

# A Citationist Perspective on Science Publishing

## Preface

When Stephen Lock coined the term “journalology,” he made life easier for those of us who spend so much time talking about scholarly journals. The research journal literature is perhaps the most dominant form of scientific communication. In an era of faxes, electronic networks, phones, preprints, conferences, etc., journals certainly are not the “first word” in science publishing. But formal publication is surely a vital public record of professional advancement for researcher/authors. The recent Elsevier buyout of Pergamon reminds us that science publishing is pervasive indeed—in fact, a multi-billion dollar industry. In this regard, the subject of launching new journals is very topical. From the publisher’s perspective, the risks involved are described by Janet Bailey.

In 1990, we not only reprinted Steve Lock’s article on journalology, but also devoted a number of essays to various aspects of science publishing. This volume also features essays by Helmut Abt on astronomy journals. He contributed another neologism, “astrosociology.” Herbert Walberg contributed a survey of education journals.

At the suggestion of Jarsolav Fiala, I presented citation data on crystallography journals at an international congress in Prague. I also analyzed relevant journals for the American Society of Agronomy at its annual meeting.

A topic of perennial interest to editors and readers is how we select journals for coverage in *Current Contents*.<sup>®</sup> I last discussed this topic in 1986, but it merits frequent review. The essay here is from a talk presented at the National Science Council of Taiwan in 1990 under the auspices of Dr. Tao-Hsing Ma, director of the Science and Technology Information Center.

Two specific journals are also “profiled” in this volume. For the 150th anniversary of the *British Medical Journal*, the 100 articles most-cited in ISI’s 1945-1988 database are reviewed by Bernard Dixon. On the centennial of Cold Spring Harbor, the top 50 papers from its *Symposia* are highlighted by Jan

Witkowski.

I was also pleased to announce a new ISI “journal,” *Science Watch*<sup>®</sup>. This monthly newsletter is now widely recognized—and quoted—as *the* source of quantitative indicators on trends in science publishing.

This volume also contains a series on the “all-time” most-cited papers, 1945-1988. The list already needs updating, since science does not remain static. Most of the “classics” of old will continue to be cited. But new superstar classics do emerge, pointing to rapidly advancing new specialties. Still, in one essay I had to ask whether the Lowry method will ever be obliterated. Probably not for the 1990s, at least.

Misconduct and fraud in science are no more common today than they ever were and perhaps no better understood. There are precious little data to balance the weight of attention a few prominent cases have attracted. Al Dorof and I looked at the controversial Breuning case to determine what the citation record showed. In this case at least, we established that the literature is essentially self-correcting.

Obviously, citations are a major preoccupation of my professional life. It's the author's and editor's responsibility to accurately and adequately cite references in articles they publish. This still is too often disregarded. So I've discussed bibliographic errors here again, and not for the last time.

The use of *KeyWords Plus*<sup>™</sup> in this volume's title gives deliberate emphasis to a breakthrough in automatic indexing, or “derivative” indexing as I have called it. This basic advance in information retrieval and access was conceived and tested as long as 40 years ago. It is available today to the individual information seeker because of recent advances in large scale computer memory and the work of Irv Sher. Together with the *Related Records* search option in the CD-ROM edition of *Science Citation Index*<sup>®</sup>, we've come a lot closer to realizing the ideal of a World Brain.

Even as I write, newer enhancements of ISI's products are already available. Editions of *Current Contents*<sup>®</sup> on floppy diskette and the *SCI*<sup>®</sup> CD-ROM containing abstracts are now available. *KeyWords Plus* and author-supplied keywords are also available on *SCI* CD-ROM for specialty indexes in Biotechnology, Chemistry, and the Neurosciences.

It was a special thrill to learn that Carl Djerassi would grace this volume with a foreword. This polymath scientist/ artist/entrepreneur/philanthropist is a guy after my own heart.