred to you.

—Control your temper. If you don't, you won't be able to listen. You will not be able to marshal your own best reasons for your point of view. And, you risk looking foolish.

—Distrust your first impression. The first natural reaction in a disagreeable situation is to be defensive. Be careful. Keep calm and watch out for your first reaction. It may be you at your worst, not your best.

—Look for areas of agreement. Two people seldom totally disagree. They may, for example, have the same goal but differ in their ways of reaching it. Once you have heard the other viewpoint, dwell first on the areas where you agree.

—Be honest. If, after listening carefully, you see any errors in your own beliefs, admit them. This will not only help you devise the best possible strategy, it will disarm your opponent.

—Promise to consider the other person's idea. After all, it may be the right idea. It's a lot easier at this stage to agree to think about another's position than to dismiss it out of hand and find yourself in a position where he or she can say, "I tried to tell him, but he wouldn't listen."

—Thank him. Anyone who takes the time to disagree with you is interested in the same things you are. Think of the other person as someone who really wants to help, and he will turn out to be a friend.

—Postpone action and think things through. Suggest that you meet the other person at a mutually agreeable time, when all the facts may be considered. To prepare for this meeting, ask yourself some hard questions.

Revise your position as necessary. If, upon reflection, you decide to modify your position because of the other person's input, tell him so. On the other hand, if you still feel that you are right, explain why as clearly as possible. No one can fault you for honesty. You've had an honest disagreement, but you haven't had an argument.

—*Industrial Supervisor via Baltimore Gas and Electric Company's FACTS (April 1981)*

American Association for the Advancement of Science in San Francisco this January.

Peter Tyack, Rockefeller University, said that all evidence indicates that the humpback whales who sing during breeding season are male. Tyack hypothesized that humpback song could play a role in reproduction "similar to that played by song in songbirds, and thus probably communicates species identity, sex, location, readiness to mate with females, and readiness to engage in antagonistic behavior with other males."

Katharine Payne, New York Zoological Society, reported that "a study of humpback songs recorded near Bermuda over 21 years shows that on any date all the whales in an area sing roughly the same song; but with time the song progressively changes. All whales keep up with the current version.

"The changes are extensive, resulting in the replacement of most of a song within about four years. We have analyzed spectrograms of more than 300 songs from three seasons in Hawaii. The dialect differs from that of the North Atlantic but is subject to the same rules of form and of change.

"Old themes drop out, and new ones are formed by splitting and rearranging existing themes. The whales concur on the different rates and kinds of change for each of the song's theme." Payne added that songs from a second breeding ground 4200 km east of Hawaii "clearly share the Hawaiian dialect and exhibit the same changes over a three-year period."

John Ford, University of British Columbia, discussed research on orcas off Vancouver Island. "The most frequently heard signals in social contexts are repetitious, stereotyped burst-pulsed calls ('S-calls')... We have found relatively few types of S-calls per killer whale pod. Certain S-calls dominate acoustic exchanges within a pod, while others are heard only rarely."

"There are considerable differences between the S-call repertoires of several pods recorded to date... Certain pods which are often encountered together share virtually the same S-call repertoire. Other pods which are less often or never seen together have very different repertoires.

"Analyses of sounds recorded from local whale groups as early as 1964 indicate that a pod's S-call may remain stable over long periods of time. Although firm conclusions are premature, it seems likely that group-specific vocalizations are important in maintaining the cohesion and identity of killer whale social units."

—From the Newsletter of IEEE's Geoscience and Remote Sensing Society, June 1980.

Communication Among Whales

Songs of the humpback whale may be sung only by males and related to reproduction. Some orca (killer whale) vocalizations remain stable over long periods and may play a role in group cohesion. These are among suggestions made by biologists at the annual meeting of the

You can't build a good reputation on the things you intend to do.

Editors Join Forces

Fourteen companies in the Washington (DC) metropolitan area have incorporated the Association of Editorial Businesses to

- improve editorial trade practices
- exchange information and solve mutual problems
- develop standards for editorial firms
- educate the general public about editorial practices
- promote uniform payment practices in federal agencies

Members of the AEB hope that editorial businesses in other parts of the country will join them in formulating trade practices and defining standards. The Association plans to publish a directory and a newsletter, and to develop a program for education in editorial skills.

AEB's president, Laura Horowitz, will welcome inquiries from any company that provides editorial services and uses writers, editors, proofreaders, indexers, and other editorial support personnel. Write to her at AEB, 1037 Woodward Building, 733 15th Street NW, Washington, DC 20005.

—Information from *Simply Stated*, February 1981

The Risk of Side-Effects

Joseph F. Coates, writing in *Next* magazine (May/June 1980), discusses the side-effects of technology and how they might be minimized. His starting-point is a tally in the book *Technology and Social Shock*, by Ed Lawless—about 1000 technological blunders headlined since World War II; that is, two significant “goofs” per month for 35 years.

We evaluate new technology, Coates points out, by three criteria:

- Can it be done?
- Will it sell?
- Is it safe?

But we have problems because of side-effects and ignorance. Aluminum cans choke and litter Yosemite Park, thalidomide causes birth defects, exhaust gases pollute the atmosphere, toxic chemicals seep from dumps. Do you know what nylon is, why fluorescent lights flicker, where your sewage goes when you flush the toilet?

Not until pregnant scuba-divers bore deformed babies did we learn that fetuses are more susceptible to the bends than their mothers. Not until the accident occurred at Three Mile Island did we even admit the folly of allowing a single Commission to promote as well as regulate nuclear power.

Because we are ignorant of technology, we delegate to “experts” the task of overseeing it. But experts live in

bureaucracies, and bureaucracies tend to preserve themselves rather than to serve the public; they lie and they shirk responsibility.

How, then, can we avoid technological blunders, the undesirable results of “progress?” First of all, Joseph Coates says, we need caution and prudence. Instead of rushing in, we should approach risk experimentally and incrementally, consider warnings and relationships, take time for trials and redesigning.

Further along, we need direct, immediate, and unbiased feedback, not only about the societal and other effects of new technologies but also about the effects of government response to new technologies.

Most of all, however, in adopting and dealing with new technology, we need flexibility in our responses, adaptability in our attitudes, and at least a willingness to consider in advance what unexpected, undesirable, unforeseen consequences may come from any proposed action.

Books on Negotiation

You Can Negotiate Anything, Herb Cohen, Lyle Stuart Inc., 120 Enterprise Ave., Secaucus, NJ 07094; 255 pages, \$12.00

If you, as a purchaser or any type of “buyer,” fail to indicate that you want adjustment of price, delivery, conditions, etc., that are being offered, you become a passive receptor, generally worse off than necessary.

Cohen's book deals with negotiating in the world at large: how to increase your ability to get a better “deal” in any situation in which “the other side” can maneuver. You will be surprised, Cohen says, at the way in which negotiations can continue, even when they appear to be at their limits.

His most important point: “Watch your listen/talk ratio!” Don't be afraid to ask questions, or want more information. Your request for help will create a beneficial relationship that will be to your advantage.

First chapters discuss

- What is Negotiation?
- Almost Everything is Negotiable
- Getting Your Feet Wet.

Each of the three crucial variables—Power, Time, Information—is discussed in a separate chapter, as are styles of negotiating—Winning at all Costs: Soviet Style, and Negotiating for Mutual Satisfaction: Win/Win Technique. A last section discusses telephone negotiations and job relationships.

How to Negotiate a Raise, John W. Tarrant, Van Nostrand Reinhold Co., 450 W. 33rd Street, New York, NY 10001; 195 pages, \$9.95

Tarrant gives rules for taking action if you think you are being paid less than you are worth:

1. Campaign for your first raise when you are being hired.
2. Prepare your attack carefully.
3. Use appropriate strategies.

There are others. The book tells how individuals can further their own professional interests.

Reviews adapted from those by Irwin Gray in the Newsletter of IEEE's Engineering Management Society for January/February, 1981.

How to Read a Speech

For \$2.50 plus 50c for postage, you can get a 28-page booklet called "How to Write a Speech—One That Talks," by Roslyn Bremer. Write to COMMUNI-VU, Inc., 1 Lincoln Plaza, New York, NY 10023.

Some speeches are so important and so carefully written that they must be read word for word, but they must come alive orally and provide maximum contact between speaker and audience.

This is the kind of speech the Bremer booklet talks about. The author describes, step by step, the processes of planning, outlining, filling in, using visuals, and practicing. She discusses how to analyze and appeal to audiences, offers *do's* and *don'ts*, and suggests ways of keeping presentations simple.

Bremer has used her "system" to help executives prepare for stockholders' and security analyst meetings, television appearances, and panel discussions. She has developed and taught management training courses for companies and communication courses for colleges.

Information from *ICC Newsletter*, April 1981

Free Information

Single copies of a four-page leaflet (8½" × 11"), "Research, Experts and Homework," or "How to Find a Free Expert and Free Information on Anything," may be obtained free from Information USA, 1000 Connecticut Avenue N.W., Washington, DC 20036 (202-783-2862).

The leaflet lists 26 Information Starting Points as places in Washington to go to first for free help in studying problems related to agriculture, business, crime, education, employment, energy, legislation, and other subjects. There are also the names, addresses, and telephone numbers of other Washington sources of free information about particular sources.

The leaflet was prepared by Matthew Lesko, author of *Something for Nothing*, a collection of over 400 sources of information, "freebies," and money-making opportunities available from the Federal government. The book may be obtained from Associated Press Newsfeatures, Box G22, Teaneck, NJ 07666; send \$2.95.

Oh, You Passive Voice!

A corner was sat in by Little Jack Horner,
His pie was eaten by him,
His thumb was stuck in,
A plum was pulled out,
It was said by him, "What a good boy
I am thought to be!"

—Kenneth Gordon in *STC Tieline*, April 1981

Very Remote Sensings

These "Data System Daffynitions" were prepared by Travis Walton for the Newsletter of IEEE's Geoscience and Remote Sensing Society (September 1980):

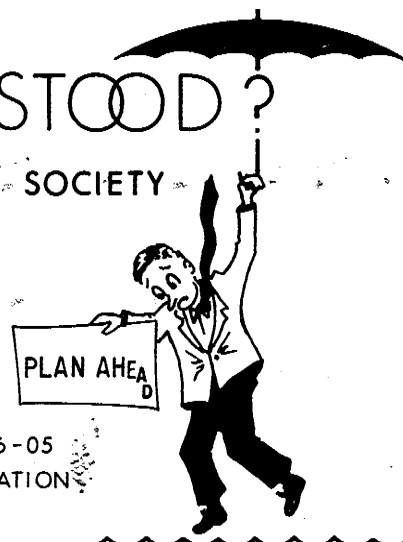
accumulator—pack rat
assembler language—political speech
baud rate—price at cheap hotel
byte—part of eat
character—your neighbor
character set—his family
CMOS—green stuff growing near sea
COBOL—co-op student dance
control character—jazzy pilot
CPU—observe skunk
data set—bigamist
DMA—d reason for d extra college year
EPROM—social for flunking students
execution time—usually noon
fan in, fan out—direction for use of fan
hexadecimal—spell cast by accountant
interface—where to hit her with pie
I/O bound—going to Des Moines
machine code—equipment illness
MOS—on north side of trees
negative true logic—pessimist
nonvolatile memory—mother-in-law
open collector—trash can
overlap—obese
serial I/O—borrowed breakfast food
subroutine—for example: dive

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