IEEE PROFESSIONAL COMMUNICATION SOCIETY NEWSLETTER

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AdCom Meetings

Since the last issue of this Newsletter was mailed, PC's AdCom has met twice--on September 7 and December 14. Highlights of these meetings are as follows:

1. Appointments

Bill Wells and Lacy Martin will fill the terms (ending 1981) left open by the resignations of Lou Cole and Irv Seideman, respectively.

Dave Dobson will replace Bill Wells as liaison to the Council of Communication Societies.

2. PC Conference

Dan Rosich is planning a PC conference, with pleuary meetings, individual-paper sessions, workshops, and discussions, that will help engineers communicate with special audiences--e.g., at professional gatherings, in interviews, with representatives of the press, at public hearings, with members of management. He needs help from PC's membership at large, especially from engineers and writers in the Boston area. Write or call him with suggestions and offers of assuming responsibility for all or some aspects of the program, finance, publicity, local arrangements, and publication:

Dan Rosich
362 Hussey Road
Mt. Vernon, NY 10552

3. IEEE Press Book

Craig Harkins and Daniel Plung are assembling articles for a PC-sponsored collection, "How to Prepare Better Technical Papers and Articles." It will be published by the IEEE Press as a companion to our first book, "Guide to Better Technical Presentations," compiled by Bob Woelfle.

4. Scholarship

The heads of Student Chapters and the editors of IEEE Newsletters have been notified that a PC Scholarship of $1,000 will be offered in 1980 to Student Members of PC who have completed at least one full year of college work and are proficient in written and oral communication as well as in engineering. Get further information from the Chairman of PC's Scholarship Committee, Dr. Della Whittaker, 10804 Ashfield Road, Adelphi, MD 20783.

5. Dues

In 1972, PC's annual dues were raised from $4 to $6. In 1981, they will increase to $8. For this small sum, any member will receive four issues of PC's quarterly Transactions, and four issues of PC's quarterly newsletter Also available to PC members are many opportunities to increase personal skills and professional stature by working on the Society's standing committees.

6. Election of Nominees

The following were nominated and elected to fill the six vacancies in PC's AdCom for the three-year term, 1980-82:

David B. Dobson
Bertrand B. Pearlman
Leon C. Pickus
Richard Robinson
Emily Schlesinger
William Ternant

Barring objections from the general membership, these elections will stand. Pictures and brief biographies appear elsewhere in this issue.

7. Election and Appointment of Officers

Bert Pearlman was elected President of PCS and Dan Rosich Vice-President, both for the year 1980. At Bert's request, Craig Harkins will continue as Secretary and John Phillips as Treasurer.

Letter From the Editor

The world is too much with us: late and soon,
Getting and spending, we lay waste our powers--

The July 1979 issue of PC's Newsletter was late and this December 1979 issue is even later. The editor hopes that the January 1980 issue will be less late and the April 1980 issue not at all late.

Hope springs eternal in the human breast;
Man never is, but always to be, blest.

Goldsmith Award to E.O. Taylor

At the Annual Meeting of PC's AdCom on December 14, Eric Openshaw Taylor of Hastings, in Sussex, England, was named recipient of the Alfred N. Goldsmith Memorial Award for 1979. The Award is given annually in recognition of work done within PC's organization to promote quality in engineering communication.

E. O. Taylor was cited for leadership, service, and inspiration. From 1975 through 1978, as Chairman of PC's UK/RI Chapter, he represented the Society and encouraged others to support its ideals in the United Kingdom and Republic of Ireland.

The UK/RI Chapter was and still is very small; until recently it received little recognition from the Society's AdCom or in Society publications. Chairman Taylor, however, made its existence known and its influence felt locally through continuous personal and professional effort. He maintained official liaison with larger engineering and communication groups, in particular coordinating PC Chapter activities with those of IEEE's UK/RI Section, the Institution of Electrical Engineers, and the Institute of Scientific and Technical Communicators. And by his devoted individual example he encouraged others to join with him in helping engineers to improve their skill as communicators and helping professional communicators to support engineering.

E. O. Taylor, a retired Chartered Engineer, is a diplomate of London University's Imperial College of Science and Technology, a Senior Member of IEEE, a Fellow of the Institution of Electrical Engineers, and a Fellow of the Royal Society of Edinburgh. From 1942 through 1969, he was Professor of Electrical Engineering at Heriot-Watt University in Edinburgh.

Professor Taylor has a number of articles and editorships to his credit and has written four books--

Utilisation of Electrical Energy (1937)
Distribution & Utilisation of Energy (1945)
Performance & Design of A.C. Commutator Motors (1958)
D. C. Machines (1979; with co-author M. G. Say)

A Senior Member of IEEE, Professor Taylor is active in the UK/RI Section. For four years (1975-8), he was Chairman of IEE's Scottish Centre, and he has for some time served IEE and the Council of Engineering Institutions as External Examiner for various Universities and Polytechnics.

His non-engineering activities have included playing tennis, climbing hills, being a Toastmaster, editing for the Sussex Industrial Archeological Society, and serving as President of the Royal Scottish Society of Arts (1956-8).

Professor Taylor is the fourth recipient of PC's Goldsmith Award, which was first given to Jim Lufkin (1976); Ron Blicq, John Phillips, and Emily Schlesinger have also been honored.

Education

A Technically—Write! workshop was held on two days in September, 1979 for 25 employees of the Stauffer Chemical Company (Dobbs Ferry, NY). Plans are being made for a return engagement in which Ron Blicq will instruct another group of technicians and professionals. Bert Pearlman coordinated arrangements and PC billed Stauffer directly.

Sponsored by the Baltimore Chapter of IEEE's Power Engineering Society through IEEE Educational Services, Emily Schlesinger presented a ten-session lecture and tutoring adaptation of the Technically—Write! home-study course to 15 employees of the Baltimore Gas and Electric Company, October-December, 1979.

PC Scholarship

To encourage the development of communication skills, PC will give annually a scholarship of $1,000 to a second-, third-, or fourth-year college student who is a member of the Society. Applicants must submit a completed application form, a one-paragraph statement of career goals, a certified transcript of academic record, and recommendations from two faculty members.

Get forms and further information from Dr. Della Whittaker, 10804 Ashfield Road, Adelphi, MD 20783; 301-937-1555.

Back Issues

Bert Pearlman has extra copies of the following issues of PC's Transactions:

PC-19, No. 1	March 1976
PC-19, No. 2	December 1976
PC-20, No. 2	September 1977
PC-20, No. 3	November 1977

Send him $2.00 for each copy--to fill in your own series or encourage prospective PC-ers. Make your check payable to IEEE/PCS.

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New Members - Welcome to PC

In July through November (1979), 108 new members joined PC. Of these, 70 live in the United States, and 38 are distributed among other countries. Welcome to all!

AUSTRALIA
C. N. Daly
M. Pham

BRAZIL
S. Carneiro, Jr.
A. G. Bordeaux Rego

CANADA
G. D. Aasen
P. A. Attwater
R. B. Flake
M. J. Giroux
J. H. Nightingale

COLUMBIA
J. Fonseca-Pardo

DENMARK
B. J. Borup

FRANCE
J. C. Bartoli

GREECE
T. K. Eliakis

INDIA
C. S. Subramanian

INDONESIA
I. K. Suhardi

IRAQ
M. T. Ali

IRISH REP.
F. M. Healy

ITALY
D. Idone
S. M. Minacapelli

JAPAN
I. Matsushita
T. Oyachi

KOREA
D.-K. Bak
I. S. Chang
Y.-S. Chang
P. K. Suk

MEXICO
F. Garza-Garza
F. J. M. Hernandez

NEW ZEALAND
J. A. Concannon

NIGERIA
O. Ifeyimmwa
A. O. Eno

NORWAY
G. A. Loe

PERU
J. M. Ticona

PORTUGAL
A. M. Athayde

SCOTLAND
W. T. Nisbet

SPAIN
J. M. Fernandez-L

SWEDEN
S. Sjogren

UNITED ARAB EMIRATES
S. C. Sharma

VENEZUELA
M. Rosendo

UNITED STATES

Alaska
M. Tavella

California
M. D. Bielucki
L. J. Ferderber
P. E. Larson, Jr.
R. K. Likuski
W. C. Marmon
M. D. Montgomery
R. J. Orford
J. L. Podolsky
D. E. Rubin
B. C. Scanlon
J. W. Votaw

Colorado
G. F. Tabor

Connecticut
R. A. Cacace
P. J. Colleran
H. J. Kocar
N. Noti

District of Columbia
D. L. Bobo
J. A. Sporidis

Florida
R. E. Floyd
M. E. Lipthay
D. Olsen

Illinois
D. S. Levesque
R. L. Phegley
M. R. Thompson

Indiana
R. M. Pogue

Maryland
B. L. Brown
A. Ciaravino
R. B. Follas
D. G. Lubar
L. K. Thuss

Massachusetts
R. J. Buckley
W. R. Bruneau
C. W. Schwarcz
W. J. Sitkewich
K. E. Williams

Michigan
J. M. Dunlap

Missouri
T. K. Nelson
L. H. Siddiqui

New Jersey
T. C. Brown
P. A. Frost
M. A. Gianfagna
W. A. Waddington

New York
R. Archbald
M. J. Bogdan
D. Christiansen
M. Lucas
K. M. Ryan
J. B. Sandberg
H. N. Shevack

N. Carolina
R. J. Hofinger

Ohio
W. E. Moore

Oregon
G. R. Dunn
P. L. Normandin

Pennsylvania
C. C. Funk, Jr.
T. G. Stone

Tennessee
D. M. Lashley

Texas
B. D. Baker
T. A. Coker
D. C. Ford
D. R. Payne
D. M. Phillips
B. E. Rehm
J. B. Rooks, Jr.

Utah
M. S. Walker

Virginia
R. C. Gordon
B. R. Owolabi
B. D. Riter

W. Virginia
J. D. Mooney

Wisconsin
F. M. Jacobson

Notice to New Members

New PC-ers, now that you have joined, please participate--

*identify a PC activity that interests you, call or write to a PC officer or editor about it, receive an answer--

and before you can say communicate you will begin to benefit. Then go back to * and help yourself personally and professionally, over and over.

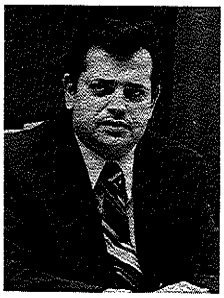
David B. Dobson

Dave Dobson holds the BEE degree from Rensselaer Polytechnical Institute, is a Registered Professional Engineer, taught summer seminars on communication at Colorado State University, and has published articles on automatic test equipment and publication management.

His employers have been the U.S. Army (Signal Corps Engineering Laboratories and Psychological Warfare Board) and RCA (Automatic Test Equipment Engineering, Public Affairs, and Lunar Excursion Module Radar for the Apollo Project). In December 1979 he became Vice-President for Marketing at McGregor & Werner, printers, in Washington, D.C.

Dave is a Senior Member of IEEE and also of the Society for Technical Communication. He is active on three committees (Finance, Publications, and Meetings) of IEEE's Technical Activities Board and serves on three other IEEE Boards (Publications, Standards, and U.S. Activities). In addition, he is Administrative Editor of the Aerospace and Electronic Systems Society's Newsletter and Transactions and a member of the AES Administrative Committee.

Dave's present term on PC's Administrative Committee expires this year. He is eligible for re-election.



Bertrand B. Pearlman

Bert Pearlman, now PC's President, is eligible for election to a second term on our AdCom. He received the BEE from Polytechnic Institute of New York, has published papers on transformer maintenance and electrical safety, and holds patents on the elimination of magnetic field effects and the use of mercury in high-current chlorine cells.

As Manager of Design Engineering at Stauffer Chemical Company, Bert directly supervises a variety of engineering functions--electrical, mechanical, architectural, and civil. He is responsible for engineering standards and represents his company on the Engineering Advisory Committee of the Chemical Manufacturers' Association.

Bert is a member of six IEEE Societies, IEEE's Public Relations Board, the Society for Technical Communication, the American Institute of Chemical Engineers, and the Instrument Society of America.

Leon C. Pickus

Leon Pickus has been a Technical Publications Engineer for nearly 25 years. As an engineering writer with the RCA Missile and Surface Radar organization in Moorestown, New Jersey, he was responsible for preparing major technical proposals and engineering reports, equipment specifications, test documentation, technical marketing brochures, and visual aids for technical and management presentations.

In the Project Management Office of the RCA AEGIS Department he is now responsible for AEGIS Awards Performance Programs, reports, oral presentations, video films, and employee motivation.

As a member of IEEE and a past member of Toastmasters, Leon serves on PC's Education Committee as an instructor for the "Technically--Write!" home-study course and a lecturer for technical report writing workshops. His hobbies include oil painting and traveling (he's a part-time travel agent). He received a BEE degree from Pratt Institute, and an AA degree in Business from Burlington County College; he has taken several MSEE courses at Villanova University.

Richard Robinson

Richie Robinson holds two degrees from Rensselaer Polytechnic Institute--the B.S. in Physics and the M.S. in Technical Writing--and has taken additional graduate courses in the psychology and sociology of communication.

He has worked as writer and publications engineer at Raytheon and Sperry Gyroscope and taught courses in

report and proposal writing at Suffolk County (N.Y.) Community College. For the past twelve years he has been employed by Grumman Aerospace Corporation; at present he is Editorial Group Leader for Presentations Services.

A Senior Member of the Society for Technical Communication and a Member of IEEE, Richie is now PC's Membership Chairman and eligible for re-election to PC's AdCom.

Emily Schlesinger

Emily Schlesinger is employed by the Baltimore Gas and Electric Co. where she writes, edits, and manages the production of company reports and procedural documents, and of engineering articles for trade and professional journals. She holds an A.B. degree from Goucher College and an M.A. degree from Mt. Holyoke College, both in physics, and M.A. and Ph.D. degrees in English from the University of Maryland. A member of Phi Beta Kappa and a senior member of both PCS and the Society for Technical Communication, she has taught technical writing and has published articles in the IEEE/PCS Transactions and in the Journal of Technical Writing and Communication.

Emily was PC's President for two years (1976-7) and is eligible to serve a second three-year term on the Society's AdCom.

William A. Ternant

Bill Ternent received BS, MA, and PhD degrees in Communication from Ohio State University and has served the University as Research Administrator and as Director of Planning and Evaluation for Regional Medical Programs organized through the College of Medicine.

For four years he was Associate Director of the West Virginia Regional Medical Program, planning and managing research programs for West Virginia University's School of Medicine; he also taught graduate and undergraduate courses in the University's Department of Speech Communication.

Since 1976, Bill has been Associate Professor in the Department of Communication Arts and Sciences in Howard University's School of Communication (Washington, D.C.). During most of 1979, on a leave of absence from Howard, he was a HEW Fellow, working in the office of the Secretary, U.S. Department of Health, Education, and Welfare as Special Assistant to the deputy Commissioner of the Bureau of Higher and Continuing Education; he planned improvements in data systems and developed policy recommendations for potential changes in legislation related to higher education.

A member of IRE/IEEE since the late 1950's, Bill served on PC's AdCom in the 1960's and has written more than thirty articles on health services programs, organizational communication, agency planning, learning, and methods of teaching.

No photograph of Bill Ternant is available.

Report on Questionnaire

As of December 10, 1979, the editor has received 21 responses to the questionnaire printed in the July (1979) issue of this Newsletter. Apparently 1700 or so PC-ers either don't care, don't read the Newsletter, or are perfectly satisfied with PC's publication policy. This, in practice at least, is shaped largely by the individual interests of the Society's two editors, although it is discussed occasionally and in general at AdCom meetings. PC's Editorial Advisory Board seems to have evaporated.

An AdCom member and, independently, a respondent to the questionnaire recently suggested that PC's Transactions and Newsletter might be combined to form a Magazine. Further discussion, or other ideas, PC-ers?

The questionnaire, with responses, is printed on page 6 of this Newsletter.

Request For Help

Julian Zelenko, PC's resource person and Home-Study Course instructor in the Mediterranean/Middle East area, asks for copies of cogent articles and news of new books on engineering and technical communication. During a recent visit to the U.S., he commented on how difficult it is even to be aware of much of the information which is available, and said that, when corresponding with his students, he would like to be able to quote current articles which he has seen.

Can you clip or copy an article or book review you have recently enjoyed, and mail it to him (and do it again from time to time)? Address: Mr. Julian Zelenko, 13 Pinsker St., Apt. 8, Rehovot, Israel.

Campus Notices

Professor Pauling's lecture on Vitamin C is cancelled because the Professor has a cold. Refreshments will still be available in the Placebo Room.

Professor Heisenberg's lecture is either in Room 201 between 4:00 and 5:00 or at 4:01 somewhere in the Science Building.

Mr. H. G. Wells' lecture on his time machine will be held yesterday.

Mr. Shakespeare's lecture will be held tomorrow and tomorrow and tomorrow...

Ms. Lovejoy's course on Birth Control will be postponed until after her confinement.

Professor Einstein's lecture is postponed until after the energy crisis.

--From Electron Devices Society Newsletter, March 1979.

Answers to Questionnaire

Date 12/10/79 21 respondents

LETTER TO PC'S ADCOM:

1. I skim through 7 read 14 PC's Transactions.

2. I skim through 5 read 16 PC's Newsletter.

3. Print more 14 fewer 1 longer 3 shorter 2 book reviews. Same 1

   Review books about Language, translation (2), speaking, graphics, print, business writing (2), science and public policy, unusual techniques

4. Transactions should have

   1 special issues like the one on Patents even if published irregularly

   1 only original articles

   17 mixture of original and reprint articles

   13 articles on communication in relation to technologies, sociology 5x\, psychology 3x\, humanities 5x\, politics 5x\, business, medicine, etc. (circle, add, or line out to show interest or lack of it) x=No

   12 articles about automated communication 2x/ 3x/

   6 articles on advances in various technologies

   8 articles on history of various technologies

   5 brief biographies of scientists, inventors, etc., and accounts of their work

5. Both Transactions and Newsletter should have

   13 personal-experience articles

   15 articles or letters from PC members (U.S. and abroad)

   17 how-to articles about writing and public speaking

   14 how-to articles about other modes of communication

6. Newsletter should print should be a magazine 1

   10 roster of PC members by Section 1 separately

   5 more about work of other IEEE societies

   ____ more IEEE news 1 no IEEE news 10 minimum IEEE news IEEE news related to PC 3

7. I'd like Transactions to print 1 none of these How to, translation, self-improvement, career advancement, report writing, grammar, questionnaires, results of this questionnaire, as is (2)

8. I'd like the Newsletter to print News of members, news of other groups, gramm r, questionnaires, info. on college and corresp. courses (2), as is (2), on time (2)

9. Stop publishing Transactions ____ regularly the Newsletter ____

   Reason Combine Transactions and Newsletter to make Magazine

10. I want to be 2 Area Representative 2 Member of AdCom 1 member of AdCom subcommittee on _____

11. I will send ____ article for Transactions 1 item for Newsletter

12. My name is 17 names given (optional; but if you give it, please print all information)

    My address is _____

INTECOM

The General Assembly of INTECOM, the International Council for Technical Communication, meeting in Paris, September 20-23, 1979, accepted IEEE/PCS as an Affiliate Member of the Council.

PC-er Gene Maloney of Paris was present as an observer when the vote was taken. He reports that our request for membership was warmly received, clearly because of PC's excellent reputation and IEEE's transnational organization.

Gene's letter (October 3, 1979) continues:

"There was a discussion of the legal responsibilities of technical writers vis a vis errors in documents they prepare. This apparently is a growing problem in Europe, and a sub-committee was formed to collect information on it from all of the national societies. An input from PCS would undoubtedly be welcome.

"After a round of reports from the different national societies represented (US, UK, Holland, France, Sweden, and Norway), there was a long discussion of FORUM '80, to be held in Norway next summer. This sounds like an extremely interesting communicator's conference. It will run for three days, with the theme 'Communication in a Complex Future.'

"After the meeting, I talked with Alex Horeaux, President of the French technical communicators' group, ACT, and offered to act as unofficial liaison between ACT and IEEE/PCS. M. Horeaux suggested that I might want to translate items from ACT's newsletter, "Le Communicateur Technique," for use in PC's newsletter. I hope to send you some items in the near future and to find other channels of collaboration with M. Horeaux. I'll keep you informed."

Since he wrote this report, Gene has become PC's official liaison to ACT, but has been unable to send any translations. In this connection, it is important to recognize that, unlike companies in the U.S., those in Europe do not subsidize or support professional societies or employees' activities in them. English and Continental engineers and communicators work for ISTC, ACT, and so forth, on their own personal time, after business hours.

The next PC newsletter will contain more information about FORUM '80. Meanwhile, Norweigan PC-ers are urged to consider attending this next INTECOM meeting, identifying themselves as members of our Society, taking part in discussions, and writing to Bert Pearlman or Emily Schlesinger about business transacted, papers presented, people met, and activities engaged in. Please let us hear from you, PC-ers in Norway.

CCS

The Board of Directors of the Council of Communication Societies, of which PC is a Constituent Member, held its annual meeting in Washington, DC on December 6, 1979.

Three officers and two Executive Committee members were elected. The president in 1980 will be Peter Haas, representative of the Industrial Communication Council and Director of Corporate Communication at McGraw Hill.

The formation of standing committees on Financial Planning, Membership & Publicity, Government Relations, and Public Communication Policy was authorized. PC-ers, as individual members of a Constituent Organization, are urged to volunteer their services through Dave Dobson or Emily Schlesinger.

Council projects were reported on: work will continue to establish active and meaningful liaison with the Smithsonian Institution, and to up-date and reissue the Communication Directory, a cross-indexed guide to national and international organizations concerned with communication.

Murray Howder (Society of Federal Linguists) reported on the recent White House Conference on Library & Information Services.

Discussion was held of a proposal to organize a similar White House Conference on Communication, with national, private, governmental, and organizational participation. The Board agreed that this idea should be pursued, but no responsibility was assigned.

The Board will meet again on December 4, 1980.

CCS Seminar

The annual Communication Seminar of the Council of Communication Societies was held in Washington, DC on December 7 and 8, 1979, after the meeting of the CCS Board. Under the general title, Communication Policy: Platform for the 80's, two topics were considered. On the first day, representatives of business firms and Federal offices discussed the influences and implications of National Information/Communication Policy. On the second day, business and association views were presented on The Right to Know: Censorship in Education, Libraries, and Media.

To obtain a full account of the Seminar and information about other communication activities, PC-ers should subscribe to the Council's monthly newsletter, Communication Notes. At the member price of $6 per year, it is a great bargain. Write to P.O. Box 1074, Silver Spring, MD 20910.

Plain Talk

Plain Talk, Inc., is a new, non-profit group of about 100 writers, editors, educators, researchers, and others, based in Washington, DC, and interested in simple English. Many of its members are U.S. Government employees trying to enforce President Carter's Executive Order that plain language should be used in official documents.

Some of the facts and thoughts revealed at a Plain Talk seminar in October, 1979 are as follows:

1. The Environmental Protection Agency (EPA), which is responsible for 77 percent of governmental regulations affecting industry, now has a "Plain English" section. EPA uses "mechanical" procedures for eliminating such horrors as overuse of the passive voice and noun strings, but no simple way to simplify a document's organization or a writer's "mind-set."

2. At the Department of Housing and Urban Development (HUD), plain English reviewers can now hold up the issue of a regulation. HUD reviewers have found that improving the organization of documents simplifies them more effectively than shortening the sentences. It also ap-

pears that reviewers must be rotated every six months--constant exposure to poor English corrupts and contaminates people, making them unable to recognize it.

3. A speaker from industry calls individual writers an endangered species, threatened by teams, systems, and formulas, even though group writing tends to be wordy and fuzzy.

4. A scientist/writer/teacher thinks that professional and business people "consciously use fuzzy language, platitudes, and verbosity to hide ignorance or lack of substance in their writing." About 99 percent of poor writing represents poor thinking, this speaker said, as thought and language are inseparable. She pointed out that eliminating grammatical and mechanical (e.g., punctuation) flaws cannot remedy defects in organization and information. Every teacher of every subject should be a teacher of English, she said, and students must learn to think clearly before they begin to speak or write out their ideas.

5. A linguist reported some research findings: readers comprehend negative language slightly more slowly than positive language, and have more problems with poor transitions and unclear relationships than with long sentences or long passages.

For information about Plain Talk, Inc., write to the organization at 1333 Connecticut Avenue, NW, Washington, DC, 20036.

Guidelines

Plain Talk, Inc., would like to have plain language laws adopted in every State of the U.S. The group has drafted a model act that requires small-businesses, courts, and government offices to issue only clear and easy-to-read documents.

The proposed act specifies readability standards as follows:

1. Use words "as simple as possible without sacrificing accuracy."

2. Use personal references (I, we, you) instead of general references (such as lessor, applicant).

3. Avoid unnecessary legal language and confusing terms (aforesaid, former, herewith, latter, notwithstanding, pursuant to, whereas, etc.).

4. Avoid foreign and archaic terms.

5. Keep average sentence length to 25 words or less, average paragraph length to 200 words.

6. Use type large enough for people with normal vision to read without eyestrain.

7. Divide text into logically related sections with headings that stand out.

8. Make unavoidable cross-references as clear as possible.

STC

The 27th International Technical Communication Conference of the Society for Technical Communication will be held in Minneapolis, May 14-17, 1980. Papers will be presented on aspects of

Management Theory and Practice
Computer Applications and Technology
Writing and Editing
Graphics and Audiovisuals
Research and Education

PC members who will take part in the program are Ron Blicq, Craig Harkins, Lacy Martin, and Emily Schlesinger.

Get facts about registration from Program Chairman Paul Blakely, Oak Ridge National Laboratory, Oak Ridge, TN 37830, or Deputy Program Chairman John Muller, University of Minnesota, St. Paul, MN 55108.

SIETAR

The Society for Intercultural Education, Training and Research (SIETAR), newest member of the Council of Communication Societies, will hold its Sixth Annual Conference March 9-14, 1980, at Mount Airy Lodge, Mount Pocono, PA.

SIETAR, an international professional organization, seeks to promote understanding of intercultural relationships and to enhance individuals' ability to interact effectively in multi-cultural environments.

SIETAR tries to identify and facilitate adjustments which contribute to international harmony. By concept, research, and training, its members have helped to evolve the interdisciplinary field of intercultural communication.

Under the Fulbright-Hays Act of 1961, SIETAR's activities are assisted financially by the Directorate for Educational and Cultural Affairs of the U.S. International Communication Agency.

SIETAR membership fees are $100 (institution), $30 (individual), and $15 (student). For more information about the group or its Sixth Conference, write to SIETAR, 66 Poulton Building, Georgetown University, Washington, DC 20057; call 202-625-3391; or use telex GUOIP 64574.

New Journal

Vol. 1, No. 1 (Spring 1979) Technology in Society: An International Journal introduced a new quarterly, published by Pergamon Press.

The editors, George Bugliarello and A. George Shillinger, both of the Polytechnic Institute of New York, hope to create a forum for the discussion of such topics as the management of technology, technology and economic development, science and public policy, ethical implications of science and technology, and so on.

The objectives of Technology in Society are, in general, to

1. Explore the effects of technology on society

2. Study the ways in which social processes and attitudes lead to technological decisions

3. Identify and assess open technological and social choices.

Reprint Journal

The Engineering Management Review, quarterly reprint journal of IEEE's Engineering Management Society, is now available to all members of the Institute at an annual subscription rate of $6.00.

Last year the Review contained articles on government and business functions, administrative techniques, the hierarchy of supervision, professional advancement, and self-development.

Subscribe when you pay annual IEEE dues or send payment at anytime to IEEE Headquarters.

The Editorial Eye

Information about Plain Talk, Inc., comes to PC-ers from The Editorial Eye, an eight-page newsletter published by Editorial Experts, Inc., 5905 Pratt Street, Alexandria, VA, 22310. A one-year subscription to this gold mine of information, challenge, support, and encouragement costs $45; a single copy, $3, a five-issue trial, $15.

The twelve-page Index to EYE Issues 1-20, printed in March 1979, lists such subjects and authors as abbreviations and acronyms, artists, Francis and Roger Bacon, double spacing and double meanings, Albert and Alfred Einstein, footnotes, "knock up," manuscripts, printing, spelling and style manuals, symbols, tables, Type World, usage, Writer's Digest, editors and editing, writers and writing, "zero," and many others.

The list, Contents of The Editorial Eye by Issues, contains such titles as

Test Yourself and Usage Forum (regular features)

Tips on Proposals

Little Words

Problems with Parallelism

Proofreaders' Importance

Tips on Freelancing

Handling Sexism, Racism, and Punctuation

Brush up Your British

Each issue contains four to eight well-conceived "mini-articles," along with a calendar of events, a list of publication courses given in and around Washington, DC, and answers to test(s) printed in the previous issue.

Writers find The Editorial Eye helpful; editors love it. Send $3 for a sample copy today.

Available Speakers

IEEE's Magnetics Society has announced that three Distinguished Lecturers are available to speak to university, educational, business, professional, civic, or social groups on three topics in the field of magnetics:

Dr. E. W. Pugh, of IBM's T. J. Watson Research Center, former President of the Magnetics Society and Editor of the Transactions on Magnetics, has planned to speak on "Magnetic Bubbles." His talk discusses the use of magnetic bubble storage devices in remote terminals and small processors, considers near-term prospects for the use of bubble technology, and describes anticipated innovations.

Dr. Geoffrey Bate, Vice-President for Advanced Development at Verbatim Corporation (Sunnyvale, CA), will speak on "The Future of Magnetic Recording." His talk reviews the problems and limits of magnetic recording technology, discusses the "threat" of optical recording, and compares the storage capability of magnetic recording techniques with those of genetic DNA.

Dr. R. M. White, Principal Scientist at Xerox's Research Center (Palo Alto, CA), will speak on "Advances in Magnetism." His talk discusses the controversy between itinerant and localized theories of magnetism in transition metals, how magnetic order develops at surfaces, and magnetic order in superconductors.

The availability of these tutorial overiews is an opportunity for students and non-technical groups to learn about technical development and innovation in a specialized discipline. The cost of all lectures will be borne by the Magnetics Society.

To schedule a Distinguished Lecturer, write to Kenneth Lee, IBM Research Laboratory K61/281, 5600 Cottle Road, San Jose, CA 95193; or telephone him, 408-256-7348.

Communicate as a Citizen

The General Electric Company's office in Columbia (Maryland) printed a political self-quiz in a recent (October 27, 1978) issue of the newsletter, Washington Update, issued by its Power Systems Sales and Service Operation.

PC-ers in the US may want to ask themselves the quiz questions and take action in view of their answers. PC-ers in other countries may do the same, making appropriate verbal adjustments.

1. Can I name my Congressman?
2. Can I name both of my Senators?
3. Do I know where any of their nearest local offices are?
4. Have I visited any of their nearest local offices?
5. Have I contacted any of them in the last year regarding my views on their voting records?
6. Am I satisfied with their voting records?
7. If answer to 6 is Yes, am I working to keep them in office?
8. If answer to 6 is No, am I doing enough to try to get someone else elected?
9. Do I get the message of this quiz?

Competence

Excerpts from "Competence in Speaking and Listening," an address given by Dr. William Work, Executive Director of the Speech Communication Association, at the American Association of School Administrators Summer Conference in Minneapolis, July 1978:

An individual exhibits comprehensive literacy when he or she is competent and comfortable across a full spectrum of communication experiences--from reading a serious literary work with sensitivity and perception--or digesting an expert radio commentator's analysis of the probable impact of Proposition 13--or writing a clear, articulate biographical statement in support of a college application--or threading through the myriad currents of information, persuasion, and entertainment that are American television--or defending one's conduct before a peer, parent, principal, or policeman--to a sharing of ideas and feelings, through conversation, with another human being.

* * * * * * * *

More and more clearly we are recognizing the dynamic, complex, interdependent nature of the communication processes through which human beings perceive and alter their environments--through which they relate to others--and through which they gain some notion of self-identity.

Preliterate humanoids, we presume, communicated in a physical, animal way--with fists and clubs and the baring of teeth. The "invention" of speech, of graphic representation, of writing and reading, of printing, of photography, and of instantaneous, worldwide electronic communication--each represented an increase in both our capacity for communication and the complexity of available means of communication. As the agrarian society gave way to the industrial society, so the industrial society is giving way to the information society. Already, we are told, in the United States, our economy is based more on information processing than on manufacturing. With each step--with each technological and sociological change--greater demands are placed on the individual for communicative competence as a survival skill.

The children who will be the adults in tomorrow's world will need all of today's skills, plus the ability to communicate comfortably with computers; plus the ability to communicate across a range of cultures; plus the ability to communicate in an environment of unparalleled conflict between the haves and the have-nots; plus the ability to defend communication rights and freedoms against increasing pressures from the left and the right and the middle.

* * * * * * * *

How do people spend their time? Especially, how do they divide their communication time? Here are some estimates:

Listening and Viewing	45%
Talking	30%
Reading	16%
Writing	9%

It has been said that the average person hears the equivalent of a novel in one day; speaks the equivalent of a novel in one week; reads the equivalent of a novel in one month; and writes the equivalent of a novel in one year.

Another suggestion is that if a person were to live to the age of 100, he or she would have spent 1½ years writing, 4-3/4 years reading, 33-1/3 years sleeping, and 40 years in speaking/listening/viewing.

A different idea is that we listen 7 times as much as we speak, speak 4 times as much as we read, and read twelve times as much as we write.

Some years ago, a group of school officials were reported to be deploying their communication time as follows:

On the telephone	7%
Interacting in groups of 6 or more	25%
Interacting in groups of 3-5	15%
Interacting with one other person	20%
Speechmaking	1%
Writing	5%
Reading	3%
Miscellaneous; unable to categorize	24%

* * * * * * * *

It is through our communicative relationships with other people--and chiefly through speaking and listening--that we are able to enhance the rewards and minimize the punishments that life metes out to us all. It is through speech (and the underlying thought processes that it represents) that we cope with problems and frustrations on the one hand, and create and exploit opportunities on the other hand.

* * * * * * * *

Why do we speak? Perhaps for no more than five chief purposes:

1. Attempting to control the behavior of others
2. Expressing attitudes and feelings
3. Giving or seeking information
4. Ritualizing and socializing
5. Releasing creative, fantasizing, and exploratory ideas

* * * * * * * *

What constitutes speaking and listening competence? A task force of the Speech Communication Association has prescribed four groups of communicative skills as minimal for high school graduates:

GENERAL COMMUNICATION

A. Listen effectively to spoken English. Example: Understand a doctor's directions for taking a prescribed medication.

B. Use words, pronunciation, and grammar suitable for particular situations. Example: Speak appropriately during employment interviews.

C. Use non-verbal signs suitable for particular situations. Example: Have appropriate facial expression and tone of voice in conversing with a supervisor.

D. Use voice effectively. Example: Speak with appropriate rate, volume, and clarity when expressing views to an elected official by telephone.

EVALUATION OF ORAL MESSAGES

A. Identify main ideas in messages--for example, in a broadcast about preparing tax returns.

B. Distinguish facts from opinion--for example, in differentiating between evidence and opinion in court testimony.

C. Distinguish between informative and persuasive messages--for example, in advertisements about non-prescription drugs.

D. Identify biases in messages--for example in a management response to union requests.

E. Recognize when another does not understand your message--for example, when a customer doesn't understand your directions for product use.

BASIC ORAL SKILLS

A. Express ideas clearly and concisely. Example: Describe an accident or crime to a policeman.

B. Express a point of view and defend it with evidence. Example: Refuse to accept a product or service you didn't order and explain your refusal.

C. Organize messages so that others can understand them. Example: Explain to a child how to prevent accidents, using a cause-effect pattern.

D. Ask questions to obtain information. Example: Find out how to improve your job performance.

E. Answer questions effectively. Example: Respond to a tax auditor's questions.

F. Give concise and accurate directions. Example: Explain the procedure for voting.

G. Summarize messages. Example: State breifly the views of a political candidate on a campaign issue.

HUMAN RELATIONS

A. Describe another's point of view. Example: Explain the viewpoint of a retail store manager to whom you are returning merchandise.

B. Describe differences of opinion. Example: State the points of view expressed in a zoning hearing.

C. Express feelings to others appropriately. Example: Show that you approve of a child's school achievement.

D. Perform social rituals appropriately. Example: Introduce strangers to one another.

Readability vs. Prestige

PC-er Moshe Inbal of Yahud, Israel calls attention to an article in the Alexander Hamilton Institute's monthly "Executive's Personal Development Letter" for August, 1979--"Communication Skills: Simple, Clear Writing is Always the Most Impressive. . . or Is It?"

The article describes a two-part investigation made by J. Scott Armstrong, professor of marketing at the University of Pennsylvania's Wharton School. First, Armstrong applied the Flesch Reading Ease Test to ten well-known journals of business management and obtained a series of readability values from hard-to-read to easier-to-read. Second, he asked twenty business faculty professors to rank the same ten journals in order of academic prestige.

The poll, according to the AHI Letter, showed a positive, statistically significant relationship between high prestige and difficult reading. That is, the most highly regarded magazines contained the most unintelligible language. Harvard Business Review and Administrative Science Quarterly, for example, were considered most prestigious but found to be least understandable. Personnel and Supervisory Management, on the other hand, though called fairly readable, were not very highly respected.

A similar, better known experiment with a similar outcome, was conducted in 1973, the AHI Letter relates also. In this case, a speech was mde to three mixed audiences--a total of 55 social workers, psychologists, psychiatrists, educators, and administrators: an actor, introduced as "Dr. Fox," gave a meaningless one-hour talk--nothing but empty impressive-sounding nonsense--on "Mathematical Game Theory as Applied to Physical Education."

Judging from a questionnaire administered after the lecture, listeners found Dr. Fox "clear and stimulating."

The frightening moral of these two stories is "Don't invest much energy in writing. Lack of clarity may enhance your reputation, especially if you have little to communicate."

White House Conference

The White House Conference on Libraries and Information Services, held November 15-19, 1979, in Washington, DC, was attended by about 4,000 delegates, alternates, and observers. The purpose of the Conference was to propose legislation on the dissemination of information.

The series of meetings was planned by the White House Conference Staff, supported by an authorizing law and a $3-million approiation. Preliminary goals were defined at conferences in the various States; at all conferences, two-thirds of the delegates were lay persons, and one-third was librarians.

From the State conferences, Staff members evolved five themes to be addressed at the National Conference. They commissioned background materials to help the delegates in their discussions, and recorded the work of the Conference.

Most people came to Washington with a will to make this White House Conference have a real impact on the future of libraries in the United States, but there was a great deal of uncertainty as to how they should proceed. After the opening session, the delegates formed pre-assigned Work Groups. The direction and effectiveness of these groups varied considerably, depending on background, preparation, and guidance. To add to the feeling of uneasiness, simultaneous general hearings were being held to elicit other legislative proposals.

It was obvious that people were confused about how to proceed. The long days and overlapping sessions were exhausting. A few people with vested interests were able to promote their particular causes, sometimes infringing on the time available for group discussion. The failure to identify delegates by State and observers by organization made it almost impossible for strangers to get to know each other.

After the Work Group Sessions, delegates met in five Theme Sessions to consider the Groups' resolutions. Some Sessions reached consensus, others did not. The final General Session was held in a hot,

crowded, semi-circular room. Time was so limited that the delegates could hardly understand what issues were proposed, let alone discuss them.

Before the General Session was over, the Congressional Hearing was held. About a dozen members of Congress heard well-prepared, concise presentations of the key issues of each theme, as outlined below.

Theme 1. Meeting Personal Needs:
It was urged that an Office of Library and Information Services be established in the new Department of Education, headed by an Assistant Secretary of Education.

The concept was advanced that libraries need to serve the personal needs of people--solve day-to-day problems, help in personal crises, provide news, meet leisure needs, and serve special constituencies, such as American Indians.

In the discussion, it was pointed out that story-telling as well as printed materials is important to preserve oral traditions. This is a recognition that the "melting pot" theory has been replaced by acceptance of cultural diversity. Nevertheless, libraries also need to remember that a second language is second and that every American must know good English.

Theme II. Lifelong Learning:
The need was stressed for ensuring that all Americans, including the public schools, have access to basic library services.

Another need is to increase the literacy of the 20% of adults who read only at the fifth-grade level.

The Congressmen asked for a sense of priority for establishing a National Periodicals Center.

Theme III. Organizations and Professions:
A national assessment of existing resources in special libraries is needed to identify gaps as well as what is available in existing services.

The incompatibility of data bases and ignorance of resources should be remedied so that information can flow from Federal libraries. In this connection, Federal agencies should be mandated to make information available to outsiders and should be required to produce "information impact statements". Public access must be allowed to all Government data bases, including that of the Congressional Research Service.

Methods of delivery of information must catch up with existing technology, i.e., electronic delivery of information must be achieved.

Theme IV. Effectively Governing Society:
Because library and information services affect the operation of government, it is essential that outreach services be provided to those who can't serve themselves. First-amendment rights of access to materials must be reaffirmed.

Theme V. International Exchange
Because the Information Revolution may be greater in impact than the Industrial Revolution was, a viable Federal Information Policy is needed. Market forces are important in the development of information.

The U.S. must assist less-developed countries in long-term information programs. One means of doing this is to open the doors to librarians from other countries; another is to teach foreign languages to American students.

Two luncheon speakers discussed problems of communication:

In his position as Assistant to the President for Domestic Affairs and Policy, Stuart Eizenstat called for the deregulation of communication. While mentioning the privacy bills introduced to safeguard individual rights, he declared that openness is the policy of this Administration. This policy is demonstrated by the intention to declassify 50 million pages of Government documents and to hold press conferences and town meetings open to the American people.

In his closing remarks, he indicated that a task force will be set up in the White House to evaluate the Conference recommednations contained in the final report, which is due to the President in March.

Ralph Nader expressed his concern that although the public owns the airways, the airlines and broadcasters control them. To correct this situation, an audience network has been proposed to Congress by the National Citizens Committee for Broadcasting, with the intent to have one hour per day open for citizens groups to program.

Nader described libraries as being in a state of "worried tranquility."

---From report by Murray Howder in Communication Notes, November 1979.

Tests of Writing Ability

In The Communicator of Scientific and Technical Information (May 1979), Marilyn McMenemy discusses several kinds of test given to assess engineers' writing ability and compares the inter-correlation coefficients of test results with subjective estimates made by instructors.

The tests consisted of writing assignments designed as follows to show sensitivity to style, organization, and layout:

1. Objective editing
   Students were given short technical passages with parts to be revised clearly marked and improvements suggested in multiple-choice items.

2. Subjective editing
   Students were asked to improve the style, layout, and organization of a poorly written technical text.

3. Summary exercise
   From notes representing the content of a report, students were asked to select relevant information and organize it into a comprehensive summary for inclusion in the report.

4. Essay Test A
   Students were asked to comment on the style, layout, and organization of a given piece of engineering writing.

5. Essay Test B

   Students were asked to write about desirable qualities in engineering writing; for example, 250 words on "Style in Technical Writing."

Comparisons for the sample of 65 students tested seem to show that an objective editing test can be as valid a measure of writing ability as traditional subjective tests, although no correlations reached the desirable level of reliability, +0.7.

McMenemy notes that the correlation between the objective test and the others was not high, but points out that it was higher than correlations between the different subjective tests, and that it had the highest correlation with instructors' predictions of student performance.

If communicative ability were a simple measurable entity, she suggests, one might have expected students' performance to be fairly uniform over the several types of question. But the observed spread of coefficient values supports the view that writing is a compound skill and that a student's communicative performance will vary with the type of test assignment given.

It seems, therefore, that assessment of writing ability should be made on the basis of a set of short tests, each designed to reveal skill in a different aspect of communication.

Engineer / Manager

A recent (1979) publication from the IEEE Press is Engineer in Transition to Management: A Learning Tool for the Engineer or Other Professional Newly Promoted to Management, by Irwin Gray. The book (127 pages) is written partly in information mapping blocks and partly in straight prose. Examples are segregated from ideas, facts from opinion. Chapter subjects are as follows:

Transition from Mind-set of Engineer to Mind-set of Manager

Responsibility for the Performance of Others

Leadership: Three Approaches

Responsibility for the Bottom Line (costing & performance)

Red Tape and How to Deal with It

The Manager's Basic Bookshelf

IEEE members may obtain soft-cover copies for $9.45 each; hard copies are $14.20 to members, $18.95 to non-members. Send check (and membership number) to IEEE Publishing, 345 E. 47th Street, New York, NY 10017.

Computers and Management

COMPUTER TECHNOLOGY IMPACT ON MANAGEMENT--George A. Champine. 1978, Elsevier/North-Holland Publishing, P.O. Box 211, Amsterdam, The Netherlands and 52 Vanderbilt Ave., New York, N.Y. 10016; 292 pages, bound, $26.75. ISBN: 0-444-85179-8.

The message of this book is that advances in computer technology are progressing at an exponential rate and that a major result of these advances is a need for change in corporate and EDP management at all levels. Any new technology is a two-edged sword--its consequences are bad as well as good. In the case of data processing technology, the good includes

* Improving cost/performance with a doubling time of less than five years when almost all other goods and services are declining in cost/performance.
* Higher reliability to the extent that systems will be available which essentially never fail.
* Easier use so that nonexperts and users can interface directly with the system without extensive training from a normal office environment.
* Systems which can distribute data and processing to the location of the end user, thus allowing decentralization of operations to allow rapid decision making.
* Better security to prevent unauthorized disclosure to either internal or external agents.

The other edge of the sword is that further automation will require a new generation of EDP systems larger and more complex than those in use today. Without improvements in system technology and user sophistication, these will certainly be much more difficult to implement.

The solution to these problems of increasing use of EDP systems must come from manufacturers and users jointly. Manufacturers must provide systems which are easier to implement, use, maintain, and modify while providing essentially uninterrupted (failsoft) performance. Users must improve their skills in

* Establishing requirements
* System selection
* System design
* System implementation
* Project management
* System recovery

--From Aerospace and Electronics Systems Society Newsletter (May 1979)

Clear, Concise, Complete

"The Coming of Age of Optical-Fiber Transmission," by Tingye Li of Bell Laboratories, is reprinted in this Newsletter from the IEEE Circuits and Systems Magazine as an example of good technical writing.

The uninitiated reader may not know the meaning of many of the words in this highly specialized article, but their relation to each other and the general subject, the significance of every sentence, and the forward progress of argument and narrative are never in question.

The author's style is heavy, and unavoidably thick with particularized terms and concepts; but it flows and moves forward, clearly and steadily. His grammar and mechanics also--the structure and punctuation of sentences, formation of paragraphs and labeled sections, citation of researchers--guide the reader's attention, give confidence, and shape over-all comprehension.

THE COMING OF AGE OF OPTICAL-FIBER TRANSMISSION

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ABSTRACT

Optical-fiber transmission lines appear attractive for a variety of communication applications in which twisted copper pairs and coaxial cables are now used. These applications range from on-premises data links and equipment wiring to interoffice and intercity telecommunications trunks. Experiments to explore the technical feasibility of glass fibers in these areas are presently in progress. This paper summarizes the current state of research on optical fibers, fiberguide cables and splicing techniques, reviews the state of the art of fiber-compatible sources and detectors, and discusses various systems considerations, experiments and applications.

INTRODUCTION

A new transmission medium is about to emerge as a competitor to copper media in many communications applications. It is the optical fiber, 100μm or so in diameter and made principally of silica, one of the most abundant materials on earth. When suitably engineered, optical-fiber cables may be used in a variety of applications where twisted copper wire-pairs, coaxial cables and metallic waveguides are now used for the transmission of information; these applications range from short data links and equipment interconnections within a building, to long telecommunications trunk circuits connecting switching offices within a city or between cities. The small size of the individual fiber, the allowable small bending radius of the fiber cable, the large information capacity, the flexibility of system growth, the freedom from electromagnetic interference, the immunity from ground-loop problems and the potential economy are some of the features which make optical-fiber systems appear more attractive than copper systems.

RECENT ADVANCES AND PROGRESS

Advances in research on optical fibers and cables in the past few years have been accompanied by similar progress in research on optical devices and components, and on optical repeater techniques and systems [1]. Signal attenuation in fibers as low as a fraction of a decibel per kilometer and pulse dispersion as small as a few hundred pico seconds per kilometer have been reported for multimode fibers [2,3]. Several methods for coating and jacketing fibers to preserve their intrinsic strength have been applied successfully, and various techniques for cabling, splicing and connectorizing have been developed [4]. The Barrus-type high-radiance light-emitting diode (LED) and the stripe-geometry injection laser have proved their suitability and reliability in many laboratory tests and field experiments. These aluminum-gallium-arsenide (AlGaAs) devices emit in the spectral region of 0.8–0.9μm, where currently produced fibers have low loss. Temperature-accelerated-aging tests on a large number of such devices indicate a projected mean life in excess of 10^6 hours for continuous operation at room temperature [5,6].

Various optical repeaters and terminals involving LEDs, lasers, photodetectors, amplifiers and digital electronics have been built and tested at data rates up to 800 Mb/s; their performances were measured and found to be close to theory [7,8]. During 1976 a field experiment involving optical-fiber cables in underground ducts, cable splices, fiber connectors and optical repeaters operating at 45 Mb/s was conducted to obtain information on the performance and reliability of an integrated system under simulated field conditions. Overall results were extremely encouraging [9]. A data-bus system using optical-fiber bundles also was tested successfully in a military aircraft [10]. Trial systems with fiber cables and repeaters carrying voice, data and video signals have been installed in standard telephone company ducts, manholes and central offices in the United States [11]; similar tests are being conducted in Europe and Japan [12]. At the same time, vital economic studies are being pursued to ferret out applications that are not only technically sound, but also economically viable. With such rapid progress in research and promising results from field experiments, there is good reason to believe that optical-fiber technology will begin to have a substantial impact upon the telecommunications field in the near future.

CURRENT RESEARCH ACTIVITIES

Although optical-fiber cables of various configurations are now available on an experimental basis and already have demonstrated satisfactory performance in several applications trials, current research work continues to push toward the achievement of higher strength, lower cost, lower loss, larger bandwidth, greater reliability, and other desirable features. Examples of some of these

activities are: examination of new glass materials for lower loss and lower cost, improvement of fiber fabrication and characterization techniques, exploration of better cabling and splicing methods, and development of fiber connectors and couplers with lower loss and greater reliability [4]. In addition, technologies relating to single-mode fibers are now beginning to receive attention. Promising results have been attained already in the areas of low-loss single-mode fibers and splices [13,14]. The more demanding requirements of single-mode operation and small core dimensions (10 m diameter) will present new and interesting challenges.

For operation at the wavelength near 0.85μm, AlGaAs LEDs and lasers and silicon PIN and avalanche photodiodes are commercially available and have been used in many laboratory tests and field experiments. Reliability of these devices is no longer a major concern. Current research interests in AlGaAs devices center around investigations of various techniques for achieving single-frequency and single-mode operation, lower threshold, greater temperature stability, higher modulation bandwidths, etc., and for integrating devices of different functions on a single semiconductor chip [15].

The potential of optical-fiber cables with low loss and low dispersion in the spectral region of 1–1.7μm has stimulated intense interest in materials and device research on sources and detectors that will work efficiently and reliably at these wavelengths. Examples of sources that show promise are InGaAsP lasers and LEDs and a single-crystal neodymium fiber laser end-pumped by a single LED [16-18]. The problem of making a low-noise avalanche photodiode with low dark current is being tackled presently [15].

Rather intensive work on optical repeaters and terminals during the last few years has produced results that cover a wide range of data rates [7]. Current repeater-research interest is directed toward pushing the frontiers of high-capacity systems and broadening the base of various areas of application.

CONCLUSIONS

Optical-fiber transmission is looming as a major innovation in the field of telecommunications. Its technical feasibility is being demonstrated in many ongoing field experiments and trials. The impact of this new technology on the communications field will depend on the economic viability of fiber systems compared to conventional and alternative systems in various applications.

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He joined Bell Laboratories, Holmdel, New Jersey, in 1957, where he has been engaged in research on microwave antennas and propagation, lasers, coherent optics and optical-fiber communications. He is currently head of the Transmission and Circuits Research Department, concerned with research on optical transmission media and circuitry for optical communication.

Dr. Li is a fellow of Optical Society of America and the Institute of Electrical and Electronic Engineers and a member of Sigma Xi, Eta Kappa Nu, Phi Tau Phi and AAAS. He is a co-recipient of the IEEE 1975 W. R. G. Baker prize and the IEEE 1979 David Sarnoff Award. He received the Achievement Award from the Chinese Institute of Engineers/USA in 1978.

Publish, Don't Perish

THE ENCYCLOPEDIA OF SELF-PUBLISHING: HOW TO SUCCESSFULLY WRITE, PUBLISH, PROMOTE AND SELL YOUR OWN WORK, by Marilyn and Tom Ross. La Jolla, CA: Communication Creativity, 1979; 192 pp., 8½" x 11" spiral-bound, $29.95

In nine chapters of good sense and good writing, the Rosses' Encyclopedia of Self-Publishing does exactly what its subtitle promises--it tells how to plan a book, how to write, publish, publicize, and sell it. If you follow carefully and energetically the advice given here, you should be able to print and market almost any document--you might even become a professional publisher, as the Rosses did.

Subjects discussed in the Encyclopedia include how to get started and ensure salability, how to operate as a small business; how to produce, advertise, find buyers. Subsections explain procedures for generating capital, organizing and indexing, pricing, selecting a printer, working with wholesalers and trade publishers, getting listed in directories, creating promotional tie-ins, negotiating contracts, "campaigning," and other book-related activities.

The bibliography lists business guides, writing guides, and books on self-publishing; and the ten-page appendix gives names and addresses of reviewers, columnists, buyers, and other sources of help and information. Equally valuable are the actual samples of forms, orders, and letters shown throughout the book.

There are pitfalls and pleasures in self-publishing, say the Rosses, but it can be a road to independence (p. 14).

> For those who use creativity, persistence, and sound business sense, money is there to be made. . . . You can begin your [self-publishing] venture on a part-time basis while still keeping your present job.

You can make your dream of self-employment become a reality, guide and control every aspect of your work, influence the thoughts and actions of readers, preserve your words and ideas for posterity.

On the other hand, you must toot your own horn, obtain start-up capital, spend much time and effort in promotion, and "be prepared to fall and skin your nose occasionally" (p. 15).

Nevertheless, the Rosses advise, "Move ahead with passion and conviction and you will succeed."

As this Encyclopedia is to some extent a case-history of how Marilyn Ross recently published and successfully marketed Creative Loafing, it rings true and inspires confidence. For would-be self-publishers it is a must--perhaps the most useful and comprehensive work available on its subject. For mere readers and non-self-publishers, it is a fascinating guided tour of behind-the-scene activities in a new do-it-yourself industry.

The Rosses have conducted seminars on self-publishing and are writing/publishing consultants in California. From the information and experience so generously and encouragingly shared in their Encyclopedia, readers with other specialized knowledge or ideas can learn how to put these too in book form, how to promote, and how to sell copies.

Microfiche for Field Training

K. C. Wingard, in The Communicator of Scientific and Technical Information (July 1979), describes how sales representatives use colored microfiche with portable readers to project diagrams, cut-aways, charts, and drawings from parts manuals as visual aids in lectures to distributors, customers, and overseas service personnel.

Positive film gives better results than the more commonly used negative film. Most microfiche readers can project enlarged images onto a wall if the front screen is removed, but sturday portable readers can be obtained and are preferable.

Wow!

The rate per 100 pounds applicable for the transportation of 999 pounds or less, for the applicable mileage, column (a), is that shown in column (b) unless the weight equals or exceeds the number of pounds shown in column (c) for the applicable mileage; in the latter case, the applicable rate is that shown in column (d) for the same mileage, and the applicable weight is the minimum hundred-weight of that column, instead of the actual weight of the goods transported.

--From a General Services Administration Bulletin via the Aerospace and Electronics System Society Newsletter (April 1979)