The Use of Repetition in Technical Communication

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Abstract—The technique of repetition violates what most writers have learned about good writing (and good manners). It is, however, a prominent and effective rhetorical feature of technical communication. In the way that it is used in technical writing, repetition establishes that technical authors are "reader friendly."

prominent rhetorical feature of technical articles and A reports is conscious and deliberate repetition. The title is likely to be straightforward and informative-perhaps "Potential Hazards from Passive Solar Installations." The abstract presents the findings: "Fire, breaking glass, and indoor air pollution are the most significant potential hazards connected with passive solar installations." The introduction defines the scope of the work and alerts the reader to the fact that fire, breaking glass, and indoor air pollution are the chief offenders among potential hazards connected with passive solar installations. Sections of the report are marked by headings defining what follows, and among the headings are Fire, Breaking Glass, and Indoor Air Pollution. A summary names the principal culprits, and a conclusion asserts that it was fire, breaking glass, and indoor air pollution that emerged as major hazards.

Repetition of vocabulary parallels the formal repetition. Fire is always called fire, not conflagration, combustion, ignition, or burning. Glass remains glass, indoor air pollution remains indoor air pollution. No scrambling through a desk thesaurus for the technical author. It is quite usual, in fact, for the major subjects under discussion to be assigned acronyms. Thus a light water reactor is abbreviated LWR straight off, and a technical reader may well assume that the subject has been changed if the LWR is suddenly renamed the reactor, or the device, or the system. Technical readers expect that a shovel will always be called a shovel; they look for a new subject if the shovel is called a spade.

I'M NOT DEAF

One of the problems that engineers have in writing useful and publishable articles and reports is that they are so often unwilling, almost unable, to use the rhetorical technique of deliberate repetition. We should not wonder at their unwillingness. To repeat on purpose conflicts with the rules by which most of us have been socialized and with the rules that we have learned for good writing.

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We acquire cultural inhibitions about repeating. Repetition does not rank quite with greed or lasciviousness among the more deadly sins, but it is not highly valued. The polite among us do not repeat-they say things like "at the risk of repeating myself." Most of us have learned that it is best to wear different clothing each day. We do not want to eat the same food for lunch and dinner. "Repeater" suggests a criminal offender, or a student in second grade for the second time. Redundancy implies not greater riches, not improved clarity, but superfluity, verbosity, needlessness. Duplication suggests waste; we are urged to save time, save money, even save face by avoiding duplication. Duplication, though perhaps not duplicitous, suggests thriftlessness, foolishness. Recurrences tend to be unwelcome, like recurring symptoms, recurring problems, recurring illnesses. There are even distressing gastrointestinal repetitions: boiled onions, cucumbers, kidney beans, strong coffee-all said, as it were, to "repeat."

YOU'VE ALREADY MADE THAT POINT

Deliberate repetition, then, conflicts with social and cultural training, and it also clashes with rules we have learned about writing. "You've already made that point" is one of the most damning comments on a freshman theme. Most teachers of writing have a standard abbreviation for use in paper grading when they have detected repetition of any sort—perhaps *rep*. for repetitous or *red*. for redundant. I have never seen a symbol for "not repetitous enough." There is, however, enough redundancy in a single professional engineering report to madden an entire department of writing instructors.

Students of writing are urged to have varied and interesting vocabularies, to search for new ways to name and phrase. In addition, they are encouraged to think of subtlety and suggestive richness as values. If you are a good writer, most of us are taught, your readers will work hard at reading your work so that they can arrive, at last, at your meaning. How hard they will work is the very measure of your greatness. James Joyce said that all he asked from readers was that they spend their lives reading and interpreting his work, and some readers have very nearly done so. It is a tribute to the greatness of Shakespeare that several hundred papers, books, and monographs appear each year analyzing new aspects of his writing.

The deliberate repetition of key ideas at predetermined points in a writing clashes with the prescript that a writer should not make it easy for a reader. Technical rhetoric clashes with essential values in imaginative writing, values like suspense, suggestiveness, irony, and ambiguity. Engineers, in learning to write the sort of documents that other

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WELL, LOOK AT IT-THIS WAY - - IT'S BEEN PROVEN REPETITION IS A GOOD WAY TO LEARN.

engineers want to read, must violate the rules they have learned about good manners and good writing.

WILL YOU REPEAT WHAT YOU JUST SAID?

The author of a work of literature may confound and confuse—to the pleasure and edification of the reader. A novelist is expected to have surprises in store. Think of Agatha Christie's *Who Killed Roger Ackroyd?* in which the narrator of an otherwise conventional murder in the English countryside turns out to be the murderer. He has withheld only a few details, but he has withheld them. We have trusted his account of events and we have two surprises in store for us: the first, that he committed the murder; the second, that a seemingly reliable narrator was unreliable.

It is the prerogative of the writer of imaginative literature to withhold for the purposes of confusing, amazing, confounding, astonishing, and in other ways evading easy interpretation. The technical writer, on the other hand, is never subtle, suggestive, evasive, ambiguous, or confounding. The need for major interpretation clearly signals that the author has made a mistake. The reader of technical literature should get all that the writer knows: no tricks, no rabbits in hats.

Repetition is one of the major techniques for achieving the particular sort of relationship that the technical author has with the technical reader. It is the most overt evidence we have that technical writers wish to establish helpful, directly communicative, absolutely trustworthy, nonadversarial relationships with their readers.

AT THE RISK OF REPEATING MYSELF

Another function of repetition in technical communication is to provide assistance to the several audiences who are likely to use any one document. Much of the material written by engineers has two audiences, one technically trained, the other managerial. Technical writers often deal with the problem of writing for both groups by preparing a document with separate sections for each audience. Repetition of key ideas makes it easy for each type of reader to know which sections to read and use and which sections to skip.

As it is hard to love our enemies, so it is somewhat troubling to be helpful to those who do not want to read our work. We probably do not, in our hearts, want to make it easier for skimmers of our papers. Repetition offers readers a particularly convenient way to skim: It gives them enough information to make the decision, in advance of reading, *not* to read. The repetition, then, helps and rewards the nonreader or the partial reader as much as it helps the attentive reader. But this is the point: The relationship of technical author to technical reader is a friendly one, a helpful one, a relationship of assistance—helping even those who do not wish to read the work with attention and devotion.

ENCORE

Technical writers, then, must deprive themselves of a number of writing techniques that they have learned to value in imaginative literature—of any technique, in fact, that creates in readers an uneasy sense that there is far more here than meets the eye, or that the narrator may turn against them or the subject, or that there may be a surprise ending. Repetition is one technique that technical writers use to establish a reliable, straightforward relationship with readers. The implied attitude of the technical writer to the reader is "I am here to help you," and the reader can read (and rest) in peace, assured of the help needed to read, to reread, to understand, or even to skim.

It is not surprising to find repetition as a major feature in engineering writing. Engineers value redundancy, in which context repetition implies concern and care, not wastefulness. Engineers value absolute clarity of communication, and saying it again, without changing terms in midstream, increases clarity and decreases obfuscation.

It is not necessarily easy to overcome the lessons of school and of life and to actually say it again—and again and again—at those places in a document where readers expect it to be said again. It is not so difficult either, and through a process of critical reading and analysis of good professional writing, most engineers learn to overcome what unwillingness they have to prepare technical documents that can be read selectively. They become more "reader friendly" and thereby better able to serve their readers as readers like being served.