TECHNICAL WRITING AND PROFESSIONAL STATUS*

BY ISRAEL LIGHT, Ed.D.
Engineer Component, Public Health Service,
U. S. Department of Health, Education, and Welfare, Washington 25, D. C.

INTRODUCTION

The subject of professional status for technical writers is raised regularly at chapter meetings and is written about in the STWP REVIEW.[1] Why? What difference should it make to the technical writer whether he or she be considered a member of a "trade," a "craft," or a "profession?" Why do we want to be professional? What are the earmarks of a profession? How do we go about acquiring such a label?

What we are called makes a big difference. In the world of work and in the process of earning a living, the words "profession" and "professional" represent preferred social status, high income, and specialized competence. The following paragraphs attempt answers to the questions raised by: (a) elaborating on the implications of these three features or characteristics of professional status; (b) presenting a variety of definitions of "profession"; (c) considering the relevance of such definitions to current conditions of employment; (d) identifying the technical writer; and (e) considering the means by which technical writers can advance most effectively their individual and collective standing toward professional status.

"PROFESSION" AND STATUS

The existence, intensity, and importance of the psychological and emotion-laden urge for social status cannot be brushed under the rug. It is difficult to deny that status--and striving for it--is a characteristic of American life today. Vance Packard's book, "The Status Seekers,"[2] made a big splash as a Best Seller, not because it was first-rate sociology (it wasn't) but because every reader could find himself described somewhere in those pages, and even tried to pick up a few tricks of the trade from them. After all, in a status ridden society, one's "label," one's "position," one's "standing" is important. What one knows is not nearly so important as it once was, the phenomenal growth of science and the proliferation of intellectual disciplines to the contrary notwithstanding.

"Executive Suite"[3] tells the story in fiction. "White Collar" and "The Power Elite"[4] tell the story in sociology. Margaret Mead tells the story in anthropology. Case studies of the productivity of factory workers tell the story in industrial relations research.[5] David Riesman's classic, "The Lonely Crowd: A Study of the Changing American Character," published in 1950, is a landmark in the social-behavioral sciences.[6] Even in the public schools, the cry is raised that the sharpening of the intellect is neglected in favor of such entries on report cards as "coöperation," "gets along well with others," "adjusts easily to the group." Parents seem more concerned with the evidences of normal personality than with achievement in spelling or arithmetic.

In other words, success today is increasingly measured by one's standing in the eyes of others.

Within such a framework of reference, the technical writer's striving for professional standing and status is not only understandable but also normal. Such striving represents serious effort and not just an inconsequential semantic exercise, because professional esprit is involved and personal goals and satisfactions are involved.

ENGINEERS SEEK STATUS

An example of the intensity of this concern for status is furnished by engineers. Society denies engineers neither income nor skill. Yet the engineering fraternity bemoans its fate in not being given the status and deference accorded such activities as law, medicine, dentistry, and theology; is disturbed by the increasing tendency to lump scientists and engineers in the same mold; and founded the National Society of Professional Engineers (as contrasted with subject matter specialty groups) for the express purpose of establishing and enhancing the professional status and standing of engineers. That society's journal, The American Engineer, regularly carries a feature

*The author gratefully acknowledges the contribution of Nathan Kassack, Information Officer with the National Science Foundation, Washington, D. C. to the development of the points of view presented herein.

column written by the Executive Director. The column is headed "Thoughts on Professionalism," and representative column titles include "What Others Think of Us," "The Engineer and Culture," "The Costs of Professionalism," etc.

The engineers are not alone in this striving. The American Chemical Society recently has established a Committee on Professional Relations and Status and has presented some very interesting symposia at their recent annual conventions.[7]

The income feature of professional standing requires no elaboration. A number of articles in the literature of professional education periodically attest to the higher lifetime income of the professionally trained person. Worthy of note, however, is the obvious link between income and competence.

The public has come to ascribe high levels of skill and talent to the professional person. Two drives for professional standing can be recognized in terms of competence. One is the inner drive for personal satisfaction in performing an act well or doing a job competently and thoroughly. The other is the striving for recognition and pride in having performed well by the standards of others. Since the public has given the stamp of "profession" to those who have studied long and hard and who have displayed a high level of skill in the use of tools and techniques, knowledge, and judgment, it is understandable why technical writers possess the strong urge for similar status.

SENSITIVITY TO LACK OF BACKGROUND

One other feature of technical writing as a livelihood must be taken account of in explaining the drive for status. Most professions have a relatively long history of development. From slow emergence in the world of work or thought to the build-up of an organized body of knowledge peculiar to the practitioners, to the specific and special training for performance--this kind of background is still denied the technical writer because of the recency of his emergence. As individuals, many technical writers feel self-conscious because they never studied for a degree in technical writing. They often are considered refugees from other fields. They frequently are looked upon as opportunists who stumbled upon a talent which they are currently exploiting. Collectively, technical writers are a bastard group of uncertain origin, with no conventional or legitimate genealogy, and with no current widely accepted or enforced benchmarks and standards of competence. Why shouldn't we feel stigmatized! All the more reason to carefully examine our role and our skills and to reorganize our work so as to provide more order and training to the end that we can perform more competently. For with competence will come recognition, and with recognition comes status.

One thing is certain: title and organization by themselves will not be sufficient. Legitimate professional groups and the public will soon recognize the phony facade. Upgrading by relabeling is common. The undertaker becomes a mortician. The beauty operator turns into a cosmetician. The mechanic suddenly is a mechanical engineer. This last example is a warning. Technical writers should not be titled "publications engineers" unless they are bona fide graduates of an engineering curriculum providing a basic degree. Otherwise, the title is misleading, appears as a subterfuge, and provides a fragile and easily broken crutch to the technical writer who seeks to establish his role on a firm foundation. Neither will organization alone suffice. Unskilled, semi-skilled, and skilled workers have formed unions but they can hardly be considered professional groups. Many fine citizens have organized civic groups, such as the Lions, Rotarians, and Kiwanis. Yet their activities hardly qualify them as "professional" city planners or social workers. Much more is required than title and organization. What?

DEFINING "PROFESSION"

A major difficulty in acquiring the stamp of "Professional" is the precise meaning of profession. It defies definition. It is an elusive word. The best the literature can provide is a series of elements, factors, or characteristics a professional person should possess. No two such lists are alike, but many share certain common denominator elements. It is useful to present a few definitions and descriptions and to identify certain recurring characteristics, against which technical writers, individually and as a group, may place themselves.

In order to provide variety of approach, the definitions or descriptions of "profession" and "professional person" in the following paragraphs represent: (1) a Federal regulation, (2) a science administrator, (3) a medical innovator, (4) three educators, (5) a newspaper editor, (6) a university president, (7) a chemist and former president of the American Chemical Society, (8) an engineer, and (9) a sociologist.

The Taft-Hartley Act defines the professional employee as "(a) any employee engaged in work (i) predominantly intellectual and varied in character as opposed to routine mental, manual, mechanical, or physical work; (ii) involving the consistent exercise of discretion and judgment in its performance; (iii) of such a character that the output produced or the result accomplished cannot be standardized in relation to a given period of time; (iv) requiring knowledge of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study in an institution of higher learning or a hospital, as distinguished from a

general academic education or from an apprenticeship or from training in the performance of routine mental, manual, or physical processes; or (b) any employee, who (i) has completed the courses of specialized intellectual instruction and study described in clause (iv) of paragraph (a), and (ii) is performing related work under the supervision of a professional person to qualify himself to become a professional employee as defined in paragraph (a)."[8]

For purposes of clarifying categories of employees eligible for minimum wages and overtime pay, for example, the Administrator of the Fair Labor Standards or Wage-Hour Act has defined the "professional employee" on the basis of the Taft-Hartley definitions.[9] Illustrative of decisions rendered in cases involving the application of this definition is the following note which appeared in The American Engineer:[10] "A technical writer has been held exempt under the Wage-Hour law as a professional employee by a Federal District Court in California. He had sued for time-and-a-half payment for hours over forty per week. The Court held, however, that his application of engineering data and exercise of judgment and discretion brought him within the professional-exempt category."

The following criteria constitute an answer to the question: What is a profession? "First and foremost, its members are the possessors and custodians of a special field of knowledge, acquired by long, assiduous study, and they are respected and accorded privileges because of that fact. Second, it is a loose grouping of individuals rather than a pyramidal organization.... Third, every profession has, to some degree, a symbolism and a ritual of its own.... Fourth, there is often, especially in the older professions, a means for maintaining standards and for disciplining those who violate a code, usually backed up by the civil law.... But the primary characteristic of a profession has not yet been mentioned. Without it, no group ... is truly entitled to the proud name of profession.... The members of a profession minister to the people."[11] That author also lists among the responsibilities of a profession "to enhance and extend the knowledge and understanding on which the professional practice of the profession is based."[12]

Morris Cogan has made an extensive survey of the literature on this subject[13] and concludes that "the promulgation of a satisfactory definition has progressed but little beyond the six criteria proposed by Abraham Flexner." In Flexner's words: "Professions involve essentially intellectual operations with large individual responsibility; they derive their raw material from science and learning; this material they work up to a practical and definite end; they possess an educationally communicable technique; they tend to self-organization; they are becoming increasingly altruistic in motivation."[14]

What makes a profession is suggested by the following ten points. "(1) A profession must satisfy an indispensable social need and be based upon well-established and socially accepted scientific principles; (2) it must demand the adequate pre-professional and cultural training; (3) it must demand the possession of a body of specialized and systematized knowledge; (4) it must give evidence of needed skills which the public does not possess; that is, skills which are partly native and partly acquired; (5) it must have developed a scientific technique which is the result of tested experience; (6) it must require the exercise of discretion and judgment as to the time and manner of the performance of duty. This is in contrast to the kind of work which is subject to immediate direction and supervision; (7) it must be a type of beneficial work, the result of which is not subject to standardization in terms of unit performance or time element; (8) it must have a group consciousness designed to extend scientific knowledge in technical language; (9) it must have sufficient self-impelling power to retain its members throughout life. It must not be used as a mere stepping stone to other occupations; (10) it must recognize its obligations to society by insisting that its members live up to an established code of ethics."[15]

A former president of the American Chemical Society expressed himself as follows: "A real professional man has obtained a specialized education materially greater than that required for other occupations; follows throughout his life a program of self-education and improvement; feels responsible for advancing his profession and the training of the young men who enter it; works at developing his own initiative, judgment, and sense of responsibility; realizes that his prestige depends upon the use of his specialized knowledge for the benefit of others.[16]

President Walker of Pennsylvania State University believes that "a profession is distinguished from an occupation or a trade in at least two important respects: (1) in the amount of study and training prerequisite to a career in the chosen field and (2) in the attitude of the person toward his work. Under the first distinction, professionalism is achieved or earned through the mastery of a rigorous body of knowledge unique to the profession.... Under the second distinction, professionalism is conferred by the community at large upon an individual or group because of the acceptance by that individual or group of a code of ethics...."[17] Dr. Walker also notes that "professionalism stresses duties, obligation, and responsibilities.... Professionalism clearly implies devotion to a higher end than that of personal profit or selfish interest."[18]

An engineer states that "practice of a profession is based upon specialized knowledge in a particular field of learning. It involves intellectual effort and calls for creative

thinking.... No one rightfully can lay claim to being a professional person unless he is motivated by a desire for service--service to those in his immediate circle of associates and service to mankind.... Professionalism is idealistic."[19]

Justice Brandeis is quoted as having suggested that "a profession is an occupation requiring extensive preliminary intellectual training, pursued primarily for others and not merely one's self, and accepting as the measure of achievement one's contributions to society rather than individual financial reward."[20]

A number of writers have singled out special attributes of professionalism to emphasize. Thus, one feels that "as everywhere, the consolidation of a profession ... goes hand in hand with the establishment of standards and entrance requirements."[21] Similarly, a newspaperman writes: "We will get just about as much professional recognition as we are willing, figuratively, to buy. The coin with which we buy is regulation--regulation by the profession itself or by some other agency--the setting up of standards and the supervision of them."[22]

An educator who comprehensively studied this subject of professionalism[23] believes that "profession demands arduous training and the practitioner's personal commitment to an exacting ethical code...."[24] An educator's bias shows itself clearly as follows: "The economic, educational, and social factors which influence professional status in the public mind are complex and interrelated; but that the amount and kind of education--both general and technical--required of the prospective members of a particular occupational group determine its social status is incontestable."[25]

RELEVANCE OF DEFINITIONS--WHO IS "PROFESSIONAL?"

Some observations can be made concerning certain features of these and other definitions and descriptions of "profession" and "professional." First, many definitions included such characteristics as individual initiative, judgment and discretion, a sense of responsibility, and ethical conduct. It must be admitted, however, that all individuals, professional or not, should possess these attributes. The consideration of whether or not such items belong in a definition of "professional" is commented upon by one author who says that "in the case of those who consider definition impossible or even undesirable, the impracticability of defining seems to derive from an inability to measure the degree in which traits must be present for profession to exist, rather than from the impossibility of identifying those traits."[26] Second, "many in emerging professions select the classical independent professional as a model. Such a model is becoming more of a sentiment than a reality,"[27] and "both the state and the large corporations are absorbing more and more professionals. It is a moot question whether it is possible to maintain professionalism under such conditions."[28]

The observation that current definitions of "profession" are based on a classical conception which is now passé is worth examining. The usual older professions included medicine, law, and theology. Current definitions all refer to the need for extended academic contact with specific disciplines and bodies of knowledge. But could a successful businessman be called a professional person? He obviously possesses competence and skills of a high order, but may not have acquired them through formal training. Even if he had, does the Graduate School of Business Administration automatically produce a "professional" businessman? Is business a profession? Other than the requirement of long academic exposure, the businessman fills the bill admirably: he engages in direct relations with a "client;" he is presumed to abide by a code of ethics; he is organized into Chambers of Commerce and product organizations. On the other hand, the carefully trained chemist is a professional person, if he teaches. But is he a professional person, if he is employed by a petroleum company? Is chemistry a profession?

It may well be that the current identifiable criteria or earmarks of "profession" are no longer useful. Knowledge is accumulating at a fantastic rate. More and more people are receiving more and more education. New specialties are springing up regularly--nuclear engineering, gamma ray spectroscopy, eugenics demography, sociometry, biomechanics. If the work one does rather than the schooling one has had is the mark of the professional person, then it must be admitted that the possession and exercise of identifiable competencies and particular skills should make a person a professional. It could then be pleaded that the "old" meaning of "profession" is no longer useful; that the status element is the only hangover of such definitions to which people still cling; and that, for all practical purposes, the reference to "profession" is either quite meaningless or else anyone with special skills is entitled to use the term.

The implication is strong that, from this point of view, the technical writer should concentrate on perfecting his skills. The value of the services rendered will bring him--and her--increasing recognition. And with increasing recognition will come either the legitimacy of the use of the title "professional" or else the term will have outlived its usefulness for valid discrimination among livelihoods--in which case it makes no difference!

IDENTIFYING THE TECHNICAL WRITER

This entire discussion is based upon the assumption that a technical writer is clearly identifiable in the first place. But is he? Some people claim that such a person writes manuals of assembly-disassembly, operation, maintenance, and repair of specific products such as airplanes and television sets; prepares technical reports; or prepares specifications of different types. Why is such a person considered a technical writer? Because he writes about technical matters! By this criterion, the science writer journalist must also be a technical writer. The ghost-writer of speeches dealing with scientific or technological data of any kind is also a technical writer.

Obviously, the technical writer's particular usefulness is the ability to "translate" certain scientific data into language understandable by individuals at least one level removed from that of the source of the data. At the source, it is assumed that a scientist, engineer, or physician, for example, will compose his own contribution in journals for the edification of and exchange of knowledge with his peers. The special contribution of the technical writer is the preparation of initially highly complex material for use by, for example, company administrators, stockholders, specialists in other fields, consumers, or for general public information. In other words, the technical writer is an interpreter.

The late Dr. Glenn Frank explained this role well:[29] "The practical value of every social invention or material discovery depends upon its being adequately interpreted to the masses. The future of scientific progress depends as much on the interpretive mind as it does upon the creative mind.... The interpreter stands between the layman, whose knowledge of all things is indefinite--and the scientist whose knowledge of one thing is authoritative.... The scientist advances knowledge.... The interpreter advances progress.... History affords abundant evidence that civilization has advanced in direct ratio to the efficiency with which the thought of the thinkers has been translated into the language of the masses."

THE TECHNICAL WRITER'S TALENTS

If the emphasis is placed on <u>how</u> to translate technical material, the training required to become a competent technical writer is frankly not impressive. Examination of the tables of contents of most "how to" books on technical writing discloses startling similarity among them.[30] They all describe such activities as: how to go about gathering data; the identification of the consuming audience; types of reports; suggestions for clear and uncluttered sentences; general rules of grammar; orderliness and logic in the presentation of data; hints on the writing of technical letters; and a chapter on graphics. But aren't these suggestions useful for most kinds of writing (even fiction, at times), whether the subject be the sex life of elephants or the maintenance of a 105 mm. howitzer?

If attention is given to <u>what</u> one writes about, then the prime distinguishing characteristic of the technical writer is the blend of substantive knowledge AND the ability to write with the goal of simplification. Here the technical writer is on surer ground in his claim for special recognition. He is not required to have the Ph.D. in biology in order to write in the life sciences, nor is he expected to be an engineer to write competently in the field of electronics. Even if this was the technical writer's laudable goal, the fortunes--or misfortunes--involved in making a living may move him from one area of science to another.

But it would help if the technical writer possessed a strong background in the basic scientific disciplines and mathematics. With the understanding of fundamental laws in biology, chemistry, physics, and mathematics (and some in the engineering sciences), he will be aware of various scientific methods; will be able to appreciate the ramifications and new developments in basic scientific areas; will be able to ask perceptive questions of clarification; will be able to distinguish (with or without assistance from the source) between the relevant and the irrelevant; and will be able to produce more understandable material more accurately and more quickly.

Undoubtedly, a certain element of ingenuity and creativity must be involved. It is often a neat and useful trick to relate the unknown to the known by the use of analogy, for example. It helps to be able to explain sound waves by reference to the ripples caused by the dropping of a stone in a pool. It helps to describe cardiovascular problems by reference to the heart and arteries as the pump and piping system of the body.

EMPHASIS ON EDUCATION AND TRAINING NEEDED

It is clear from the variety of definitions presented earlier that the basic ingredient, criterion, or earmark of the "professional person" is formal, academic training, usually of some length and in great detail. The need for more training in technical and general scientific writing is universally recognized and requires neither modest nor extended elaboration. The author has done this elsewhere.[31] More important are how much and what kind?

The handful of institutions offering comprehensive training--such as the Margaret Morrison College of the Carnegie Institute of Technology; the State Universities of Kansas, Iowa, Oklahoma,

and Colorado; Rensselaer Polytechnical Institute; and Simmons College in Boston--provide curricula in technical writing, editing, and journalism. They are frankly tentative and experimental, as they should be. These institutions are to be commended for their recognition of the need for such strategic services in a technology-oriented society and for their efforts in undertaking such training.

However, more institutions are needed to offer a variety of approaches to technical writing at both the undergraduate and graduate levels. Perhaps a variation of engineering cooperative training ought to be set up. Since technical writers must often "double in brass," some exposure to audiovisual and graphic presentation, typography and layout, reproduction methods, and even photography is relevant, though possibly not essential, at least for the present.

With enough programs putting differently trained graduates to work in various sectors of the economy, it should not take long to answer definitely the question of what kind of person to hire--the writer who acquires a substantive background or a subject-matter specialist who is taught how to write. It is the author's conviction that those who can write are easily identified early in their academic life. In order to be useful, however, they must know something about what to write. If, as one writer suggests, technical writing "is, in some ways, the most difficult of all types of writing--explaining a very complicated subject in an uncomplicated, lucid, and accurate language,"[32] then a sophistication in the semantics and nuances of the English language is not enough. At least half of the technical writer's academic training should be in scientific and technological subject matter.

A full description and critique of the currently available technical writing curricula are needed. An equally detailed description and analysis of major varieties of technical writing on the job are also needed.[33] The frank reactions of recent graduates from such curricula should be solicited. Means of encouraging major institutions of higher education to institute such training should be explored actively.

IN CONCLUSION

The search of the technical writer for professional standing and status has been examined from a number of points of view. The psychological, historical, and economic reasons for this striving have been noted and justified. It appears that "profession" and "professional person" are ill-defined. Even as variously stated, the current descriptions and definitions of "profession" seem increasingly outmoded and meaningless. At the same time, the technical writer himself requires more specific delineation. The one major characteristic of the professional person to which technical writers can profitably address themselves is that of specialized, academic education and training. The important elements of such training must be more clearly identified, the particular skills defined, and institutions encouraged to provide the basic competencies agreed upon.

REFERENCES

(1) See, for example, the guest editorial by H. C. McDaniel, January, 1960 issue. "The most important problem facing the members of this society today is achieving professional recognition."

(2) David McKay Company, New York, N.Y. 1959. See also William H. Whyte, Jr., "The Organization Man." Doubleday Anchor Books, New York, N.Y., 1957. See also A. S. Watson, "The Psychology of the Professional Self-Image," Chemical and Engineering News, 38, 84, 86, 88 (March 21, 1960).

(3) By Cameron Hawley, Houghton-Mifflin Co., Boston, Mass., 1952. Also in paperback edition.

(4) "The White Collar," 1951, and "The Power Elite," 1956, both by C. Wright Mills, and published by Oxford University Press, Fairlawn, New Jersey.

(5) For example, H. O. Ronken and P. R. Lawrence, "Administering Changes: A Case Study of Human Relations in a Factory," Harvard University, Boston, Mass., Graduate School of Business Administration, 1952.

(6) Available in paperback edition as a Doubleday Anchor Book, No. A16, 1953, New York, N. Y.

(7) See, for example, "Professional Attitudes" and "Social Values in Professional Choices," Chemical and Engineering News, 38, 7 ff. (January 25, 1960) and 109 ff. (March 7, 1960), respectively.

(8) Definitions, Section 2, par. 12, Title I, Amendment of National Labor Relations Act, Public Law 101—80th Congress.

(9) Section 541,300, Definition of "Professional," in Explanatory Bulletin, Title 29, Part 541, "Defining the Terms," 1959 reprint, U. S. Department of Labor, Washington 25, D. C.

(10) Issue of August, 1957, page 15.

(11) Vannevar Bush, "Professional Collaboration," Science, 125, 50 (January 11, 1957).

(12) Ibid., p. 51.

(13) Morris L. Cogan, "Toward A Definition of Profession," The Harvard Educational Review, 23, 33-50 (Winter, 1953). This is an excellent article and has a long 51-item list of references.

(14) "Is Social Work a Profession? School and Society, 1, 904 (June 26, 1915).

(15) Byrne J. Horton, "The Professor," Scientific Monthly, 58, 164 (1944).

(16) Clifford F. Rassweiler, "Marks of the Professional Man," Chemical and Engineering News, 35, pp. 34-36 (July 22, 1957).

(17) Eric A. Walker, "ASEE Can Meet the Challenge—Through Reorientation," Journal of Engineering Education, 50, 125-126 (November, 1959).

(18) Ibid., p. 126.

(19) E. L. Chandler, "Elements of Professionalism for the Engineer," Civil Engineering, March 1958, page 33 (vol. p. 163).

(20) Quoted in Sidney M. Cantor, "Professional Attitudes," Chemical and Engineering News, 38, 9 (January 25, 1960).

(21) Robert Ulich, "Crisis and Hope in American Education," Beacon Press, Boston, Mass., 1951, p. 133.

(22) Carl E. Lindstrom, "The Public and the Professions," Public Relations Journal, 22 (February, 1959).

(23) Morris L. Cogan, see footnote 13.

(24) Morris L. Cogan, "The Problem of Defining a Profession," Annals, American Academy of Political and Social Science, 297, 107 (January, 1955).

(25) Earl J. McGrath, "Liberal Education in the Professions," Teachers College, Columbia University, New York, N. Y., 1959, p. 61.

(26) Morris L. Cogan, "Toward a Definition of Profession," The Harvard Educational Review, 23, 47 (Winter, 1953); italics mine.

(27) Bernard Ross, "Social Values in Professional Choices," Chemical and Engineering News, 38, 113 (March 7, 1960).
(28) Morris L. Cogan, "The Problem of Defining a Profession," ref. 24, p. 109.
(29) Quoted in L. R. Hafstad, "Science, Technology, and Society," American Scientist, 45, 164 (March, 1957).
(30) See, for example, those written by Ulman and Gould, Ball and Williams, Nelson, Bickle and Houp, Emberger and Hall, Trelease; and in medical writing, those of Hewitt, Davidson, Fishbein, Cross, and Jordan and Shepard.
(31) Israel Light, "Science Writing: Status and Needs," Journalism Quarterly, 37, 53-60 (Winter, 1960).
(32) Richard Rutter, "Technical Books Explain New Age," New York Times, Section 3, page 1, March 27, 1960.
(33) One STWP chapter is engaged in a survey to determine the types of technical writing positions and training programs found in industry, see STWE Newsletter, 6, no. 2, (March 1960).

BOOK REVIEW

Science Information Personnel, by Leonard Cohen and Kenneth Craven, Science Information, P.O. Box 624, Radio City Station, New York 19, N. Y. 1961 74 + vi pp. $1.50

This booklet is the report of a study performed under a subcontract with the Modern Language Association of America for the United States Office of Education, Department of Health, Education, and Welfare, and published under the support of the National Science Foundation. The study was prompted by the Commissioner of Education's obligation to establish the need in the United States for increased instructions in foreign languages. Somewhere along the line, the study was broadened to include the national need for science information personnel.

To meet these two objectives, a questionnaire was mailed to selected organizations, interviews were undertaken, and a symposium on the subject was held in which thirteen people met with the two authors. These are the source material for the contents of this booklet and from which recommendations are made and conclusions reached. There were 207 replies to the questionnaire. Although the respondents are listed, the questions asked are not. The majority of the respondents and members of the symposium were librarians and special librarians from industry, institutes, foundations, public libraries, university libraries, government agencies, library schools, and professional organizations. Most of the expository writing, however, appears to be based on the results of the interviews and the symposium.

DIVISION OF CHEMICAL LITERATURE

AMERICAN CHEMICAL SOCIETY

Officers for October 1961-October 1962

Chairman:	Fred R. Whaley, Linde Company
Chairman-Elect:	Dean F. Gamble, Miles Laboratory
Secretary:	Barbara M. Davis, Godfrey L. Cabot, Inc.
Assistant Secretary:	Lee N. Starker, Lederle Laboratories
Treasurer:	Helen F. Ginsberg, Schering Corp.
Past Chairman:	Herman Skolnik, Hercules Powder Company
Councilors:	Ben H. Weil, Esso Research and Engineering Co. Fred J. Bassett, Upjohn Company