How *Should* Engineers Write? What Their Managers Say

By Kathleen Mohn

Could the Challenger disaster have been averted with more persuasive writing on the part of Morton Thiokol engineers? The Rogers Commission report reveals there was test data showing the O-ring that failed in the launch was highly sensitive to cold. Engineers were unsuccessful in convincing the decision makers of that crucial fact. How can engineers make sure their findings are understood?

A technical editor with RCA says that any message needs to answer three questions:

• What are the facts?
• What do they mean?
• What do we do now?

Managers assert that many engineers don't clearly state what the facts mean.

This is only one of four writing problems that engineering managers consistently mention. The others are imprecise writing, technical jargon, and haphazard organization. Let's start with the problem of failing to communicate clearly what the facts mean.

1. Unconvincing Presentation of Data

Dorothy A. Winsor, in her book *Writing Like an Engineer*, points out that engineers assume the data speaks for itself. Winsor suggests that "objects and data need a spokesperson who will stand between us and them to tell us what we see."

Anca Voicu, product engineering manager in the uPower SRAM Division of Cypress Semiconductor, says, "One of the trends we see here in the engineering world is, when we run different device qualifications or a fabrication process, engineers present the data [in this way]: this is what we ran, and this is the data, followed by pages and pages of data (our VP calls it 'data dump'), but [it's] kind of meaningless. So we have been trained to follow the 3W rule:

• What do we know? What are the data? (Present the history and data)
• What does it mean? Do we have a problem, or a marginality, or an issue?
• What do we do about it? Now that we know we have this problem, what should we do about fixing it?

"This last W should have a plan with the real schedule in workweeks and owners with names assigned to it, so that we can track the progress, and get an update regularly, until the issues are fixed."

These questions expand on those of the RCA technical editor.

Rudy Joenk

There haven't been many comments about the "red" *Newsletter* but they've been positive. For example, Loering M. Johnson (Tariffville, Connecticut) wrote:

Just wanted to tell you that I think the new format of the *Newsletter* is great. It is attractive, easy to read, and has helps (shaded blocks in columns of text) that are prominent, but do not interfere with the read-ability.

I'm especially attracted to the arrangement of squares, bars, and lines at the top of each page. They offer a lot of possibilities. You have used some of them for pictures, headings, and other helps. Have you thought of also using them for directives such as "see also…" and "go to…"?

As I indicated previously, the next few issues may see some refinements as we get used to the new layout.

A different kind of compliment came from Carol A. Long (Southampton, Hampshire, England) for whom the January/February issue was her first:

Congratulations on the PCS *Newsletter*.

…on my IEEE bookshelves I keep journals from a number of societies but never newsletters. Newsletters have contents that tend to be time-bound and are often out of date when they reach me in the U.K.

The PCS *Newsletter* has content that I spent days reading, learning from, and digesting. There are other little things about the style that make it obvious PCS is not totally U.S.-focused (like quoting USD as if it were a foreign currency), which really adds to my experience. I have opened a new file—the first one with the title "Newsletter." I hope to use it as an example to people to show how a newsletter can be more than a newspaper.

On the other hand, turning Oregon's green mountains red in the IPCC 2002 logo was frowned upon. And the U.S. Postal Service thinks the *Newsletter* has a new name due to the PCS logo at the top of the cover page.

Note that the January/February issue now on our Web site as a PDF file has active e-mail and Web links. Issues are now being posted approx-imately one month after distribution of the print version.

AdCom

Our conference-call meeting 19-20 January was even better than last year, thanks in part to support from the Boeing Company. A NetMeeting hookup was used as backup this year whereas it was the only mode in 2001. See the meeting summary by secretary Jean-luc Doumont on page 4.

Cheryl Reimold resigned after long service and Roger Grice (*r.grice@ieee.org*) was appointed to complete her term through 2002. Cheryl had been on the AdCom continuously since 1991.

The next meetings are in Atlanta, Georgia, 12-13 April, online on 27 July, and at IPCC 2002 in Portland, Oregon, on 21 September. Check the Web site (*http://www.ieeepcs.org/*) for details.

Potpourri

In the January/February 1999 issue I addressed the choice to be made in *I resented **him/his** being there.* To help make the correct choice in this and similar cases, try replacing the *-ing* word with a noun; for example: *I resented **him/his** presence there*,

Elizabeth Weise Moeller

What Can We Do for You?

The administrative committee (AdCom) just completed a two-day conference-call/NetMeeting meeting. Much of our discussion focused on you, our members, and what services we can offer. You all receive this *Newsletter*, our *Transactions on Professional Communication*, and access to our Web-based materials. Our membership is growing, especially outside North America, and we're looking to provide services and features you want and will use.

Unfortunately, our first issue dealt with finances. Due to four years of deficits within the IEEE as a whole, technical societies are being asked to help with the financial recovery. PCS has taken a large financial hit this year between that corporate recovery and the timing of our 2001 conference. This has meant quite a bit of belt-tightening for us for 2002. We are looking at a small deficit for IPCC 2001, instead of the planned surplus, and a 30 percent reduction in periodical sales income.

Our focus this year will be on continuing to increase membership and to build up attendance at IPCC 2002. If you haven't had a chance to attend an IPCC, please think about IPCC 2002. We are looking forward to a very strong program in Portland, Oregon. Consider submitting a proposal (if you read this before 8 March). Also, please invite your colleagues to join the society. Membership in IEEE or PCS has never been easier. Our Web site (*http://www.ieeepcs.org/*) has all the details.

Second, there are times when we want to get information out to you quickly. The *Newsletter* production schedule requires that we submit materials not less than six weeks before the publication date. If something happened next week (meaning early February as I write this) that we would want you to know about, we would put it on our Web site and hope you would see it. It would be mentioned in the May/June issue of the *Newsletter*. That's a long time. To solve that problem, we are creating an *opt-in* PCS-member e-mail list. This list will be broadcast only (i.e., one way) and the number of people permitted to use the list will be limited. We respect that you receive more e-mail than you know what to do with; that's why this is an opt-in list and you will be able to unsubscribe at any time. If you want to join the list, visit our Web site (*http://www.ieeepcs.org/*) and fill out the form.

Third, our education committee is brainstorming topics for workshops. PCS has a group of technical experts who can create half-day or one-day workshops for your organization and in conjunction with our conferences. Topic areas can cover everything from "How to Manage Your Inbox" to "Giving Great Presentations" to "I Survived ABET Accreditation." If you are interested in lending your expertise, participating in a workshop, suggesting topics, or helping organize one for your group, please contact Julia Williams (*juliawilliams @ieee.org*).

Other projects we are working on include a mentoring program, ideas to assist networking outside North America, and the possibility of holding IPCC 2005 outside North America. As part of our strategic plan (*http://www. ieeepcs.org/plan.htm*), we are working to identify trends in the field of technical and engineering communication. If you are interested in working on any of these projects, please contact our volunteer coordinator, Bernadette Longo (*blongo@ieee.org*).

As always, you can contact me (*b.w.moeller@ieee.org*) or any other member of the AdCom with questions or ideas. We look forward to hearing from you.

> For more timely communication, an *opt-in* e-mail list

If this copy of the *Newsletter* that you're reading isn't yours, consider joining the Professional Communication Society as either a member of the IEEE and PCS or an affiliate of PCS. Visit our Web page (*http://www.ieeepcs.org/ membership.htm*) for information; applications are online. On the other hand, if this copy is yours, please lend it to a friend.

Highlights of the January AdCom Meeting

By Jean-luc Doumont

After a successful first virtual meeting in January 2001, the Professional Communication Society's administrative committee (AdCom) convened virtually again for its 2002 winter meeting, thus saving on travel and meeting room expenses. This year, instead of relying solely on Microsoft NetMeeting for chat, whiteboard, and application sharing, we moved the focus to a conference call, with support from the Boeing Company at the request of Luke Maki, a Boeing employee and chair of our electronic information committee.

> Half of AdCom to be elected by all members... more attention to members outside North America... list of leaders at *http://www.ieeepcs. org/commadhoc.htm.*

After distributing reports by e-mail ahead of time, 18 of us thus came together on the phone for two productive four-hour sessions on 19 and 20 January. With the differences in time zones, some of us had just had breakfast while others were ready for dinner, but we nonetheless managed to keep to a tight schedule. After the beginning-of-the-year appointments, we devoted our attention to finances, conferences, membership and volunteers, and the new system for AdCom elections.

Appointments

With 2001 secretary Ed Clark elected vice president, the AdCom needed a new secretary. It approved the appointment of Jean-luc Doumont to this position and renewed the appointment of Steve Robinson as treasurer. For the complete list of committee chairs, conference chairs, and other positions, see *http://www. ieeepcs.org/commadhoc.htm.*

Finances

As Beth Moeller discusses in her president's column, these are difficult financial times. Although committees did a good job of staying within budget, we closed 2001 with a deficit of USD 10 300, mainly because of the mandatory contribution to IEEE's financial recovery. Despite reduced attendance in the wake of the 11 September terrorist attacks, IPCC 01 closed with a remarkably small loss.

Needless to say, we are looking at creative ways to increase revenue and to decrease expenses. New forms of sponsorship, improved recruiting of new members, and half-day or full-day workshops fall in the first category; virtual meetings, preferred vendors, and overall lean management fall in the second.

Conferences

International Professional Communication Conferences (IPCCs) are major events that the AdCom and conference chairs start planning years in advance. We discussed IPCCs 2002 through 2005.

Perhaps more than any conference so far, IPCC 2002 must be the object of sound financial management. As a promising new source of revenue, the AdCom suggested to Laurel Grove, conference chair, organizing workshops targeting engineers rather than the communication professionals who attend the regular sessions. For more details on IPCC 2002, see the conference Web site (*http://www. ieeepcs.org/2002/*).

IPCC 2003 in Orlando, Florida (yes, it will be at Walt Disney World) is definitely taking shape. Its theme, fittingly, will be *The Shape of Knowledge*, conference chair Sherry Steward told us.

Conference chair Bernadette Longo booked good progress in organizing IPCC 2004 in Minneapolis, Minnesota, where she expects many potential sponsors, good opportunities for recruitment, and synergies with local organizations.

IPCC 2005 might take place outside North America: Ireland is our current target, with promising first contacts with the University of Limerick.

Membership and Volunteers

The AdCom spent much time discussing what PCS can do for its members and what members can do for PCS. We believe providing outstanding service and unique benefits remains the best way to develop our membership in the long term. Marj Davis, who chairs our membership committee, wants us to devote more attention to our growing membership outside North America. Conversely,

How *Should* Engineers Write?

(continued from page 1)

2. Lazy, Imprecise Writing

Even though on-the-job writing has become more conversational in the past few years, some writers carry it to the extreme. Using plain English is one thing, but using expressions that border on slang is another. Delete words or phrases that cross the line of professionalism and change the style and tone of a document.

University of Wisconsin professor and writing consultant Hank Sparapani says, "Participants in my writing workshops frequently intone the 'write the way you speak' idea. Consistently I have answered along these lines: If you speak 'well,' do so; if you speak 'good,' don't!"

Lazy language irritates manager Jan Reimer of Cirrus Logic, Inc.: "The biggest struggle I have seen is to avoid 'Shop Talk' in technical writing, i.e., using casual conversation phrases, which are typically incorrect, technically and grammatically, in written reports. A response such as 'but everybody knows what I mean' is a poor excuse for not expressing oneself properly, especially when the authors sign documents with their names [attached]."

A conservative approach to keeping writing conversational without crossing the line of professionalism is to avoid writing anything you wouldn't say. When writers avoid terms they would never use in speaking, they connect better with their readers. Most of us don't use "heretofore" in speaking. The use of such words in writing causes the reader to be distanced from the writing.

Reimer of Cirrus also bemoans incorrect word choices in lazy writing. He says, "An example in technical writing is the incorrect use of the words 'precision' or 'precise' for 'accuracy' or 'accurate.' 'Accuracy' refers to the true value of a measurement, and 'precision' refers to the repeatability of a measurement."

In instances like this, use your dictionary. *The American Heritage Dictionary* is a good choice, and *The Random House Webster's Pocket Computer & Internet Dictionary* makes a nice accompaniment. Dictionaries are not obsolete, even with technology at our fingertips.

3. Technical Jargon

Technical concepts are complicated enough without making them incomprehensible by using ambiguous language, acronyms, or tech-speak. Engineers would do well to consider the Malcolm Baldrige approach to using plain English. Baldrige was a plain talker from Wyoming who was appointed President Reagan's Secretary of Commerce. He had the computers programmed in the offices of Commerce to detect buzzwords and buzz phrases. Baldrige considered this language reflective of "a subconscious urge to cover oneself." Every time employees used a buzzword on the Baldrige list, their computer screens would flash "Don't use this word!" An extreme approach, but effective nonetheless.

Consider the technical reports that engineers write for top management. The executive summary, the part of the report that managers read nearly 100 percent of the time, needs to be written in the simplest English possible. Although it's important to sound professional, it's more important to be understood. In reality, you can do both. A writer can put together a proposal using plain English and still land the work. Why complicate the issue by using obscure or complex terminology?

One of the most important skills [engineers] can learn is to properly organize the key findings....

A good rule of thumb is to use the longer word only if it adds color or clarity. So why "utilize" when you can simply "use"?

A participant in one of my seminars told me recently that her brother, a contract employee with a computer company, got the following answer about becoming a permanent employee: "We're actualizing that action plan and it's in the pipeline." He's still wondering if he's going to get the job.

Engineers use too much jargon, forgetting that readers might not understand their word choices. Sometimes engineers invent terms using strings of nouns such as "three-dimensional rectilinear productivity habitat"— a "cubicle" in layman's terms. (Per-

haps the inventor of this noun string thought the manufacturer could charge by the word!)

The goal of one semiconductor company is "to target high-end niche markets with state-of-the-art high performance, complementary metal-oxide silicon (CMOS) circuit products." A lofty goal in lofty terms. These terms can confuse the reader who isn't clear about how the nouns relate to one another. Instead of saying "consolidated invoicing with individual departmental charge-back detail reports for each billing code," say "compile a report that details the charge-back transactions for each billing code."

Plain English can save an organization money. In 1984 a government agency in Great Britain rewrote the application forms for legal aid. The agency reported that, while the new forms cost USD 34 500 to write and test, the department saved USD 2 069 000 in the first year. No one had to interpret the writing!

> Write the way you speak? If you speak "well," do so; if you speak "good," don't!

4. Haphazard Organization

Not taking time to organize thoughts before sending an e-mail message is a consistent problem in engineers' writing. A few minutes spent on organization can achieve productivity on both sides of the communication. The writer won't have to clarify later because the reader will get the point in the writer's initial message.

Harvey Mackay stated in his newspaper column that an office team study showed that people waste 14 percent of every work-week due to unclear communication, both written and verbal. Fourteen percent equals seven weeks a year!

For e-mail messages, writers would be better off to have a format in mind for putting across the majority of their information. I advocate the *paper* format in most instances:

- Purpose for writing
- Action to be taken by either party
- Particulars or details associated with the situation
- Evidence (mention of any attachments)
- Request for response, either by phone or e-mail

Regarding organization of reports, Paul Wesling, advisory design engineer at Compaq Computer Corp. in Cupertino, California, says, "Engineers tend to hide the important facts and conclusions under lots of discussion, making it hard to figure out what point is being made. One of the most important skills they can learn is to properly organize the key findings in a 'summary' section at the start of the report. The summary elements I like most: a brief statement of the problem or opportunity, a listing of results or findings, and explicit conclusions and recommendations that are supported by the details in the report. It helps the engineer get quick action, rather than yawns."
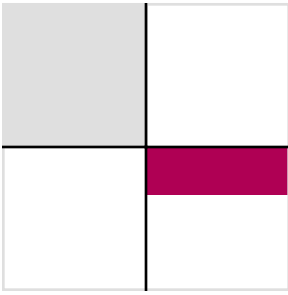
The next time you write an e-mail message or a report, remember those four elements commonly missing in engineering writing: (1) persuasive presentation of data, (2) conversational yet professional writing, (3)

GRAND AVENUE®   Steve Breen

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plain English, and (4) crystal clear organization.

Kathleen Mohn, M.Ed., conducts workshops on business and technical writing skills through Effective Training Associates (ETA), a partner of the IEEE. You can reach ETA at +1 408 866 6172 or info@ effectivetraining.com.

Why English presents problems in learning:

• To help with planting, the farmer taught his sow to sow.

• After a number of injections my jaw got number.

From the Editor

so **his** is the now obvious choice. This simple resolution is found in *Woe Is I* by Patricia T. O'Connor, Grosset/Putnam, 1996.

John Richards of Boston, England, founded the Apostrophe Protection Society (*http://www.apostrophe. fsnet.co.uk*) in June 2001 to protect, promote, and defend the difference between possessive and plural.

Among the oddest titles of books published in 2001 (from *Bookseller* magazine in the U.K.):

*Butterworths Corporate
    Manslaughter Service
The Flat-Footed Flies of Europe
Tea Bag Folding
Lightweight Sandwich Construction*

Some new definitions from the Internet:

Abdicate *v.* give up all hope
    of having a flat stomach.
Balderdash *n.* a rapidly receding
    hairline.
Coffee *n.* a person who is
    coughed upon.

Flabbergasted *adj.* appalled at how
    much weight you have gained.

What Is It?

"It is everywhere. Some 380m people speak it as their first language and perhaps two-thirds as many again as their second. A billion are learning it, about a third of the world's population are in some sense exposed to it, and by 2050, it is predicted, half the world will be more or less proficient in it." From *Economist.com.*

Information for Authors

One thousand words makes a nice page-and-a-half article, though longer and shorter articles may be appropriate. Proposals for periodic columns are also welcome.

If you use a wp program, **keep your formatting simple;** multiple fonts and sizes, customized paragraphing and line spacing, personalized styles, etc. have to be filtered out before being recoded in *Newsletter* style. Headers, footers, and tables lead the casualty list. **Embed only enough specialized formatting and high-**lighting (boldface, italics, bullets) to show me your preferences.**

If you borrow text—more than a fair-use sentence or two—from previously published material, you are responsible for obtaining written permission for its use. Ditto for graphics. Always give credit to the author or artist.

The *Newsletter* issues on our Web site can be used as examples (*http://www.ieeepcs.org/pub.html*).

I prefer to receive articles by e-mail; most WordPerfect, Word, RTF (rich text format), and ASCII files are acceptable. My addresses are in the boilerplate at the bottom of page 2.

Deadlines

The 15th day of each odd-numbered month is the deadline for publication in the succeeding odd-numbered month. For example, the deadline is 15 May for the July/August issue, 15 July for the September/October issue, etc. You won't be far off (and never late) if you observe the Ides of May, July, September, and so on.

Numbers

By Michael Brady

"The error LEDs are arranged in groups of four" seemed a sufficiently straightforward description of part of the station alarm panel. "Why four and not six or eight or all of them?" asked an operator. Good question; I had no answer. So I pored over a reference and found that humans, like crows, discern up to four objects, but no more. Hence the nigh universal method of tallying in fives by crossing off successive groups of four. Beyond four, educated humans must count as they have been taught, while animals cannot manage at all. The grouping in fours promotes speed of recognition. That tidbit of additional information answered the operator's question and enhanced the text.

My reference? The monumental yet compact and readable *The Universal History of Numbers*, subtitled *from prehistory to the invention of the computer*, first published in 1994 in French and translated in the late 1990s into English* and into 13 other languages. Its sequel, *The Universal History of Computing*, called "Volume 3" because the first book was republished in two volumes and the three released as a set, takes the topic to the present day.

Just as a question had led me to these references, questions triggered

Letters and numbers evolved simultaneously about 3000 BC.

the compiling of them by school mathematics teacher Georges Ifrah. He had found that neither education nor preparation equipped him to answer simple questions put by his pupils, such as where numbers come from, the meaning of zero, how the Romans did addition, or why an abacus can be worked so fast. Despite searching, he found that there was no comprehensive story of numbers, just bits and pieces of a story, scattered through history and around the globe. So he set out in search of the story. It took him ten years. He supported his quest by working as a waiter, night clerk, and taxi driver. He traveled wherever a shred of evidence led. As a Moroccan by birth and a Jew by heritage, he had access to Arab and Hebrew works that might have been inaccessible had he been European.

Together, these books comprise a vast lumberyard of facts, carefully arranged and meticulously indexed. Well laid-out tables and clear drawings by the author strengthen the straightforward text. The outcome is as entertaining as it is informative, and the author's depth of understanding is evident in many forays into peripheral matters that themselves could be the topics of lesser books. In the preface, Ifrah sets the stage by remarking that numbers are abstract, as they come not from things, but from the human mind that studies things. So the story of numbers is a human story. In the

last of the 27 chapters of the *History of Numbers*, in one sentence, he debunks all theories put forth to prove that the Earth was at one time visited and civilized by extra-terrestrial beings. Any extra-terrestrial society sufficiently advanced to travel to our Earth would at least have left behind a positional number system and a zero, concepts that we humans struggled for centuries to attain. So, throughout human history, we did it all ourselves.

In unraveling that history, Ifrah answers myriad questions about numbers, including those that triggered his quest. Numbers are human abstractions, originally written as letters of various alphabets. Letters and numbers evolved not separately but simultaneously about 3000 BC in Lower Mesopotamia. The Hindus contrived the zero and passed it to the rest of the world via the Arabs. The Romans did little arithmetic on paper because Roman numerals were not numerals in the mathematical sense that they supported arithmetic but, rather, were abbreviations used in writing numbers. Roman accountants used an abacus, which is quick because it reflects finger counting. And so on, for all imaginable aspects of numbers.

Throughout, these books are comprehensive yet enjoyable references. Read them, and you'll be able to answer the questions that stumped teacher Georges Ifrah as well as enliven your writing of texts that deal with numbers—arguably the stock in trade of us technical wordsmiths.

* Georges Ifrah: *The Universal History of Numbers*, London, Harvill Press, 1998, ISBN 186046324X paperback, and New York, John Wiley, 1999, ISBN 0471375683 hardcover; and *The Universal History of Computing*, London, Harvill Press, 2000, ISBN 1860467385 paperback, and New York, John Wiley, 2000, ISBN 0471396710 hardcover.

CHARLES A. MEYER

*P*CS founder Charles A. Meyer died 14 October 2001 at his home in Monroe Township, New Jersey; he was 86.

Mr. Meyer, who was a leader in the field of engineering writing and speech, worked at RCA as a technical editor and manager from 1946 to 1986. His career spanned developments in engineering from electron tubes to solid state technology. He also served as consulting editor of the *RCA Engineer* and on the editorial advisory board of the *RCA Review*. After his retirement, he continued to work for RCA as a publications consultant.

On 19 March 1957 Mr. Meyer chaired a meeting in New York City that led to the formation of the Institute of Radio Engineers (IRE) Professional Group on Engineering Writing and Speech, and this group was the forerunner of the IEEE Professional Communication Society.

Mr. Meyer served on the EWS AdCom (administrative committee) 1957-66 and 1975-77, and was its vice president 1964-65 and president 1965-66. In 1975, as chair of the awards committee, he proposed the Alfred N. Goldsmith Award and the

Charles A. Meyer ca 1965

Transactions best paper award, both of which are still active awards. He was a Life Senior Member of the IEEE, having joined the IRE in 1953.

In 1977 Mr. Meyer reminisced in the PCS *Newsletter* on the 20th anniversary of the formation of the EWS group. One of the most memorable 1957 organizational meetings, he recalled, was at the Mermaid Tavern on Macdougal Street in Greenwich Village, New York. The tavern was still there in 1977 but not in 1997 when Mr. Meyer's article was reprinted in the March/April *Newsletter*.

Born in New York City, Mr. Meyer earned a degree in English in 1937 from the University of Chicago, where he was elected to Phi Beta Kappa in his junior year.

He received a master's degree in English in 1939 from Harvard University.

A lifelong proponent of the University of Chicago philosophy of education with its emphasis on the classics, Mr. Meyer was a discussion leader for the great books group at the Maplewood, New Jersey, library for many years. In 1966 he was elected president of the board of trustees of the South Orange–Maplewood adult school, a position he held for ten years. A recent history of the adult school credits his leadership for growth and excellence of the school during that time.

Mr. Meyer was a veteran of World War II, where he served in the army air force as a radar and communications first lieutenant, stationed overseas in the Philippines and Japan. While in the service, he received engineering training at Harvard and M.I.T.

Surviving are his wife, Helen; sons Richard of Berkeley, California, and Geoffrey of Lakeville, Minnesota; daughter Judith, of Santa Monica, California; and three grandchildren.

Prepared by Geoffrey Meyer and Rudy Joenk

LOIS K. MAY

*L*ois K. Thuss Moore May died 15 November 2001; she was 68.

A retired senior staff editor and technical writer, Ms. May joined the Johns Hopkins University Applied Physics Laboratory (APL) fleet systems department in 1978, where she edited technical abstracts and papers. In 1982 she transferred to the business and information services department and became editor and main writer for the *McClure Center Magazine* and published the monthly *Computing Newsletter*. She retired from APL in 1998.

Ms. May was a Senior Member of the IEEE, a member of the Professional Communication Society, and a volunteer editor and columnist for the IEEE-USA communications committee (1989-92). She was also a member of the Society for Technical Communication. She had been a member of APL's Toastmasters Club and had served as its administrative vice president.

Lois K. May ca 1978

An active member of PCS for many years, Lois served as a member of the AdCom (administrative committee) from 1980 until 1989. She was chair of our Boston conference in 1982 and our Atlanta conference in 1983. She was PCS vice president from 1982 through 1985, and president in 1986 and 1987.

Long-time AdCom member Bill Kehoe remembers Lois as one of the kindest and warmest people he would ever want to know. She had no airs about her and was always looking to help PCS. She was one of those people who

have such persuasive powers that she could, as they say, sell ice to an Eskimo. After she introduced Bill to PCS she recruited John Moffett and he also was elected to the AdCom. John chaired our IPCC 90 in London and brought another APL staff member, Sam DeAmicis, to our AdCom meetings.

I remember Lois's quiet enthusiasm and supportive nature. At the Atlanta IPCC she spent a good deal of time with me at the Stone Mountain picnic explaining the philosophy and operation of PCS and encouraging me to become active in the society. Since it was only my second conference, I was impressed (flattered, I guess) that the conference chair would spend so much of her time encouraging my participation. Apparently, her plan worked; I'm still here.

Ms. May is survived by her son, Robert.

Prepared by Roger Grice

Tell Me a Story

By Brian R. J. Heumann and Helen M. O'Shea

Good storytelling establishes a personal relationship between the story and the reader. As children, we read stories and often identify emotionally with the characters in the plot. A realistic cast of characters and motives make a story emotionally more appealing to readers of any age. As adults, we still appreciate information that addresses both our rational side and our emotional side. Stories capture our imagination.

As technical communicators and interface designers, we often have

Scenario: Derek is new to the company, and will work for Brent on the project "ABC." It is my job to grant Derek access to the project LAN files.

Sketch of a product screen

to describe product deliverables very early in the product life cycle. This is never an easy thing to do. If the product is new and uses new technology, it can be very difficult to get an understanding among the members of the project team on what the goals are.

Stories are a powerful method for getting this common understanding. You can think of a story as a vision of a product or service in a real-world context. It describes the people involved in this context, their motives, the things they do, and the tools they use. The cast of users

suddenly become "real people" with real needs and problems. As the story unfolds, the product deliverables are linked to give a complete picture of the product and how it behaves.

We were involved in a project at IBM Germany that was developing knowledge-mining software for business portals. The technology was new and unfamiliar to many of the team members. Also, the team was located at one site in the United States and one in Germany. Our story began by identifying the characters.

Identifying the Characters

Because this was a new product, we had only the marketing requirements that contained a list of potential users. Based on our experience with similar products and user groups, we developed an audience definition and task descriptions for the users from the marketing information.

We used the personae method* to extend the audience definition and task descriptions to a biography for each of the characters. They all work for a fictitious information technology (IT) company called IKF that specializes in software development, services,

* Alan Cooper, Paul Saffo. *The Inmates Are Running the Asylum: Why High Tech Products Drive Us Crazy and How To Restore the Sanity.* Indianapolis: Sams, 1999.

and integration for Internet-based business solutions. The characters all had specific tasks and goals to achieve.

We found that biographies brought the characters to life; they became realistic and emotionally appealing, almost like old friends. They helped the team members identify with the needs of the user groups and how those related to their understanding of the product.

Putting the Story Together

Our multidisciplinary team consisted of a technical communicator, an interface designer, a usability expert, a visual designer, and several software engineers. Each team member communicated his or her understanding of the product and its goals, from which we developed a workflow through the product. Then we assigned the roles in the workflow to our IKF characters.

Benefits of storytelling: team building, better feedback, spin-offs

Because we wanted to distribute the story to both development and marketing locations we decided to present the story in Web format. We used text, graphics, and elements of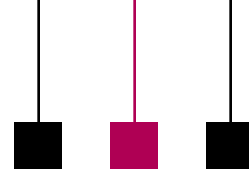 drama to help readers identify with the story and experience the emotional aspects of the product. To help visualize the product deliverables, our story included design sketches of some of the product screens.

Why Tell Stories?

Storytelling is very time consuming: It requires substantially more time,

Being Part of the Solution

Part 3: Looking Beyond the Problem

Bosses sometimes take turns tackling the same tough people problem—with no success. Instead of getting better, that problem only gets worse. Then one day, a manager comes along who refuses to see a problem at all—and the problem evaporates! Why? Because the manager saw the seeds of success in the problem itself. Sounds like magic? It's very real, and it can save you and others a lot of aggravation.

John's Problem

Some years ago, a company sent a "problem writer" to one of our writing programs. John was an analyst in a lab. His sin was not bad grammar nor convoluted style but a tendency to dwell on details of method.

John's boss felt he made too big a deal about everything. "Our clients just want the results," she said. "Exactly how we got them doesn't interest them."

We discussed reader needs with John and demonstrated how much easier it was for clients to appreciate his findings when he didn't overload them with details. He agreed in principle, but in every report he saw a need for an exception.

Next, we tried to persuade John to at least bury his beloved details in a methods section. No deal. "If I put it in the back, they won't read it at all," he objected, "and then they won't understand what I did."

Clearly, telling his readers in detail about the creative work he had done for them filled a deep need that transcended all others, including getting the boss off his back. In the end, we asked his manager if John's readers might be able to humor his infatuation with technical detail; she was adamant that it would damage the reputation of the entire group.

We also asked the boss about the quality of John's work. She admitted that his skills were excellent and his work thorough— often *too* thorough for routine requests. "It sometimes seems as if for him there is no such thing as a routine job," she complained.

The Problem Escalates

John was soon moved to a different lab in the same facility—and the new boss promptly packed him off to writing class again. By now, John was not getting any interesting jobs, only the most routine analyses that required basically no report beyond a short table of components. The new boss had three reasons for this. One, he thought an exclusive diet of unimportant jobs might cure John of his overambitious behavior. Two, he did not want to expose important clients to John's "nonsense." Three, after a few painful attempts, he refused to edit John's reports on substantial jobs.

John, in the meantime, was bitter but still fighting. As his former boss had recognized, he didn't know the meaning of "routine." No matter how simple the job, he always found a new angle that required creative

work and a corresponding detailed account of method and principle. The boss despaired and passed him on as soon as possible.
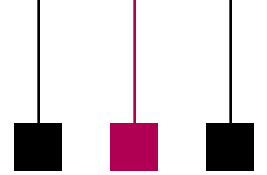
An Unlikely Rescue

One day, John's fortune miraculously changed. A young technologist at the research facility was asked to create a special problem-solving group, a crack team constantly on the go. To everybody's surprise, this group leader asked John to join, and John was glad to accept.

We were very curious how John would perform on this high-powered team. About a year later, we had a chance to talk to John's new boss. He told us things had worked out perfectly. John had quickly been given extra responsibilities and even promoted. He was a key contributor: hardworking, creative, ambitious. Yes, he was still a little overenthusiastic and boastful but that didn't bother the boss at all. "Just a bit of an ego," he said. "But then, I have an ego, too!"

What had happened? Simply this: John's new boss had recognized the *strengths behind his problems:* ambition, creativity, willingness to work hard, and persistence. All these were qualities he wanted. At the same time, he ignored the ego problem that had stymied John's previous managers and simply gave it the appropriate diet: challenge, opportunity, and, above all, recognition.

Think about some of the problem people you know at work. Can you

> If you can't beat the problem, look for the good in it.
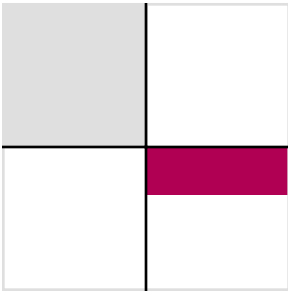
see strengths in their worst problems? Then how about tapping those strengths?

Cheryl and Peter Reimold have been teaching communication skills to engineers, scientists, and business people for 20 years. Their firm, PERC Communications (+1 914 725 1024, perccom@aol.com), offers businesses consulting and writing services, as well as customized in-house courses on writing, presentation skills, and on-the-job communication skills. Visit their Web site at http://www.allaboutcommuni cation.com.

Highlights of the January AdCom Meeting

(continued from page 4)

we want to foster synergies, locally and globally, by providing opportunities for volunteers. Interested? Contact Bernadette Longo (*blongo@ ieee.org*), our volunteer coordinator.

2002 Elections

According to our modified bylaws, approved at the previous AdCom meeting, three of the six AdCom members to be elected each year will now be elected by the membership at large. To ensure smooth elections, starting in the summer of 2002 we must set up an effective procedure and start designing and imple-

menting an online voting system, which we expect to beta test before our next AdCom meeting in April.

Future Meetings

The AdCom will convene up to three more times in 2002: on the campus of Mercer University in Atlanta, Georgia, on 12-13 April; if needed, by conference call on 27 July; and in conjunction with IPCC 2002 in Portland, Oregon, on 20-21 September. All PCS members are welcome to attend.

Jean-luc Doumont is PCS secretary.

Tell Me a Story

(continued from page 11)

technology, and materials than putting together a specifications document from a list of requirements. So why do it? We found that the method brought the following benefits:

1. **Team building** This was especially important because the team was located at two sites in different countries. They identified with the characters in the story and had a greater interest in the product and a greater motivation to understand and explore what the product offers.

2. **Better feedback** The story generated a lot more feedback than a normal specifications document would. We even managed to get

a "well done" (when did you last get that for a specifications document?)! The story encouraged readers to explore aspects that were important to them; for example, high-risk aspects for the schedule of the project, a task that would be done often and by different users, or an aspect that has a potential impact on the success of the product. The review sessions were much more open and usually resulted in interesting alternatives and ideas.

3. **Spin-offs** The elements of the story can be used to document individual aspects of the product design and can be elaborated independently. Our story included

sketches of product screens. These became the basis for some of the user- interface prototypes. Another spin-off was the scenarios that evolved into use cases and test cases and ultimately the user documentation.

Marketing hoped that they could also spin off marketing collateral from the story. Although this was outside of our team's scope, it is something that other projects did successfully.

Brian Heumann and Helen O'Shea work for IBM Deutschland Entwicklung GmbH in Boeblingen, Germany. Brian is a software engineer and usability expert; Helen is a technical communicator; SHE@de.ibm.com.

Creating Web-based Tutorials with XML

By Darren Barefoot

One of the earliest promises of XML was the separation of content from format. Unlike HTML and most proprietary document formats, what you wrote would be completely separate from the appearance of your finished document. Furthermore, XML could be used to describe content—to give information about what you were writing. Fifteen years later, technical writers are still waiting for the adoption of this Utopian vision. Companies all over the world may be using XML to store and exchange data, but the majority of writers seem to be stuck with Microsoft Word, FrameMaker and, when those fail, Notepad.

> Toot-O-Matic converts an XML file to a Web-based tutorial with custom graphics.

A team at IBM developerWorks (IBM's research center for programmers), however, has developed a tool that illustrates the heady promise of XML. Their goal was to simplify and streamline the development process for the online tutorials that are hosted on the developerWorks Web site. As in many companies, tutorial creators not only have to be good at writing but also be familiar with printing processes, desktop publishing, Web design, and HTML authoring. The tool's team leader, Doug Tidwell, says, "When we built our first tutorials at developerWorks a couple of years ago, they were incredibly tedious to create…a great deal of the tutorial-building process was hand coded and error prone."

IBM resolved those issues with the whimsically named Toot-O-Matic. It's an XSLT (extensible style sheet transformation language) and Java application that enables writers to focus on writing while avoiding the associated formatting and conversion issues. When writing the tutorials, authors use a restricted set of HTML and XML tags to determine the formatting and organization.

For example, each HTML page in a tutorial is defined by a `<panel>` tag. Within each panel, authors use familiar HTML tags such as `<p>`, `<href>`, and `<i>` to define how their text will look. A group of related panels are set inside a `<section>` tag and the titles of these sections make up the table of contents for the tutorial.

Toot-O-Matic converts this XML file to a Web-based tutorial with custom graphics, two PDF files, and a zip file. Toot-O-Matic generates the tutorial (a series of interlinked HTML pages) based on a group of XML files (several XSL files, a DTD, and an XML Schema file). These files are highly customizable, enabling users to fit the tutorials into existing product or Web-site frameworks.

At Cape Clear Software, we've used Toot-O-Matic to create more than a dozen Web-based tutorials. The following section of an XML file shows a little of the markup for the first content panel of one of our tutorials.

```
<title>Exposing Java Classes with CapeConnect
Three/title>
   <section id="ov">
      <title>Overview</title>
      <panel id="sot">
         <title>Summary of Task</title>
         <body>
            <text-column>
               <p>This tutorial uses an example to
               demonstrate

how to use <a href="http://www.capeclear.com/prod-
ucts/capeconnect/index.shtml" target="_blank">
CapeConnect Three</a> to expose Java classes as Web
services. There services can then be accessed from
any SOAP client, for example, a SOAPDirect client.
In this example, you expose a simple stock trading
system as a Web service. You begin the tutorial with
the Java classes that implement the system and then
construct a Web service based on these classes.
               <text-column>
            <body>
         <panel>
```

So, the title of this tutorial is "Exposing Java Classes with CapeConnect Three"; the title of this section is "Overview"; and this panel is called "Summary of Task." The screen shot shows the tutorial page generated in a Web browser.

In addition to generating the HTML pages, Toot-O-Matic generates PDF files in both A4 and letter sizes. These PDF files aren't particularly fancy, but you can modify their output using one of the configuration files and they are satisfactory as a supplementary version of the content. In the example, these alternative formats are accessed using the buttons in the upper right portion of the window.

The tutorial also includes a zip file that contains the entire tutorial. This encourages users to send the tutorial to a colleague. Unfortunately, the zip file does not contain a zip file of itself (there is a sort of *Through the Looking Glass* logic problem there), so the zip file button works only once.

Toot-O-Matic is a command-line tool. That is, it has no graphical user interface. This may prove intimidating to those who are more comfortable with user-friendly Microsoft Word and its siblings. Additionally, you need a basic understanding of XML files and related technologies (schemas and style sheets), though not necessarily Java or XSLT. That said, if you're keen to learn about these technologies, Toot-O-Matic provides a real-world introduction. You can download Toot-O-Matic at *http://www6.software.ibm.com/dl/ devworks/dw-tootomatic-p*.

As an open-source (and therefore free) tool, Toot-O-Matic has proved a bonus to our documentation department. With a little customiza-tion, we've been able to create professional looking and effective tutorials with a minimum of fuss and cost. While it may not complete the idealistic promise of XML, Toot-O-Matic demonstrates the real-world application of its principles.

The author is a Canadian currently working at Cape Clear Software in Dublin, Ireland. His goals while working abroad are seeing the great cathedrals of Europe and introducing the great frozen game [ice hockey] to counties Wicklow and Cork. You can contact him with comments or questions at darren@darrenbarefoot.com.

What's Happening to Language?

An excerpt from Jack Rosenthal's article, "So Here's What's Happening to Language," in The New York Times *on 14 November 2001, commemorating its 150th anniversary.*

In the end, writing—no matter how conversational the style—is writing. That means it is permanent. In speech, to be casual is to be friendly. In writing, to follow the rules is to be clear. To "talk it over" means to weigh and test; to put something into "black and white" means to decide, to freeze the thought. Spoken English may soften the strictures of written English, but the need for rules endures. There's a time to say "well, kind of" and a time for writing to right wrongs.
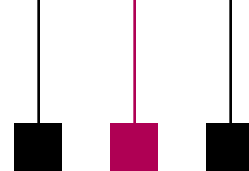
The Authentic Voice of Billy Collins

Serendipity happens. When complimented by an interviewer on his luck in making a difficult putt, Jack Nicklaus said something to the effect that, "Yes, it was lucky. But I notice that the more I practice, the luckier I get." I too notice that, as I regularly put myself in the presence of poetry by reading some poems every day, I find myself sunk happily and irretrievably in the work of Billy Collins, the poet laureate of the United States for 2001-2002.

Like Elizabeth Bishop (a Pulitzer Prize-winning poet who died in 1979), Billy Collins's output is not as great as that of many other poets, but his more than compensates for any shortage in quantity by virtue of its astonishing quality. In addition to contributing often to first-rate journals, Collins has published seven books of poems: *Pokerface* (Kenmore Press, 1977; out of print); *Video Poems* (Applezaba Press, 1980; out of print); *The Apple That Astonished Paris* (University of Arkansas Press, 1988); Questions About Angels (University of Pittsburgh Press, 1991); *The Art of Drowning* (University of Pittsburgh Press, 1995); *Picnic, Lightning* (University of Pittsburgh Press, 1998); and *Sailing Alone Around the Room* (Random House, 2001); as well as a CD entitled *The Best Cigarette* (out of print).

The source of my attraction to this man's poems is primarily the authentic voice of the persona or mask he assumes within the poems. That is a matter of ethos: The credibility of the voice instills trust in the reader because there is the ring of truth to it. He conveys the impression that he has thoroughly thought through what he describes and that he has selected the most salient words and details to document his subject. Part of the authenticity of his voice also derives from the gentle humor that often wafts its way through the poems. It is a voice that is at once serious and reflective but does not take itself too seriously. A receptivity to the world around and within informs it, considerately but incisively reporting what it has seen, thought, and felt. As John Updike has observed of Collins's poems, "Limpid, gently and consistently startling, more serious than they seem, they describe all the worlds that are and were and some others besides." The more one reads Collins, the more one feels privileged to be sharing whatever subject matter he has chosen to address.

Joann Carney

U.S. poet laureate Billy Collins

Professional communicators can learn much about articulating a reliable voice in their writing and speaking from perusing this man's poems. The poems that he puts into play by publishing them are clearly the result of his mastery of craft and his experience in life. Because he is so adept at reading the contours of his own mind and the landscape of the reader's mind, anticipating subtle variations in movement of the ball (content), his every stroke seems to be right on target. Let us follow some of the bouncing balls as they advance toward their typical destination: a goal that is as satisfying as a hole in one.

In "Vanishing Point" (*Apple*, p. 3), for example, Collins employs a double metaphor to suggest the function of the writer-poet: "I am a catcher behind the home plate of the world, /a scientist observing a little leak in reality." The professional communicator, too, must be ready to receive the ball, handling it cleanly. She or he must also be alert to the "leaks"— problems in need of solution, say— perhaps to plug them up.

In "Introduction to Poetry" (*Apple*, p. 58) he offers a procedure for benefitting from a poem*. That series of recommendations can apply equally well to any document:

I ask them to take a poem
and hold it up to the light
like a color slide

or press an ear against its hive.
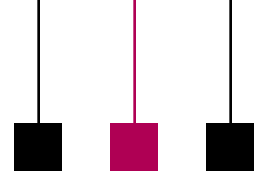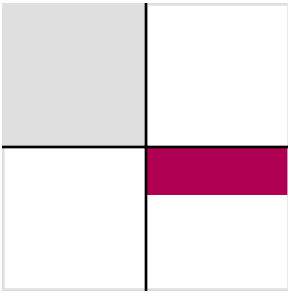
I say drop a mouse into a poem
and watch him probe his way out,

or walk inside the poem's room
and feel the walls for a light
switch.

What people write or say must be held up to the light of truth to test its validity. To verify and get in touch with the activity behind the scenes

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* Reprinted by permission of the University of Arkansas Press. Copyright 1988 by Billy Collins.

(the busy bees), the professional communicator needs to listen for the ring of truth. (The sound should echo the sense.) The professional communicator should be a kind of scientist as well, observing the working out of a problem or issue as that resolution is articulated in the document. And, once inside the room of the document, the writer should attempt to throw light on the subject, triggering the mechanism that is likely to do so.

In "Scotland" (*Sailing*, pp. 166-67) he examines the course of his life, specifically the notion "that nothing had really changed for me/since childhood,/that I was spinning my wheels in a sandbox." Using the central analogy of a bicycle, he links related words to identify events or stages in his life: "pedaling…on the same maroon 3-speed Raleigh bicycle," with "clips on my trousers/pushing off," "throwing a leg over the crossbar," "[ringing] the bell on the handlebar" at intersections like a birthday or wedding or death. Otherwise, he has kept his thoughts to himself, "whenever I had to strain

> The credibility of the voice instills trust in the reader.

uphill/bending under a stiff wind" or "[coasting] down." He foresees ultimately, at the end of his "pedaling," "easing the pressure of my thumb on the silvery bell." Then he will "dismount, swinging/a leg over the crossbar, standing on one pedal/while the bike slows to a stop/and falls over on its side with me under it." There is a kind of completeness to this imaginative depiction of his life, described with a vocabulary that checks against the experience of anyone who has ridden a bicycle.

Finally, in "The Best Cigarette" (*Sailing*, pp. 55-56) he brilliantly relates the joy of smoking in the heat of poetic production, when he has "a little something going/in the typewriter." With coffee from the kitchen, he would light up a cigarette on the way back "to the page,/curled in its roller" and "feel/its dry rush mix with the dark taste of coffee." Then he would be his "own locomotive,/trailing behind me as I returned to work/little puffs of smoke,/indicators of progress, signs of industry and thought." As he says,

That was the best cigarette, when I would steam into the study full of vaporous hope and stand there, the big headlamp of my face pointed down at all the words in parallel lines.

Even nonsmokers can sense the sheer joy of the experience he describes and wonder at his amazing ability to combine imagery connected to smoking, trains, progress, energy, ephemerality, and commitment to shedding light on his subject.

James H. Austin, in an essay entitled "Four Kinds of Chance" (in Trimmer and Hairston, *The Riverside Reader*; Houghton Mifflin, 2002), defines *serendipity* as "the facility for encountering unexpected good luck, as the result of accident, general exploratory behavior, or sagacity." I wish you many engaging adventures with Billy Collins as your companion.

Ron Nelson is an associate professor of English, James Madison University, Harrisonburg, VA 22807; +1 540 568 3755, fax +1 540 568 2983; nelsonrj@jmu.edu.

Best Headlines of the Year 2000:

• Juvenile court to try shooting defendant

• Stolen painting found by tree

• War dims hope for peace

• If strike isn't settled quickly, it may last a while

If you need further proof that the human race is doomed through stupidity, here are some label instructions on consumer goods:

• On some Swanson frozen dinners: "Serving suggestion: Defrost."

• On Tesco's tiramisu dessert (printed on bottom): "Do not turn upside down."

• On Marks & Spencer bread pudding: "Product will be hot after heating."

Jean-luc Doumont

Showing Off with Your Beamer, Are You?

It is not unusual for organizers of major conferences to request speakers to send their PowerPoint presentations ahead of time, so these can all be installed on the same computer, connected to a video projector. If you tell them that you do not use Microsoft PowerPoint to create your visual aids, they might well think you're not of this world ("What else could you possibly use?") and will probably insist that you do so this time, to be compatible with their projection system. Now, if you tell them that compatibility is not an issue, because you plan to use plain old transparencies on an overhead projector, they might well think you're not of this century. Why, nowadays *everyone* uses PowerPoint slide shows with video projectors. Yet if you ask them why a video projector should be superior to an overhead one, they might simply be at a loss for words. Chances are they've never even thought about it: To them, it is "obviously better."

Clearly, video-projected, computer-run slide shows do have advantages over plain overhead transparencies. For one thing, there is something neater about them: The projector is less obtrusive, distorts the image less (with little or no keystone effect), and renders colors more faithfully. For another, they allow animations and other computer demonstrations, such as a real-time visit to a Web site. Still, these advantages can be outweighed—by severe and often unrecognized—drawbacks.

> Good old transparencies help you stay in charge.

Video projectors, called *beamers* in my part of the world (where BMWs are called *bay-em-ways*), are in a sense similar to those famed German cars: They are technologically impressive, they are quite expensive, and they give their users a false sense of power and impunity. In fact, they seem to be used primarily for showing off, a practice known to work poorly in serious professional communication.

In my experience as speaker and as instructor of public speaking, plain old overhead transparencies have at least the following three advantages over computer-run slide shows.

- *Transparencies are more flexible* (no pun intended). They allow you to show images out of order, skip some, or easily come back to one, without the audience's noticing— very professional.

- *Transparencies are crisper* (with a higher resolution, less flicker, etc.) and are thus less tiring to look at than projected computer screens. Long sessions relying on projected text at screen resolution can strain the audience's eyes, as some of us have experienced already.

- *Transparencies allow anticipation*. As you place one transparency on the projector, you already see the next one on the pile, so you can come up with a smooth transition to introduce your next point. With slide shows, speakers seem to discover the next slide together with the audience: The flow gets interrupted; so does eye contact.

As a bonus, transparencies pretty much reduce technical troubleshooting to changing a light bulb. Despite claimed hardware or software compatibility, I see technical mishaps of some sort in at least one out of four computer-run presentations that I attend.

Good old transparencies, in conclusion, help you stay in charge. Slide shows, sleek as they can be, easily steal the show: You become a "voice off," a mere vocal aid to your slides.

So, should you quit using computer-run slide shows? Not necessarily, but you may want to be aware of alternatives. To give yourself some flexibility or to be gentle on your audience's eyes during long sessions, do consider transparencies. And if you nonetheless run a slide show, take backup transparencies: Besides coming in handy in case of a technical problem, they can be flipped on a nearby table, so you can stay one slide ahead of your computer screen.

As usual, let us not confuse the end with the means. If you show up with a beamer to impress your audience (or your next-door neighbors), they might well be impressed…by your beamer. Whether they will be impressed by what you say (or how you drive) is another matter entirely.

Dr. Jean-luc Doumont teaches and provides advice on professional speaking, writing, and graphing. For over 15 years, he has helped audiences of all ages, backgrounds, and nationalities structure their thoughts and construct their communication (http://www.JLConsulting.be).

What Is a Web Designer?

By Elizabeth Weise Moeller

The past few days have been good to me in terms of column topics. My company uses a tool to develop and manage Web sites, so I belong to an e-mail users group (like I need to receive more e- mail!). This group is an interesting mix of designers and programmers. What I like about it is that every once in a while we wander off topic into something that affects us all, but very often polarizes us into our designer and programmer camps.

Just that kind of topic appeared earlier this week. It did not start as a discussion of Web design. It started as a discussion of tools and how one very powerful desktop publishing tool could become the Web tool of choice because it was going to offer XML export. I skimmed the discussion as it worked its way through a Web developer's discussion of single sourcing (without knowing they were discussing what technical communicators define as single sourcing). My contribution to the conversation centered on porting content from print to Web (which is another column for another time). Then the discussion worked its way toward "Web designers who have print experience," "print designers who design for the Web," and "Web designers who don't know how to design."

One message came through that really hit the nail on the head and started me thinking: How do we define "Web designer"? Michael Dunn posted: "…Just because someone buys [a Web tool] doesn't make them a designer just like an artist who buys [a Web tool] doesn't become a programmer. Usually they are two different things, but since art is subjective, everyone thinks he can do it."*

In a nutshell, Dunn stated something I've been arguing for years: Web design tools have become so affordable that anyone who has an inkling to be a Web designer buys a Microsoft, Adobe, or Macromedia suite of products, hangs out a shingle, and calls him- or herself a Web designer. Usually these are people with very little experience who seriously undercharge for their services, causing problems for businesses with the background and experience to do the job. Not everyone can be a Web designer—it's not as easy as it looks.

> …someone who knows the user is the most important person in this process.

Okay, that sounds arrogant. What makes me a Web designer over the people who bought a set of tools? Education and experience make people Web designers. Just as in many other professions, not all Web designers are created equal. Not all Web designers have the same philosophies. If you ask four Web designers how to design a site, you will get four different answers. So, what should you look for in a Web designer?

*Quote used with permission.

Education

Web designers come from a range of backgrounds, but it is important to look for some specific things in their education. First, look for graphics or visual communication courses. The Web is a visual medium. Good designers know how to communicate with people visually. They know something about typography, screen readability issues, color theory, and a host of other graphical topics. This is why people trained as graphic artists often produce some of the most dramatic looking Web sites.

Next, you should also look for some form of programming in their backgrounds. In particular, look for HTML, Javascript, Perl, or PHP. While these are not necessary for a Web designer, knowledge of any of them shows that the person has an understanding of the limitations of site development.

Ideally, you would also like to see a course in content development or site design. Courses in these areas should cover usability issues and impart to students the importance of designing user-friendly sites, not necessarily with the "latest and greatest" technology.

Experience

The Web, in its current form, has really existed for only seven years. Therefore, no one should be able to claim more than seven years' experience. You should look for people with experience developing Web graphics. They should know the dif-

Not Really a Swan Song

By Ron Blicq

When the AdCom meets in Atlanta in April, for the first time in many years I won't be there. I'm considering whether to have my nose deep in a novel, or lie on a beach in the sun, or whiz down the ski slopes at Whistler, B.C., Canada. It's my own choice because, at the election held in Santa Fe last October, I chose not to run again. But that doesn't mean I'm stepping entirely out of the picture. I want to continue my relationship with PCS, because I have gained so very much from being a member and, particularly, from working with other PCS members, both inside and outside the AdCom.

With that very long introductory paragraph—which breaks all the rules I teach about writing effective opening statements!—I want to encourage *you*, if you're not already an AdCom member, to stand for election at the next AGM (in Portland, Oregon, 21 September). Here's why:

• You'll work with a great group of people, all of whom are dedicated to improving the communication skills of technical professionals. They work hard, but they create an extraordinarily pleasant social environment in which to operate.

• You'll have the distinct feeling that you're making a contribution in a unique field.

• You'll have a say in how the Professional Communication Society is run, and an opportunity to help steer it in future years.

• You'll understand better the unique role that PCS holds within the global technical communication community, because our objectives differ from those of other TC societies (they are shared only by the Professional Communication Section of the Popov Society in Russia).
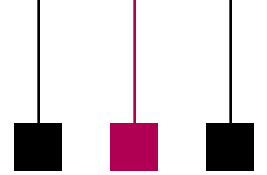
• You'll be encouraged to take part in a variety of activities in which PCS is involved and to develop new activities. Those activities are wide ranging: e.g., organizing the annual conference, developing and presenting workshops, coordinating and nurturing communication between societies, promoting membership, and helping form guidelines for international technical communication.

• And you'll learn a lot more about the IEEE, and terms such as TAB, RAB, and EAB will become less of a mystery to you.

Over the years I have worked with some wonderful people. My memory stretches back with particular affection for Emily Schlesinger, Jim Lufkin, Herb Michaelson, John Phillips, Dan Rosich, Nancy Corbin, Lois May, Bill Kehoe, Richie Robinson, Rudy Joenk, and many, many more.

That I remained on the AdCom for so long is a significant comment on the value I gained from doing so. I leave with very mixed feelings, yet I know it's the right moment because there are so many younger people waiting in the wings—people just loaded with enthusiasm and new ideas. I hope *you*

Ron's Definitions

AdCom: The official definition is "**Ad**ministrative **Com**mittee;" my personal definition and I think much more accurate is "**Ad**mirable **Com**pany."

AGM: The official definition is "**A**nnual **G**eneral **M**eeting;" my personal definition is "**A**lways a **G**reat **M**eal" (with many thanks to Bill Kehoe and Steve Robinson).

PCS: The official definition is "**P**rofessional **C**ommunication **S**ociety;" my personal definition, after hearing our president's and treasurer's recent comments on PCS's financial condition, is "**P**revent **C**apital **S**pending."

Swan Song: Webster's definitions are "1. A song of great sweetness said to be sung by a dying swan *(No, it's hardly that!).* 2. A farewell appearance or final act or pronouncement *(That's more like it).*"
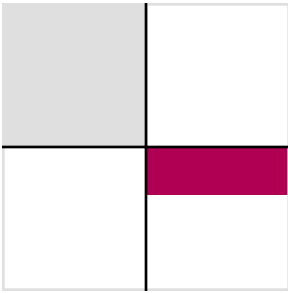
The Conference of Choice

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will consider putting your name forward when the next election occurs.

Ron Blicq has been both an IEEE and a PCS member since 1958 and is now an IEEE Life Senior Member. He was first elected to the AdCom in 1975 and served continuously through 2001. Currently he is writing an online course for teaching technical communication skills to engineers; it can be seen at http://www. rgilearning.com, and he can be contacted at ronblicq@cs.com.

publications chair for IPCC 2002 in Portland.

So I suppose Ruskin was right. I like IPCCs, and that proves what I am: a teacher of technical communication who is always interested in what is going on in the world of professional technical communication.

Plan now to go to IPCC 2002, *Reflections on Communication*, 17-20 September 2002 in Portland, Oregon,

and share *your* reflections. See our Web site at *http://www.ieeepcs.org/ 2002/* for detailed information and updates on the program and speakers, or contact *Laurel Grove at LGrove @covansys.com.*

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Net Notes

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ferences among GIF, JPEG, and PNG and know when it is most appropriate to use each one. They should also know about Flash, Shockwave, Javascript, animated GIFs, and DHTML—all tools to bring interactivity to a Web site. Whether a person can actually program is irrelevant here; the important idea is that he or she knows when to implement a specific technology.

A portfolio is another good way to determine a person's experience. You should not settle for single images of a home page. You need to see the Web site in action to know how well a design works. Some designs look fantastic on paper but are almost impossible to implement. Other designs may look bland on paper but are fantastic when put into action.

Finally, Web designers with experience are confident about their skills and their abilities. They know when they can complete a job, when they need to subcontract pieces, and when to just say they cannot do it. They also charge the market rate. Anyone who seriously undercuts the market rate in an area should be looked at *very* closely.

> Good designers know how to communicate with people visually.

So, What Is a Web Designer?

A Web designer is someone who understands the impact of visual communication but can adapt to the sometimes constrictive requirements of Web-site programming. A Web designer is someone who knows the user is the most important person in this process, not his or her own portfolio. A Web designer is someone who understands that a Web site is a whole

slew of pieces that need to be put together carefully. Finally, a Web designer is someone who knows that the tools are simply a means to the end, and that the tools alone do not make him or her a Web designer.

Would you hire an electrician because she or he had a voltmeter, though had never been trained how and why to use it? I'm guessing not. Then why would you hire a Web designer who owns a Web development tool but doesn't understand what a Web site needs to succeed?

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Say What You Mean in E-mail

As a follow-up to the Professor's first lesson on quality e-mail, let's focus on the subject line, and how to be precise in saying what you mean.

• Always include a subject line.

Nearly all e-mail tools give you a field to enter the subject. Give your readers a glimpse into your intentions by placing a summary of your topic in this field. One of the Professor's pet peeves is seeing a blank spot in her in-box subject line; it puts her into such a lather that she doesn't know whether to open the note immediately, save it for when she has more patience, or just delete it on the spot. She's sure that others are similarly affected.

• Avoid generic subject lines.

Scan your in-box right now and chances are you'll find a few subject lines like:

Important meeting
New guidelines
Can U help?

It takes only a few seconds to specify what the meeting is about, what the guidelines apply to, or what "U" need help with.

• Make subject lines front-loaded.

What the Professor means here is to put the specific, distinguishing information at the beginning of your subject line, and the boilerplate or common information at the end. Not only does this help readers scan their e-mail more quickly, it also prevents the important part of the subject line from being truncated in case the recipient's mail tool has limited space to display subject lines. For example, the Professor's current in-box has a note labeled:

Team Discussion Database
    Important Please Read Statistics
        and Information on D

How much more useful this subject line would be with the important information at the beginning, along with some judicious abbreviation:

Important: Stats and Info
    on Data Management
        Information Architecture

• Double-check the text of the subject line.

The Professor recently received an e-mail marked *Urgent* with the following subject line:

Reminder *not* to avoid using the <blam> tag.

Being undeniably suspicious when she sees a double negative, the Professor, who hasn't a clue as to what one might do with a <blam> tag, opened the note to find that it was in fact warning writers to most certainly avoid using the <blam> tag. Always take a second to ensure that your subject line says exactly what you mean and not, for heaven's sake, exactly the opposite.

> Do your readers the courtesy of including good subject lines with your e-mail.

• Update the subject line on forwarded notes.

We often see e-mail that is on its fourth or fifth (or more!) generation of forwarding and response, and often what is being discussed is no longer the original topic but something completely tangential. Let us not be so lazy as to perpetuate miscommunication with obsolete, inaccurate subject lines. Take a few seconds to write a new subject line, and perhaps recapture your readers' interest and refocus the discussion.

In closing, the Professor urges you to do your readers the courtesy of including good subject lines with your e-mail. In this hurry-up world where time seems to shrink as our e-mail in-boxes expand, your readers will (consciously or unconsciously) thank you.

Copyright 2000 by IBM Corporation. Used with permission. Professor Grammar is an advisor to the IBM Santa Teresa Laboratory Editing Council. Each month she sends a lesson to the technical writers at the Laboratory. Many of the Professor's lessons are based on tenets described in the Prentice-Hall book Developing Quality Technical Information: A Handbook for Writers and Editors*, recently authored by the Council.*

S₀…You Think You Know Everything?

So…You Think You Know Everything?
    All of the clocks in the movie *Pulp Fiction* are stuck on 4:20.
    The longest one-syllable word in the English language is "screeched."
    No word in the English language rhymes with month, orange, silver, or purple.

INTECOM **Plans Forum 2003**

Mark the date on your calendar: The next Forum conference will be in Milan, Italy, from 30 June to 2 July 2003. The Forum 2003 theme is *Meeting the Cross-Cultural Challenge*.

Previous INTECOM conferences have been held at five-year intervals, in Sweden, Norway, Denmark, Germany, and, most recently (2000), London, England. The seventh conference will break with tradition: It will be held after only a three-year interval, reflecting the INTECOM delegates' awareness that technical communication technology is advancing so rapidly that a five-year interval between conferences is too long.

Participants who have attended previous conferences will welcome Forum 2003, for they already know about its unique format and the admirable opportunities it provides for interaction between presenters and delegates. Idea Markets will again be a cornerstone of the conference. Developed 30 years ago by Ulf Anderssen and Lars Forslund in Sweden, INTECOM's Idea Markets are recognized as the ideal way to present and exchange information. Rather than have delegates sitting in docile rows listening to a speaker deliver information in a one-way mode, in an Idea Market everyone participates in an interactive exchange of ideas. It's exhilarating and refreshing!

As in recent conferences, Forum 2003 is being sponsored jointly by four INTECOM societies:

• Conference administration is being handled by Germany's *tekom*, with executive director Michael Fritz as conference chair (*m.fritz@ tekom.de*).

• The conference program is in the hands of the *ISTC* in the U.K., with Anke Harris as chair (*harris @mapline.com*).

• Publications are being coordinated by the *STC* in the U.S., with Mary Wise as chair and Jeff Hibbard and Tom Warren as publication coordinators (*mwise@manu.com*).

• Publicity is being handled by *PCS*, with Ron Blicq as chair (*ronb@rgilearning.com*).

Forum 2003 will be held at the Hotel Palazzo delle Stelline in central Milan, within easy walking

Milan Cathedral (Il Duomo)

distance of major tourist sites, shops, and restaurants. Delegates will be able to choose from several hotels close to the conference site.

Milan is a wonderful choice for the conference, for several reasons:

1. It is easily accessible, both by air and by rail.

2. It is centrally located, making travel to additional mid-Europe and Mediterranean destinations fast and easy to achieve.

3. It offers a significant range of attractions.

4. Its climate is ideal.

There are numerous points of interest and we will write about them in a future news release. We particularly recommend the Cathedral (Il Duomo) and Cathedral Plaza, the La Scala Theatre and theatre shop, and numerous museums and art galleries. Within 100 meters of the conference hotel is St. Maria delle Grazie Church, with Leonardo da Vinci's famous painting The Last Supper (painted between 1494 and 1498) on a wall of the Dominican monastery. Because it is difficult to get tickets to see the painting, the conference committee will book visits for delegates.

This initial news release is intended to whet your appetites and to remind you to mark your calendar with a big "F2003" as a reminder that a major technical communication event will occur next year. For more information about the conference or the program, please contact one of the chairs.

The Conference of Choice

By Julia Williams

The British art critic John Ruskin once wrote, "Taste is the only morality…. Tell me what you like and I'll tell you what you are." As I considered why I attend the International Professional Communication Conferences (IPCCs), I followed Ruskin's logic, believing that choosing to participate in an IPCC was an indication of what I am. After all, there are plenty of conferences open to people like me, an academic who teaches technical communication.

Each year I can go to academic conferences and meet other academics to discuss teaching strategies. But that kind of contact represents a one-sided view of what technical communication is. What I like is to attend a conference where I can meet both academic and professional technical communicators—technical writers who create software documentation as well as software engineers who create the code. That's why I attend the IPCCs.

My first IPCC was in 1997 at Snowbird Resort in Utah. At that time I was relatively new to the field of technical communication and I was interested in meeting and networking with teachers of technical communicators. During that first conference I was on a panel with Bernadette Longo and Muriel Zimmerman, women who have made their mark on technical communication. However, both Bernadette and Muriel have crossed over the divide that keeps academic technical communication professors separate from professional technical communicators. They have experience as professional technical communicators, and they feel comfortable in both the theoretical and the applied realms of their chosen field.

Since 1997 I also attended the conferences in Cambridge, Massachusetts (2000), and Santa Fe, New Mexico (2001), and at each meeting I've made contacts with professional technical communicators, engineers, and technical communication professors whom I might not otherwise have had the opportunity to meet. The IPCCs are intimate enough that making connections is easy to do. I suppose one should beware of the coffee breaks, however: During one such break in Santa Fe, I volunteered to work as

> Beware of the coffee breaks...

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