ganizes, and translates published literature is sometimes called an information department for reasons of prestige and/or to get the librarian into a higher pay classification. More often than not, however, the information department handles internal as well as external (published) literature and has technical writing and editing functions. The broader definition of an information department is accepted in this book. The introductory survey-type chapter lists and briefly describes operations in a special library and gives some budget data. The other chapters range from the "how-to-do" type (the four chapters on patent searching, technical writing, illustrating, and editing) to theoretical discussions (the three chapters on linguistics, language and terminology, indexing and classification). There are also chapters on operations research as applied to information work, the organization of internal research records and classified patent collections, mechanical aids for proper presentation, punched card techniques, translating and abstracting, and the training of literature scientists.

Since the entire gamut of information activity is covered in a relatively thin though expensive book, it is not surprising that most of the subjects included are covered in greater detail someplace else. This is particularly true with technical writing, technical editing, and punched card techniques. The chapter on the organization of research records is a notable exception in that it is more extensive than anything which has been seen by this reviewer thus far. No correspondingly comprehensive articles on abstracting and translating are available. The two chapters in this book are a good start; it is hoped that a more definitive work will soon be forthcoming.

After reading many books and articles in this field many of us are left with the impression that all this is very interesting but it does not really apply to our specific problems. The reader of this book is likely to come to the same conclusion, but he will also be exposed to a number of stimulating ideas and will have excellent bibliographies available on most of the subjects covered. It is for these two reasons that the book is recommended to special librarians in industry as well as in public, university, and government libraries.—Gerald Jahoda, Technical Information Division, Esso Research and Engineering Co.

Mass Communications Research

Introduction to Mass Communications Research. Edited by Ralph O. Nafziger and David M. White. Baton Rouge: Louisiana State University Press, 1958. 244p. \$5.00.

Even after reading the book, the temptation is great to quote extensively from the preface, in which the editors so well describe their intent, for the reader's judgment of their success in fulfilling that intent will vary inversely with his own prior knowledge of and experience with scientific research methodology in the social sciences. Eschewing quotation, it is at least necessary to note that this volume is a lineal successor to the earlier (1949) An Introduction to Journalism Research, also sponsored by the Council on Communications Research of the Association for Education in Journalism. The title was broadened from "journalism" to "mass communications," even as the scope was narrowed from all of research methodology to "concentrate on research methods in mass communication from a behavioral point of view."

The intent is to acquaint new graduate students in the field of journalism with the research methodology now available for approaching the many and expanding problems in the field; to an extent the book is also an outline of procedure from the inception of a problem, through its planning, to the statistical interpretation of the data. As such it will also be useful to students in librarianship bent on following and broadening the trail blazed by Waples and Berelson.

The volume contains seven essays by as many authors on such topics as planning; experimental, field, and statistical methods; and "The Challenge to Communication Research." Since all of the authors are working over pretty much the same material from individual points of view, there is a goodly amount of repetition, which, for

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neophytes in a very technical field, is not at all bad.

It was not the intent of the editors or authors to provide a handbook of procedure, statistical or otherwise; their job was rather to suggest ways of approaching research, possible refinements, relevant statistical procedures, all of which are carefully documented in extensive notes and footnote references to which the interested reader may go for further, more detailed information. To apply the cliche "mine of information" would be misleading; the volume is rather of the nature of a detailed report of the activities of an assay office. The suggestions of how and where to dig are there; the digging the student will have to do for himself.-LeRoy Charles Merritt, University of California.

Flow of Scientific Information

The Flow of Information among Scientists: Problems, Opportunities, and Research Questions. Prepared by Columbia University, Bureau of Applied Social Research, May 1958. New York: The Bureau, 1958. 202p. (mimeographed).

This pilot study, prepared for the National Science Foundation, was undertaken to explore the possible contributions of research by interview methods to the problems of exchange of scientific information. Its purpose was to formulate questions and to identify heretofore undefined categories of phenomena. Special attention was, therefore, devoted to the more obscure of the services performed by the scientific communication system, and on the unplanned and apparently accidental mechanisms for performing them.

Seventy-seven scientists at one university were interviewed, including biochemists, chemists, and zoologists in substantially equal numbers. The interview outline was revised continuously during the study and its final version is included as an appendix. Average interview time was just under two hours. The sample was so limited as to make sophisticated statistical analysis ridiculous,

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so the analysis of the data in the report is essentially qualitative and discursive.

The scope set for the study was *all* the channels through which scientists exchange and gather information, and *all* functions which scientific communication facilities are called upon to perform.

Since so much emphasis has been placed upon means for finding answers to specific questions, special emphasis is laid, in this study, on instances in which scientists secured answers to specific questions in ways other than those designed for this purpose. Twenty-eight reports were obtained on information sought outside the "regular channels of search," primarily by asking other people. Of these about two-thirds dealt with details of procedure. A few involved performance of experiments or expert judgments but most of the remaining two-thirds were materials of the type that should normally appear in the literature and about half actually did involve asking someone else to provide the literature citations. The first chapter suggests as projects for further research: (1) to determine how adequately information from personal sources is available; (2) should more varieties of information be securable in print, or should informal channels be made more widely usable? (3) how can informal (i.e. personal) channels be made more widely usable? (4) should more be made available through print (a) by having more printed or (b) by making what is printed easier to find? (5) what makes published information hard to locate? (6) why is information of certain types seldom published?

Chapter II, dealing with the problem of keeping scientists abreast of current developments in their specialties, reports only reading and personal contacts, with reading of journals in the specialty as the primary tool of two-thirds of those reporting. The questions proposed for future research are: (1) Does any significant amount of current information fail to appear in the literature? (2) Why are published items missed? (3) In what fields are published items most likely to be missed? (4) What are the forms of personal communication that work? (5) How much access do scientists in varying positions have to personal communications? (6) What clues to pertinence of articles are lacking?