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Book Publishing—and Bookkeeping

The economics of the product "package" can determine whether technical books are published successfully.

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Book publishing has often been described as a partnership of author and publisher, and perhaps for this reason one sometimes notices a certain marital coolness between the partners. "Learning hath gained most by those books by which the printers have lost," sourly observed the English historian Thomas Fuller over three centuries ago. Lord Byron was even more pungent.

"Now, Barrabas," he observed, "was a—*publisher*."

But time, better copyright laws, and competition have done much to better the author's position, even in scientific, technical, and professional publishing. Instead of paying to have his monograph printed, he is lunched and lionized by publishers eager to swell their lists. There are still risks in publishing, but royalties can sometimes assume truly royal proportions, and the fringe benefits of prestige, advancement, and job offers seem to accompany even those books that have modest sales.

The lure of publication has become so great that last year over 25,000 books of all kinds were published in the United States alone, and this number represents only a small fraction of the world's output. But today, although no reputable publisher will deny his authors a share of the wealth they have created, he may be charged with a more subtle form of exploitation: encouraging them to write books for which critics see no need.

Worthless Books?

In their competitive race for manuscripts, technical publishers send their representatives into research laboratories and college campuses with literary vacuum cleaners, scooping up questionable as well as worthy projects, proffering contracts, and urging authorship on those who ought better to be decently dissuaded. "Of the making of many books there is no end," complained Ecclesiastes, and this bit of Old Testament wisdom has been echoed by commentators in our own day—sometimes, as other critics have wryly noted, in print, and at length.

Despite their zeal, publishers can hardly be blamed for all the ills of an overarticulate society. Thinking publishers do not willingly publish bad books; it is hard enough to sell the good ones. But it must be admitted that publishers do not always think before they print. Obviously only a fraction of last year's 25,000 books were of outstanding merit. And doubtless even the better ones varied widely in quality from chapter to chapter and even from page to page.

Before we concede that most of these books ought not to have been published, however, we ought to examine what the standards for publications are, and perhaps also what they should be. A weak chapter deserves criticism, but it should not condemn an entire book. Unevenness of quality is characteristic of all book-length works: even Homer nodded. Should we not agree, further, that a book may justify its existence by being useful, rather than by being great? Just as dirt has been defined as "matter in the wrong place," so many a book seems to be deprecated, not for any intrinsic defects, but for not being what a reader or reviewer expected.

At times—let me own it candidly—the responsibility for such disappointed expectations is the publisher's, in allowing his salesmen and copywriters to tout a routine state-of-the-art summary as an advance into the unknown (which it probably is, to *them*) or a sophomore textbook as a practical guide for the working engineer. Such confusion may simplify a difficult marketing job, and it may even sell some books, but it also misleads many readers.

Yet again and again the simple truth seems to be that sophisticated book reviewers have too little regard for the unpretentious book that does not aim to say anything new. Caught up by what is fresh and exciting in superconductivity and laser modulation, they tend to look down on the routine labors of designing a highway overpass, or improving an alloy. To extract a true sense of the book that is disparaged by the professor of systems engineering at Research Tech, one often has to introduce a stiff discount for intellectual snobbery. Surely he also serves who collects what is known and presents it simply and straightforwardly to those humble readers (may they always be with us) who are looking for tools and aids to get on with the job!

What is the test of a valid book? How can the author shape the concept, the publisher recognize it, and the reader single it out for purchase? With as many standards as there are critics—and as many critics as readers—the only fruitful test is the one of currency. Books are instruments of communication, and the only objective test of their success is whether they are bought and read.

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Still, if you are a prospective author, I give you scant help by referring you to the judgment of the marketplace, which is only rendered after the work is done and the book has been published. Are there no ways to tell the worth of a book before it is put between its covers?

Obviously, publishers think so, or they would not hire editors, and authorize them to say "Yes" to some proposals, "Yes, but" to others, and "No" to the rest. Let's leave aside the question of "literary" ability. Anyone who can write a good business letter has all the talent he needs to write a good book. Specialized books are read for the useful ideas they contain; the simpler and more direct the writing, the better the book. Certainly it helps to write well. But few published authors have this happy gift, and it would dry up the channels of communication if the rest abstained.

Recipe for a Good Book

What writing does take is (i) a competent grasp of the subject, (ii) good planning, and (iii) some hard work. The first member of this trio—competence—is of course the prerequisite: what can't be acquired on the spot or faked. The last—hard work—needn't be explained to those acquainted with it, and can't be to the others. What about "good planning"?

Much could be said about the best way to write a book, but it is more important to emphasize what not to do. The worst way to write a book is to sit down and start writing. In fact, if you want to avoid the booby traps that wreck too many book projects, don't think of the job as "writing" at all.

A good book, to be successful, must be built, and you should no more think of building a 12-chapter book without a plan than you would expect to erect a 12-story building that way. The elements of good planning are so simple, and their advantages so clear, that many editors consider a prospective author's approach to the planning phase a touchstone of his likelihood to produce. They have unhappily learned that some men talk excellent books but do not write them.

And yet the muse of the book *is* courted by musing; all that is needed is to convert some of that dream into practical scheme. The first requirement is a workable concept. That is, a clearly focused picture of what the book will cover (and, of course, what it will exclude), the purpose it will serve, and for whom it is intended.

A useful trick is to anticipate that brief catalog or book jacket description. Can you crystallize what the book will do in a single sentence, and so accurately that no customer will be misled? Will your capsule summary appeal? Will it promise answers to questions, help to the floundering? Are you merely going to conduct a pleasant ramble through your subject, or are you fashioning a working tool?

Implicit in this approach is the idea of the reader as the target and goal of the entire effort. You may be writing a book that he will find indispensable, but while you are planning and writing it, the tables are turned, and he is indispensable to you. His needs, his wants, his level of understanding, his interests, his problems—all must be constantly present to an author, directing his efforts. To make sure that you will bring your reader along, borrow a concept from security regulations, and test every topic by asking "Is this something he *needs* to know?"

Why Publishers Say "No"

Readers play a key role not only individually, but also in the aggregate. If there aren't enough of them around, your book idea will fail for lack of an adequate market. How many is enough? Leaving aside the book that is extremely costly to produce—whether because of length, or complicated composition, or illustrations, or color printing—a sale of five or six thousand copies will justify the commercial publication of most technical books. But it takes a real effort to sell even half this number.

We publishers constantly hear that library purchases alone will support the publication of a given book. "What libraries?" we ask. Fewer than 1000 public libraries have even as much as $10,000 a year to spend on books, and how far will that sum go toward acquiring the annual output of 25,000 different volumes? Even the addition of school, research, and industrial libraries, with their specialized interests, does not help appreciably. In publishing circles, an appeal to the prospective library sale is considered an admission that a book has too small, or too ill-defined, a market. If a book appeals strongly to *readers*, their libraries will scramble to stock them.

The true market is the ultimate user himself. Often I've been told by an author that his proposed book on, let us say, interval engineering, will have a great sale because there are 10,000 members of the National Interval League, and "every member will buy one—maybe two." Well, they won't. A more realistic appraisal of this particular market is given by the league's initials—NIL.

Not even a new edition of the Bible can hope to attain complete saturation of its prospective market. To sell 10,000 copies of a book, one needs a core market approximately ten times larger. To be sure, not all interval specialists are members of the League—but their nonaffiliation makes them that much harder to reach.

Suppose we publish the book, however, and send a direct-mail circular to the 10,000 League members. Perhaps their journal has praised it editorially, and we had the good luck to run a full-page ad for the book in the same issue. What kind of sale can we expect?

Well, the mail campaign, if we are very lucky, might produce an excellent 2-percent response—that's 200 books. Repeated 6 months later, it might just break even with 125 additional books—and indicate that further mailings must be ruled out as uneconomical. In addition, all this promotion might stimulate another 25 orders that are not "keyed" to the mailings but were sparked by them nonetheless, coming in on company purchase orders and the like. Another 50 responses would come in through bookstores, in addition to the regular bookstore business of 250 copies on publication.

We have a total domestic sale the first year of 650 copies. Add 200 for foreign sales, and double the total for a 5-year projection, and we have a grand total of 1700 copies—not even enough to break even.

Of course, there is still some hope that a *really* good book on interval engineering might also appeal to the gap specialists, and perhaps even to the hole engineers, both of whom must occasionally cross the borders of their own precincts into interval land. This type of interdisciplinary appeal is much courted by editors, but in fact it is rarely achieved, and in his frantic efforts to tailor a work that will be

comprehensible to the gap men and the hole men, as well as his interval colleagues, the unhappy author is likely to be left with pure emptiness. He'll have company, however—isn't the publisher his partner?

The Clouded Survey

Editors like to think that rejections are always due to an author's faulty conception, but candidness forces me to admit that publishers, too, make mistakes. I am not referring to the spectacular instances of the manuscript that went the mechanical rounds of publishers' offices until it caught one neophyte editor off guard—and then made his fortune. Such sports are notorious in "trade" publishing, where a new trend in historical or rogue novels can take established houses unawares. What afflicts technical publishing is a more subtle evil. Typically, it takes this form:

The editor, after greater or lesser conference with the author, receives a book proposal, and sets about his review procedures. His advisers rave about the book, but his "market survey" is negative. Now, despite what I have said about the real importance of a market appraisal, it must be admitted that the process is not scientific.

Usually what happens is that the editor asks the sales manager for an opinion. That expert searches his memory or his files for the sales performance of the last book published in the same field. Let us say it came out 3 years before and had a submarginal sale of 2300 copies. He shakes his head.

"I can't sell more than 2500 of those," he says, generously inflating the estimate a trifle. "You'd better scratch it." And scratch it the editor does, congratulating the author on his escape from an enterprise that would have been fruitless, had it not been for the paternal wisdom and experience of his publisher.

Now of course this method is not completely absurd. If the book being used as a touchstone is truly on the same subject, and if the treatment is truly comparable, and if the quality is truly the same (to publishers, an unwritten manuscript is always A-1)—then one does have an index, of sorts. It should not be used in its unqualified, raw state, but what do you expect? One good custom *does* corrupt the world, and creative wisdom cannot always be summoned up at 9:01 on a Monday morning.

As a wise author, you will fortify your editor with a defense in depth against the jaded sales manager. You will give him (*in writing*! editors are shallow creatures, and forgetful) a prospectus that explains how remarkably different this book will be from all other books, specifying the flaws marring each of the others, and the exact reasons for the superior quality and utility of your own. Immodest? Nonsense—if you didn't believe it, would you attempt the job?

Furthermore, you will use a quantitative approach as well, setting down reliable estimates (not of your own invention) of the numbers of people in each of the fields to which your book may reasonably be expected to appeal.

Now, there is a double value to the preparation of such a prospectus. Not only does it protect the editor and overawe the sales manager, but it can also help you shape your book. Many a proposal has emerged from the prospectus stage in a new and improved version, as the author, compelling himself to be concrete and cognitive, saw the need to sharpen or broaden his conception.

A Price To Pay

A key element in the sales success of any book, of course, is its price. Ultimately, price is a function of the publisher's costs—for editing, manufacturing, royalty, promotion, sales, and overhead. And each of these elements is crucial.

Beyond a certain irreducible minimum, the amount of editorial and other house work required to ready the manuscript for the printer is a function of the author's writing skills and care. The manufacturing cost depends upon a constellation of factors: the length of the manuscript, complexity of composition, number and type of illustrations, the design and manufacturing specifications, choice of printer, binder, and production methods, and—most of all—the quantity to be printed.

Before a single sheet has been printed, a typical book may have required a plant cost for setting type and preparing illustrations and plates of $15,000. If the initial printing is a conservative 3000 copies, the plant cost component is $5 per copy. With a more optimistic printing of 10,000 copies, the plant cost would only be $1.50 per copy. Is it any wonder that publishers worry so about sales estimates before they price a book—and, indeed, before they even accept it for publication?

My own observations convince me that publishers are and must be optimistic—they more often estimate sales too high than too low, and they survive only if their economic structure is able to absorb a fair percentage of inevitable failures without fundamental catastrophe. In this high-risk industry, it is not the successes that count, nor the failures, but the averages.

King Royalty

The one element of the financial picture that most directly concerns the author, of course, is his royalty; and this is also the one area where he most sees his interests as being opposed to those of his partner, the publisher. The truth is, however, that royalties are ultimately paid by the customer, not the publisher. If the author must be paid more, the publisher will not pay the printer less, nor the binder, nor the papermaker—nor, if he is a good businessman, will he allot less for advertising or the return to his shareholders. Instead, he will increase the price.

Now, since royalties are a function of price, the increase will generate still more royalties, which must be provided somehow. Thus the price will be increased a bit more, in order to accommodate this additional royalty component, and then, since the pattern is repeated, a bit more still. . . . Eventually Achilles does catch up with the tortoise, but by this time the price may have ballooned enough to start choking off sales. So a new chain reaction is triggered, with smaller sales estimates, smaller printings, higher unit manufacturing costs, still higher prices, and still smaller sales.

Nevertheless, if an author is sought after, and is demanding enough, he can probably find a publisher who will raise the royalty by a few percentage points. Often such firms are the newer or smaller ones that are hungry for manuscripts, but sometimes established houses will forget their hard-won wisdom in the competitive fervor of bidding.

What happens? Whoever wins in the bidding, the author loses—because the publishers, if they are to survive, can-

not invest in the book that full spectrum of promotional effort that alone can maximize its sale. Essentially, they can give the author a higher royalty only by reducing the share that they will spend for sales promotion. If the book sells itself, they will not have lost—but no book ever sells itself so well as when a determined publisher is behind it pushing. All the publisher can do is try to convince his authors that their earnings must ultimately be measured in dollars, not in percentages. No bank will accept a percentage for deposit.

Of course it is not always the author whose pressure for higher royalties unbalances the publishing partnership. Trade practices vary greatly, and unscrupulous publishers have been known to take advantage of an author's gentlemanly indifference to contractual details. What makes this situation difficult to counter is that royalty terms do differ, not only from publisher to publisher, but from book to book, and frequently for quite valid reasons.

For technical and professional books, most royalties range between 10 and 15 percent of the list price, with the higher rate applying only after the first 5 or 10 thousand copies have been sold at lower rates. There will be exceptions in most contracts—lower rates for foreign sales, or direct-mail sales, which require greater promotion and sales expense and involve higher credit and damage risks. And a flat rate of 10 percent of list, or even less, may be needed to improve the book's chances of commercial success—a publishing variation on the architectural paradox that "less is more." For example, a smaller royalty may stimulate sales by allowing a larger discount for the bookseller, or increasing the margin for promotion. Or it may permit reducing the price in an unusually competitive or price-sensitive market. Or it may improve the outlook for publishing a work that otherwise might be too costly or too restricted in its appeal to be economically feasible.

Some technical and professional publishers base their royalties on net receipts rather than list price, with the most common rates ranging between 10 and 18 percent. To compare such a royalty with one that is based on list price, it is necessary to know both the scale of bookseller's discounts and the "mix" of sales, which determine the average discount. If few books are sold by direct mail at full list, and the average discount is 33⅓ percent, then a royalty of 18 percent based on net proceeds will yield $1.20 on a $10 book—the equivalent of 12 percent of list. With an average discount of only 25 percent, however, the royalty per copy is $1.35, or 13½ percent of list.

Although royalties vary inversely with discounts on a "net" contract, it does not follow that the author's interests are best served by reducing discounts. Booksellers must be businessmen—many of them refuse to stock a book that does not yield them a discount of at least a third, and some will even refuse to order such books to satisfy a customer's request. It's a wretchedly complex business.

Paperbacks

In their search for ways to increase royalties, or decrease prices, or both, authors inevitably invoke the panacea of paperbacks. Generally they are shocked to learn that to bind a book in paper instead of cloth saves only 20 or 25¢ in manufacturing cost. What shocks them still more is the information that the economics of paperback publication usually requires a lower royalty rate, too—and on a much lower price. With these concessions, the savings begin to be appreciable, but even greater reductions can be achieved when a clothbound edition is being reprinted and original composition, artwork, and most other elements of plant cost can be eliminated.

In theory, all these cost reductions pave the way for a lower price which will enlarge the prospective market and, by reversing the upward spiral described previously, yield the largest possible sales at the lowest feasible price. Unfortunately, few technical books behave the way the theory says they should. While price can clearly act as an upper limit to a book's sale, it is a rare book that can enjoy progressively wider sales in response to successive price reductions. Sales of a basic handbook of mathematics might respond to price cuts, but a specialized work on powdered-aluminum metallurgy will not interest persons outside its normal area simply because it is cheap.

Extracurricular

There are some observers of the publishing scene who will remark dryly that not all of the factors affecting sales success are a function of content in relation to price. What is requisite for textbook adoption, they will tell you, is political influence, "pull." And a sharp letter to the president of the publishing house, followed by a round of golf, will channel the sales effort behind your work rather than any of the four others on the same subject that he's had the poor judgment and doubtful loyalty to publish.

Of course these knowing insiders are the same persons who, in college, told you that you couldn't get an *A* from so-and-so unless you were related to a member of the Board of Governors. Still, you wonder. Is there flame behind the smoke?

Certainly you as an author can help promote your book. Giving talks at conferences, publishing papers, reminding magazine editors who owe you a favor that a real book review, rather than a cursory "announcement," will be appreciated—these steps, and any others that help keep your name before the public, are "political," but they are also ethical and sensible, and they will help your book. And a continuing, critical review of the publisher's promotion and sales performance will protect you against blunders that you are less able to afford than your partner, however teamed with you financially he may be.

But in the last, hard, cold analysis, books are bought because they succeed in meeting the readers' needs. No amount of advertising, or mail campaigns, nor complimentary reviews, can persuade a man to buy a book from which he does not profit. The influence of friends, the charm of your personality, the planted compliment, and the elaborate snow job—none of these will help when that exasperatingly reluctant browser thumbs through a copy on the bookstore counter (or at home on 10-day approval), and then tests his sales resistance against the price on the jacket flap.

Against that crucial payoff, only the lonely hours spent in search of excellence will count. Every shortcut, every compromise with the definite statement, with the tiresome quest for workable data, will tell against you. If you slackened, if you put out less than your own original concept required, your book will not reach its destination. Nothing your publisher can do has a fraction of the effect of the raw material you give him, or the spoken advertising it generates. A mediocre job of copy editing, unimaginative design and packaging, a dull promotional circular—these will not help, but rarely will

they be fatal. What gets your books "out" is the publisher's distribution machinery, and what gets them sold is what was in your manuscript.

Of course, you are entitled to the most help your publisher can give you. If I have any message, any "pitch" for prospective authors, it is this: don't enter into a publishing arrangement blindly. Ask questions, seek the counsel of other authors, talk to editors, learn what they have to offer. Also, inspect related books in your field, and note the presentation that different publishers have given them. Then, when you do sign a contract, do so with the feeling that you accept partnership willingly and unreservedly.

Remember Ben Franklin's admonition: "Keep your eyes wide open before marriage, and half shut afterwards." The author-publisher partnership is not quite marriage, and you should certainly not close your eyes, even halfway, but it does help to expect only the best of your publisher. Your attitude will help him to expect it of himself.

Speaking of Space

The major part of "space speak" shows abundant use of a single grammatical form available in general English.

David McNeill

We read of "space speak" on every hand. Newspapers and magazines discuss it in their science columns, and popular fancy seems to have been captured by it. The belief is that the space effort has given us, in addition to the possibility of going to the moon, a new linguistic phenomenon. However, it is not easy to escape the confines of English, and in "space speak" there is nothing novel, nor even very much that is unique. The name itself is a misnomer. "Space speak" is not much spoken; and, linguistically, the most important thing that NASA engineers do is not peculiar to the space effort. On the other hand, there is a jargon of engineering that is fully used by space technologists. My task in this article is the analysis of such jargon.

The major part of space jargon is an overabundance of a linguistic form that is available to all speakers of English. There is, however, a much smaller part that is unique; these are the words, seemingly occult, that give rise to the impression of linguistic novelty. Some familiar examples are *pad, abort, umbilical.* Others, less well known, are *eyeballs in* and *eyeballs out* (describing conditions of extreme acceleration and deceleration respectively) and *milk stool* (describing an arrangement of three rocket engines on the lunar spacecraft). As these examples show, such terms in the jargon of space engineering are of two types. Most are metaphors (for example, *umbilical, milk stool*), where the conventional meaning of the word and its meaning in space jargon have something in common. A much smaller number are metonyms (for example, *eyeballs in*), where the conventional term refers to something that typically accompanies the referent of the space term. Metaphors depend on similarity of referent; metonyms depend on contiguity. Both types of term are the ingredients of most professional jargons. Psychologists, for example, talk of *thresholds*; anthropologists, of cultural *diffusion*; sailors, of *Jacob's ladders.*

Metaphors and metonyms are usually apt, but, by the same token, they are difficult to come by. The process of finding a good metaphor or metonym is not given automatically by the rules of English syntax. It demands a kind of creativity that is unregimented. Thus, whereas metaphors and metonyms are ordinarily "good," in the sense of capturing an intended meaning succinctly and vividly, they are also rare. If a technical jargon must provide large numbers of terms, reliance on metaphors and metonyms simply will not be sufficiently productive.

What is needed is a systematic procedure. One solution is to coin new words, as the medical sciences have done. Their procedure is systematic and useful if one knows a little Greek or Latin and the rules for combining roots in these languages. Had engineering experienced its great growth at a time when schooling in Greek and Latin was still part of the college curriculum, perhaps space jargon would have followed the same path. (NASA's penchant for naming programs and vehicles after the Greek and Roman gods is, of course, a different matter altogether.) Words also can be created *de novo* within English, and there are some examples of this in space jargon (for instance, *rockoon*, a rocket launched from a balloon). Neologism, however, is no more systematic than the formation of metaphors, though it may demand less in the way of creative powers, and so it is not likely to have a larger yield of technical terms.

In official NASA dictionaries of space terms (*1*), metaphors and metonyms account for about one-eighth of the entries. In absolute terms, this is less than 100 words. Most of the remaining entries are combinations of words, put together into a particular grammatical construction, the so-called nominal compound. The solution for increasing the technical vocabulary, then, has been to resort to English syntax.

The advantages of this solution are considerable. The method is endlessly productive, since there are no limits on the constructions that may be generated by a grammatical device. It requires no exotic knowledge, since it draws only on the English lexicon and employs only rules that are general in English. Moreover, nominal compounds, however long, are always nouns and this means that they have all the maneuverability of single words. Some

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