BOOK REVIEWS

Ghostwriting and Other Essays (Vol. 8). E. Garfield. ISI Press, Philadelphia, PA (1986). xx + 540 pp., \$35.00, ISBN 0-89495-057-6.

As with most information workers of my generation, I have been acquainted with Gene Garfield and his work for many years. I have used the products of his firm, read his writings in a variety of formats, and listened to his talks. However, I hasten to confess that prior to the present instance, I had not read any of the previous volumes of his collected essays from cover to cover. This is a substantial admission because we are now at Volume 8.

Volumes 1 and 2 were reviewed in this journal in 1978 by Harold Borko (Borko, H. Review of *Essays of an information scientist*, Vols. 1 & 2. Info. Process & Manag. 14:133; 1979). His reaction was similar to my initial impression of Volume 8: The collected essays are a kind of Mulligan's stew. The totality may be tasty enough, but one has difficulty in identifying the basic ingredients.

In order to cope with such a stew in a way that might be useful to readers, I have been forced to adopt a questionable methodology: bibliometric analysis. The first step was to establish four categories and count the pieces that more or less fit each of the four. The results can be summarized as follows:

- 1. Bibliometric entertainments 11 items
- 2. Semitechnical literature reviews 22 items
- 3. Personalities 11 items
- 4. Service/product promotions 7 items

One can only be favorably impressed by the fact that only 7 of the total 51 essays (13.9%) are commercials, given that Dr. Garfield is, after all, the chief executive of a commercial business. Moreover, the basic tone of these seven is "user friendly" in the sense that they mainly convey suggestions about how the products and services in question can be used economically to support the aims of clients or prospective clients.

The personalities categories covers mainly Nobelists from the point of view of what their works reveal about citation analysis and vice versa. However, there are four items in the set that are more like tributes or appreciations: two on George Sarton, one on Derek de Solla Price, and one lighter piece on Sidney Harris, the cartoonist.

The bibliometric entertainment category covers the "most cited" papers and journals in selected fields of science. My students would assert that bibliometric entertainments is a contradiction in terms and, indeed, I had some difficulty with these items in the sense that I kept expecting toothsome revelations about the intellectual or practical implications of the emergence of a given "research front." My sense of the matter is that these pieces are quite interesting to members of the research community who are already immersed in the fields being analyzed—and particularly those who are themselves highly cited or are authors of papers that make up a "front"—but that nonparticipants need a bit more interpretation.

The semitechnical literature reviews are different creatures altogether. In some instances, they provide more than one would want or need to know. Each topic is given two or three pieces in sequence. In order of first appearance, the topics covered are as follows (using my labels): (a) shorthand (as a desirable skill); (b) document production; (c) acid rain; (d) allergies; (e) celery; (f) child safety; (g) drycleaning; (h) Nazi concentration camps; (i) meditation; (j) primate communication; and (k) water purification. This is not a random set. There is a pattern. Six of the 11 topics relate to the intersect between technology and human health. This conjunction is commensurate with Dr. Garfield's intellectual training. However, a deeper pattern is discernible: the conjunction of the moral with the technological. He is concerned, I think, that all of us use technology in ways that do not damage the well-being of others. This aspect shows up quite clearly in the title piece on ghostwriting, which includes also a faint hint of *mea culpa*.

In sum, I can readily recommend this collection of essays to mature information professionals—if not for its substance then for its entertainment value and its interior view of the thought processes of a pioneer in our field. For younger scholars (e.g., my own students), I would be more selective.

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I would tell them to read one of the bibliometric entertainments to get a general feel for the range of uses to which citation analysis can be put, to skim the pieces on personalities—particularly the one on Derek Price—as general background material for their studies, and to read intensively the three papers on document production (information overload, using page numbers in citing books, and ghostwriting) with a view toward further discussion in class.

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New Directions in Library and Information Science Education. J.-M. GRIFFITHS; D. W. KING. Knowledge Industry Publications, White Plains, NY (1986). 465 pp., \$36.00 (ASIS members, \$46.00), ISBN 0-86729-159-1.

This document reports the results of a USDE-funded project to identify the competencies needed to perform professional-level library and information work, now and for 10 or more years into the future. The method of the study consisted of (a) identification of competencies through a literature search and interviews with administrators and high-performing information professionals, (b) affirmation ("validation") of those competencies by professional members of the library and information community; and (c) subjective assessment of educational requirements for and implications of the competencies, including implications for the future. The project relied heavily on an advisory group of 17 eminent information professionals who gave direction and reaction to the project staff and staff products.

The project result was a list of over 8,000 competencies that were sorted into type of competency (knowledge, skill, attitude), type of information work setting (public library, academic library, data base producer, archive/museum/collection, etc.; type of information function (reference, acquisitions, exhibit management, marketing, customer support, etc.), and level (entry, midlevel, and senior-level). Competencies were also clustered into those that are common across all work settings and all functions, across all *library* settings and functions, across all functions within each work setting; and across all work settings for each function. The project report, proper, concludes with a statement of recommendations for formal education, training, continuing education, career development and planning, and "new directions for the future."

The report's major recommendations are as follows:

- 1. Education and training specific to the job setting (i.e., regarding the organization or the technology of the workplace) must be the responsibility of the employer.
- 2. Students should specialize by function rather than work setting, since the study demonstrated the generic nature of many competencies across settings.
- 3. Selected skills, in addition to knowledges or attitudes, should be taught in professional education programs.
- 4. Generic competencies, including some attitudes, should be taught in professional education programs.
- 5. In their professional education, students must learn the need for lifelong learning—especially for maintaining technical and subject currency and for preparing for career movement.
- 6. There needs to be more recruiting of quality students, especially in science and technology.
- 7. The way student competencies are assessed should be reviewed by the profession.

The most valuable pieces of the document consist of the "issue papers" and several literature reviews prepared as background for the study. Examples of these are pieces on the definition of competencies; relationships between education, competencies, and performance; competency-based education; methods of competency identification, validation, and assessment; and competency identification through task analysis.

Less valuable are the project results and recommendations themselves. The lists of competencies provide a massive base of data from which library and information science educators and managers might begin to identify the competencies to which they could or should respond as they write job descriptions, perform task analyses, or prepare curricula. (The competencies for the reference function alone span 9 pages; related activities and output measures are another 11 pages. And 22 other functions are addressed in this study!). However, given the limitation of the project's methods, they must be considered preliminary checklists at best. The recommendations, masmuch as they