

Certified Literature Searchers
Can Help Keep Scientists Honest!

March 8, 1976

Number 10

Friends often ask me how it is possible to write an article for *Current Contents*® every week. I answer them with an incident that occurred while I was an undergraduate at the University of California in Berkeley. While listening to some classical music with a young composer friend, I naively inquired of him, "Herman, how can composers manage to think about so many sounds simultaneously?" He then pointed out that most composers are able to transcribe only a fraction of what they 'hear'.

And so it is with writers. For example, before I began this piece, no less than three essays whizzed through my mind. They seemed beautifully complete and concise. Lacking the proper thought-transcribing machine, most of the thoughts were lost, but the main themes persisted.

Some writers have good ideas at night, and find it wise to keep pencil and pad at bedside. The real problem for most writers is not finding enough ideas to expound on, but rather developing a discipline for selecting topics that will interest enough readers to justify the effort. Knowing that *Current Contents* readers are deluged with highly technical reading every day, I try to take up topics that require a minimum of technical expertise while retaining some scientific or ethical or informational significance. Incidentally, *Current Contents* readers have no hes-

itation about suggesting topics. Readers have asked me to discuss everything from preprints to pornography. Several readers want to know how to organize personal reprint collections, while others are waiting for a follow-up piece on jazz transcriptions. Numerous journal editors would like to see their particular fields treated in one of our citation studies.

Probably writers often imagine they have had completely thoughtout ideas, but often they are only glimpses or fragments. In the composer's case, he may hear faint rhythms or melodies suggesting themselves. Later, hard work ultimately develops a complete theme.

For the essays which appear each week in *CC*®, I usually compose a first draft, and with the help of my staff work up the final version.

Recently, an editorial by Al Weinberg in *Science*¹ caused me to think about an idea I had over ten years ago. Weinberg wants to keep scientists honest and seeks "mechanisms for injecting more responsibility into the scientific debate," especially "when it is conducted outside the scientific forum." I think this would be helped by establishing certification standards for literature searchers.

Back in the days when the Food and Drug Administration was being revitalized, immediately following the thalidomide tragedy, I had proposed a system for monitoring literature searches pro-

vided in new drug applications. What we need, I suggest, is an Underwriters Lab test standard for literature searches. Just as we have certified public accountants, we need certified scientific information specialists. Such persons could attest to the thoroughness of the documentation provided in scientific papers--and by extension--testimony at public hearings.

The need for this kind of certification may be closer than you think, at least in one area. The United States Senate will soon vote on a new patent bill that "sets new and extremely detailed requirements for filing and disclosure of information in patent applications. . . an applicant and his associates must disclose, up to the time a patent is granted, all information that might affect the application. *And they must swear that everyone's information is complete.*"² My italics.

Dr. Weinberg correctly asserts that "the scientist must be beyond reproach in doing his homework thoroughly whenever he makes scientific judgments." He was not so explicit about the use of literature, but not because he is unaware of its significance. He is the same peripatetic "trans-scientist"³ of the so-called 'Weinberg PSAC Report'⁴--almost a bible among information scientists. Citation enthusiasts like myself also remember this PSAC report affectionately as the first major policy document to acknowledge the potential value of citation indexing.

One of several logical organizations that might certify literature searchers is the American Society for Information Science. This wasn't discussed at the AAAS Bicentennial meeting in Boston. Art Herschman,⁵ meetings director of AAAS, nevertheless did an outstanding job in drawing together an incredible array of scientific talent including an outstanding program for Section T (Information and Communication).

Perhaps the notion of certification in literature searching is comparable to the practice of obtaining title insurance. Indeed, I recently heard this very notion discussed by an insurance industry executive. Wouldn't most graduate students be glad to spend a few dollars a year to assure the originality of their chosen topics? Even though the students may themselves have done the literature search, particularly if they have relied on on-line computer resources, they should enjoy some degree of confidence that the search was complete. Insurance companies may offer insurance only through professional middlemen, as is the case in real-estate title-searching.

This reminds me of the unusual 'middlemen' in Robert Heinlein's memorable novel, *Stranger in a Strange Land*.⁶ These were the so-called 'Fair Witnesses', trained professionals whose job it was to observe, remember, and report with complete accuracy whatever in their professional capacity they were retained to witness.

REFERENCES

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