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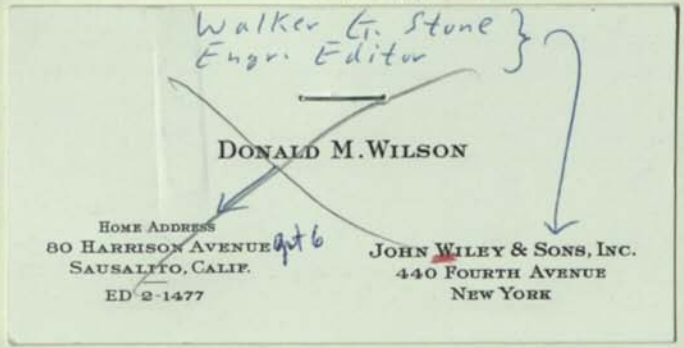

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January 22, 1976

Professor Charles P. Bourne
1619 Santa Cruz Avenue
Menlo Park, California 94025

Dear Professor Bourne:

I have just received notification from our warehouse that your METHODS OF INFORMATION HANDLING is completely out of stock and that it has become financially impractical to consider reprinting it. We've had a nice run with the book since publication in 1963 and a 8401 copy sale is something we can all take pride in. May I now ask if we can realistically expect a revision of the book? I'm not terribly optimistic judging from the tone of your last letter to me in October, however, I would appreciate your latest thinking on this.

Thank you very much.

Sincerely,

Walter J. Maytham, III
Publisher

WJM:ff

January 28, 1976

Walter J. Maytham, III
Publisher
Wiley-Interscience
605 Third Avenue
New York, New York 10016

Dear Walter:

Thank you for your recent note saying that METHODS OF INFORMATION HANDLING has gone out of stock and will not be reprinted. This strikes me somewhat as if an old friend had passed away.

As you correctly observed, I think it is unrealistic to expect a revision of this book. I think we'd better just let this one fade away.

Thanks for your continued interest.

Sincerely,

Charles Bourne
Director, Institute of Library Research
Professor, School of Librarianship

CB/rp

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INSTITUTE OF LIBRARY RESEARCH
BERKELEY, CALIFORNIA 94720

October 3, 1974

Melville Publishing Co.
11661 San Vicente Blvd.
Suite 913
Los Angeles, California 90049

Dear Walker:

I had hoped to get more done on my manuscript during the Summer, but unfortunately the time was just not there to do it. At this rate I don't expect to be able to submit a complete manuscript during the coming year.

Best regard,

Charles Bourne
ILR, Director

CB/lmb

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MELVILLE PUBLISHING COMPANY

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September 16, 1974

Professor Charles P. Bourne, Director
Institute of Library Research
UNIVERSITY OF CALIFORNIA, BERKELEY
Berkeley, Ca. 94720

Dear Professor Bourne:

It is the time of year when we must begin our planning in terms of manuscripts which we would expect to review, edit and process for publication during the following year. For this reason we are writing to inquire about the status of your writing.

Perhaps you could also inform us as to the approximate date that we could expect to receive your manuscript.

We will sincerely appreciate hearing from you within the next ten days.

Very truly yours,

Walker G. Stone
President

WGS/ak

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October 8, 1970

Mr. Charles P. Bourne
Charles Bourne and Associates
1619 Santa Cruz Avenue
Menlo Park, California 94025

Dear Charles:

It was good to see you at the recent networks meeting and also to talk with you about the status of Methods of Information Handling. I didn't press, nor did you volunteer, a suggested completion date for the revision. Now that you have reflected on it, can we establish a target date? If the past is any indication of your busy schedule, we should seriously consider bringing in a coauthor. The coauthor will not discredit the senior author and in fact, in most cases, it reinforces the leadership that you have already established with your publication. If you agree this is a good idea and certainly a way to get the revision out, may I suggest that you give this idea serious thought and that you amplify it with a list of candidate coauthors.

If it will be difficult to find a qualified person willing to take on this assignment on the West Coast, then we should seriously consider the multi-contributor editor approach.

I was also intrigued by your mentioning that you would like to prepare a book on cost effectiveness. If we can work out the problem which we mentioned above, then you will be free to concentrate on the latter.

In my mind each project is important to you and to your future, and we should find some way working together to accomplish the same.

Please let me hear from you at your earliest convenience.

Sincerely,

Walker G. Stone

Walker G. Stone, Vice President
Communications and Publications
Division
BECKER AND HAYES, INC.

P.S. I agree with you that Ed Parker has an excellent idea. I have his material and the more I have read the more impressed I am with the important characteristics of his proposal.

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605 THIRD AVENUE, NEW YORK, N.Y. 10016 212 TN 7-9800 CABLE: JONWILE

March 22, 1967

Dr. Charles P. Bourne, Director
Advanced Information Systems Division
Programming Services, Inc.
493 Middlefield Road
Palo Alto, California 94301

Dear Charles:

Several months have gone by since we last exchanged letters and I wonder whether you now have been able to estimate how long it will take you to revise and update your book on METHODS OF INFORMATION HANDLING?

I look forward to hearing from you.

Cordially yours,

Walker G. Stone, Vice President
PROFESSIONAL & REFERENCE BOOK DIVISION

WGS:bh

	light work	work	heavy work
1 Nature of the Problem	X		
2 Class. & Defining			X
3. Coding			X
4. Machine Language Prgr.	X		
5. Manual Card System		X	
6. Tab Cards		X	
7. Computer System			X
8. other Paper Type of Machine		X	
9 Microfilm			X

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March 9, 1962

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

In Walker Stone's absence on an extended business trip which will keep him away from the office until the end of the month, I should like to acknowledge receipt of your letter dated March 7th.

We appreciate having your status report - even though your progress has been slower than anticipated, it is encouraging to know that you continue to proceed with the development of this work. We hope, of course, you will be able to meet your May deadline and look forward to receiving the manuscript for DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL as soon as it is ready for us.

I am forwarding a copy of your letter on to Mr. Stone for his information.

Sincerely yours,

B. Hollender

B. Hollender, Editorial Research Assistant to
Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE BOOK DEPT.

bh

Mr. Walker G. Stone, Editor-in-chief
Professional & Reference Books Dept.
John Wiley & Sons, Inc.
440 Park Ave., South
New York 16, N.Y.

Sent 7 March 62

Dear Walker,

I think that you would be interested in hearing of my progress to date on my information retrieval manuscript. The work has been going slower than I expected -- primarily because I'm going to school at Stanford half time in addition to my regular full-time work at SRI. However, I will be finished with my classes this month, & will finally be able to spend more time on the manuscript. I have spent a considerable amount of time re-organizing & re-writing the text, & have finished the major part of the work. The book has been re-organized into the following chapters:

1. The Nature of the Problem
2. Classification & Indexing: the Organization of Information
3. Coding: the Indexing Shorthand
4. Machine Language Representation
5. Manual Card Systems
6. Punched Card Systems
7. Computer Systems
8. Special Digital Systems
9. Microfilm & Image Handling Systems

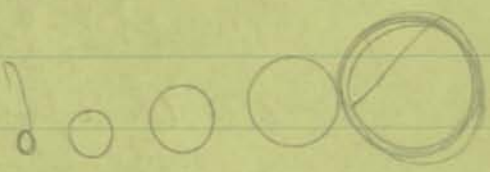
The first six chapters have been completed (227 pgs of double-spaced text and 80 figures) and are ready to go to the SRI editor for editing. I am in the middle of the seventh, and the remaining two have not been started. I hope to be finished with the whole works in early May.

(OVER)

It is my feeling that this second draft is a great improvement over the previous one, and I think the time to have used spent in re-working it. I hope the delay hasn't inconvenienced you too much.

Sincerely

CG



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ASST. VICE-PRESIDENT

December 27, 1961

Dr. Charles Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charlie:

Ken Brown has told me of his recent talk with you and of course the good news that the two additional chapters for "Information Processing, Storage and Retrieval" that were recommended by our reviewers are nearing completion. I understand that as soon as these are done you will turn your attention to the remainder of the work with the intent of making the finished manuscript available to us in February. I hope this schedule proves possible, for we are eager to get on with the job.

With best regards and best wishes for the New Year,

Sincerely,

Walker G. Stone, Editor-in-chief
The Professional & Reference Book Dept.

BS

Dear Walter,

My apologies for not writing sooner. The two additional chapters have been completed, and the ~~remaining~~ original ~~ten~~ chapters are being re-organized and re-assembled to form a smaller number of chapters. I am trying to have the manuscript finished in February, but of course I can't promise it. I'll let you know what the story is as we reach that time.

Thanks for the thoughtful Christmas card, and best wishes for the New Year.

Sincerely,
CB

sent 8 Jan

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November 30, 1961

Dr. Charles Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charlie:

Would much appreciate learning how you are coming developing the manuscript for your proposed book on INFORMATION PROCESSING, STORAGE AND RETRIEVAL.

I look forward to hearing from you.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE BOOK DEPT.

WGS:bh

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September 22, 1961

Dr. Charles Bourne
Research Engineer
Stanford Research Institte
Menlo Park, California

Dear Charlie:

I attended WESCON for one day and this made it impossible for me to schedule a visit with you.

I hope that you are well underway with the final draft of the manuscript for INFORMATION PROCESSING, STORAGE AND RETRIEVAL. Will appreciate a progress report from you at your convenience.

Cordially yours,

Walker G. Stone, Editor-in-Chief
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August 21, 1961

Dr. Charles Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

Your letter of August 17th arrived just after Mr. Stone had left the office for San Francisco where he will be attending the WESCON Meetings. A copy is being forwarded to him for his information.

We were, of course, much interested to learn that you soon expect to begin work on the final draft of the manuscript for INFORMATION PROCESSING, STORAGE AND RETRIEVAL at which time you will, where appropriate, attempt to incorporate some of our reviewers' suggestions. We will be looking forward to receiving your material when it is ready for us.

Sincerely yours,

B. Hollender

B. Hollender, Editorial Assistant to
Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE BOOK DEPT.

bh

Mr. Walker G. Stone, Editor-in-Chief
the Professional & Reference Books Dept.
John Wiley & Sons, Inc.
440 Park Ave. South
New York 16, N.Y.

sent 21 Aug 61

Dear Walker,

I have finished going over the reviews & have come out & wishing that I were three-eleven. I ~~have to~~ agree with most of the constructive criticism that was provided, & I appreciate this valuable advice & commentary. One of the common criticisms was the lack of continuity from one chapter to another. I fully expected this because of the modular way in which I collected & described the data in each chapter. I hope to be able to remove this in my first draft. ~~Another~~ One big modification that I plan to pursue is the ~~the~~ organization of material into the pattern described by Reviewer A. I think this is generally a much more logical way to present the material. I can not do much about the criticism that the book is a compendium of devices & techniques --- since that was one of the main objectives.

I will ~~shortly~~ soon start the first draft of the manuscript at which time I shall ~~attempt to~~ again make reference to my collection of critical comments, ~~& the reviewers & try, to modify my work~~ where I think it is appropriate, to incorporate the pertinent suggestions.

thanks again for your help & patience.

Sincerely

CB

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July 28, 1961

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

As agreed during our phone conversation earlier in the week, I am inclosing copies of the four reviews we have obtained on your book "Information Processing, Storage, and Retrieval." I shall be considerably interested in your reactions to the various comments and recommendations made and shall look forward to hearing from you after you have been able to study and evaluate them.

Sincerely,

Walker G. Stone, Editor-in-Chief
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August 30, 1962

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

Just a note to advise you that I have returned to you by separate post the initial draft material for your proposed book on DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL which you provided us several months ago for examination purposes. This material, which has now served its purpose here in the office, should reach you in a few days.

Sincerely yours,

B. Hollender

B. Hollender, Editorial Assistant to
Walker G. Stone, Director & Editor-in-Chief
ENGINEERING, MATHEMATICS & PHYSICS

bh

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VICE-PRESIDENT

September 11, 1962

To Wiley Authors:

Wiley has just announced a new marketing plan to provide for more comprehensive distribution of our books in domestic, technical and trade bookstores. The Wiley Agency Plan, which was put into effect on June 1, 1962, involves a basic discount to the bookseller on all books and on textbook adoptions, as before, but it enables a trade bookseller or college bookstore to become a Wiley "agency" with an increased discount on all sales except text adoptions.

The new plan has been received enthusiastically by booksellers all over the United States and Canada. The number of stores stocking and selling Wiley books has been increased by almost fifty per cent, with new agencies coming in every day. Because of the wide acceptance of the plan we anticipate increased sales volume for your book and increased income both for your publisher and yourself.

The Wiley Agency Plan has replaced the two-edition system that we established in 1955. This system was very successful in encouraging the distribution of our books in domestic technical and trade bookstores, but for some time it has been evident that the two-edition plan was difficult for the bookseller and customer, and costly to Wiley, calling for separate bindings, jackets, and inventory maintenance. We are confident that our new plan will enable us to eliminate these difficulties at the same time that it increases our general marketing effectiveness.

All Wiley books, therefore, are now available in single editions (except for a few in both hardback and paper). Clause 8 of those Wiley contracts covering royalties under the two-edition plan is no longer applicable.

In combining the two editions, the price established was computed on the basis of a sales analysis by outlet. Wherever textbook sales predominated, the lower or textbook price was adopted. In some cases it was necessary to compromise between the two prices where the sales pattern indicated a substantial interest by the professional market. Finally, where the professional sale was most important, the higher of the two previous prices was assigned to

the single edition. In no case do we think the price differentials are significant, nor will they be detrimental to sales.

We can assure our authors the widest possible domestic and worldwide distribution and will continue to improve our marketing facilities as new techniques are developed. We hope that you are as pleased with these prospects as we are.

Sincerely yours,

Andrew H. Neilly, Jr.
Vice President

December 28, 1962

Mr. Walker Stone
John Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

Happy New Year! Here is the last chapter. I have been assembling the illustrations together and will send all of them (except for about 20) to you next week along with an illustrations status report. A Xerox copy of the complete manuscript is also being sent to you under separate cover.

I still haven't received any of the Hayes-Becker galley samples (for font, layout, etc.), or any note about the editorial board. Has this gone astray?

Because of this last minute windup on the manuscript, I have not had an opportunity to review Borko's outline or Jonker's manuscript. Would you accept my apologies (and pass them along to Don C. Ford). I hope to get at that material in the next two weeks. Thanks.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt
Enclosure

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December 19, 1962

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Chapter 9 arrived in good order today. It is being sent on to the reviewer who is looking over for us the seven chapters which you left with me when you were here in our office earlier in the month. Our consultant has agreed to provide us with his review shortly after the Holiday period.

I now look forward to receiving the final chapter and a complete Xerox copy of the DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL manuscript.

Best wishes to you for a Happy Holiday Season.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh

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November 21, 1962

Dr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Charles:

I look forward to seeing you during the week of December 3rd.

Please call me or my secretary as soon as you arrive in town. I say this because I am planning to go to Philadelphia to the Eastern Computer Conference and it may be that we will be able to get together there instead of New York City. I will be in Philadelphia from the night of the 3rd through the 6th. At any rate, I hope we will not mess up our signals and miss each other.

Cordially yours,

Walker G. Stone, Director & Editor-in-Chief
DEPARTMENT OF ENGINEERING, MATHEMATICS & PHYSICS

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October 18, 1962

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Your recent letter was most encouraging. I shall look forward to the receipt of the manuscript right after the Christmas Holidays. I have informed Bob Hayes of your excellent progress.

Kindest regards,

Cordially yours,

Walker G. Stone, Director & Editor-in-Chief
ENGINEERING, MATHEMATICS & PHYSICS

WGS:bh

October 10, 1962

Mr. Walker G. Stone
John Wiley & Sons, Inc.
440 Park Avenue South
New York 16, New York

Dear Walker:

Thanks for your interest in the manuscript. I have not forgotten you or the manuscript, and have actually been spending quite a bit of time on it.

The book consists of nine chapters, all of which have been written. All but one of the chapters have been edited by one of the SRI technical editors. All of the chapters have been critiqued and edited by a former professor of library science (this was the main source of delay). Five of the chapters have been cleaned up after editing, and have been typed in final form on bond. Two more chapters are in the final typing process. The primary work remaining is the clean-up and final typing of the last two chapters. I don't know specifically when this will be finished, but I suspect it will be in a couple of months. Essentially all of the illustrations have been collected.

I'll keep you informed.

Sincerely,

Charles P. Bourne
Research Engineer

CPB:etm

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September 26, 1962

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charlie:

We anxiously await receipt of the manuscript for your proposed book on DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL. When can we expect to receive it?

Would much appreciate hearing from you.

Kindest regards,

Cordially yours,

Walker G. Stone, Director & Editor-in-Chief
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WGS:bh

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AIR MAIL

January 2, 1963

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

We are pleased to acknowledge the safe receipt of Chapter 7 for your book on METHODS OF INFORMATION HANDLING. Your letter and the last chapter has been passed on to Mr. Stone for his attention and you will hear from him shortly.

Sincerely yours,

(Mrs) Margaret Eagan
Editorial Department

P.S. The Xerox copy of the complete manuscript also arrived safely today.
Thank you.
M.Eagan

January 28, 1963

Mr. Walker Stone
Wiley & Sons
440 Park Avenue South
New York 16, New York

Dear Walker:

Here are some more illustrations on account. The enclosed illustrations (Figs. 2-6, 5-49, 6-12, 7-10, 7-11, 7-12, 7-14, 7-22, 9-36) have all been cleared for re-publication. I could not obtain a good photo of Fig. 5-39 and so I will drop it from the text. This then leaves the following 14 illustrations outstanding:

Fig.	
2-9	book catalog
2-10	Appl. Mech. Rev. index
5-27	Zeus Co. data card
5-43	Jonkers 100
5-44	Jonkers 202
6-15	Fotolist Model 90
~~6-16~~	~~phone directory~~
7-13	concordance
~~7-15~~	~~citation index~~
7-16	Lockheed flow chart
7-18	SRI cards
~~7-21~~	~~legal text printout~~
8-7	Heatwole 44

The remaining illustrations will be forwarded as soon as I receive them.

I have noted the detailed corrections of your reviewer. His points are well taken, and I shall incorporate most of them with the changes that develop from your editor's work. However, I balk at the suggestion that another chapter be added to state and discuss the criteria to determine the applicable devices or techniques for a given situation. ~~The main criteria of cost has been, as techniques for a given situation.~~ The main criteria of cost has been, as you suggested, implied throughout the book. However, the proper treatment of criteria for selection and determination of techniques and devices (or "What System to Use for My Problem") is a topic for a separate book. As a matter of fact, we recently finished a $35,000 study for NSF just to try to determine what the criteria and evaluation procedures should be.

I would hope to leave this topic for another book.

Where do we go from here? What's happening to the manuscript? I'm looking forward to hearing from you.

Sincerely,

Charles P. Bourne
Research Engineer

P.S. I received your note adknowledging receipt of the Borko review, but you haven't said anything about the Jonker notes. Let me know if they got lost enroute, and I'll send another set.

December 31, 1962

Mr. Walker Stone
Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

There are about 180 illustrations in my book. All but about 25 of them are enclosed with this letter, and have been cleared for republication. I am taking the necessary steps to clear up the remainder. The figures that are missing are:

	Status	
Fig.	Have original	Have Clearance
2-9 book catalog	x	x
2-10 Appl. Mech. Rev. Index	x	
5-27 Zeus Co. data card	x	
5-39 Petr. Res. Card Sel. Mech.		
5-43 Jonker 100		x
5-44 Jonker 202		x
5-49 Omnidex card	x	
6-12 Comac		
6-15 Fotolist Model 90	x	
6-16 phone directory	CB to generate	
7-10,11,12 flow charts		
7-13 concordance		
7-14 CBA Index		
7-15 Citation Index		
7-16 Lockheed flow chart		
7-17 Lockheed card listing		
7-18 SDI cards	CB to generate	
7-21 Legal text printout		
7-22 SDI cards		
8-7 Heatwole 44		
9-16 Microtape		
9-36 CRIS		
9-40,41 Walnut equipment		

I find that I've loaned or misplaced my 2-book series of Wiley's Instructions to Authors. Would you please send me another set. Thanks. (Perhaps I should have read it before I sent in the illustrations.)

The remaining illustrations will be forwarded as soon as I receive them.

Happy New Year,

Charles P. Bourne
Research Engineer

CPB/rt

John Wiley & Sons, Inc.

NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N.Y.
MURRAY HILL 9-7630

PRODUCTION DIVISION
J. S. BARNES, JR.
VICE-PRESIDENT

February 19, 1963

Dr. Charles P. Bourne
Computer Technology Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

We are about to send your manuscript DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING STORAGE AND RETRIEVAL to the printer for an estimate and sample pages. I expect that this will take about three weeks and as soon as possible after that we will assign a copy editor to the manuscript. In your letter of February 11th to Walker Stone you mentioned that you visit the east coast about once a month and I think if you can arrange to come to our office in the latter part of March, a discussion at that time with the copy editor and perhaps our Illustration Manager would be productive. If you decide to make such a visit I would appreciate your letting me know at your convenience when we might expect to see you.

Sincerely yours,

James A. McNeish
Manager
PRODUCTION DIVISION

JAM:gl

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ASST. VICE-PRESIDENT

February 5, 1963

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Received your letter of January 28th and the illustrations. I note that fourteen are still missing.

I agree that most of the corrections noted by the reviewer can be incorporated after you receive the edited manuscript for a check.

I note too that you feel the reviewer's suggestion for an additional chapter might best serve as the basis for a companion book. This is not a bad idea at all.

In view of your final decision to reject this final chapter, I am turning the manuscript over to our production people. You will, of course, hear from them in due time. Keep the missing figures coming, however, even though you do not hear from me in the near future.

We decided against publishing the Jonker material and have so advised Mr. Jonker. Mr. Ford was going to acknowledge your very thoughtful report but had to make several field trips which interfered with his getting an acknowledgement off to you. I am sorry indeed.

Enclosed is a small check in token appreciation for your assistance with this project.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh
Encl.

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

September 5, 1963

Mr. Charles T. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

You may already have been in correspondence with some members of the promotional staff, but if not, this letter will serve to introduce some of the important people on our advertising and sales staff with whom you will soon be dealing. It is also meant to give you a general idea of our procedures as we begin work on METHODS OF INFORMATION HANDLING.

A tentative outline of the advertising campaign has been drawn up. A month or so prior to publication, Miss A. C. Lowell, our Assistant Promotion Manager, will submit this outline to you. You will be asked for comments or suggestions to make improvements in these plans. We are particularly anxious to make sure that we have not overlooked any marketing possibilities. If your suggestions are practical in the light of our marketing experience, they will certainly be put into effect.

William Bennett, our Creative Supervisor, will be in touch with you regarding all aspects of the jacket for your book and John H. Vance, our Copy Director, will send you drafts of the advertising material for your approval. Here again, we want your frank appraisal of our efforts and your suggestions for improvements if you feel that in any way we have not caught the essence of the book or its importance to the potential purchaser. Later on, when the mailing pieces have been printed, you will be sent a supply for your personal use.

After the book has been published, we will keep you posted on its sales progress. At the end of approximately six months, you will receive from our Information Center the up-to-date figures, a collection of published reviews, and comments received in our office.

If, in the meantime, there is any phase of advertising or publicity that requires further explanation, please write me. We are looking forward to the next several months of activity in getting your book off to a good start. You can be sure that we will do our best to achieve maximum results.

Upon publication you will be sent twenty copies of your book for distribution to persons mentioned in your preface, secretarial help, and others who may have been of assistance in the preparation of the manuscript. We will, of course, send copies to persons specified in your contract. None of these copies have any bearing upon books sent out for promotional purposes which will be distributed by us to achieve optimum sales effect. Any questions or suggestions concerning the distribution of complimentary copies should be directed to the attention of Albert M. Dowden, Marketing Division.

Finally, we are pleased to advise you that as a new Wiley author you have the opportunity to buy, for your personal use, any Wiley or Interscience titles at a special discount of 25 per cent. A catalog, being sent to you under separate cover, will help you if you wish to make a selection.

To serve you as quickly and as efficiently as possible, we would appreciate your sending any orders to our order department and noting on them, "Author - For Personal Use Only."

Sincerely yours,

George T. Carroll
Advertising and Promotion Manager

GTC:rs

January 13, 1965

Mr. Herman De Jaeger, Consultant
Lecturer Brussels Library School
78 Polenstraat
Sleidinge (België)

Dear Mr. De Jaeger:

It was very interesting to hear of your plans to use a condensed summary, in Dutch, of my book, "Methods of Information Handling". If this is a non-English speaking group, then it seems like a reasonable request, and I would be happy to see the book used in that way. However, the final decision must be made by the publisher and copyright owner, Wiley & Sons. I have forwarded your request to Mr. Walker Stone, Editor-in-Chief of the Professional & Reference Book Division of Wiley, who will be corresponding to you in the very near future.

Thanks again for your interest.

Sincerely,

Charles P. Bourne
Research Engineer

CPB:sd

A selection of new and recent Wiley Books in fundamental and advanced programming. All of them are available on approval.

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5923

A thoroughly practical introduction to . . .

METHODS OF INFORMATION HANDLING

By **CHARLES P. BOURNE**
Stanford Research Institute, Menlo Park, California

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- explains **techniques** for using information handling equipment.
- discusses **advantages** and **limitations** of each method, as well as basic costs.
- focuses on **specialized aspects** of information handling (e.g., automatic abstracting and indexing, and the selective dissemination of information).
- includes extensive **references** and **examples.**

The book is a valuable reference for the selection, design, and operation of mechanized information systems, enabling the reader to derive maximum benefit from available techniques, methods, and equipment.

Contents . . .

1963. 241 pages. 8⅝ by 11¼ $12.95

A publication in the Wiley Information Sciences Series

Here are the questions:

"How do computers work?

. . . What can they do?

. . . How should they be used?

and the best answers are found in –

INTRODUCTION TO ELECTRONIC COMPUTERS

Problem Solving with the IBM 1620

By FRED J. GRUENBERGER, *The RAND Corporation;*
and DANIEL D. MCCRACKEN, *McCracken Associates, Inc.*

Uses basic principles as "building blocks" . . .

Here is a simple and rapid way to understand the power and scope — and the limitations — of electronic computing. It is written for the man who has no prior knowledge of computers and no mathematical training beyond that offered in secondary schools. The authors develop the subject from the bottom up, using basic principles as "building blocks" for constructing new concepts and principles. The scope of the book ranges from elementary examples in machine language to advanced work involving compilers and generators. The ideas presented apply equally to any computer, although the IBM 1620 is used extensively for illustrative purposes.

Shows how the experts have learned their trade . . .

Introduction to Electronic Computers represents a distillation of thirty years of combined experience — and it shows clearly the path by which today's experts have learned their trade. No shortcuts or magic panaceas are suggested, nor is the reader led to believe that the methods and techniques presented are the best ones possible. Instead, they are shown to be the best so far developed. The notion that the computer is essentially a device for getting answers is assiduously avoided; the book concentrates on understanding, not how to obtain answers. The book contains many new and original problems and exercises. Most of them are designed for the IBM 1620, and all are well within the capacity of the beginner in electronic computing.

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A truly "inter-disciplinary" study . . .

This book draws together from many fields diverse contributions to the common problem of providing capability to meet today's growing demand for effective information systems. It makes readily available the pertinent work of librarians, documentalists, mathematicians, systems designers, equipment manufacturers, operations researchers, and computer programmers. Whether you are a worker active in one of these fields or a newcomer, you will find Becker and Hayes' careful presentation a road map to guide you through the maze of development that has characterized the early growth of this field. Their book provides insight into the contribution that each type of background can best make, the tools and techniques that each offers, and how they fit together in the solution of any job. If you want to grasp subject matter, organize your own thinking on current problems, draw abreast of the field, or equip yourself to interpret future developments, this is the book to read and reread.

First six chapters provide grounding . . .

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. . . then comes analysis . . .

The next main section provides an analysis of all of this work within the framework of the total problem of designing, developing, and implementing a given system. The analysis shows what the main areas of difficulty are and what the relationship is among those concerned with their solution. It thus demonstrates how the tools and techniques of each group can be brought to bear on the development of a particular information system.

. . . then a theoretical foundation . . .

In the final section the authors offer a theoretical foundation upon which the information system design can be built. Here the mathematical tools are developed that relate quantitatively the results from each of the contributing groups.

Chapter Headings . . .

1963. **448 pages.** **6 by 9¼.** **$11.95.**

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A publication in the Wiley Information Sciences Series.

A guided tour through programming and data processing . . .
Your host: **Daniel D. McCracken, *McCracken Associates, Inc.***

A Guide to IBM 1401 Programming

Now — through this book — you can teach *yourself* the principles of programming and the basic concepts of electronic data processing of the IBM 1401. You learn not only what data processing is all about, but how to express a problem-solving procedure in one of several languages for the 1401, and all the basic principles of programming as applied to the 1401.

"*A Guide to IBM 1401 Programming* can be recommended as a good general introduction to its subject for someone who has little background in programming or computers." — *Automatic Data Processing Service Newsletter.*

CONTENTS:

1962. **199 pages.** **$5.75.**

A Guide to FORTRAN Programming

FORTRAN is a procedure-stating computer language that is very similar to ordinary mathematical notation. It is widely used today because it is efficient and because it permits anyone to solve scientific and engineering problems with a computer — no matter how limited his understanding of the computer itself and its operation.

"This guide should be considered an essential tool for all technical men who have not yet been exposed to the use of computers for solution of problems in the scientific and engineering fields." — *Journal of Machine Accounting.*

CONTENTS:

1961. **88 pages.** **$2.95.**

A Guide to ALGOL Programming

"Designed for home study or a short class, this book presents an organized approach to learning and using ALGOL, the international compiler language for the solution of scientific problems. There are numerous examples, and each chapter contains exercises, half of which are sufficient to give the student a firm grasp of the subject." — *Data Processing.*

CONTENTS:

1962. **106 pages.** **$3.95.**

A Guide to COBOL Programming

"The material is presented in a very logical order, and is explained clearly and in a pedagogically sound manner. I heartily commend the informality of the presentation . . . I should very much like to use this text in training programmers under my supervision to use COBOL. I should also like to use it for all data processing applications programmers regardless of the language they may be using as a tool . . . The review exercises and the answers . . . seem to be especially fine. The case study problems used are also good . . . The book held my interest all the way through . . . I like it. I want to use it in my work. I want one of the first copies to come off the press." — *from a pre-publication review.*

CONTENTS:

1963. **181 pages.** **$4.95.**

A comprehensive introduction to the theory, equipment, and methods of . . .

AUTOMATIC DATA PROCESSING

By Dr. Frederick P. Brooks, Jr., IBM Processor Manager, IBM Corporation; and Dr. Kenneth E. Iverson, Thomas J. Watson Research Center, IBM Corporation.

Provides a working knowledge of modern business data processing . . .

Growing out of the course in ADP offered at Harvard since 1955, this book is an elementary, but thorough, comprehensive, and carefully structured introduction to automatic data processing, with particular emphasis on business data processing. Basic mathematical concepts are introduced early, assuming only college algebra. Thereafter, present practice in manual, punched-card, and automatic systems is treated systematically, with illustrations and exercises showing application to business problems.

Special features . . .

- first concise, systematic description of manual procedures and equipment and punched card systems
- use of actual machine (the IBM 650) for thorough discussion of all the important characteristics of modern computers
- thorough treatment of the fundamental properties of various data representations and the specific programming techniques appropriate for each
- classification and characterization of programming systems, illustrated by the actual systems
- precise delineation of sorting and search procedures, with tabulations of parameters and comparisons
- discussion of such special problems as error procedures, checking, reruns, input errors, fraud, printing requirements, debugging, and equipment obsolescence
- scores of complete actual programs, over 200 exercises, and many valuable tabulations

Contents . . .

1963 **494 pages** **6 by 9¼** **$10.75**

John Wiley & Sons, Inc.
605 Third Avenue
New York, N. Y., 10016

The first authoritative report on Russian information-retrieval systems and hardware . . .

ELECTRONIC INFORMATION-LOGIC MACHINES

By L. I. GUTENMAKHER, Director of the Laboratory for Electromodelling, U.S.S.R.

Translated by Rosalind Kent.

Edited by Allen Kent, Director of the Knowledge Availability Systems Center, University of Pittsburgh

Here is a book that is certain to end a great deal of conjecture—and equally certain to start wide controversy. Written by a leading Russian scientist, it deals with memory devices, and the basic principles of their operation.

For the past decade or more the question of the state of information-retrieval systems and hardware in the U.S.S.R. has been the subject of much uninformed and emotional argument. Now, this translation allows American experts to form their own opinions on the extent of Russian progress and "know-how" in this field.

Special features of the book are: —

- a description of the methods by which ordinary information is transformed into "machine language"
- a discussion of the automatic input of information into machine memory—that is, the independent reading of books by machine without human intervention
- an examination of the various aspects of information machines with large memories and their application to the various fields of science and technology

CONTENTS

1963 170 pages $8.00

INTERSCIENCE PUBLISHERS
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Your questions are answered simply and clearly in the first unified study of the underlying concepts, methods, and techniques in this new field . . .

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Chapter Headings . . .

SECTION I. TOOLS. Introduction. The Librarian and Recorded Knowledge. The Documentalist and the Development of New Techniques. The Information Framework and the User. Printed Data and the Creation of a Machine Language. Analysis, Logical Processing and the Computer. Indexes, Documents, and the Storage of Data.

SECTION II. ELEMENTS. Interdisciplinary Character of Information Systems. Elements of Usage. Elements of Organization. Elements of Equipment. Parameters and Implementation.

SECTION III. THEORIES. Role of a Theory. Theories of File Organization. Theories of System Design.

1963. 448 pages. 6 by 9¼. $11.95.

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Betty —
Please make
cc for
- HAYES
- BOURNE
- BORKO

July 17, 1964

Dr. Joseph Becker
5805 Marbury Road
Bethesda, Maryland

Dear Joe:

I have been in and out of the office so frequently that I haven't had a chance to answer your earlier inquiry concerning further specifics relating to the information sciences board.

I am leaving for a two-week vacation now and I would like to ask that you bear with me a little longer until I can get a chance to review the entire situation with a view of discussing this matter with you as spokesman for the group.

Received your note today regarding desirable further promotion of information storage and retrieval and have forwarded this to our Promotion Division.

Hope that you are having a pleasant summer.

Sincerely,

Walker G. Stone, Editor-in-Chief
PROFESSIONAL & REFERENCE BOOK DIVISION

WGS:hjp

January 21, 1964

Mr. Walker Stone
John Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

Dear Walker:

A few random observations:

(1) I have just finished reading Becker & Hayes. I find during the reading that many pages had "double-exposures" (see sample) so bad that the page was illegible. Could you send me another copy so that I can read the missing pages. Thanks.

(2) I have assumed that my book was on the market now and generally available. However, I was told by a friend that he tried to get a copy in New York last week at (1) Barnes Book Store (supposedly one of the largest); (2) Columbia University Book Store; and (3) McGraw-Hill--but they didn't have it or know about it. He finally found a copy at the Wiley warehouse. He posed the question, "Doesn't Wiley market in New York?"

(3) For your information an SRI house publication is enclosed which cites two new Wiley books by SRI authors. My understanding is that this publication has a mailing list of 20,000 or so.

(4) One item of interest to the Information Science series is a series of sets of readings in this field being published by Scarecrow Press. Some background correspondence is enclosed.

Best regards,

Charles P. Bourne
Research Engineer

CPB/rt
Enclosures

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N.Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

January 3, 1964

Mr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Thought you might like to see the enclosed. These are copies of our latest piece of advertising for your book which has just recently been mailed.

Sincerely yours,

George T. Carroll

George T. Carroll
Advertising and Promotion Manager

GTC:rs
Enclosure

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A "must" for technical men, space scientists, and engineers — an essential guide to all available literature in

SPACE SCIENCE AND TECHNOLOGY

An Introductory Guide to Information Sources

By BERNARD M. FRY, *Deputy Head, Office of Science Information Service, National Science Foundation, and* FOSTER E. MOHRHARDT, *Director, National Agricultural Library.*

This first comprehensive bibliographic survey and guide to information sources in missile and space fields will prove of incalculable value to —

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- Administrators and technical people with responsibility for space projects
- College and university students in aeronautics, astronautics, electronics, physics, chemistry, and other fields contributory to space science and technology
- Research and special libraries
- Informed laymen with interest in space programs, their early development and current progress.

Of special interest . . . the chapter on Soviet astronautics describes how the Soviets have managed to score heavily over the past five years in developing their missiles and rockets and space exploration programs. This survey brings together the various aspects of the Soviet effort, from rocket bases and installations to "missile diplomacy," and presents a well-rounded picture of Soviet activities and achievements in the missile-space field.

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4657

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605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

December 12, 1963

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Our Marketing Division is well aware that certain books are equipped with catalog cards. This is a very expensive process and we have been studying the problem for sometime. At the moment this job is being carried out primarily by book sellers. Stacey on the West Coast is certainly one who has effectively used it.

Many thanks for calling this article to our attention and making this recommendation to us.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh

STANFORD RESEARCH INSTITUTE

To: Charles P. Bourne

From: Chuck Scarlott – Ext. 3033 – Bldg. C117

Here is a copy of an announcement about your book, which we would like to include in the Jan.-Feb. issue of Research for Industry.

Please let me have your comments on this or any corrections, as soon as you can.

CAS:b
Enc.

Fine, thanks.
Jon

P.S. How many subscribers to R for I?
about 29000 are printed
" 27000 are distributed to a list of names

May 8, 1963

Mr. Kenneth Brown
John Wiley & Sons, Inc.
Kirkeby Center
10889 Wilshire Boulevard
Suite 475
Los Angeles 24, California

Dear Ken:

Here are my reactions to the manuscript of Dave Robbins on INFORMATION DISPLAY SYSTEMS.

I definitely would not publish this work as part of the Wiely series on information sciences. My specific criticisms are noted as follows:

(1) There is insufficient amount of appropriate or original material for a scientific or professional textbook. Of all the material in the report, the parts that I feel might be appropriate (sections 1, 5, 6, and 7a) total 230 pages including 120 illustrations and 20 tables. The text material is typed double spaced. Where is the substantive text material? Section 4 (description of the L systems) is inappropriate in this type of text. Robbins has served as a good reporter but has not provided any further evaluation, judgement, or comments to augment and enhance this basic collection of equipment characteristics.

(2) A good fraction of the main part of this report (section 5, state-of-the-art survey) seems to have been lifted from the February, April, and June 1960 issues of Control Engineering--without acknowledgment. Section 7b (Display System Design) is 28 pages of verbatim reprint of an Air Force technical guide written for potential Air Force display contractors.

(3) The complete operating descriptions of the military systems (NORAD, DODDAC) would seem to have a limited value in book form.

(4) The report is fairly well written as a report, but would require extensive re-writing as a book. It reads much like a catalogue with much jumping back and forth from sections. It does provide a fairly accurate and up-to-date record of the state of the art. However, there is very little information given to describe what is actually in operation and what their success has been.

(5) It has a very weak bibliography with none of the entries tied to appropriate points in the text to serve as supporting evidence.

I hope these comments will be useful to you. If you have to make some arrangement with Robbins, I would suggest that it be on a provisional basis so that you could see a draft of any proposed text before we committed the manuscript to the series.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt

May 15, 1963

Mrs. Lucille Zener
Editorial Division
Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

Daar Mrs. Zener:

Here is the unedited Prefare and Dedication for my manuscript. They may need some of your careful attention.

As you probably noted, Fig. 7-18 was dropped. It was redundant, and I hadn't been able to get good original copy for the illustration.

I have completed some of the footnote references since I sent the draft back to you, and I am holding them to insert into the galley proof unless you think it would be worthwhile to send them in now.

I have not been able to find out any information about the mechanics of getting a library card to include with the book, but presumably your production people have already been looking into this.

Best wishes,

Charles P. Bourne
Research Engineer

CPB/rt
Enclosures

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

May 8, 1963

Dr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

I wish to acknowledge safe receipt of the manuscript and cut copy for your METHODS OF INFORMATION HANDLING, which you returned after check of editing.

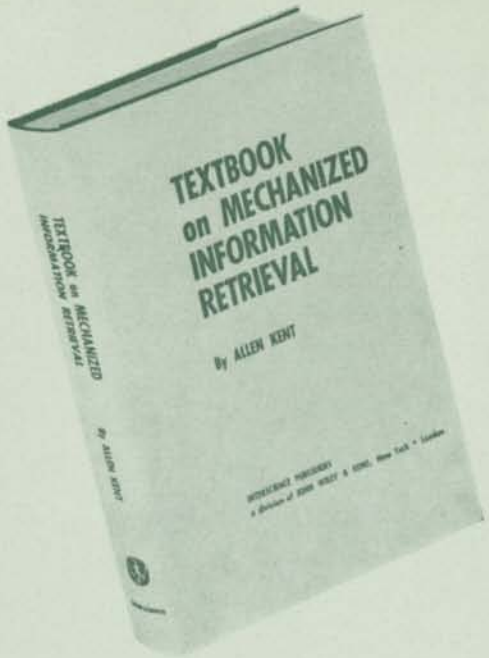
Sincerely yours,

Valda Aldzeris

Valda Aldzeris
PRODUCTION DIVISION

va/s

Designed for both classroom use and self-study . . .



1962 268 pages 6 by 9¼ Illus. $9.50

Assumes no prior knowledge of the field . . .

Here is the first book specifically designed to *teach* machine literature searching. In recent years, progress in applying computers to library science has moved ahead rapidly; through this book, readers with little or no training in the field can take full advantage of this progress. Using precise, clear-cut terms, the work defines the basic principles and techniques of mechanized information retrieval — and shows how to apply them in any type of organizational setting. As a result, it provides a sound basis for comparing various retrieval systems, for evaluating available procedures and equipment, and — most important — for developing information-retrieval systems that will meet specific needs and requirements effectively.

Emphasizes unit operations . . .

The book presents the field in terms of the unit operations it involves. Each unit operation is considered first from a fundamental point of view (i.e., what it is supposed to accomplish) and then from the viewpoint of machine methods and their applications and implications. Although the machines themselves are discussed throughout, primary emphasis is placed on retrieval systems and on human functions of these systems. The book includes a valuable chapter on Codes, in which fundamental considerations are explained in language which can be readily understood by readers new to the field.

TEXTBOOK ON MECHANIZED INFORMATION RETRIEVAL

By ALLEN KENT, *Associate Director, Center for Documentation and Communication Research, School of Library Science, Western Reserve University.*

Contains a wealth of teaching aids . . .

The author has written his book not only for the student of library science but also for the scientist, administrator, and librarian who wishes to master the subject through self-study. To aid understanding, he has used the traditional approaches and unit operations of librarianship as the basis for developing and explaining the principles and techniques of mechanized information retrieval. In addition, he has included a valuable appendix, which contains recommended reading lists, classroom exercises, course outlines, suggestions for field trips and use of audio-visual material, and a sample final examination.

Contents . . .

INTERSCIENCE PUBLISHERS
a division of JOHN WILEY & SONS, Inc.

WG-JV-3321

440 Park Avenue South, New York 16, N. Y.

PRINTED IN U.S.A.

About the author . . .

Allen Kent is Associate Director of the Center for Documentation and Communication Research and Professor of Library Science at Western Reserve University. Before coming to Western Reserve in 1955, he served for two years as Principal Documentation Engineer at the Battelle Memorial Institute. The author or co-author of 12 books and over 100 papers, he has lectured extensively on documentation not only in this country but also in Western Europe, Latin America, and the U.S.S.R.

Mr. Kent holds a B.S. in chemistry from City College of New York. During World War II, he served as a chemist with the Chemical Warfare Service and later as an analyst with the Air Documents Research Office of the U.S. Air Force. From 1946 to 1947, he was associated with Essex Chemicals, from 1947 to 1950 as Associate Editor of Interscience Publishers, and from 1951 to 1953 he was research associate at M.I.T.

The author has been Chairman of both the Advisory Council and the Committee on Special Classifications of the Special Libraries Association. In addition, he has been Chairman of the Committee on Chemical Documentation of the American Chemical Society's Division of Chemical Literature. He is General Secretary of the International Continuation Committee on Information Retrieval and Machine Translation.

The first authoritative report on Russian information-retrieval systems and hardware . . .

ELECTRONIC INFORMATION-LOGIC MACHINES

By L. I. GUTENMAKHER, Director of the Laboratory for Electromodelling, U.S.S.R.

Translated by Rosalind Kent.

Edited by Allen Kent, Director of the Knowledge Availability Systems Center, University of Pittsburgh

Here is a book that is certain to end a great deal of conjecture—and equally certain to start wide controversy. Written by a leading Russian scientist, it deals with memory devices, and the basic principles of their operation.

For the past decade or more the question of the state of information-retrieval systems and hardware in the U.S.S.R. has been the subject of much uninformed and emotional argument. Now, this translation allows American experts to form their own opinions on the extent of Russian progress and "know-how" in this field.

Special features of the book are: —

- a description of the methods by which ordinary information is transformed into "machine language"
- a discussion of the automatic input of information into machine memory—that is, the independent reading of books by machine without human intervention
- an examination of the various aspects of information machines with large memories and their application to the various fields of science and technology

CONTENTS

1963 170 pages $8.00

INTERSCIENCE PUBLISHERS

A Division of John Wiley & Sons, Inc. 605 Third Avenue New York, N. Y., 10016

PP-5042

Read this important new work, by one of the pioneers in the field of digital computers, for . . .

- a good working knowledge of how a computer operates
- a thorough understanding of the nature and difficulty and current state of the art of programming
- a basic comprehension of the operation and design of computer circuits
- a practical understanding of the variety of ways in which each functional entity (i.e., arithmetic unit, store, control, input/output) can be organized and implemented
- an appreciation of the reliability problem in computer design
- an appreciation of the reliability problem as the user can influence it

DIGITAL COMPUTER TECHNOLOGY and DESIGN

VOLUME I: Mathematical Topics, Principles of Operation, and Programming

VOLUME II: Circuits and Machine Design

By WILLIS H. WARE, *The RAND Corporation; and Lecturer, University of California, Los Angeles.*

This complete presentation of the digital computer from the designer's point-of-view brings you to the frontiers of today's computer technology. Starting with basic principles of digital computer operation, Dr. Ware proceeds through a discussion of the operation and design of fundamental electronic circuits, and concludes with a discussion of machine organizational principles. Necessary background mathematical topics and fundamentals of programming are also presented in a careful, logical manner.

Emphasizes range of possibilities in internal organization . . .

Throughout the work, the author has described the typical situation and then pointed out the wide variety of other ways in which it has been or might be done. Examples are used liberally to illustrate points and to amplify the discussion. All items of concern to a machine designer are presented in sufficient depth to equip you with insight, appreciation, and judgment that will enable you to deal with actual problems at hand.

Circuit discussion applicable to either tube or transistor . . .

In his presentation of circuits, Dr. Ware employs a generalized "device" which is neither tube nor transistor, but exhibits a set of properties much like either. Hence, whether you use either element, the circuit discussions are equally meaningful and applicable. Specific details for the transistor and tube circuits are also presented.

Exercises and problems are included at the end of each chapter so that you may check and extrapolate your understanding at every step of the development. An extensive collateral reading list directs you to supplementary information on any given topic.

Chapter Headings — Volume I

The Digital Computer — I. Information Codes. Logical Calculus. The Digital Computer — II. Programming. Reliability (Part I).

Chapter Headings — Volume II

Reliability (Part II). Toggle Circuits. Gates. Miscellaneous Circuits. Arithmetic Section. The Store. Control. Input-Output. Generalities.

Volume I:	**1963.**	**245 pages.**	**Illus.**	**6 by 9¼.**	**$7.95.**
Volume II:	**1963.**	**560 pages.**	**Illus.**	**6 by 9¼.**	**$11.75.**

Send today for your on-approval copies.

Applies repetitive computation to a whole new range of problems . . .

HIGH SPEED ANALOG COMPUTERS

By Rajko Tomovic, *University of Belgrade, Belgrade, Yugoslavia; and* Walter J. Karplus, *Associate Professor, Department of Engineering, University of California, Los Angeles.*

1962
255 pages
6 by 9¼
$9.95

Allies theory with applications . . .

This book presents the theoretical fundamentals relative to analog computation, both repetitive and one-shot, as the basis for a detailed discussion of high speed computers. The major components of repetitive differential analyzers are surveyed as well as their applications.

Outlines the many uses of repetitive computers . . .

The mathematical approach utilized in this book is relatively sophisticated but compatible with the wide range of problems that can be solved with repetitive analog computers. It is shown that these computers (with an immediate display of solution) can solve differential equations, conformal mapping problems, roots of polynomials, integral equations, partial differential equations, and statistical problems.

Presents original sources . . .

Russian and European literature on the subject is presented for the first time in English. Much of this literature has been inaccessible to most workers in the field prior to the publication of this book.

From the Preface . . .

"The primary purpose of this book is to introduce the reader to the electronic devices and circuits which combine to constitute a repetitive computer facility, as well as to survey applications of repetitive analog computers to engineering problems. . . . Because of the relatively advanced nature of the text, it appeared appropriate to include also a considerable amount of material that is pertinent to the entire analog computing field but which is generally omitted from introductory texts. Such topics as computer programming, error analysis, and scaling are treated in terms of the relation of these topics to fundamental mathematical disciplines. This presentation is intended to supplement rather than to replace the more 'practical' treatments of these subjects in introductory texts. . . . Particular emphasis is placed throughout on contributions of European investigators whose work is normally not available to all readers. For example, the work of the Russians, Bihovski and Tihonof in error analysis is considered in some detail."

CONTENTS:

Here is THE introductory guide to . . .

PROGRAMMING AND CODING DIGITAL COMPUTERS

By PHILIP M. SHERMAN, *Bell Telephone Laboratories Incorporated, New Jersey*

Proceeds from fundamentals . . .

This book leads the reader from the basic characteristics, structure, and language of the digital computer, through the details involved in coding, to an understanding of the complete programming task. Yet it assumes no prior knowledge of the field and requires no special mathematical training other than a working knowledge of algebra.

Offers numerous examples . . .

The book gives many examples that clarify the fundamentals of programming and coding. These examples are presented in terms of a hypothetical computer, similar in structure to current large-scale computers such as the IBM 7090 and 7094 computers.

Special features . . .

- A detailed exposition of a symbolic machine coding language including an explanation of the steps in the assembly of a program
- A chapter – Program Planning – covering such topics as choices in program emphasis, storage allocation, and program relocation
- A study of macro-instructions, with many pseudo-operations used for simulation and specialized program tasks
- A fully coded simple interpreter program
- Inclusion of non-numerical problems and techniques for their solution; description of list techniques
- Thorough treatment of flowcharting and problem analysis; methods for sequencing through a program in memory; branching and switching in a program
- In a chapter on Input-output, coverage of monitor programs, data formats, and the use of magnetic tapes
- Explanation of FORTRAN and ALGOL, illustrated with examples

Contents . . .

1963 *444 pages* *6¾ by 9⅝* *$11.00*

A guided tour through programming and data processing . . .

Your host: **Daniel D. McCracken, *McCracken Associates, Inc.***

A Guide to IBM 1401 Programming

Now — through this book — you can teach *yourself* the principles of programming and the basic concepts of electronic data processing of the IBM 1401. You learn not only what data processing is all about, but how to express a problem-solving procedure in one of several languages for the 1401, and all the basic principles of programming as applied to the 1401.

"*A Guide to IBM 1401 Programming* can be recommended as a good general introduction to its subject for someone who has little background in programming or computers." — *Automatic Data Processing Service Newsletter.*

CONTENTS:

The Nature of Data Processing. Introduction to Computing Equipment. Coding Fundamentals. Symbolic Programming. Branching. Address Modification and Loops. Miscellaneous Operations. Magnetic Tape Operations. Random Access File Storage. Planning and Installing a Computer Application. Additional Programming Methods. Appendices. Glossary. Bibliography. Answers to Selected Exercises. Index.

1962. **199 pages.** **$5.75.**

A Guide to FORTRAN Programming

FORTRAN is a procedure-stating computer language that is very similar to ordinary mathematical notation. It is widely used today because it is efficient and because it permits anyone to solve scientific and engineering problems with a computer — no matter how limited his understanding of the computer itself and its operation.

"This guide should be considered an essential tool for all technical men who have not yet been exposed to the use of computers for solution of problems in the scientific and engineering fields." — *Journal of Machine Accounting.*

CONTENTS:

Introduction: How to Use This Book Effectively. Constants. Variables, and Expressions. Arithmetic Statements; Functions. Input and Output Statements. Transfer of Control. Subscripted Variables. The DO Statement. Further Information on Input and Output Statements. The FORMAT Statement. Functions and Specification Statements. Case Studies. APPENDICES: 1) Relation to Actual FORTRAN-type Compilers: IBM 1620 FORTRAN; IBM 1620 GO-TRAN; IBM 650 FORTRAN; IBM 650 FOR TRANSIT; IBM 705 FORTRAN; IBM 7070 FORTRAN; IBM 704/-709/7090 FORTRAN; Honeywell Algebraic Computer; Philco 2000 ALTAC; Control Data Corporation 1604. 2) Statement Sequencing and Punctuation.

1961. **88 pages.** **$2.95.**

A Guide to ALGOL Programming

"Designed for home study or a short class, this book presents an organized approach to learning and using ALGOL, the international compiler language for the solution of scientific problems. There are numerous examples, and each chapter contains exercises, half of which are sufficient to give the student a firm grasp of the subject." — *Data Processing.*

CONTENTS:

Introduction: How to Use This Book Effectively. Computers, Algorithms, and ALGOL. Numbers, Variables, and Expressions. Program Organization, if-Statements, and Boolean Variables. The for-Statement. Subscripted Variables. Switches and Blocks. Procedures. Input and Output. Answers to Selected Exercises. Index.

1962. **106 pages.** **$3.95.**

A Guide to COBOL Programming

"The material is presented in a very logical order, and is explained clearly and in a pedagogically sound manner. I heartily commend the informality of the presentation . . . I should very much like to use this text in training programmers under my supervision to use COBOL. I should also like to use it for all data processing applications programmers regardless of the language they may be using as a tool . . . The review exercises and the answers . . . seem to be especially fine. The case study problems used are also good . . . The book held my interest all the way through . . . I like it. I want to use it in my work. I want one of the first copies to come off the press." — *from a pre-publication review.*

CONTENTS:

Electronic Data Processing and COBOL Computer and Punched Card Equipment. The PROCEDURE DIVISION. Case Study 1: Sales Statistics. The DATA DIVISION. The ENVIRONMENT and IDENTIFICATION DIVISIONS. Case Study 2: Inventory Control. Additional PROCEDURE DIVISION Features. Object Program Efficiency. Case study 3: Payroll — System Design to Startup.

1963. **181 pages.** **$4.95.**

Presents and applies a programming language that is consistent and universal . . .

A PROGRAMMING LANGUAGE

By KENNETH E. IVERSON
IBM Research Center

The central thesis of this book is that the descriptive and analytic power of an adequate programming language amply repays the considerable effort required for its mastery. This thesis is developed by first presenting the entire language and then applying it to several major topics.

THE LANGUAGE . . .

Although the language is new, it relies heavily on existing mathematical notations, uniting in a consistent and manageable whole the notations of such diverse fields as symbolic logic, number theory, matrix algebra, set theory, and graph theory. The language is problem-oriented, having developed in six years of use and revision in a variety of areas including sorting, matrix algebra, linear programming, symbolic logic, computer organization, automatic programming, language translation, and trees. The entire language is summarized for reference in a ten-page appendix.

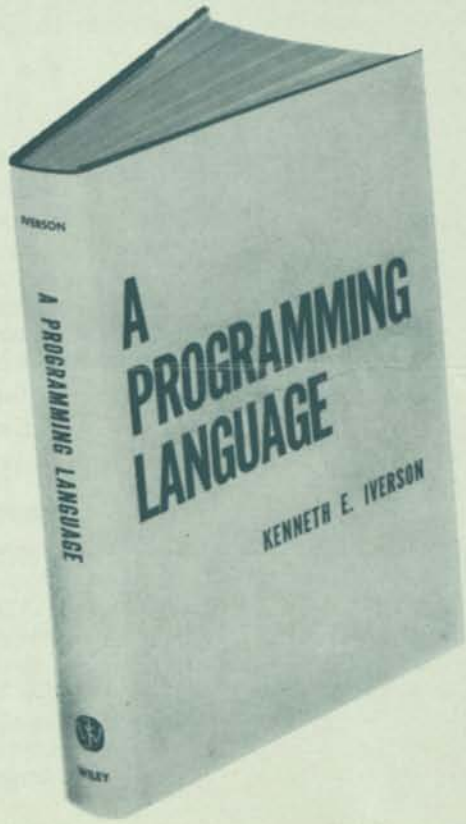
THE APPLICATIONS . . .

The areas of application are chosen primarily for their intrinsic interest and lack of previous treatment. Secondarily, they serve to illustrate various facets of the language, its universality and divisibility, its capacity to compass a complex and detailed topic in a short space, and its utility in theoretical work.

The book provides a broad introduction to the computer arts, having developed as a graduate course in Automatic Data Processing offered at Harvard. It is also relevant to courses in computer design, in automatic programming, and in many branches of mathematics such as matrix algebra, operations research, and symbolic logic. The exercises are numerous, significant, and tested.

1962 **286 pages**
6 by 9¼
$8.95 **Illus.**

CHAPTER HEADINGS . . .



JOHN WILEY & SONS, Inc. 605 Third Avenue, New York, N. Y., 10016

December 4, 1963

Mr. Walker G. Stone
Editor-in-Chief
The Professional and Reference Department
John Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

Dear Walker:

In my capacity as Editor of the Literature Notes Section of American Documentation, I have asked Mrs. Lea Bohnert to review the Becker-Hayes book. Her response on the attached post card suggests that she could use a complimentary review copy. Could you send it to her at her address?

Thank you.

Sincerely yours,

Charles P. Bourne, Editor
Literature Notes Section
American Documentation
c/o Stanford Research Institute
Menlo Park, California

CPB/na
Attachment

Home address:
L. M. Bohnert
Apt. 240
1500 Mass Ave.,N.W.
Wash., D. C. 20005

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

May 23, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

I have just received a schedule from the printer who will be setting your manuscript METHODS OF INFORMATION HANDLING into type. On the basis of his schedule, I have set up the following tentative schedule for you:

First galley proofs will leave	6/ 6
Last galley proofs will leave	6/20
You return last corrected galley proofs	7/10
We send last page proofs	8/20 — complete set of page proofs received 7 days
You return last corrected page proofs	9/ 5
Your index manuscript is due	9/12 - rec'd 9/5
We send proofs of your index	9/27
You return corrected index proofs	10/ 3

If you are able to meet these dates, we expect to publish your book on October 31st. As this schedule indicates, galley and page proofs will be forwarded in groups over a period of several weeks. I suggest you return them in groups rather than waiting until you have read all proofs.

If you feel that my allowances for your share of the work are not adequate, please let me know about it. In the meantime, thank you for your cooperation in this matter.

answered 6/C 28 May 63

Very truly yours,

Bernard Scheier

Bernard Scheier
PRODUCTION DIVISION

BS:smk

September 5, 1963

Mrs. Carolyn Siever
Staff Editor
Production Department
John Wiley & Sons
605 Third Avenue
New York 16, New York

Dear Mrs. Sieven:

Here is the index for Methods of Information Handling. It is in three pieces: (1) List of Acronyms and Abbreviations; (2) Index to Names of Persons and Organizations; (3) Subject Index. It should be printed in that order.

This completes the material for this manuscript.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

J. S. BARNES, JR., VICE PRESIDENT

September 12, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

We have assembled all of our manufacturing costs for METHODS OF INFORMATION HANDLING, and after consultation with both Editorial and Marketing, we have decided to establish the final price of $12.95 per copy.

Sincerely yours,

J. S. Barnes
Vice President

JSB:en

HOW *Wiley* WILL SELL YOUR BOOK

August 23, 1963

SUGGESTED PROMOTION FOR:

BOURNE
Methods of Information Handling
1st Ed.

DIRECT MAIL

MINIMUM TOTAL CIRCULATION TO BE REACHED BY DIRECT MAIL WITHIN 6 MONTHS AFTER PUBLICATION..... 503,350

We will mail a one-page 8 1/2 by 11 circular on the book to a list of individuals in the field of Information Retrieval and to a list of Special Libraries. A one-page 8 1/2 by 11 circular will be mailed to a list of Data Processing Engineers. We will also mail a one-page 8 1/2 by 11 circular to a list of College Libraries. The book will be included in group circulars to our entire Engineering list, to a list of Business Administrators, to a list of Data Processing Engineers, and to a list of professors and instructors of Electrical Engineering.

Special Libraries Assoc.? ADI list?

As soon after publication as possible we will mail Library File Cards to Libraries in Liberal Arts Colleges, Libraries in Schools of Technology, Libraries in Schools of Business Administration, Foreign Societies, Foreign Bookstores, Foreign Libraries, Foreign College Libraries, and Industrial Libraries.

Your book will be included in group mailing pieces going to both domestic and foreign bookstores.

JOURNAL ADVERTISING

MINIMUM TOTAL CIRCULATION TO BE REACHED BY JOURNAL ADVERTISING..... 108,826

We will advertise your book along with other books in the October issues of Communications of the Association for Computing Machinery, and American Documentation (1/3 of one-page ad); in the November issue of Library Journal; and in future issues of Administrative Management, and Datamation.

TOTAL.. 612,176

ADDITIONAL PROMOTION

We will distribute complimentary copies of the book, divided between interested teachers and appropriate journals. Your book will also receive intensive promotion by our large staff of field representatives.

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

August 23, 1963.

Mr. Charles Bourne
Stanford Research Institute
Menlo Park, Calif.

Dear Mr. Bourne:

Enclosed is a draft of our initial promotional plans for your book "Methods of Information Handling", designed to launch the book to a successful start. Naturally, at this time the plans are only tentative, and may require adjustment, due to change in the publication date, or early journal closings.

As you will note, the plans do not include promotion in Great Britain and Europe. This is handled by our London office and not here.

Your comments and suggestions will be welcome, should you wish to offer them.

Very sincerely yours,

Clotilda Lowell

Clotilda Lowell
Assistant Promotion Manager.

CL/dn

Enclosure

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

August 13, 1963

Dr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

Mrs. Zener is no longer with John Wiley and Sons, and I have taken over your book. In answer to your letter of August 9, I have noted the following.

Figure 2-1 should have had two parts, but somewhere the figure for the human engineering card was omitted. I have looked the chapter over carefully, and there is no way of inserting the missing part without renumbering the whole book, which would be very expensive and time consuming. If it will suffice, even a little, to leave it as is, with the wording changed to compensate for the missing figure, I will do this. I will have revises made of the page so you can see if I have made the proper changes.

I have asked for revises for pages 47-49 so you can see the final makeup.

Figure 5-9 has been reset to fit all on one page.

OK You will see front matter proof in approximately three weeks. This was sent to the printer for composition today.

Mr. Scheier has written to you concerning the book's library catalog card.

I hope this answers all your questions to date.

Sincerely yours,

Carolyn Sieven

(Mrs.) Carolyn Sieven
Staff Editor
PRODUCTION DEPARTMENT

cs/

14 Aug 63
Could you use both cards, but return them (perhaps overlap them) so that they take the same space as used now by the single card?

C P Bourne

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

August 8, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Mr. McNeish has asked me to reply to your letter, wherein you inquired about the possibility of including a library card in your forthcoming book METHODS OF INFORMATION HANDLING.

After considerable research and investigation, I have learned that the Library of Congress discontinued their service of "Cataloguing in Source", in February of 1960. Actually, the project was initiated as an experimental one, with the knowledge that it would be abandoned at a later date. The people at the Library Journal have informed me that no other organization performs this function. They have explained that it would be best to simply include a catalogue card number.

You of course know, that all books published by our company include a Library of Congress Catalogue Card Number. Your book will be no exception.

Thank you for your interest.

Sincerely yours,

Bernard Scheier

Bernard Scheier
PRODUCTION DIVISION

BS:smk

August 9, 1963

Mrs. Zener
Production Division
John Wiley & Sons
605 Third Avenue
New York 16, New York

Dear Mrs. Zener:

1. In Fig. 2-1 (pg. 16 of page proof) I seem to recall that two cards were to be shown: one for display and one for human engineering. The present proof shows only one card. It seems that we have two choices.

   a) Let it go as is. (Then line 8 of the 1st column of page 16 should be changed to explain what is really shown in Fig. 2-1. The next sentence should also be modified. And the caption should be changed to singular form.)

   b) Show both cards in the figure. (This requires a change in the figure, and I prefer this route.)

   In any case, the top of the card(s) should have a label, display or human engineering.

2. Will I get to see the final makeup of pages 47-49 before printing?

3. I don't have any reason to split Fig. 5-9 between two pages (88-89) with text in between. Can 5-9g and 5-9h be included with the rest of 5-9?

4. When will I see the front matter (preface, acknowledgement, etc.)?

5. What has been done to get a copy of this book's library catalog card printed with the book?

6. I'm working on the index now.

7. It looks good.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt
Enclosure

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

July 23, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

This is to advise you that the first page proof of your book METHODS OF INFORMATION HANDLING will leave our office on August 6th, with the remaining pages leaving August 19th.

I hope this information will prove of value in planning your time.

Sincerely yours,

Bernard Scheier

Bernard Scheier
PRODUCTION DIVISION

BS:smk

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

May 23, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Mrs. Zener has shown me your letter of May 15th in which you inquired about our plans for including a library card in the book. Frankly, I had been under the impression that you were going to let us know how to go about obtaining the library cards. I believe you told me that these cards are actually printed by the Library of Congress and that our problem was to attend to having them inserted in the bound book. I have made no inquiries to the Library Congress because I honestly wouldn't even know what to ask for. We certainly will need some help from you if these cards are to be included.

Sincerely yours,

James A. McNeish
Manager
PRODUCTION DIVISION

JAM:gl

2 approaches: 1) include ~~an imprint of~~ an actual copy of a card in the book (an approach that I have never seen, personally)
2) " an imprint of a card in the book
3) " just a note of what the LC catalog card no. is

I feel best to do 1st - but more difficult on your part. If it's too cumbersome then perhaps we could settle on the 2nd alternative. I have enclosed a reprint of several ~~papers~~ articles that describe this process as it was used a few years ago. ~~I am not sure what~~ I don't know whether they still provide this service or not, but I would suggest that you phone Mr. ... —— the author of one of the enclosed articles, & an early participant in this program.

Best wishes
CPB

May 28, 1963

Mr. James A. McNeish
Manager
Production Division
John Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

Dear Mr. McNeish:

Thank you for your letter regarding the inclusion of a library card in our forthcoming book. Three approaches come to mind for including this kind of information in the book:

(1) Include an actual copy of a card in the book (an approach that I have never seen personally).

(2) Include a reprint of a card in the book.

(3) Include just the number of the LC catalog card.

I feel that the first approach would be the best one, but perhaps the most difficult one for you to implement. If this approach would be too cumbersome then perhaps we can settle on the second alternative.

I have enclosed a reprint of several articles that describe this cataloging in source process as it was used a few years ago. I don't know whether or not the Library of Congress still provides this service, but I would suggest that you phone Mr. C. Sumner Spalding, Chief, Descriptive Cataloging Division, Library of Congress, the author of one of the included articles and an early participant in this program, in order to get more up-to-date information.

Inf. Ret. & Tech. Services Fall 1959 Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt
Enclosure

JOHN WILEY & SONS, INC. – INTERSCIENCE PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

November 11, 1963

Dr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Charlie:

Your fine contribution, METHODS OF INFORMATION HANDLING, should be in your hands by this date or within a few days. The physical product appeals to me and, of course, I hope you will like it too. A complimentary copy is, of course, also going forward to each member of the Advisory Board. Now we would like to sell this work of yours in large quantities and our Marketing Division has assured me they will devote all their energies to doing so.

If you are planning to attend the Computer meeting at Las Vegas, I shall look forward to seeing you and celebrating the publication of your book.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
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Nov. 11, 1963

mil. arrived
Nov. 18

Mr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Under separate cover we are returning all the phototraphs, drawings and original copy for the illustrations which appeared in your book, just published.

May we ask you to please file this material away for posible future use.

Very truly yours,

Victoria Reuscher
ILLUSTRATION DEPARTMENT

Your questions are answered simply and clearly in the first unified study of the underlying concepts, methods, and techniques in this new field . . .

INFORMATION STORAGE AND RETRIEVAL: TOOLS, ELEMENTS, THEORIES

By JOSEPH BECKER, Data Processing and Library Consultant and ROBERT M. HAYES, Advanced Information Systems, Inc.

A truly "inter-disciplinary" study . . .

This book draws together from many fields diverse contributions to the common problem of providing capability to meet today's growing demand for effective information systems. It makes readily available the pertinent work of librarians, documentalists, mathematicians, systems designers, equipment manufacturers, operations researchers, and computer programmers. Whether you are a worker active in one of these fields or a newcomer, you will find Becker and Hayes' careful presentation a road map to guide you through the maze of development that has characterized the early growth of this field. Their book provides insight into the contribution that each type of background can best make, the tools and techniques that each offers, and how they fit together in the solution of any job. If you want to grasp subject matter, organize your own thinking on current problems, draw abreast of the field, or equip yourself to interpret future developments, this is the book to read and reread.

First six chapters provide grounding . . .

The book begins with a clear description of the present state of work in information storage and retrieval. This section covers the contribution that people with operating experience have made, describes the various systems for organization that have been proposed and developed, and describes the broad range of equipment that can be used. In this way the individual with experience in a single area can be quickly brought up to date on the work being performed in the others.

. . . then comes analysis . . .

The next main section provides an analysis of all of this work within the framework of the total problem of designing, developing, and implementing a given system. The analysis shows what the main areas of difficulty are and what the relationship is among those concerned with their solution. It thus demonstrates how the tools and techniques of each group can be brought to bear on the development of a particular information system.

. . . then a theoretical foundation . . .

In the final section the authors offer a theoretical foundation upon which the information system design can be built. Here the mathematical tools are developed that relate quantitatively the results from each of the contributing groups.

Chapter Headings . . .

1963. 448 pages. 6 by 9¼. $11.95.

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GHG-4503

THE AUTHORS of **Information Storage and Retrieval: Tools, Elements, Theories** meld the diversified experience so characteristic of this expanding field. One is a librarian with an engineering education; the other is a mathematician with systems and equipment experience. Their joint effort has provided fresh insight into the rewards of cooperative effort among workers of sharply differing interests and experience.

Joseph Becker is an expert in library automation and the mechanization of information processes. He has had extensive experience in the management of large mechanized files in the federal government in Washington, D. C., where he is now Data Processing Consultant for the American Library Association. During the Seattle World's Fair, Mr. Becker directed the distinguished A.L.A. exhibit known as *Library 21*. This exhibit occupied 10,000 square feet and featured the first demonstration of the integration of electronic computers and other machines into a library environment of books.

Mr. Becker graduated with a bachelor's degree in aeronautical engineering from the Polytechnic Institute of Brooklyn and, some years later, earned a master's degree in Library Science from Catholic University of America. He gained his early experience as librarian at the New York Public Library. From 1958 to 1960 Mr. Becker was Research Fellow at the Western Data Processing Center at the University of California at Los Angeles.

In addition to his work for A.L.A., Mr. Becker has lectured and written several articles on the non-numerical uses of computers. Mr. Becker is a member of the Association for Computing Machinery and is actively involved in professional publishing.

Robert M. Hayes received his Ph.D. in mathematics from the University of California at Los Angeles, where he also did his undergraduate work and earned his membership in Phi Beta Kappa. He has been teaching, doing research, and solving problems in the field of information storage and retrieval for many years. In addition, his experience covers many other phases of modern information systems research and development.

Dr. Hayes has worked for the National Bureau of Standards, Hughes Aircraft Company, National Cash Register, and The Magnavox Company. For many years he has also been a lecturer on the mathematics faculty and in the Library School of UCLA where he has presented upper-level and graduate courses in information storage and retrieval, advanced numerical analysis, and data processing in general. He has also presented similar courses at the American University in Washington, D. C., and at the University of Washington in Seattle.

Dr. Hayes is President of the American Documentation Institute, a member of many professional societies, and holds editorial posts on two major professional journals.

What is the present status of information system design?

What are the common principles underlying the many different approaches in this field?

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What is the technical and intellectual environment of the mushrooming field of information science?

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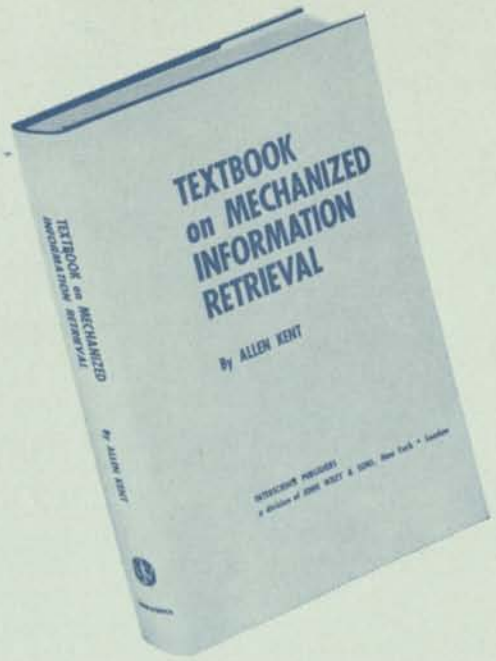

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Assumes no prior knowledge of the field . . .

Here is the first book specifically designed to *teach* machine literature searching. In recent years, progress in applying computers to library science has moved ahead rapidly; through this book, readers with little or no training in the field can take full advantage of this progress. Using precise, clear-cut terms, the work defines the basic principles and techniques of mechanized information retrieval — and shows how to apply them in any type of organizational setting. As a result, it provides a sound basis for comparing various retrieval systems, for evaluating available procedures and equipment, and — most important — for developing information-retrieval systems that will meet specific needs and requirements effectively.

Emphasizes unit operations . . .

The book presents the field in terms of the unit operations it involves. Each unit operation is considered first from a fundamental point of view (i.e., what it is supposed to accomplish) and then from the viewpoint of machine methods and their applications and implications. Although the machines themselves are discussed throughout, primary emphasis is placed on retrieval systems and on human functions of these systems. The book includes a valuable chapter on Codes, in which fundamental considerations are explained in language which can be readily understood by readers new to the field.

TEXTBOOK ON MECHANIZED INFORMATION RETRIEVAL

By ALLEN KENT, *Director,*
Knowledge Availability Systems Center,
University of Pittsburgh.

Contains a wealth of teaching aids . . .

The author has written his book not only for the student of library science but also for the scientist, administrator, and librarian who wishes to master the subject through self-study. To aid understanding, he has used the traditional approaches and unit operations of librarianship as the basis for developing and explaining the principles and techniques of mechanized information retrieval. In addition, he has included a valuable appendix, which contains recommended reading lists, classroom exercises, course outlines, suggestions for field trips and use of audio-visual material, and a sample final examination.

Contents . . .

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About the author . . .

Allen Kent is Associate Director of the Center for Documentation and Communication Research and Professor of Library Science at Western Reserve University. Before coming to Western Reserve in 1955, he served for two years as Principal Documentation Engineer at the Battelle Memorial Institute. The author or co-author of 12 books and over 100 papers, he has lectured extensively on documentation not only in this country but also in Western Europe, Latin America, and the U.S.S.R.

Mr. Kent holds a B.S. in chemistry from City College of New York. During World War II, he served as a chemist with the Chemical Warfare Service and later as an analyst with the Air Documents Research Office of the U.S. Air Force. From 1946 to 1947, he was associated with Essex Chemicals, from 1947 to 1950 as Associate Editor of Interscience Publishers, and from 1951 to 1953 he was research associate at M.I.T.

The author has been Chairman of both the Advisory Council and the Committee on Special Classifications of the Special Libraries Association. In addition, he has been Chairman of the Committee on Chemical Documentation of the American Chemical Society's Division of Chemical Literature. He is General Secretary of the International Continuation Committee on Information Retrieval and Machine Translation.

Offers the first systematic introduction to machine literature searching . . .

TEXTBOOK ON MECHANIZED INFORMATION RETRIEVAL

By Allen Kent

The first authoritative report on Russian information-retrieval systems and hardware . . .

ELECTRONIC INFORMATION-LOGIC MACHINES

By L. I. GUTENMAKHER, Director of the Laboratory for Electromodelling, U.S.S.R.

Translated by Rosalind Kent.

Edited by Allen Kent, Director of the Knowledge Availability Systems Center, University of Pittsburgh

Here is a book that is certain to end a great deal of conjecture—and equally certain to start wide controversy. Written by a leading Russian scientist, it deals with memory devices, and the basic principles of their operation.

For the past decade or more the question of the state of information-retrieval systems and hardware in the U.S.S.R. has been the subject of much uninformed and emotional argument. Now, this translation allows American experts to form their own opinions on the extent of Russian progress and "know-how" in this field.

Special features of the book are: —

- a description of the methods by which ordinary information is transformed into "machine language"
- a discussion of the automatic input of information into machine memory—that is, the independent reading of books by machine without human intervention
- an examination of the various aspects of information machines with large memories and their application to the various fields of science and technology

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1963 170 pages $8.00

INTERSCIENCE PUBLISHERS

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PP-5041

From the Preface . . .

"The question of the state of the art of the U.S.S.R. in the information-retrieval systems and hardware field has been the subject of uninformed and often emotional argument. Many of the experts who have visited the U.S.S.R. and have had little opportunity to study the Russian developments more than superficially have returned to present opinions to their colleagues in the U.S. These opinions have varied violently, and have tended more to confuse than to enlighten.

"The present translation, therefore, is presented to the workers in the information-retrieval and computer field with almost no editorial comment, in order that opinions and evaluations may be made personally and that future discussants come armed with facts as well as emotions."

What progress has the Soviet Union made in information retrieval?
Read . . .

ELECTRONIC INFORMATION-LOGIC MACHINES

By L. I. Gutenmakher, Director of the Laboratory for Electromodelling, U.S.S.R.
Translated by Rosalind Kent.
Edited by Allen Kent, University of Pittsburgh

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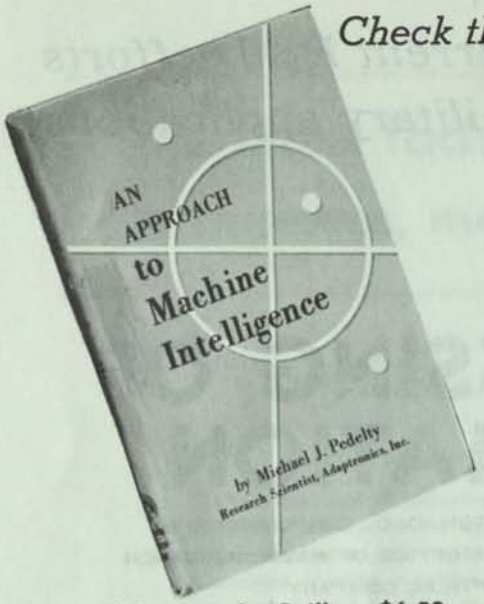

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AN APPROACH TO MACHINE INTELLIGENCE

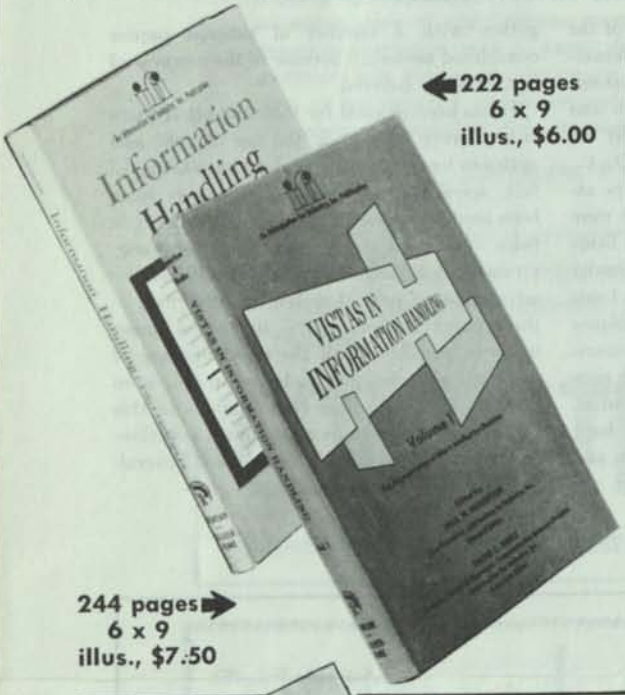
By MICHAEL J. PEDELTY
Research Scientist, ADAPTRONICS, Inc.

This book provides a fundamental treatment of the problem of intelligent action, whether human or mechanical. It places special emphasis on the limitations imposed by the communication channels to and from the environment. The intelligent machine is viewed as a regulator of some dynamic process, to be controlled within the limits imposed by a goal structure. The way in which a machine may modify its goal structure is also treated.

The emphasis is on principles rather than specific devices, but the section on neuromines gives the main characteristics of some of the more common artificial "neurons", contrasted with the real thing.

CONTENTS

Introduction. Orientation. Properties of an Intelligent Machine. Deductive Systems and the Predicate Calculus. Goals and Goal Manipulating Mechanisms. Machine-Environment Interaction. The Information Interface. The Level of Awareness. Importance of Intelligent Machine Design. Synopsis of Basic Concepts. Cybernetic Principles of Stability and Control. The Observation Channel. Information Theory and the Observation Channel. The Action Channel. The Concept of Parameterization. Some Properties the Real Neuron. Synopsis of Neuromimes for Logic Devices. Probability State Variable Devices and Other Sophisticated Building Blocks. Organization in the Time Domain. Circuits. Synthesis of Reliable Circuits from Unreliable Components. Appendix: Set Theory. Lattice Theory. Partitions. Ordered Sets and Lattices. Definitions. A Condition to Insure That Two Ideals Have No Point s in Common Other Than $s = \emptyset$. The Selection of Identifiers. Physical and Functional Realizability. Noise. Need for Inhibition.



222 pages
6 x 9
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244 pages
6 x 9
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INFORMATION HANDLING FIRST PRINCIPLES

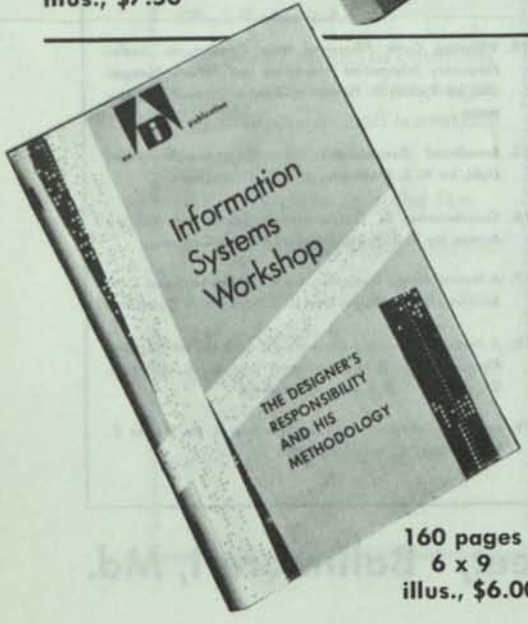
PAUL W. HOWERTON, General Editor
Vice President, INFORMATION FOR INDUSTRY, Inc.

This and the volume immediately below comprise a highly informative and useful library of information-handling principles and techniques. The editors of the nine papers in Vol. I made only one specification of their contributors —express your ideas so that the beginner can be instructed while the veteran documentalist can be stimulated to solve new problems.

VISTAS IN INFORMATION HANDLING

PAUL W. HOWERTON and DAVID C. WEEKS, Editors
INFORMATION FOR INDUSTRY, Inc.

Vol. II, subtitled "The Augmentation of Man's Intellect by Machine," presents ten papers by specialists on such topics as associative memory, models for structural analysis of natural language, empirical results of language data processing, and the development of critical scientific data, the integration of engineering data processing with the automatization of design. The editors aim at "extending the frontiers of present operative experience while maintaining a pragmatic balance between concept and reality."



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THE DESIGNER'S RESPONSIBILITY AND HIS METHODOLOGY

1962 CONFERENCE OF THE AMERICAN DOCUMENTATION INSTITUTE
and the UNIVERSITY OF CALIFORNIA (Los Angeles)
at ARROWHEAD CONFERENCE CENTER

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2. Introduction to Workshop, *by R. M. Hayes*
3. Review of the Methodology, *by C. P. Bourne*
4. Determining User Requirements, *by H. Borko*
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Describes new techniques and current R&D efforts in both industrial and military applications

OPTICAL PROCESSING OF INFORMATION

1962 SYMPOSIUM AT WASHINGTON, D. C., COSPONSORED BY INFORMATION SYSTEMS BRANCH, OFFICE OF NAVAL RESEARCH AND AMERICAN OPTICAL COMPANY

Donald K. Pollack, Charles J. Koester, and James T. Tippett, Editors
320 pages, 6 x 9, illus., $7.50

Covers such new optical tools and techniques as

- **Optical masers**
- **Fiber optics**
- **Optomechanical vibrating crystals**
- **Optical neuristors**
- **Optoelectronic logic**
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This volume comprises the Proceedings of the Symposium on Optical Processing of Information, cosponsored by the Information Systems Branch of the Office of Naval Research and the American Optical Company, held on October 23-24, 1962, in Washington, D. C., with about 425 scientists and engineers attending. The purposes of the symposium were to bring together research workers in the fields of optics and information processing in order to promote information exchange, and to focus further attention on new optical techniques being developed for use in information systems so that those not in this field of research may know of its progress and future potential. Papers on optical physics, memory and logic functions, lasers, fiber optics, modulation, and information systems are here presented, together with a number of tutorial papers considered necessary because of the newness of certain areas covered.

It has been evident for some time that there is a growing interest in the use of light and optics in various phases of data processing. In fact, special-purpose optical processors have been used for a number of years, particularly in fields of pattern recognition, character recognition, and information retrieval. One of the advantages of optical systems as described in these pages is their ability to process many items in parallel. With the rapid increase of new optical techniques and phenomena, as in laser research and fiber optics, optics in this symposium was seen as a significant contributor to the development of high-speed general-purpose computers.

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Edited by Robert S. Hollitch and
Milton M. Gutterman, Illinois Institute
of Technology Research Institute

The Illinois Institute of Technology Research Institute sponsors an annual two-day symposium devoted to the application of digital computers to business, management, sciecne, and engineering. The 1962 symposium, ninth in the series, assembled leading members of the computing field from universities, the government, and industry to discuss their experiences and views. Business and management applications were stressed the first day, scientific and engineering applications on the second. However, several of the papers presented were of equal interest to attendees of either day, and each day's program concluded with a panel discussion by the speakers in which the audience was invited to participate. This book presents all of the papers read at the two-day symposium and includes many of the subsequent panel discussions and questions from the audience.

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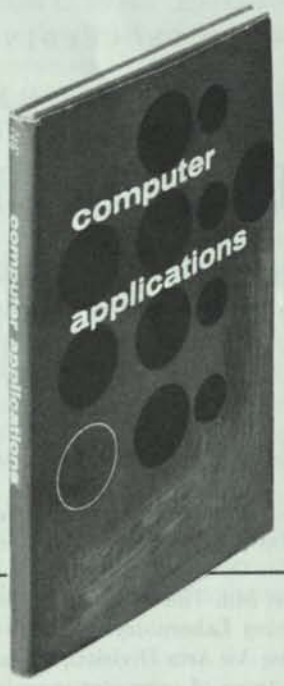

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Published. 420 pages. Illustrated.
Cloth. $10.00
1963 FALL JOINT COMPUTER CONFERENCE, Vol. 24
(To be published November, 1963)
Note: Members of ACM and IEEE entitled to 50% discount on the above titles.

ROSENBLATT—Principles of Neurodynamics: Perceptrons and the Theory of Brain Mechanisms

By: Frank Rosenblatt, Cornell University
Published. 640 pages. Illustrated.
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Dr. Rosenblatt sets forth the principles, motivations, and accomplishments of Perceptron Theory in their entirety. It will also serve as a self-sufficient text for all scientists interested in a serious study of Neurodynamics. Appendices are included to serve as an aid for cross-referencing equations, definitions, and experimental designs which are described in the various chapters.

HALSTEAD—Machine-Independent Computer Programming

By: Maurice H. Halstead, Naval Electronics Laboratory, San Diego, California.
Published. 288 pages. Illustrated
Cloth. ..... Price $6.50
This represents the first clear account of how the fastest, most powerful "High-Level Languages" work; how they are used, and how the reader can create them for his own computer. Since its publication, the book has served as the basis from which Neliac compilers have been developed by independent groups throughout the country.

FISCHER-POLLOCK-RADACK-STEVENS—Optical Character Recognition

Edited by: George L. Fischer, Jr., Farrington Electronics, Inc.; Donald K. Pollock, Office of Naval Research; Bernard Raddack, Department of the Navy, and Mary Elizabeth Stevens, National Bureau of Standards.
Published. 416 pages. Illustrated.
Cloth. ..... Price $10.00

This work comprises the proceedings of the Symposium on Optical Character Recognition which was co-sponsored by the Information Systems Branch of the Office of Naval Research and Research Information Center of the National Bureau of Standards. The volume explores the present state of the art, operational requirements and the implications of current research.

WILCOX-MANN—Redundancy Techniques for Computing Systems

Edited by: Richard H. Wilcox, Head, Information Systems Branch, Office of Naval Research, and William C. Mann, Electronics Division of the Westinghouse Electric Corporation.
Published. 416 pages. Illustrated.
Cloth. $10.00

This book is based upon Symposium on Redundancy Techniques for Computing Systems, which was held February 6 and 7, 1962. This conference was sponsored by the Information Systems Branch of the Office of Naval Research and Electronics Division of the Westinghouse Electric Corporation. The objective of this symposium was to focus attention toward new ideas, research, and developments which would lead to the sound introduction of redundancy techniques into forthcoming computing systems.

YOVITS-JACOBI-GOLDSTEIN—Self-Organizing Systems 1962

Edited by: Marshall C. Yovits, Office of Naval Research; George T. Jacobi, Armour Research Foundation, and Gordon D. Goldstein, Office of Naval Research.
Published. 576 pages. Illustrated.
Cloth. $12.00

This volume comprises the proceedings of the conference on Self-Organizing Systems held in Chicago, May, 1962.

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ELECTRONIC INFORMATION DISPLAY SYSTEMS

JAMES H. HOWARD, Editor

under the auspices of

THE CENTER FOR TECHNOLOGY AND ADMINISTRATION
THE AMERICAN UNIVERSITY, WASHINGTON, D. C.

320 pages, 6 x 9, illus., $9.75

This up-to-the-minute survey of the state-of-the-art in this important field brings you information on

- Electroluminescent displays
- TV scan-converted displays
- Space-flight center displays
- Management control systems
- Army-Navy display systems
- New cathode-ray tubes
- Optical mixing methods

. . . and much more!

This book reports on the state-of-the-art in the development and application of electronic information display systems. Specifically, it treats displays as information-handling techniques and devices for command and decision making. The material presented in the 20 chapters is, for the most part, adapted from oral presentations made by the various authors at the Institute for Electronic Information Display Systems presented by the Center for Technology and Administration of the American University, Washington, D. C., in May of 1962. Additional papers have been included where appropriate, including portions of a lecture at UCLA Short Course on Information Display Systems, and a special paper on management control displays at Radio Corporation of America.

The book is designed to help the manager—whether he is part of military systems, civil government systems, or business-industry systems. It takes as its basic premise the fact that as technology advances the administrator and manager must, to an increasing extent, be informed of and trained in the nature and uses of display devices of all kinds.

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605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

November 15, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

I am very pleased to inform you that you book METHODS OF INFORMATION HANDLING, was published on October 31st.

I wish to take this opportunity to thank you, for everyone in this division, for the help and cooperation you have given us all through production.

If, for any reason, you would like to have your original manuscript and the foul proof returned to you, please let me know within two weeks. If I do not hear from you within this time, I shall assume this to mean that you do not want it, and shall have the material destroyed.

Sincerely yours,

J. S. Barnes

J. S. Barnes
Vice President

JSB:smk

8

Other paper tape and magnetic media equipment

PAPER-TAPE EQUIPMENT

Punched paper tape is coming into more common use for temporary information storage, for point-of-action data acquisition recording, and as an input medium for information-processing equipment. Its popularity is due in large measure to the fact that the punching and reading equipment is relatively simple and inexpensive and provides a permanent storage medium. The tape is most commonly used in conjunction with special electric typewriters, either to actuate the typewriter or to record the operator's typing. Most of the equipment and applications that are relevant to this book make use of the tape in this manner. That is, data are punched in paper tape at the point of origin as a by-product of writing a document, and the tape is subsequently used at some later date to furnish the original data in a machine language. The specific techniques for coding the tape were described in Chapter 4.

One of the limitations to the use of paper tape with electric typewriters is the difficulty of correcting errors or making changes in the tapes. For example, a typing error on a conventional typewriter can, in most cases, be corrected simply by striking over the character or backspacing to type a character in a spot that was left as a space or blank. These methods cannot be used with paper tape equipment.

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Words Chosen from Text and Consideration of Syntactical Relationships between Indexing Terms

In addition to all the vocabulary control measures taken in the preceding methods, the indexing system could also show the functional or syntactical relationships between the indexing terms used to describe the content of a single document. For example, the indexing terms *man*, *bites*, and *dog* appearing in an index would not distinguish whether a document indexed under these three terms was about a dog biting a man, or vice versa. Some of this ambiguity can be reduced by assigning role indicators to the index terms to show the role or application of each term, as well as to indicate which terms are being acted upon by the other terms, and in what manner.

For sorting into numerical sequence the SF and 0 holes are ignored and the deck is sorted in the manner described for the 7-4-2-1 code. The single-figure position on some manufacturers' cards is represented by a V. With double-row punching the effect of an SF position can be achieved by deep-punching the single digits (Fig. 5-6*i*). The following approximation for the dropping fraction was derived from a different approach than that used for the previous approximation: [41]

$$F_d \approx \frac{\binom{M}{m}}{\binom{F}{m}} = \frac{\dfrac{M!}{m!(M-m)!}}{\dfrac{F!}{m!(F-m)!}}.$$

[21] Costello, J. C., "Uniterm Indexing Principles, Problems, and Solutions," *American Documentation*, Vol. 12, No. 1, pp. 20–26 (January 1961).

[22] Frick, B. M., "Suggestions for the Beginner in Subject Heading Work," an introductory chapter in *Sears List of Subject Headings*, 8th ed., by B. M. Frick (H. W. Wilson Co., New York, 1959).

SELECTIVE DROP-OUT BY A SINGLE RANKING OF BIGRAM (LETTER PAIR) USAGE. Using an empirical ranking of the composite frequency of occurrence of bigrams (i.e., ignoring the position of bigram occurrence within the words), examine each word to determine the ranking of all the possible letter pairs (adjacent letters only). The elimination process considers the association of each letter with the neighboring letters and rejects the letters which make up the most common bigrams. With the exception of the initial letter (which is retained by policy) each letter contributes to two different bigrams. The total ranking of the frequencies of these two bigrams is the selection criterion for that particular letter.

CRIS. The CRIS (Command Retrieval Information System), developed in 1962 by a subsidiary of Information for Industry, is an outgrowth of some earlier work done by Avakian in 1956.* This system stores images photographically on a scroll of microfilm 400 feet long by 17 inches wide; each scroll contains over 500,000 page-size images or over 28,000 large drawings. A keyboard device is used to enter a CRIS address, and the image at that address is displayed to the operator or is provided in aperture card form (see Fig. 9-36).

Material Composition or Characteristics. As mentioned earlier, techniques are available for describing chemical compounds with a general and systematic coding scheme. But the majority of card files for chemical data seem to use category coding, with a particular compound or element assigned to holes on a one-for-one basis. Cards have been designed in this way for special chemical data, geological or mineral data, metallurgical data, and many other special types of data.*

METHODS FOR SYSTEMATICALLY ABBREVIATING ENGLISH WORDS AND NAMES

There are many instances in which it is useful to abbreviate [4] English words such as people's names, places, street addresses, proper nouns, or continuous text material. Common subjects for abbreviation

[4] This discussion refers to the "abbreviation" of words, but actually it is concerned with "coding" the words, or transforming the source words into new patterns. It happens that in satisfying some of the objectives of code design the word is abbreviated. However, some of the schemes and transformations described in the following sections bear little resemblance to what might normally be considered as abbreviation.

TABLE 6-2

Lease, Purchase, and Maintenance Costs for Some of the Remington Rand (RR) and Other Punched Card Equipment

Item	Monthly	Purchase Price	Annual Service Charges
Alphabetic Punch (RR)	$ 40	$ 2,430	$ 98
Automatic Verifier (RR)	60	4,170	177
Interpreter (RR)	90	5,900	250
Reproducing Punch (RR)	125	7,640	324
Tag-to-Card Converter (RR)	185	12,600	535
Varityper FOTOLIST (model 90)	395	9,750	350
Varityper FOTOLIST (model 270)	700	17,850	500
Recordak LISTOMATIC Model 1-S	425	8,750	415
Benson-Lehner COMAC Mark-2	N.A.	25,000 to 35,000	N.A.

are addresses in telephone directories, customer account number identifications in some data-processing systems, and commercial teletype or ham radio vocabularies. There will always be a need for abbreviation or coding schemes to make efficient use of the storage media in computers, punched card systems, and other storage and processing systems. Abbreviation techniques may also improve the efficiency of communication systems by decreasing the number of characters transmitted. If the abbreviations are to be made automatically or semiautomatically, they must be obtained by some systematic method.

The objective of most of these studies has been to develop methods for the systematic coding of words which satisfy the following requirements.

1. Each word should be coded to require as little storage space as possible.

2. Each word should retain the same degree of discrimination and uniqueness that it had in the original sample. (For example, if there were 2082 unique words in the original list of words or names, hopefully there will still be 2082 unique items after abbreviation.)

The machines can find logical sums (i.e., "term A OR term B"), logical products (i.e., term A AND term B), complements (i.e., NOT term A), and some combinations of these operations. The result of the search is a list of selected document numbers. On the IBM 9900 this list can be printed out on an electric typewriter. On the COMAC Mark-2 this list can be automatically punched out into tab cards by a keypunch unit.

Commercial, government, and amateur radio and teletype operators use a variety of standard code terms to save transmission time and effort. Examples of these code terms are:

GM	Good Morning
CUL	See You Later
BCNU	I'll be seeing you
73	Best regards
QRM	Are you being interfered with? I am interfered with.

Additional References

Aronoff, S., "Code for Alphabetical Index for Punched Cards," *J. Chem. Education*, Vol. 36, No. 11, p. 581 (November 1959).

Ball, N. T., "Making Classification Systems for Punched-Card Coding," Chap. 25 in *Punched Cards*, 2nd ed., edited by Casey et al., cited below.

Casey, R. S., C. F. Bailey, and G. J. Cox, "Punch Card Techniques and Applications," *J. Chem. Education*, Vol. 23, pp. 495–499 (October 1946).

Casey, R. S., J. W. Perry, A. Kent, and M. Berry, editors, *Punched Cards: Their Application to Science and Industry*, 2nd ed. (Reinhold Publishing Corp., New York, 1958).

FIG. 7-5 Close-up of dual access arms on the disk memory unit for the IBM RAMAC 305.

Sample pages from

QUINN & BODEN COMPANY, INC.

for

JOHN WILEY & SONS

Bourne: Devices and Techniques for Information Processing, Storage and Retrieval

SPECIFICATIONS

Trim Size: 8½ x 11
Margins: Head—¾ inch; Back 1 13/16 inch

Page Size: 39½ x 54 (19 x 1½ x 19)
Lines to Page:
Text: 10 Lino. 21 on 12
Lists: 10 on 12
Quotations: 9 on 11, 6 pts. above and below
References: 8 on 10
Reference Heads: 9 on 11 Spartan Medium c&lc, flush left—12 pts. above, 6 pts. below
Cut Captions: 8 on 10 Spartan Medium, Figure and No. in caps, run in
Footnotes: 8 on 10
Chapter No.: 36 pt. 605 figure, rule, hairline x2 picas, flush left
Chapter Title: 24 pt. 605 lc, initial cap, flush left
Tables: 9 on 11 Mono. 8A (or to fit)
Table No.: 9 on 11 Mono. 605 caps, center
Table Title: 9 on 11 Mono. 605 c&lc, center
Heads:
(1) 9 on 12 Spartan Medium caps, flush left—16 pts. above, 8 pts. below
(2) 10 on 12 Spartan Medium italic c&lc, flush left—16 pts. above, 8 pts. below
(4) ~~(3)~~ 10 on 12 Lino. 21 small caps, flush left, run in—6 pts. above
(3) ~~(4)~~ 10 on 12 Lino. 21 italic c&lc, flush left, run in—6 pts. above
Initials: None, plain paragraph

Spacing: Regular
Paragraphs: 1 em
Figures: Lining
Running Heads: 9 Spartan Medium lc, initial cap, 3 ems from folio, shilling bar centered in 3-em space
Running Head Wording: Left—Book Title; Right—Chapter Title
Folios: Top, 9 Spartan Medium, flush outside
Drop Folios: 8 Spartan Medium, center

Date: MAR 11 1963

-Wiley

1. editor galleys for indexer

2. When will galleys be ready? batched or by chapt.? How soon do they have to be returned? (Mrs. Stein)

3. OK to put chapter outlines in corner of first page?

4. LC card to accompany book?

5. When will illustration proof be ready?

Preface "we need artist designation eg. AD - PB

Give credit also —

Send ref. to catalog in summer
write to McNeish

282 8½ x 11 pg.
≈ 560 ref.
12.95
print 4300

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

April 11, 1963

Mr. Cha rles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Our staff editor, Mrs. Lucille Zener, has completed the editing of your METHODS OF INFORMATION HANDLING, and we are returning the manuscript and cut copy to you today for your inspection.

Please note particularly the following points:

1. Read the style sheet with care and refer to it as you go through the manuscript. It is intended to set consistent treatment of the most important details. Please return one copy to me, indicating your approval or criticism.

2. Answer all queries on the ma nuscript.

3. Check the manuscript thoroughly, making whatever last-minute changes you wish. Careful prepara tion now will mean less work when your book is in proof and will reduce the charges you might incur for author's alterations.

4. Use green, or another distinctive color, to answer queries and make changes, so that our staff editor can distinguish new copy.

When you ha ve completed your check, please return the manuscript, cut copy, and style sheet with your comments. Our staff editor will go over the manuscript once more, and we will then send it to the printer for composition.

Sincerely yours,

Sarah Redwine

Sarah Redwine
Editorial Supervisor
PRODUCTION DIVISION

SR/a sw

From John Wiley & Sons, Inc.

(author's copy ①

Mr. Bourne: please see last item p. 5 before you start reading (read + mark Wiley's 2 copy, which is included)

LZ 4/11/63

STYLE SHEET

Title of Book: METHODS OF INFORMATION HANDLING

Author: Bourne

Spelling and Compounding of Words

alphanumeric
catalog
coordinate
cross-correlation (n &a)
disc
drop-out (n & a)
hard copy (n & a)
indexes
interconnection, etc.,
but inter-relationship
job-holder
key punch (n & a)
keypunching) (v)
key word (n & a)
letterpress
look-up (n & a)
micro-abstract, micro-image,
but microfilm, etc.
mis-filed, etc.
multi-column, etc.
non-periodical, etc.
one-half, etc.
over-all
penciled, etc. (1 el)
percent
pre-sorting, etc.
printout (n & a)
programing, etc.
re-positioning, etc.
semi-authmatic, etc.
superimposed
thesauri
sub-files, etc.
unit-record (n & a)
ultra-violet
un-numbered
uppercase,
lowercase

Hyphenation

For special compound words see list above. Other compounds are written solid, according to the latest Webster.

Certain adjectival combinations are hyphenated but many others are not (and these combinations are not hyphenated when used as nouns).

1. In general, noun-and-participle (present or past) combinations are hyphenated: carbon-backed papers, card-handling equipment, edge-notched card, file-searching applications, well-developed language. However, there are these notable exceptions: data processing equipment, image handling operations, information handling problems.

2. Numerical adjectival expressions tend to be hyphenated: 3-by-5 card or 3-by-5-inch card, 2400-foot reel, equal-interval tables, full-size page, four-/= letter word, three-digit number, single-column list.

3. These miscellaneous adjective phrases are hyphenated: book-form index, current-awareness searching, high-speed computer, library-type material, machine-/= language representation, machine-readable form, mark-sense cards, short-title catalog, special-purpose (general-purpose) files.

4. These miscellaneous adjective phrases are not hyphenated: information retrieval systems, paper tape form (magnetic tape form), punched card (tab card) equipment.

From John Wiley & Sons, Inc.

STYLE SHEET

Title of Book: METHODS OF INFORMATION HANDLING

Author: Bourne

Capitalization

Small caps for machine names: RAMAC, CRIS.

Regular caps for company and organization names: IBM, ASTIA.

Trade names and names of systems credited to specific persons. Capitalize those words that are integral parts of the name, but lowercase all words that are not: Colon classification; Semantic code; Recordak Listomatic camera; Model 1-S; Uniterm system; Xerox copies.

Punctuation (Commas used fairly heavily)

No punctuation after item in list unless it's a complete sentence.

No punctuation after centered equations.

No punctuation between subject (even though long) and verb.

Quotation ~~Punctuation~~ marks for word words used as words and words used in a special sense.

But, italic for descriptors, and no special handling for examples of words indexed.

Abbreviations and Symbols (Used sparingly)

No abbreviations for units of measure: 4 feet, 200 inches per second (exceptions: "16mm film" and "lines per mm" OK in Ch. 9).

Ratio sign OK when referring to photographic reduction.

Spell out "by" (not x): 3 by 5.

Exceptions OK in some tabular matter: 3/min. (to save space).

Numbers (Instances in which numeral rather than spelled-out form is used)

Numerals used with units of measure: 1 minute, 2 cents per line, 8 hours, 2000 pages, 35 characters.

Numerals used often in statistical passages: 3 passes through the machine, a 5-drawer file, 6 three-letter words.

The form 1¼ million is OK.

From John Wiley & Sons, Inc.

STYLE SHEET

Title of Book: METHODS OF INFORMATION HANDLING

Author: Bourne

Numbers (Continued)

Also, no comma in four-digit numbers (3000) - except when used with larger figures in tabular matter.

Cross-References

Chapt. 4, Fig. 3-3, Table 8-1 (but spell out at beginning of sentence).

From John Wiley & Sons, Inc.

STYLE SHEET NOTES AND QUERIES TO AUTHOR

Title of Book:

Author: Bourne

1. Please remember that this is your book. I am only trying to help you by making suggestions (besides,like all "rules" mine have sort of illogical exceptions). So, please feel free to change anything I have done or restore your original.

2. I have tried to develop a consistent hyphenation scheme, according to your apparent preferences.

3. I have probably managed to louse up your plan for handling numbers. If you tell me what your desired system is, I'll be glad to rectify any mistakes I have made.

4. Incidentally, could you use "3-by-5 card" more often than "3-by-~~inch~~-5-inch card" ? I think the former is the neater, more common expression, and its meaning should be clear to everyone.

5. I couldn't understand the reasoning behind your ordering of separate references in the same footnote. Are they simply arranged in order of importance?

6. All your footnotes (and all separate items within the same numbered footnote)will be paragraphed. I'll take care of this on the return of the manuscript.

7. You will find many queries on footnotes and "additional references." These are mainly concerning consistent form. There is nothing really wrong with any citation you give so long as it includes sufficient information to enable a reader to locate the source.

8. Please help me out by checking on the proper typographical handling of equipment names (capitalization, hyphenation, etc.). Also, please check on the exact trade name in each case; only that needs special typography. I was at a special loss on this point in trying to edit the illustration legends.

9. I think it would be best if you would spell out (or explain) most of the abbreviations you have used (particularly for organizations, journals, ~~and~~

From John Wiley & Sons, Inc.

STYLE SHEET

Title of Book:

Author: Bourne

and such designations in reference material as "AD" and "JPRS" numbers). People in very different fields (various sciences, business, library work) will be using your book, and abbreviations that are clear to one group may not be to another. I have already spelled out just about everything I wanted spelled out and had any knowledge of how to do so, but you will find gaps--most of them encircled or queried in the manuscript.

10. If you have time, I would appreciate your double-checking my footnote numbering (it would be expensive to correct mistakes in proof).

11. By the way, with numbered footnotes, you can now give the footnote number after your "cited earlier" references if you wish (e.g., "fn. 16").

12. We assume you have obtained the necessary permission to use any borrowed material in text or illustrations, and that you have properly credited the source in your book.

GOOD GRIEF! This ~~ahs~~ has turned out awfully long. Please don't be scared. I have tampered very little with your style and not at all (I hope) with your substance.

Wiley

letter soliciting for index

1. Any limits on index size?

2. Can I put chapter authors in upper right corner of first page in each chapter?

2 June 1962

FRINGE BENEFITS (POSSIBLE)

	ITEM	STATUS
1.	LC Number printed in book (e.g. 62-4172)	try to get Wiley to do this
2.	Copy of LC card printed in book	CB to prepare initial card
3.	Copies of necessary LC cards provided with book	try to get Wiley to do this
4.	Comprehensive Table of Contents at Beginning of book	done
5.	Abbreviated Chapter Table of Contents boxed on the first page of each chapter	done
6.	Glossary at end of book	CB--in preparation
7.	Reference author index at end of book (distinction to be made between footnotes and end-of-chapter authors)	" "
8.	Deep indexing of each chapter to be done by at least one type of subject indexing and printed at the end of the respective chapters	CB & PA(see matrix)
9.	Comprehensive subject index to be prepared for the entire book contents	PA
10.	Abstracts to be prepared for each chapter	CB

April 3, 1963

Mr. George T. Carroll
Advertising and Promotion
Manager
John Wiley & Sons, Inc.
605 Third Avenue
New York 16, New York

Dear Mr. Carroll:

Here is the information you requested for the 13 questions. I have answered all of the appropriate questions and have included some related material. The only material missing is the Preface, which is now being written, and will be forwarded as soon as it is completed.

I expect to be in New York area in a few weeks, and am planning to stop in to talk to you to answer any additional questions or to provide further information.

Sincerely,

Charles Bourne
Research Engineer

CB:bl

cc: Walker Stone

John Wiley & Sons, Inc. NEW YORK LONDON

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MARKETING DIVISION
A. H. NEILLY, JR.
VICE-PRESIDENT

March 13, 1963

Dr. Charles Bourne
Computer Technology Lab.
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

Now that your manuscript for DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING STORAGE AND RETRIEVAL is in production the sales and advertising departments are laying the groundwork for its promotion and marketing. Accordingly, we are enclosing our form, "Thirteen Questions", which we would like you to complete in detail.

This questionnaire has evolved from long experience in selling text, professional and trade books and is designed to provide information essential to the successful promotion of your book to every aspect of the market, foreign and domestic.

→ Question 8 will be the basis for a large part of the copy to be written in the course of our direct mail promotion and our copywriters specifically request that you give this your careful attention.

Particularly important to our field representatives, is the analysis of current books in the field which will compete with yours. A careful and detailed reply to Question 9 is, therefore, of primary importance.

At this stage, we must depend to a large extent on the author's intimate acquaintance with the field in planning the most effective promotion. Complete replies to these questions can be a real contribution to successful sales. We will be grateful for your careful attention to this material.

Sincerely yours,

George T. Carroll
Advertising and Promotion Manager

GTC:js
Enclosure

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MARKETING DIVISION
A. H. NEILLY, JR.
VICE-PRESIDENT

April 1, 1963

Dr. Charles Bourne
Computer Technology Lab.
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

We are reminded that we have not as yet received your questionnaire relative to DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING STORAGE AND RETRIEVAL.

Our Advertising Department is now ready to prepare their advance copy on your text, but will be unable to do so until they receive the necessary information from your questionnaire.

Could you please complete this and send it in to us as soon as possible as time is of the essence.

Thank you for your time and your cooperation.

Sincerely yours,

George T. Carroll

George T. Carroll
Advertising and Promotion Manager

GTC:js

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ASST. VICE-PRESIDENT
W. H. GRIMSHAW
ASST. VICE-PRESIDENT
G. S. IERARDI
ASST. VICE-PRESIDENT

March 27, 1963

Mr. Joseph Becker
5805 Marbury Road
Bethesda 14, Maryland

Dear Joe:

As you know, I like the statement which you prepared and which Bob approved for the Information Sciences Series - our production people have agreed to insert this in your book. Our promotion people will, of course, use this information to good advantage.

Kindest personal regards,

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh

CC: Charles P. Bourne
Robert M. Hayes
Harold Borko

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

March 25, 1963

This note was added to Mr. McNeish's letter about the color photo.

Mr. James A. McNeish
Manager, Production Division
John Wiley & Sons, Inc.
440 Park Avenue South
New York 16, New York

Dear Mr. McNeish:

You're quite right. I only sent it with the thought that you might want to make another black and white copy from it. It is a little more legible than the black and white copy.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt

MEMORANDUM

To: J. Nor Date: 1/3/63

From: R. M. Hermes

comments attached

Tom Chess Bowen

In addition to my brief review of your book, I asked Manning H. just as another sample reader if he thought that the association of your book and the association with SRI, would be helpful in his contacts with "information users" in Wash. D.C. His reaction was favorable.

Jr

1/3/63

Since the book purports to be exhaustive it would perhaps be well in the tabulation on page 5-70 to include the - so far as I know - largest of the true peek-a-boo systems, namely, that of the Library of Congress which uses Termatrex cards whose dimensions are 18" x 18". Admittedly, the size of the file is still small since it has been in use only since 1961. However, the large size of the descriptor cards admits of a much larger file than the ~~other~~ systems listed - save for the Minimatrex. Because this last system is not discussed, I don't know if it is a true & peek-a-boo system or not.

Perhaps it is beyond the scope of this book, but I would find a discussion of Chem. Abstracts method of encoding and searching for organic compounds an interesting inclusion.

A minor item, but I question the numbers offered in para. 2, pg. 1-1. Doesn't a proportion of 1 out of 6 together with a clerical labor force of 8 million yeild a total labor force of 48 million? And is this number right?

It is my judgment that this book will fill a recognized need. The section on superimposed coding seems, possibly, too technical for the rest of the book — I would not, however, ~~insist~~ recommend that it be deleted; I would recommend that it be carefully evaluated with due appreciation of the sophistication of the book's intended audience. This same observation applies to my foregoing remark about Chem. Abstracts.

I have presumed that the whole thing will be edited so I have refrained from indulging in questions of punctuation, tighter sentence structure and the like.

Manning.

For Jesse Noe.

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

April 10, 1963

Mr. Charles P. Bourne
Systems Engineering Department
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

Thanks for letting me know that you plan to visit our offices on April 25th. The manuscript will go to you tomorrow and it will be very convenient if you can discuss it in person with the copy editor.

We are in brand new quarters now and are delighted to have visitors to show around. We will look forward to seeing you.

Sincerely yours,

James A. McNeish
Manager
PRODUCTION DIVISION

JAM:gl

John Wiley & Sons, Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
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PRODUCTION DIVISION
J. S. BARNES, JR.
VICE-PRESIDENT

March 13, 1963

Dr. Charles P. Bourne
Computer Techniques Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

While our printer was making an estimate of your DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL, we had sample pages set to show you the format that Miss Schwartz, our designer, has planned for your book. The specifications for this format are those followed for the books in the Natural Language Processing Series. We are enclosing two sets of these samples. Will you please examine them very carefully and return to us the set stamped "Office Copy" with your comments and suggestions.

Since these sample pages are used as a guide by both the editor and the printer, it is important that you advise us whether the following features meet with your approval:

- Methods of setting tables and references
- Numbering footnotes consecutively by chapter (to avoid changing reference marks in pages)

It will not be necessary for you to approve the back sheet, for this is not the title page but serves merely to identify the sample pages. When the title page has been designed, it will be sent to you for approval.

We are also enclosing herewith the pages of the original manuscript from which these samples were set. There are a few questions about the editing of your manuscript written in the margins of these pages. Please answer these questions and return the manuscript pages when you send us your comments on the sample pages.

We shall appreciate your prompt reply and return of the "Office Copy" of the samples.

Yours sincerely,

Priscilla Todd

Priscilla Todd
Assistant Editorial Supervisor
PRODUCTION DIVISION

pt

March 28, 1963

Miss Priscilla Todd
Assistant Editorial Supervisor
PRODDCTION DIVISION
John Wiley & Sons, Inc.
440 Park Avenue South
New York 16, New York

Dear Miss Todd:

I enjoyed seeing the sample pages that you sent for my manuscript, and approve of: (1) the method of setting tables and references; and (2) the method of numbering footnotes consecutively by chapter. I have no objections to any other features of the style or format. As a matter of fact it looks very good to me.

I'd like to point out (see the title page of the manuscript) that the title has been changed to METHODS OF INFORMATION HANDLING.

All but one of the questions on the margin of the manuscript have been answered on the manuscript. Would you make a note to omit Figure 5-39 (Card Selection Mechanism). I have not been able to obtain a good glossy photo for it. When might I expect to receive the entire works to check over?

Sincerely,

Charles P. Bourne
Research Engineer

CPB/rt

John Wiley & Sons, Inc.

NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

PRODUCTION DIVISION
J. S. BARNES, JR.
VICE-PRESIDENT

February 20, 1963

Dr. Charles P. Bourne
Computer Technology Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

With your manuscript now ready for production, we very much hope that you will find use for the accompanying booklet. Its purpose is obvious, and we have intended to serve this purpose in a brief and practical way. We will welcome suggestions for the improvement of our booklet. Because of its economical format, we intend to incorporate such suggestions in frequent revisions.

The procedures described in this booklet are necessarily impersonal, although book production is anything but impersonal for author and publisher alike. This being the case, we urge you to contact freely those of us who share the major responsibilities of production. These brief introductions are intended to establish these contacts.

Mr. James A. McNeish is my assistant and Manager of the Division.

Miss Sarah Redwine is in charge of our staff editing function. When your manuscript is returned for check of editing, we will send you the name of the staff editor who actually worked on your manuscript.

Mr. Jeremiah McCarthy is Manager of our Illustration Department.

Miss Paula Schwartz is our Book Designer.

Although my own activities are less specific, I share with all of these individuals the wish that we will handle production efficiently and to your satisfaction as a Wiley author.

Sincerely yours,

J. S. Barnes
Vice President

JSB:gl
Enclosure

first sample of the style & layout for the book. I think it looks pretty good.

I agree! Can't believe your draft could ever look so good! Be sure to ask Wiley if there are any limits on the index size.

also — how are they handling your chapter outlines? I hope they intend to keep them with Chapter as well as in front contents page.

SEE LAST PAGE

8

Other paper tape and magnetic media equipment

PAPER-TAPE EQUIPMENT

Punched paper tape is coming into more common use for temporary information storage, for point-of-action data acquisition recording, and as an input medium for information-processing equipment. Its popularity is due in large measure to the fact that the punching and reading equipment is relatively simple and inexpensive and provides a permanent storage medium. The tape is most commonly used in conjunction with special electric typewriters, either to actuate the typewriter or to record the operator's typing. Most of the equipment and applications that are relevant to this book make use of the tape in this manner. That is, data are punched in paper tape at the point of origin as a by-product of writing a document, and the tape is subsequently used at some later date to furnish the original data in a machine language. The specific techniques for coding the tape were described in Chapter 4.

One of the limitations to the use of paper tape with electric typewriters is the difficulty of correcting errors or making changes in the tapes. For example, a typing error on a conventional typewriter can, in most cases, be corrected simply by striking over the character or backspacing to type a character in a spot that was left as a space or blank. These methods cannot be used with paper tape equipment.

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original data in a machine language. The specific techniques for coding the tape were described in Chapter 4.

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Words Chosen from Text and Consideration of Syntactical Relationships between Indexing Terms

In addition to all the vocabulary control measures taken in the preceding methods, the indexing system could also show the functional or syntactical relationships between the indexing terms used to describe the content of a single document. For example, the indexing terms *man*, *bites*, and *dog* appearing in an index would not distinguish whether a document indexed under these three terms was about a dog biting a man, or vice versa. Some of this ambiguity can be reduced by assigning role indicators to the index terms to show the role or application of each term, as well as to indicate which terms are being acted upon by the other terms, and in what manner.

For sorting into numerical sequence the SF and 0 holes are ignored and the deck is sorted in the manner described for the 7-4-2-1 code. The single-figure position on some manufacturers' cards is represented by a V. With double-row punching the effect of an SF position can be achieved by deep-punching the single digits (Fig. 5-6*i*). The following approximation for the dropping fraction was derived from a different approach than that used for the previous approximation: [41]

$$F_d \approx \frac{\binom{M}{m}}{\binom{F}{m}} = \frac{\dfrac{M!}{m!(M-m)!}}{\dfrac{F!}{m!(F-m)!}}.$$

[21] Costello, J. C., "Uniterm Indexing Principles, Problems, and Solutions," *American Documentation*, Vol. 12, No. 1, pp. 20–26 (January 1961).

[22] Frick, B. M., "Suggestions for the Beginner in Subject Heading Work," an introductory chapter in *Sears List of Subject Headings*, 8th ed., by B. M. Frick (H. W. Wilson Co., New York, 1959).

SELECTIVE DROP-OUT BY A SINGLE RANKING OF BIGRAM (LETTER PAIR) USAGE. Using an empirical ranking of the composite frequency of occurrence of bigrams (i.e., ignoring the position of bigram occurrence within the words), examine each word to determine the ranking of all the possible letter pairs (adjacent letters only). The elimination process considers the association of each letter with the neighboring letters and rejects the letters which make up the most common bigrams. With the exception of the initial letter (which is retained by policy) each letter contributes to two different bigrams. The total ranking of the frequencies of these two bigrams is the selection criterion for that particular letter.

CRIS. The CRIS (Command Retrieval Information System), developed in 1962 by a subsidiary of Information for Industry, is an outgrowth of some earlier work done by Avakian in 1956.* This system stores images photographically on a scroll of microfilm 400 feet long by 17 inches wide; each scroll contains over 500,000 page-size images or over 28,000 large drawings. A keyboard device is used to enter a CRIS address, and the image at that address is displayed to the operator or is provided in aperture card form (see Fig. 9-36).

Material Composition or Characteristics. As mentioned earlier, techniques are available for describing chemical compounds with a general and systematic coding scheme. But the majority of card files for chemical data seem to use category coding, with a particular compound or element assigned to holes on a one-for-one basis. Cards have been designed in this way for special chemical data, geological or mineral data, metallurgical data, and many other special types of data.*

METHODS FOR SYSTEMATICALLY ABBREVIATING ENGLISH WORDS AND NAMES

There are many instances in which it is useful to abbreviate [4] English words such as people's names, places, street addresses, proper nouns, or continuous text material. Common subjects for abbreviation

[4] This discussion refers to the "abbreviation" of words, but actually it is concerned with "coding" the words, or transforming the source words into new patterns. It happens that in satisfying some of the objectives of code design the word is abbreviated. However, some of the schemes and transformations described in the following sections bear little resemblance to what might normally be considered as abbreviation.

TABLE 6-2

Lease, Purchase, and Maintenance Costs for Some of the Remington Rand (RR) and Other Punched Card Equipment

Item	Monthly	Purchase Price	Annual Service Charges
Alphabetic Punch (RR)	$ 40	$ 2,430	$ 98
Automatic Verifier (RR)	60	4,170	177
Interpreter (RR)	90	5,900	250
Reproducing Punch (RR)	125	7,640	324
Tag-to-Card Converter (RR)	185	12,600	535
Varityper FOTOLIST (model 90)	395	9,750	350
Varityper FOTOLIST (model 270)	700	17,850	500
Recordak DISTOMATIC Model 1-S	425	8,750	415
Benson-Lehner COMAC Mark-2	N.A.	25,000 to 35,000	N.A.

are addresses in telephone directories, customer account number identifications in some data-processing systems, and commercial teletype or ham radio vocabularies. There will always be a need for abbreviation or coding schemes to make efficient use of the storage media in computers, punched card systems, and other storage and processing systems. Abbreviation techniques may also improve the efficiency of communication systems by decreasing the number of characters transmitted. If the abbreviations are to be made automatically or semiautomatically, they must be obtained by some systematic method.

The objective of most of these studies has been to develop methods for the systematic coding of words which satisfy the following requirements.

1. Each word should be coded to require as little storage space as possible.

2. Each word should retain the same degree of discrimination and uniqueness that it had in the original sample. (For example, if there were 2082 unique words in the original list of words or names, hopefully there will still be 2082 unique items after abbreviation.)

The machines can find logical sums (i.e., "term A OR term B"), logical products (i.e., term A AND term B), complements (i.e., NOT term A), and some combinations of these operations. The result of the search is a list of selected document numbers. On the IBM 9900 this list can be printed out on an electric typewriter. On the COMAC Mark-2 this list can be automatically punched out into tab cards by a keypunch unit.

Commercial, government, and amateur radio and teletype operators use a variety of standard code terms to save transmission time and effort. Examples of these code terms are:

GM	Good Morning
CUL	See You Later
BCNU	I'll be seeing you
73	Best regards
QRM	Are you being interfered with? I am interfered with.

Additional References

Aronoff, S., "Code for Alphabetical Index for Punched Cards," *J. Chem. Education*, Vol. 36, No. 11, p. 581 (November 1959).

Ball, N. T., "Making Classification Systems for Punched-Card Coding," Chap. 25 in *Punched Cards*, 2nd ed., edited by Casey et al., cited below.

Casey, R. S., C. F. Bailey, and G. J. Cox, "Punch Card Techniques and Applications," *J. Chem. Education*, Vol. 23, pp. 495–499 (October 1946).

Casey, R. S., J. W. Perry, A. Kent, and M. Berry, editors, *Punched Cards: Their Application to Science and Industry*, 2nd ed. (Reinhold Publishing Corp., New York, 1958).

FIG. 7-5 Close-up of dual access arms on the disk memory unit for the IBM RAMAC 305.

Among the minor notes I made as I read the document are the following:

Figure 1-1 will be extremely difficult to reproduce legibly in a small page format. I have seen it reproduced (American Documentation, April 1962, p. 161) and it is just not useful.

Page 2-11 (bottom): C. L. Bernier is no longer with Chemical Abstracts, but with the Armed Services Technical Information Agency.

Figure 2-5 (p2-35): even though this may be a "lovely" card, it would serve the purpose better to use a standard Library of Congress card with tracings on the front.

Page 2-47ff: it might be useful to have an illustration of Garfield's Citation Index.

Page 3-24: the legend on the figures refer to Table 3-12. Where is Table 3-12?

Page 4-11 Footnote: should be Dekker, J.

Page 4-23: I still object to awkward split infinitives, for example: "to directly and uniquely describe", first line, 2nd paragraph.

Pages 9-81-82, ~~9-84:~~ exactly same set of facts appear in different sentences: "It is estimated that 90 per cent of the current U. S. newspapers are available in microfilm form." Not only is this needless redundancy, but the first time there is no reference, but the second time there is.

I seriously question the need for some of the illustrations - particularly those of widely-known equipment or devices: for instance, Figures 5-2 (Simple hand punch); 9-1 (16 mm Microfilm); 9-2 (35 mm Microfilm).

(Cont'd.)

When published, this will be a useful book. However, as with all descriptions of equipment and techniques in a fast-developing field, it will be outdated in a few years. Bourne has done a good job of bringing together the developments of the past decade.

John Wiley & Sons, Inc. NEW YORK LONDON

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MARKETING DIVISION
A. H. NEILLY, JR.
VICE-PRESIDENT

April 5, 1963

Dr. Charles Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

I wish to acknowledge receipt of the promotional questionnaire for METHODS OF INFORMATION HANDLING.

With the information you have provided, we will now begin active planning of the promotion for your book. Since the preparation of technical copy takes time and thought, it may be a while before we are in touch with you again. Rest assured, however, that before too much longer we will be sending material along foryour approval.

Sincerely yours,

George T. Carroll
Advertising and Promotion Manager

GTC:js

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PRODUCTION DIVISION
J. S. BARNES, JR.
VICE-PRESIDENT

April 4, 1963

Mr.
~~Dr.~~ Charles P. Bourne
~~Computer Technology Laboratory~~ Systems Engineering Dept.
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

We are planning to return your manuscript METHODS OF INFORMATION HANDLING to you around the end of next week for check of editing. I would like to let the printer know approximately when he can expect the manuscript for composition and I wonder if you can get it back to us by May 3rd. If this is not possible I would appreciate your suggesting a more realistic date.

– fine

– Yes. As matter of fact I was planning to visit your offices on April 25 on my next trip East. I could bring it then & both could go over the unresolved points with the Editor.

Sincerely yours,

James A. McNeish
Manager
PRODUCTION DIVISION

JAM:gl

C Bourne

John Wiley & Sons, Inc. NEW YORK LONDON

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MURRAY HILL 9-7630

PRODUCTION DIVISION
J. S. BARNES, JR.
VICE-PRESIDENT

March 25, 1963

Mr.
Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

We have started work on the preparation of the illustrations in Devices & Techniques For Information Processing, Storage, & Retrieval and note that there are two pieces of poor halftone copy on hand. I am enclosing a Xerox copy of each for identification.

Would you ne kind enough to round up a glossy print of each suitable for reproduction and send them on to us at your convenience?

I am trying to get a better copy of Fig 5-2. Sincerely yours
I have not been able to get a good glossy photo for Fig 5-3
Consequently I am going to omit it from the book.

George S. Flohn

George S. Flohn
Manager Illustration Planning
Production Division

→ I'll send Fig 5-2 to you when I get it.
thanks.
Chas Bourne

Sent 8 April 63

GSF:jw

Now, with respect to your request for suggestions concerning Bourne's draft, I feel it would be extremely presumptuous of me to make such suggestions. However, since you have asked for them, I have the following thoughts which I will try to present in a useful sequence which you can handle in any way you want.

It is not at all clear, in either the structure of the book or the flow of the writing from one chapter to the next, what Charlie is trying to say. It may be that he is not really trying to say anything but merely to provide a very useful and complete collection of equipment developments together with comments and illustrations of their usage. Such a collection, as I indicated, would be extremely useful, but it seems to me that something more is possible and Charlie has the opportunity, based on the material in this draft, to accomplish this something more. I have therefore tried to see whether a re-arrangement of the material might not indicate a direction toward this aim. I would like to suggest the following:

(1) The first chapter should be based on the present Chapter 13, "Special Problems and Characteristics of Large Files", and oriented in such a way as to serve for an introduction to the remainder of the book. In effect, this chapter should define the purpose of the book as a means of illuminating the variety of techniques available for solution to the problem posed by the present Chapter 13 and, therefore, by the proposed Chapter 1.

(2) The second chapter, which may well have enough material for two or three chapters, should collect together all of the material concerned with "coding", most of which is concentrated in Chapter 12 but a large part of which is scattered throughout the remainder of the book. The emphasis of this chapter on coding should be to build-up to the problem of representing natural language in mechanized form - which is in fact the major contribution of the present Chapter 12. This would involve, for example, the problem of representing information, illustrating this with several of the codes now scattered throughout the text, developing some of the more esoteric techniques of coding (such as prime number and superimposed), and then presenting the coding of natural language information as a necessary part in any mechanized solution of the problem posed by Chapter 1. Now that I think about it, incidentally, the material on coding of natural language could well be Chapter 3 and the generalized discussion of coding and coding techniques be Chapter 2.

(3) The fourth chapter, therefore, could reasonably be concerned with the material now covered by the present Chapter 5 concerned with "The Application of General Purpose Computers". This would represent a natural transition from the representation of data to the processing of it for purposes of abstraction, indexing, and similar intellectual processes.

(4) This, then, leads naturally into Chapters 5, 6, and 7 which essentially duplicate the present Chapters 6, 7, and 8 concerned with precisely such problems of intellectual natural language processing.

(5) The material now represented by Chapters 1, 2, 3, 4, and 9 should then be considered as a group, possibly forming one or two chapters concerned solely with the storage of coded data and the specialized machinery for handling the storage media.

(6) The present chapters on microfilm techniques and components, microfilm records, microfilm systems, and mechanized image storage systems represent a similar natural grouping concerned with the problem of storing image data rather than coded data.

(7) The case study information which is presently scattered throughout the book should be collected into one or possibly two chapters with the intent of showing how these various techniques for data representation, data processing, data storage, and image storage have been utilized in the solution of particular problems.

Viewed in this organization, the book then consists of the definition of a problem, the description of the mechanized tools which can be used for its solution, and a series of case studies illustrating this usage. Incidentally, with respect to the case studies, it seems to me that in certain places in the book this term has been improperly used. The distinction which I am making is between case study as illustrations of application and some of his "case studies" which merely illustrate features of use.

With this re-organization I feel the book would take on a far more unified picture and have a greater rationale than it presently has. To accomplish this re-organization will probably require writing of transition paragraphs or even whole sections - perhaps even additional chapters - but the major portion of the book I feel has been written and is available in this first draft.

Aug 61

In reviewing Bourne's book on Information Processing, Storage and Retrieval, I find it difficult to avoid a bias due to my own specific interests and requirements in a book of this sort. It turns out that most of my remarks are negative, but I should say first of all that, by and large, the book is accurate and, except in a few sections, readily understandable. The best portions of the book are those that deal with Bourne's own work, since it is here that he contributes something new. Largely, though, the book is a compendium or catalogue of devices and techniques, with little in the way of added perspective or evaluation. I know of no similar compendium, however, in this field.

With respect to the audience to whom this book is addressed, Bourne states in the preface, "I expect this book to be of interest to any individuals or organizations who are organizing or operating information systems." I think this statement is accurate if taken literally. I doubt, for example, that the book is really intended for either teachers or research workers, since it tends to deal only superficially with a large number of techniques. Incidentally, the original title, "Devices and Techniques for Information Processing, Storage and Retrieval," although cumbersome, is more accurate than the briefer title apparently selected. Let me consider now some of the individual chapters.

To begin a book of this kind with a chapter on edge-punched cards keynotes the work as an inventory of devices and techniques. It would seem to me that if the book were intended to educate the student, the layman, or the research worker, it ought perhaps to begin with a discussion of the nature of the problem itself, or something similarly thought-provocative. The treatment in chapter 1 of the searching of chemical compounds as well as the treatment of production scheduling problems serves to identify these subjects but does not go into sufficient depth to satisfy anyone interested beyond the point of identification. The character of chapters 2, 3, and 4 is similar to that of chapter 1, and I have no further comments in detail.

Chapter 5, "The Application of General Purpose Computers," continues in the vein of brief, superficial equipment discussions which I think take too much for granted from the point of view of the uninitiated layman but go into too little depth for anyone already acquainted with the subject. I noted that in this chapter, and throughout the book, the literature citations at the end of the chapter were usually not tied to specific comments in the text of the book; instead they constitute only a general bibliography. I should think it would be not difficult to improve matters by a brief sentence or two, where the reference signal appears, which comments on the nature, significance, or relevance of each citation. (In a few cases I felt that the cited references were not relevant to the material of the chapter.) In chapter 5 a second brief discussion is given of chemical compound searching but again too perfunctory to do more than invite attention to this highly interesting aspect of information retrieval.

The chapter on automatic indexing and abstracting treats in considerable detail a rather controversial technique developed by Luhn. Bourne presents an accurate account of Luhn's work, but does not cover any new material nor does he contribute evaluation or perspective with respect to the other work in the field. For example, on page 3 Bourne

correctly states several basic assumptions that Luhn makes. These assumptions are critical to the question of whether or not the technique has any validity. Yet Bourne does not indicate whether attempts have been made to test these assumptions, and if so, with what results. Incidentally, one of these basic assumptions, namely, "The more often a word appears in a document, the more it becomes representative of the subject matter of the document," is refuted by preliminary experiments which I and my colleagues have performed i[redacted] This material at present is discussed only in an unpublished report. These experiments were not on a large enough scale to be conclusive, but I do believe the whole question of how one should go about evaluating the validity or soundness of any work on automatic indexing and abstracting should be mentioned somewhere.

Bourne includes a section on probabilistic indexing, an approach developed by Maron, Kuhns, and Ray, which, as he notes, is not on the subject of automatic indexing. Kuhns and Ray, incidentally, [redacted] have been involved in other work on automatic indexing which is indirectly referred to on page 6 of the chapter on automation of technical writing. Again, the discussion on probabilistic indexing is purely descriptive and not evaluative, though useful evaluative remarks could be made.

On page 5 Bourne quotes results of investigations on the percentage of time that topic sentences appear as the first sentence of a paragraph and as the last sentence of a paragraph. I suggest that he cite references to these results and perhaps look further into how they were obtained, since the whole question of how one defines a topic sentence and whether, indeed, it is susceptible to consistent definition, is critical to the evaluation of the procedure. For example, in my group we have performed a number of experiments (under an Air Force contract on "Automatic Abstracting") on sentence extraction by people and have

found only a very slight bias toward selection of the first sentence of a paragraph as a "key" or "important" sentence for the purpose of an extract-type abstract. Although we have made no attempt to define "topic sentence," I can see no way of doing so which would be likely to lead to a consistent interpretation by different individuals. Although Bourne notes (page 10) that the techniques of automatic abstracting are controversial, his quoting of what might be dubious results or assumptions could lend unjustifiable weight to such results and assumptions. I think the remedy is to include some of the pro-and-con arguments rather than merely to mention the question as being controversial. Another remedy would be to omit the chapter on automatic indexing and abstracting, since in this area the lack of evaluation and perspective is, I think, a more serious omission than it is in those chapters which describe equipment.

The chapter on automation of technical writing introduces what would seem to be an interesting subject but never quite comes to grips with the subject. Again, pages 7 and 8 typify an approach that describes but does not evaluate related work in the field. In particular, for example, Bourne discusses Allen's technique for logical analysis of legal statutes and accepts Allen's terminology that the subject of "logic" is involved. Mathematical logic per se is involved only in an almost trivial sense; the essence of the problem Allen is attacking is that of syntax analysis. Far more significant "syntax recognition" work has been done in the field of linguistics and in machine translation than has been done by Allen, and it seems to me that a proper perspective on Allen's work can be gained only by placing it in the context of other work on syntax.

While I realize that no two human beings organize their thoughts alike, I might remark, nonetheless, that quite a few portions of the chapter on technical writing belong with automatic indexing and other portions with the subject of mechanical translation. For example, a

reference to Swanson is cited on page 6, which work, it seems to me, is not nearly so relevant to the subject of that chapter as it is to the subject of the preceding chapter on automatic indexing. The title of chapter 7 appears to me inappropriate, since I can find nothing which explains how one might conceivably go about automating the function of technical writing except for the comments on mechanical translation. The latter, I agree, are valid, since machine translation involves sentence "recognition" procedures for the "source" language and sentence "generation" in the target language.

I have no new comments on the chapter on image coding and processing and so will skip to "Magnetic Tape and Card Systems." The technical language of this chapter, I suspect, is understandable only by the expert; yet the substance of what is said is pitched at the level of the layman (see page 5 particularly). This situation could be remedied either by more definitions of terminology to help the layman or by incorporating more substance for the expert. On page 3, for example, there is an opportunity to digress usefully into a number of interesting analyses, such as, how much magnetic tape would be required to store Chemical Abstracts or perhaps the card index to a large library; how long would it require to search such indexes and abstracts, and what are some of the search strategies appropriate to the use of magnetic tape?

The sentence on page 5, "Thus, the tape searchers can hardly be justified if they are more expensive than some computer systems," omits a crucial point, namely, that it is not the expense of the system but the cost per search which is the relevant factor. The cost per search, of course, involves an amortized machine cost per unit of time together with a factor involving speed of search and another factor involving total utilization time. I think the issue of special purpose machinery versus general purpose machinery is a crucial one from the point of view of economics and deserves discussion in this light. Again, the remedy would be either to provide the appropriate depth or to lengthen the

explanatory portion to clarify matters for the uninitiated. Discussions of specific machines, such as the CCC and the GE-250, would be particularly strengthened by an economic cost-per-search type of analysis.

The next four chapters on microfilm techniques, records, systems and mechanized image storage systems continue as a catalogue-type encyclopedic inventory of equipment. Again, I think the discussion could be strengthened by more cost-versus-speed analysis. This is particularly so when comparing such extreme examples as the multi-million-dollar Minicard system with the conceptually similar but more primitive Filmorex device. On page 9 of the chapter on mechanized image storage systems, we do learn that the Minicard system is over a million dollars (I think the actual figure is closer to $7 million) and that the Filmorex system is only $18,000. These figures do not tell us whether it is better to buy 200 Filmorex devices or one Minicard system for the same price, since one would have to do some analysis of speeds and probable load factors.

The chapter on special coding topics is easily the most interesting. I think, though, that it needs a certain amount of expansion and clarification. The section on prime number coding is quite good, but the significance of the method as an information retrieval tool could be brought out more clearly by some remarks on the comparative effectiveness of this method with respect to other coding methods. The same remarks can be made about superposed coding techniques. Bourne might also expand certain mathematical questions which the serious student would be interested in. On page 7, for example, an explanation of the difference between sampling with replacement and sampling without replacement is called for, as is a more complete discussion on the limits of validity of the approximations to the drop-out fractions developed by Wise and Mooers. It is furthermore true that in Perry's punched card book Wise makes some errors

in failing to identify the nature of the approximations he has made. These errors are serious in certain cases wherein the available number of holes is small. So far as I know, the first published, rigorous formulation of the problem is one given by Maloney in a reference which Bourne does not cite--International Conference on Scientific Information, vol. II, pp. 1379, 1380.

The data on letter and digram frequencies is quite useful as is the discussion of abbreviation techniques.

The last chapter on "large files" devotes a considerable amount of attention to questions which are characteristic of any file regardless of size (particularly pages 2, 3, 4, and 5). The subject matter discussed has considerable potential which is not exploited by Bourne. Perhaps he could touch upon approaches to solving some of the problem areas mentioned.

I hope these comments have been of some help; please do not hesitate to call upon me if you wish anything clarified or augmented, or if I can be of help in any other way.

B

Aug 61

I have reviewed the draft manuscript entitled "Information Processing, Storage, and Retrieval," by Mr. Charles P. Bourne. The manuscript is being returned to you by registered mail under separate cover.

Frankly, I am confused about the probable audience the author had in mind when assembling the manuscript. He treats a number of equipment types and systems for storing information, but his treatment is erratic, varying from reasonably comprehensive to rather superficial. For example, his treatment of the comparative frequency of initial letters in proper names and similar topics is in the nature of a research paper rather than a reference book. His chapter on the The Application of General-Purpose Computers, on the other hand, is sketchy, inadequate, and poorly organized.

The manuscript deals with punched card systems which have been in use for many years, and also discusses the beginnings of automation in technical drafting, writing, and editing. A book cited by Mr. Bourne, Punched Cards: Their Application to Science and Industry, Second Edition, by Casey, Perry, Kent, and Berry, Reinhold Publishing Corporation, stands head and shoulders above the present manuscript in its discussion of punched card equipment, systems, practical applications, and coding problems.

The sections on microfilm systems for information storage and retrieval appeared among the best in the manuscript. I believe there is need for, and room for, a first-class book on this subject, similar to the book mentioned above on punched card systems.

In addition to these general observations, I found several sections of the manuscript written amateurishly, and noted several instances of duplicative material appearing in more than one section (such as the description of the Minicard System). It seems to me the author needs to restrict his subject to something he can manage.

Aug 61

REVIEWER C'S REPORT ON BOURNE'S INFORMATION PROCESSING, STORAGE, AND RETRIEVAL

"It is obviously a very thorough job, representing a fine-tooth combing of the literature.

"Initial reaction is that the manuscript lacks overall logical structure. While each section covers its own material well, the collection of sections seems to need a single thread to help tie them all together.

"Technical content presumes that the reader is already familiar with basic fundatmentals.

"Overlap between this and the Hayes-Becker effort is small but it does exist. It is more evident in the sections dealing with intellectual concepts rather than those concerned with technical equipment.

"I should like to suggest that you consider publishing the book in handbook or compendium form. In doing this, I foresee little change in the manuscript content, but it will require an editorial reorganization in order to gather the material under similar technical headings. This form of presentation has merit as follows: First, I think it would be an easier and quicker job to do than an editing revision designed to overcome the present segmented approach; second, the technical descriptions in the manuscript are already grouped under appropriate categories; third, the IR field needs this kind of presentation as it would contribute toward the standardization of terminology, and last, the suggested form would complement our planned textbook in a way that will reduce the chance of redundant treatment of material."

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June 16, 1960

Dr. Charles P. Bourne
Computer Techniques Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

As expected, our Chief Staff Editor, Miss Redwine, confirmed my own views on the adequacies of your partial manuscript. She has, as a matter of fact, edited your Chapter XIV and provided me with a statement which I will enclose with the manuscript. In summary, we are agreed that your manuscript has no major deficiencies and that your final presentation will be far better than the average one we receive, work on and process.

Sincerely yours,

Walker G. Stone, Editor
Engineering Sciences

WGS:bh
Encl.

To Mr. Stone:

Re: Charles P. Bourne's DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL

"Very well-prepared manuscript" -- this is the way we would describe Dr. Bourne's sample chapters. I have examined all the copy that he gave us and have edited the first of the chapters (XIV). The changes that I have made are minor, most of them to make the manuscript consistent in the style he has chosen, such as: putting a comma before "and" in a series and a hyphen in adjectival combinations (33-mm film, low-speed operation). I have read critically to detect unpleasant repetition of certain words ("used," for example) and vague, hackneyed expressions ("in the case of"). A few of the paragraphs are so long as to appear rambling (see page XVI-7), and here and there I felt that Dr. Bourne had put in unnecessary commas.

I have only one really drastic change to suggest in the way the manuscript has been organized. The letters and numbers that precede the topical headings give the manuscript an outline appearance. We shall set these headings in distinctive type, which should set them off from the text with sufficient clarity.

Sarah Redwine

June 14, 1960

COMMENTS ON: "DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL"

Chapter 2--Edge-punched Card.

Good general description.

I feel that there were slightly too many illustrations of different cards. You were trying to show different applications, but you relied too heavily on the illustrations to make the point for you. Descriptive verbal material would do the job more clearly.

I feel that the biggest drawback in this chapter is the lack of evaluative data. For example, in one figure you show a number of different systems for coding dates, but you don't evaluate these in any way. I think it would be helpful if you suggested when to use one system and when another, i.e., use 12 boxes for the months of the year when you do a great deal of sorting by month. The reader is interested in your opinion, as the expert, on the advantages and disadvantages of the different coding systems. You were content to simply collect the information, but did not evaluate it.

Chapter 2--Interior-Punched Card System

Very brief.

Why not include some case histories here? You do this very effectively in Chapter 3.

Chapter 3--Tab-Card System

I especially liked the case histories.

Do you plan to indicate the appropriate bibliographical references in the text? I noticed that you did not do this, and that makes the bibliography a little less useful. For example, I wanted to find out if there was a publication on how the State of Ohio handled its accident statistics, and I eventually found that this report was indexed under IBM.

Chapter 4--Paper Tape Equipment

Good.

Chapter 5--Computers

It may be desirable to distinguish between different phases of programming:

mathematical formulation
flow charts
coding.

I would probably stress--to a greater extent--the use of procedural languages like ALGOL, FORTRAN, etc.

June 23, 1961

Chapter 6--Automatic Indexing and Abstracting

I was particularly interested in this chapter. It is a good, brief, discussion of the topic.

Hal Borko

June 23, 1961

P-H

Reviews of DEVICES & TECHNIQUES FOR INFORMATION PROCESSING, ,STORAGE & RETRIEVAL:
by Charles P. Bourne

General comments can be summarized by our reviewers reactions that this is an extremely important book and that Mr. Bourne has done a superb job of organization. They felt that in view of the chapters presented for their consideration, he has a good style. From the user's standpoint the most important considerations are that he is providing broad and thorough coverage of vitally important material. Not only is he discussing the characteristics of individual devices and tools in great detail, but he also is covering the equally important characteristics of applications and problems.

Our first reviewer indicated one questionable point which he raised not as criticism, but simply to provide more than just a "isn't it wonderful". This questionable point relates to the size of the problem which Mr. Bourne has set for himself. Our advisor states, "I know from personal experience, (in attempting to perform a similar task as part of my working responsibilities) of the troubles which Mr. Bourne is going to have in doing all he has indicated. I suspect, therefore, that he must, of necessity, eventually reduce the coverage which he will provide. If this is so, he should be extremely careful not to make this reduction in a way which will affect the value of the book."

Our second advisor has mentioned another questionable point which is a somewhat more basic one. It concerns the possible impression which the book may give as a mere collection of data. He has pointed out that mere collections of data are themselves extremely valuable, but he suspects that that is not the purpose of Mr. Bourne and of Prentice-Hall in publishing this book. Our advisor has stated, "This can be said in another way: I get the impression of a lack of integration of the material. This impression may be false, but I feel that the possibility should be carefully examined."

Review of Bourne--DEVICES AND TECHNIQUES
FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL

I was very interested in reviewing the chapters in Mr. Bourne's new book on Information Processing, Storage, and Retrieval. I believe there is a need for such an all-embracing book on the subject, and based on the chapters I read, Mr. Bourne's book does fairly well. The table of contents is quite impressive in its scope. However, I wonder about the omission of traditional library and bibliographic techniques. From the title, one would expect to find these subjects treated in this volume, too, but Mr. Bourne has limited his book to non- conventional devices and techniques. While I believe it is well to divorce the two subjects, I believe the book title should make this division clear.

My general impression is that Mr. Bourne intended to cover a large mass of material in a descriptive and not too detailed fashion. Such a treatment should be buttressed by a plentiful supply of references at the end of chapters for those readers who need more detailed information.

This same thought applies to his use of examples, as in Chapter XVI, page 10. I believe either more information should be provided in the book or else references be given so that people can get more details as desired.

I was particularly interested in his section on "The Tools for Storing and Searching." While he has in his chapter outline for Chapters IX and X a consideration of the limitations and cost of manual punched and machine punched cards, he does not include a consideration of limitations and cost for optical and magnetic tape searching systems. Yet, it is precisely in these more sophisticated systems where we need the best cost data and a better understanding of the limitations of the system.

So long as I was reading the material, I took the liberty to make some marginal notes, and I spotted a few typographical errors, which are indicated. I believe Mr. Bourne should be congratulated for having grasped in a very capable manner the details of a very intricate subject. The manner of presentation was good, and I found the text easily readable.

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January 10, 1963

Dr. Charles P. Bourne, Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Enclosed are some minor errors and suggestions which our reviewer has submitted to us.

Our reviewer believes you have organized a most worthwhile book. He finds little to criticize and does like the organization.

He has, however, come up with one major suggestion which appeals to me greatly. He would like to see a summary chapter written that would state and discuss the criteria useful in determining the devices or techniques applicable to given situations. This, of course, may or may not be looked upon as within the announced scope of the volume. The inclusion of this chapter might well, even in necessarily tentative form, tie the book together. This is said because, as you have presented the material, the criteria is implied and isolated throughout the text.

I will await your reaction with greatest interest.

Sincerely yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL & REFERENCE DEPT.

WGS:bh
Encl.

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April 24, 1961

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

I was glad that you found our review helpful.

By mentioning your reviewers and mine I was referring to qualified individuals whom you would select as candidates to review the manuscript and those I would select. They may or may not be people you would select. At any rate, I believe it is appropriate for us to ask Mr. Knox to review the manuscript and will take action.

I see no reason now, however, why you should not invite reviews from some of your friends. Get out a stamp and stamp on the material "copyright pending 1961." Even though you have not actually taken out copyright this little notice would frighten anyone who might harbor ideas. Generally speaking, it is very very unlikely that any of the people you submit the material to would even think of using it for their own purposes. After you have selected your reviewers, I would appreciate your letting me know who these people are.

I wish I could say exactly when you will receive all of the reviews of the manuscript. Rest assured, however, that we will forward them to you just as soon as we can.

Cordially yours,

Walker G. Stone, Editor-in-Chief
THE PROFESSIONAL AND REFERENCE BOOK DEPARTMENT

WGS:bh

April 18, 1961

Mr. Walker G. Stone, Editor
Engineering Sciences
John Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

Thank you for your note and the comprehensive review of the preliminary material. I thought it was an excellent reviewing job, and am grateful for many of the points which were brought out. I hope you let the same reviewer examine the complete draft that I just sent you. As you suggested, some of his comments have already been answered with the rest of the draft material, although there are a number of points which I want to correct and modify -- based on the reviewers comments.

The fourth paragraph of your last letter mentioned,"...your reviewers and mine..." and left me with some questions. Are you going to request Mr. Knox to make a review or should I? When can I expect to receive the reviews of the complete manuscript? Outside of your office and my secretarial help, no other people have seen the manuscript. Should I invite reviews from some of my friends? I have not done this in the past because of possible copyright conflicts.

I look forward to hearing from you.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/sj

ADVANCED INFORMATION SYSTEMS COMPANY
A SUBSIDIARY OF THE ELECTRADA CORPORATION
3002 MIDVALE AVENUE
LOS ANGELES 34, CALIFORNIA
GRANITE 8-9801

April 14, 1961

Mr. Charles P. Bourne
Research Engineer
General Systems Department
Engineering Division
Standard Research Institute
Menlo Park, California

Dear Charlie:

Thank you very much for the draft on your book for Wiley. Of course I have seen parts of it as you sent them to me but it is quite impressive to see the entire set in so complete a form.

Sincerely yours,

Bob

Bob Hayes

RMH/ra

John Wiley & Sons, Inc.

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March 30, 1961

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charles:

Thank you for your letter of March 27th. We look forward to the receipt of three copies of the complete first draft of your book on INFORMATION RETRIEVAL. As soon as this material is on hand we will return the initial material which we utilized for one purpose or another.

I was glad to note too that you have also sent one copy on to Dr. Hayes.

Yes, I think it would be a good idea to have this material reviewed as well as utilized for the purpose of obtaining an estimate of costs, setting up sample pages, etc.

I note too your suggestion that Mr. William T. Knox might be an excellent candidate to review your material. Your reviewers and mine should provide us with the necessary final reviews which will enable us to agree on all details for the final copy.

I believe you will also be interested in the review, which I solicited, of the preliminary material. Enclosed is a copy. Perhaps you have already taken care of some of the questions he has raised in the material you forwarded to us. At any rate, I would appreciate receiving your specific reactions to the various aspects of his thoughtful report. I look forward to hearing from you.

Sincerely yours,

Walker (GH)

Walker G. Stone, Editor
Engineering Sciences

WGS:bh
Encl.

Reading Dr. Bourne's manuscript carefully has taken me longer than I expected, and I simply cannot find the time to look up references to check the accuracy of my first impressions.

Please understand therefore that what follows has come straight out of my head and needs checking for accuracy. I have tried to write down ideas that may be helpful, but it is more than likely that my memory may be at fault over several points.

Dr. Bourne has undertaken a tremendous task, and an important one, because this field of activity that he is talking about is definitely on the move, and a comprehensive book like this is badly needed. Much of the text sets out important matters, and sets them out very well indeed. I kept on finding myself saying, "Glad he said that, it needs saying."

I do feel, however, that the part of the manuscript that I have seen could be improved in a number of ways, and I will concentrate on recommendations for such improvements, rather than on appreciation of the many passages that I find altogether satisfactory.

First I feel that, if I didn't know quite a lot about the subject already, it would have been difficult to see the significance of many of the recent developments.

This is particularly true in the sections that deal with indexing and index search. I think there should be a passage setting out the problems that people are worrying about.

Readers are likely to be misled by the way some of the material is arranged, and by the fact that there is no clear distinction between equipment and methodology that can be classed as conventional, evolutionary, revolutionary, or merely pipe dreams.

For example the special IBM machines that represent Luhn's ideas for adapting tab and card technology to indexing and index search problems are described in the same section as conventional punched card equipment, while the Minicard system, representing probably the most advanced ideas on index search, is given a brief mention in a section on film cards, where it appears on equal terms with the relatively trivial Actifilm cards.

Incidentally I was expecting the Minicard system to be mentioned in the section on digital computers, because in its search function it is really a special purpose digital computer using film as a storage medium. The CCC search selecter is mentioned, in a section on magnetic tape, but its close connection with Minicard is not mentioned.

I suppose what I am saying is that the important basic problems are somewhat obscured by dividing the book according to engineering techniques.

It is very hard indeed to give an intelligible account of the various stages of complexity in indexing and I believe it would help if Dr. Bourne could illustrate by examples what type of complexity causes each of the progressively more sophisticated methods of indexing and index search to break down. At present I doubt if an uninformed reader would get much idea of the vast difference between the simple problems that can be handled by allocated fields on tab cards and the highly sophisticated problems that were worrying the people who designed the logic of index search for Minicard.

Perhaps what I am trying to say is illustrated by the attached "Notes for a discussion." Please remember, however, that these were simply notes to remind me of topics that I wanted to discuss, that I am very much an amateur in this field, and that I have had to remove the more interesting sections of the notes because they reveal some of our company objectives.

Incidentally, in connection with current work in the field, I am not sure that Dr. Bourne gets across how much activity is actually going on. A booklet put out periodically by the National Science Foundation, and entitled "Current Research and Development in Scientific

Documentation", is very helpful in this rewpect. The last copy that I have is dated May 1960, and its reference number is NSF-60-25.

A small point: - Some parts of the book are so IBM oriented that I'm afraid they will offend many readers. I must admit that they offended me, with my background of Whirlwind - Engineering Research Associates-Remington Rand - Ferranti - Powers-Samas - and now Itek. It sometime seems that Dr. Bourne is passing on what IBM would like the public to think, in fact their sales talk. As a minor example, the list of important input media for digital computers does not include punched paper tape, whereas all other computer manufacturers provide direct input from punched tape. Again under Concordances, the work on Dead Sea Scrolls is attributed to an IBM-705, while the pioneering work on the Bible is not attributed to Univac.

Incidentally I would like to see some reference to foreign punched card equipment manufactured by BTM, Powers-Samas and Bull. (BTM and Powers-Samas are now merged in ICT.)

In view of the detail given on edge notch cards, I feel that perhaps a little more detail on the tab cards might not be out of place. For example the code structure is based on an upper curtate of three punching positions in each column and a lower curtate of nine punching positions. In conventional equipment, (without special characters), at most one hole is punched in each curtate, so that one can use an extremely simple conversion from the 3 plus 9 position code on tab cards to a 2 plus 4 binary code suitable for punched tape and computers.

It might be a good idea to discuss the simplicity of this conversion and the troubles one can run into in conversion to and from unsuitable codes. Somewhere I think Dr. Bourne gave the impression that any punched tape code that is used to control printing can be converted into punched card code, which of course, is not so.

It is of interest also that in conventional Powers-Samas equipment (and Rem Rand too I believe) the whole set of punching positions on a card are dealt with independently and simultaneously. This has several results. For example, when a key punch is being used, the actual punching is not done until the pattern of the whole card has been set up, which makes it possible to correct the commonest type of keyboard error, namely the one that is know to the operator as soon as it is committed. As another example, in numerical columns the punching positions of the upper curtate are not needed, and may be used individually or in groups for other purposes, thereby increasing the effective capacity of the card. The ingenuity with which this feature has been used is quite fascinating.

I feel also that the ovalizing technique, which permits automatic verification, and the inter-punching technique, which doubles the capacity of a card, are worthy of mention.

Another small point is the reason why the IBM and Powers-Samas codes differ in the representation of the last 8 letters of the alphabet. (IBM

wanted to avoid having two holes in adjacent positions.)

Of course it is not possible to include all the intriguing aspects of tab cards, but I do feel that Dr. Bourne might well go a little further than he has.

I felt also that, having given a very interesting account of edge notch techniques, it is a pity that Dr. Bourne has not given an equally full account of such ideas as superposition coding, which I found very fascinating when I first ran into it.

I have been rambling, and it is time to get down to some specific comments that I noted as I went through the manuscript.

Edge Punched Cards

I enjoyed this section very much. I thought I knew a fair amount about different types of codes, but found many that were new to me. I was a little bothered by not knowing whether some of the codes mentioned were actually in use, or just ideas. The methods of sorting were quite new to me, and very interesting.

Interior Punched Cards

I am familiar with the Peek-a-Boo type of application, but suggest an explanation of how the sensing is done in category coding systems. I don't see it. I would also have liked to see a fuller description of Omnidex.

Tab Card Machines and Systems

I have already stated my feeling that this section mixes up conventional and evolutionary ideas, with no clear distinction between the two.

Under "Reproducing Punch" Dr. Bourne mentions the accumulation of totals. Powers-Samas have an electronic multiplying reproduction punch, which punches in extensions. I am not sure if IBM has a equivalent machine.

Under "Collator" it might be well to mention the file updating and file purging functions. It might also be a good idea to say how many output bins are needed, and why. (I never can remember this myself, though I used to know.)

Under "Line Printing" it seems inappropriate to mention the IBM 409, if, as I gather, it prints on cards. It would seem that "line printers" are intended for printing line by line on paper stock, and I wonder why Dr. Bourne did not mention at this point that many high speed line printers are on the market.

I have already suggested that the Statistical Sorter, Special Index Analizer, and Universal Card Scanner are examples of evolutionary

equipment that should be clearly separated from the conventional sorter, collator, reproducer and tabulator.

On page 27 I would like to know whether this scheme of double punching is in use or not. On page 35 I would suggest a clearer explanation of what is actually punched in the Index Medicus Cards, (numerical codes used for sorting only), and would point out that the citation is not typed directly.

Application of General Purpose Computers

My general feeling is that general purpose computers will be valuable for trying out new techniques, but that in the end the problem of index search will be more economically handled by special digital equipment yet to be developed.

On page 5 Dr. Bourne refers to the high storage capacity of magnetic tape. Has he compared the number of coded characters that can be recorded on a square inch of magnetic tape with the number of printed characters that can be recorded per square inch on ordinary paper? The comparison is rather surprising, and illustrates the fact that for some purposes graphic storage has tremendous advantages over digital storage.

On page 12 I was confused by the reference to coordinate indexing in a section which seems to be concerned with a complete file search. I haven't looked up the meaning of "Coordinate indexing", but am under the impression that it is essentially the uniterm approach, which avoids a complete file search.

On page 18 I have already suggested that, if I am correct, credit should be given to Univac for pioneering work in Concordances.

On page 15 I wondered whether Luhn's work was done on General Purpose Computers or on one of the special devices that he developed. (Incidentally his name was not mentioned as the originator of these devices. He did originate at least one of them, didn't he?)

Automatic Indexing and Abstracting

I have already talked about what I believe to be the weaknesses of this section. In particular I believe that there are more organizations working in this area than is suggested by the text, and that a reference to the NSF booklet might help.

Although Luhn's special machines have been introduced earlier, complex indexing is not mentioned until now, and the need for it is not explained.

The need for specific examples is particularly apparent on page 6, where prepositional phrases are discussed. (Many readers, including myself,

will ask "What the hell is a prepositional phrase?")

The very important problem of the recovery of "irrelevant documents" is, I believe, mentioned for the first time on page 9. This problem deserves far more emphasis, as one of the main reasons why sophisticated indexing systems are sometimes needed.

On page 10 I was surprised by the implication that Luhn of IBM alone had reported on Automatic Abstracting. If this is the case, how can there have been so many "technical arguments" on the subject.

Magnetic Tape and Card Systems

This is a weak section, probably because magnetic tape is merely a tool. The information on page 3 seems repetitive, and I am not at all sure what type of animal a "tape searcher" is. I found the top line on page 6 very obscure.

I doubt if the CCC Index Searcher belongs here. Its important feature is the type of questions that it can answer, not the fact that it happens to use magnetic tape.

On page 13 I was surprised to see the statement that "other costs" are relatively minor in comparison with capital equipment cost. I would have expected that operating costs, and particularly input costs, would be a major factor.

When I said that this section, entitled "Magnetic Tape and Card Systems" is weak, I did not mean to give the impression that its contents are unimportant. Indeed the section includes brief comments on some of the most interesting pioneering developments in the field, such as the Western Reserve University machine and Magnacard. What I am suggesting is that the importance of these machines lies in the problems that they are trying to solve, and in the engineering advances that they represent, rather than in the fact that they happen to use magnetic tape or magnetic cards.

Incidentally the AN-GSQ-26 built by CCC, is essentially the Minicard search selection system using magnetic tape instead of film cards as a storage medium. The fact that the two equipments use the same type of logic to answer the same type of questions is far more important than the difference in storage media.

Would it be possible to group together all the pioneering index search systems that use electronic techniques?

Microfilm

I liked the account of microfilm techniques and components, and thoroughly approve of many of Dr. Bourne's comments. I wish I could compare ideas freely, but unfortunately I cannot do so without revealing the trend of developments in Itek. I shall have to restrict myself to a few minor comments

Toward the bottom of page 2 it is stated that the most significant costs are in the information processing areas such as file maintenance or retrieval. I wonder if Dr. Bourne intends this to include costs of input and output, which will be significant in some applications.

In the section on Diazo and Kalfax I feel that the reader may be confused because there is no clear distinction between the following:-

a) Paper to paper by contact printing
b) Paper to microfilm by photography (with size reduction)
c) Microfilm to microfilm by contact printing
d) Microfilm to paper (hard copy) by projection printing. (With enlargement).

For example on page 3 the discussion starts with microfilm and then switches without warning to what I take to be paper to paper contact printing (box copier).

It might help the reader to explain that both Diazo film and Kalfax film are unsatisfactory for microphotography or projection printing, because they depend on ultraviolet light, which suffers serious loss of intensity when going through an optical system using glass lenses. They are good for contact printing.

On page 5 I was very surprised by the statement that there are more viewer-printers than viewers on the market, and that most of the equipment is for 35 mm. Is the first statement really true?

On page 7 the "basic principles of xerography" are mentioned, but I don't think the term "xerography" has been introduced before.

Microfilm Records

Of the many commercially available forms of opaque microcopy, only Microcard and Microtape are mentioned. I think the others should be included.

At the bottom of page one the impression is given that there is only one Fosdic machine. This is corrected later, but I suggest "Fosdic systems" on page one.

Page 3 was probably written before Filmsort was acquired by MMM. Their new affiliation should be noted.

Also on page 3 it is stated that "the use of punched card stock allows the user to use the aperture card with conventional accounting equipment". This statement is qualified later on, when it is pointed out that as a rule the cards are handled by machine before the film cards are inserted in the apertures, not afterwards. To avoid the danger of giving a wrong impression, it would be better to make this qualification on page 3.

Page 6. I have already suggested that the Minicard system deserves a more distinguished place in the book than this.

Microfilm Systems

Page five was missing in my copy.

John Wiley & Sons, Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

AIR MAIL

April 7, 1961

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

This is to advise that three copies of the complete first draft of your book on INFORMATION RETRIEVAL has been safely received in this office. You may expect to hear from the editor who is handling your work within a reasonably short time.

Sincerely yours,

Margaret Cagan
Editorial Department

1 copy to

Dr. R. M. Hayes
Advanced Information Systems Co.
3002 Wilshire Ave.
Los Angeles 34,

3 copies to

Mr. Walton Stone
Editor, Engineering Sciences
John Wiley & Sons, Inc.
440 Park Ave., South
New York 16, New York

Chang 41

registered, return receipt requested

CB — sent 3rd class
(1½/27) insured ($30)
29 March

March 27, 1961

Mr. Walker Stone
John Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

I am sending you, under separate cover, three copies of what I would consider to be a completed first draft of my book on information retrieval. When you receive these three copies would you please send back all of my manuscript material that you have collected up to now? This will avoid the complication of completing and arranging a broken set. I have also sent one copy to Dr. Hayes.

The writing could go on and on with additional topics, but I think--- and I would appreciate your comments on the matter---that the manuscript is currently about the right size and should be pushed to completion in order to be timely.

Some of the material has already become slightly out of date, and there overlaps between the chapters. I plan to go over the material now to prepare a final draft. I am also in the process of obtaining illustrations and clearances.

I have sent you this first draft with several thoughts in mind: (1) it might help you in your planning to know what progress is being made, (2) you might be able to assist with strategic comments about whether the book should be expanded, abbreviated, etc., (3) you might obtain some initial reviews regarding the scope, contents, reader reaction, etc.

If you decide to have it reviewed now, might I suggest that you send it to Mr. William T. Knox, Esso Research and Engineering Co., Technical Information Division, P.O. Box 51, Linden, New Jersey. I feel that he can provide a good technical review. In addition, he represents the point of view of one type of user who is the target for this book.

I'm looking forward to hearing from you.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/sj
cc: Mr. Kenneth Brown
9111 Hoxey Avenue
Los Angeles 45, California

John Wiley & Sons, Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

EDITORIAL DIVISION
J. S. SNYDER
VICE-PRESIDENT
W. G. STONE
ASST. VICE-PRESIDENT
W. H. GRIMSHAW
ASST. VICE-PRESIDENT
G. S. IERARDI
ASST. VICE-PRESIDENT

February 24, 1961

Dr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Engineering Sciences Division
Menlo Park, California

Dear Dr. Bourne:

Your letter arrived as Mr. Stone was preparing to leave the office on a business trip and he asked that I drop you a note acknowledging its receipt.

We note that you will send one copy of DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL on to Mr. Hayes. We note too that the two additional copies you will forward to us will contain four more chapters than we currently have on hand. Mr. Stone is looking forward to the receipt of this material.

Sincerely yours,

B. Hollender

B. Hollender
Editorial Assistant to Walker G. Stone
Editor, Engineering Sciences

bh

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Engineering Sciences Division

February 20, 1961

Mr. Walker G. Stone, Editor
Engineering Sciences
John Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

In accordance with your suggestion I will send one copy of the manuscript to Bob Hayes and two additional copies to you. However, I will delay the shipping for several weeks in order to include four more chapters that are in press.

You and I are the only people who currently hold draft copies of the manuscript. I have not given copies to anyone else for review or other purposes, nor do I have any particular plans yet for doing this.

Sincerely,

Charles P. Bourne
Research Engineer

CPB:js

John Wiley & Sons, Inc. NEW YORK LONDON

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MURRAY HILL 9-7630

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G. S. IERARDI
ASST. VICE-PRESIDENT

February 7, 1961

Dr. Charles P. Bourne
Research Engineer
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Charles:

I wish to confirm our telephone conversation in which I requested that you send one copy of your manuscript to Bob Hayes and two additional copies of the currently prepared material to me. Also, I would like to know to whom you have distributed copies for personal review and other purposes.

Bob Hayes address is as follows:

R.M. Hayes
Advanced Information Systems Company
3002 Midvale Avenue
Los Angeles 34, California.

Cordially yours,

Walker G. Stone, Editor
Engineering Sciences

WGS:bh

John Wiley & Sons, Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

AIR MAIL

January 13, 1960

Dr. Charles P. Bourne
Computer Laboratory
Engineering Division
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

This is to advise that your manuscript entitled DEVICES & TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL has been safely received in this office. You may expect to hear from the editor who is handling your work within a reasonably short time.

Sincerely yours,

Margaret Eagan
Editorial Department
JOHN WILEY & SONS, Inc.

January 10, 1961

Mr. Walker G. Stone
Editor, Engineering Science
John Wiley & Sons, Inc.
440 Park Avenue, South
New York 16, New York

Dear Walker:

Here is the first batch of rough draft chapters to give you some indication of progress to date. The chapters which I have finished and enclosed, are:

Edge-punched cards
Interior-Punched cards
Tab card machines and systems
Application of General Purpose Computers
Automatic indexing and abstracting
Magnetic tape and card systems
Microfilm techniques and components
Microfilm records--the basic forms
Microfilm systems and applications

The work is proceeding rapidly, with several other chapters partially completed. I have a limited number of extra copies of these chapters, and I have not sent them to anyone else. If you want extra copies distributed, would you please give me a list of names and addresses, ranked in order of priority. Thanks.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/sj
Enc.

John Wiley & Sons, Inc.

NEW YORK LONDON

440 PARK AVENUE SOUTH
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MURRAY HILL 9-7630

EDITORIAL DIVISION
J. S. SNYDER
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W. G. STONE
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W. H. GRIMSHAW
ASST. VICE-PRESIDENT
G. S. IERARDI
ASST. VICE-PRESIDENT

November 1, 1960

Dr. Charles P. Bourne
Computer Laboratory
Engineering Division
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

It was impossible for me to get out to the West Coast to attend the American Documentation Institute meeting held at Berkeley last week. As a matter of fact, it is a good thing that I was not out there since I had a difficult dental problem to cope with.

At your convenience I would appreciate receiving a summary from you on the significant factors brought out at this meeting.

I think now that the earliest opportunity I will have to visit the West Coast will be some time in January.

Sincerely yours,

Walker G. Stone, Editor
Engineering Sciences

WGS:bh

15 June 1960

Mr. Walter G. Stone, Editor
Sciences Division
John Wiley & Sons, Inc.
440 Park Avenue South
New York 16, New York

Dear Mr. Stone:

Thank you for your letter and invitation to get together at WESCON. At this time, I do not know whether or not I will be able to attend. I will try to make the meeting, but this is dependent to a great deal upon the worth of the WESCON technical program and possible SRI business in the Los Angeles area at that time. In any case, I will let you know as soon as possible, whether or not I can be there.

As an additional note for your records, I might point out that you are being overly generous by referring to me as "Dr.". I am currently doing some part-time graduate work at Stanford, but it will be a long time before I can use that title. Thank you.

Sincerely,

Charles P. Bourne
Research Engineer

CPB:js

John Wiley & Sons, Inc.

NEW YORK LONDON

440 PARK AVENUE SOUTH
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EDITORIAL DIVISION
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W. G. STONE
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W. H. GRIMSHAW
ASST. VICE-PRESIDENT
G. S. IERARDI
ASST. VICE-PRESIDENT

June 10, 1960

Dr. Charles P. Bourne
Computer Techniques Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

My associates and I were delighted to receive your recent letter with the signed agreement for the publication of your proposed work, DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL.

As soon as our chief copy editor has had an opportunity to go through the current material on hand, we will return this material to you with our suggestions and recommendations.

I have advised the Messrs. Hayes and Becker that you were working with us and of the desirability of the three of us working closely together on the development of your books.

It is my plan to attend Wescon in August, and I hope that we will be able to get together at that time. Please advise me whether you will be able to attend this meeting.

Sincerely yours,

Walker G. Stone, Editor
Sciences Division

WGS:fr

McGRAW-HILL BOOK COMPANY, INC.
330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK
LOngacre 4-3000 *Industrial and Business Book Division*

June 21, 1960

Dr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Charles:

I am of course disappointed to learn that we will not be acting as your publisher for DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL. I was aware of the nature of the competition, and while feeling sincerely that we were an ideal choice, I wish you every success with John Wiley and Sons.

I am returning the materials in my files to you under separate cover. It is also my hope that the future will bring forth other Bourne manuscripts for consideration by McGraw-Hill.

Cordially,

Walter G. Wulff
Editor

WGW:ms

McGRAW-HILL BOOK COMPANY, INC.
330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000 *Industrial and Business Book Department*

April 25, 1960

Mr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

It was a pleasure to talk with you yesterday regarding your book and McGraw-Hill's interest in working with you as publisher. I am enclosing with this letter our standard Memorandum of Agreement for publication of DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL. You will find the terms as outlined during our conversation; but, if you have any questions, please do not hesitate to call me collect (Extension 2981) or contact our West Coast Editor, Alden Paine (Fullerton, California, TRojan 1-4904).

As an expression of our confidence in the project we are offering our maximum 15% on domestic sales with the exception of single-copy sales by mail which carry a 10% royalty. This permits us to explore and promote various marginal lists in achieving maximum sales. All McGraw-Hill royalty terms are based upon full list price of the book, beginning with the first copy sold. Because of this fact, there is a considerable difference between our contract and that of any publisher who pays royalties on discounted prices.

Our reviewers have reported back various reactions to your work and in addition to the reviews already forwarded to you I feel that the one enclosed will prove both informative and valuable. We shall want to work very closely with you in obtaining reviews along the line as the manuscript develops in an effort to establish it as THE BOOK. I should stress, however, that these reports are offered for your consideration and that it is not our intention to urge you along lines which might run counter to ideas of your own. I am returning one copy of your sample manuscript which contains some marginal notes of the third reviewer.

Our editing department is ready to assist you at any time on the needs of your book as regards editing and styling. They will go over your first draft chapters in detail and give you comments and suggestions for the preparation of final manuscript if you so desire.

I think that you will find their help will expedite your work considerably. It also assures us that the final manuscript will be in the best possible condition for the printer and that it will move through the production process smoothly without delay and with a minimum chance of error in galley and page proof stages.

Under separate cover I am sending you a booklet entitled "Preparing a Technical Manuscript," which should be helpful to you and your typist, and a brochure, IMPRINT ON AN ERA, which will give you some background information on the company and an idea of the breadth of promotion and distribution which McGraw-Hill can give to your book.

As you consider this proposal, I hope that you will come to share our conviction that McGraw-Hill is the logical publisher for your work. I can assure you that all of us here look forward to working with you on such a worthwhile project and that we will extend every conceivable effort to produce a volume of which both you, as the author, and we, as the publisher, will be justly proud.

Very sincerely yours,

Walter G. Wulff

Walter G. Wulff
Editor

WGW:AS
Enclosures

27 May 1960

Mr. Walter Wulff
Industrial Book Department
McGraw-Hill Book Company, Inc.
Englewood Cliffs
New Jersey

Dear Walter,

I have finished reviewing the publication agreements of several organizations, and have decided to work with John Wiley and Sons for my book, "Devices and Technique for Information Processing, Storage and Retrieval".

You have been patient and considerate in your dealings with me, and I sincerely appreciate it. I hope that we may have another opportunity to work together at some time in the future.

Thank you.

Sincerely,

Charles P. Bourne
Research Engineer

cc: Alden Paine
Langdon White

CPB/js

McGRAW-HILL BOOK COMPANY, INC.
330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000 *Industrial and Business Book Department*

April 1, 1960

Mr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Divison of Engineering Research
Menlo Park, California

Dear Mr. Bourne:

As you are no doubt aware, our reviewers took longer than anticipated to report on their reading of your partial manuscript for INFORMATION PROCESSING, STORAGE AND RETRIEVAL.

The enclosed pertinent comments seem to me both encouraging and constructive, and I look forward to having your reactions to them. The reservations expressed are fortunately all in the area of style and organization rather than content and coverage. The former can be improved and polished by careful writing and considered reviewing along the way.

I hope to be in touch with you soon with a formal publishing proposal, but I wanted you to have the enclosed comments as soon as possible.

Sincerely yours,

Walter G. Wulff
Editor

WGW:s

Dictated but not read

Review # 1 Bourne

The attached manuscript from C. P. Bourne looks good in some respects and not so good in others. As proposed, it would serve as a most useful reference text on the types of systems and equipment which are emerging as useful for information handling activities. A good feature appears to be the emphasis placed on the practical aspects of newer techniques to the problem. Too much has been written on the theoretical possibilities of such systems, and this should be a welcome relief to those who have been searching for tangible evidence of ways to approach problems of information control. The author is obviously competent to discuss his subject and what he says is accurate. The subject is so treated that a revised edition would be in order after about five years.

My reservations are on the proposed organization of the book, based on the Table of Contents as submitted. Possibly his Introduction will clarify this to some extent, but I can't see how he can avoid being repetitive in at least some of his chapters. It would be unfortunate if, for this reason, the book suffered in reviews published in professional journals. Lacking improved organization of materials, it would seem essential to have careful editing to avoid unnecessary repetition.

Review #2 Bourne

I have examined the enclosed material by Charles P. Bourne and have a somewhat mixed reaction, which I will convey to you as accurately as possible.

First, the outline appears to be generally sensible, but possibly a trifle too ambitious in terms of the number of different applications to be covered. That is, the number of specific problems referred to (see particularly chapters VI, VII, XVI) seems to be so large that adequate treatment of each may be difficult. With the exception of this reservation the outline appears satisfactory with respect to content and organization.

It is difficult to tell from the four chapters just what the book will be like. I find the writing rather dull; chapters XIV, XV and XVI read like a handbook, reciting a long list of unexciting details. Chapter XXI, on the other hand, could use beefing up, for my taste, to clarify the concepts presented. At any rate, much of chapter XXI seemed to me to be unnecessarily obscure.

I do not, unfortunately know enough about Mr. Bourne to asses the probability that the book will be sound on that basis alone. I hope these remarks are of some assistance to you; I'm sorry I could not be more definitive.

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Industrial and Business Book Department

March 9, 1960

Mr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Division of Engineering Research
Menlo Park, California

Dear Mr. Bourne:

Thank you for your letter of March 3 and your partial manuscript for INFORMATION PROCESSING, STORAGE, AND RETRIEVAL. It is delightful to see a manuscript presented in such good form.

We have both copies out for review, and have asked for speedy reactions. I hope to be in touch with you again very soon.

Sincerely yours,

Walter G. Wulff

Walter G. Wulff
Editor

WGW:s

with Stan

3 March 1960

Mr. Walter Wulff
Editor, Industrial Book Department
McGraw-Hill Book Company, Inc.
330 West 42nd Street
New York 36, New York

Dear Mr. Wulff:

I believe that I have reached the point where enough of my book material is finished, and in a form which is suitable for your review. I have enclosed a rather detailed outline of the book contents, as well as four of the complete chapters. Naturally, these items will be subject to change as the writing continues. I have chosen several sections from the middle of the book to give an example of the writing style and depth of coverage. These sample sections were chosen so that there are examples of equipment and application descriptions, as well as an academic discussion of some information processing techniques.

If there are questions of technical competence, or a requirement for the analysis of the submitted copy, I suggest that Dr. Robert Hays, Vice President of Research at Electrada Corporation, 9744 Wilshire Blvd., Los Angeles, would be a good person to contact. He has taught classes on this subject at UCLA and American University, and will be the chairman of the session on Information Retrieval at the 1960 Western Joint Computer Conference. I have also included a personal resume to describe some of my previous experience in this field.

The Institute will continue to provide whatever support services that are required for the book. This should serve to speed up the delivery of the final manuscript.

I think that you should know that I have taken the liberty of submitting this proposal to several other publishers who have shown an interest in this subject. If there is any further information that I can provide, please let me know.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/js
Enc.

← Mr. Donald Wilson of your West Coast office suggested that I send it in early instead of waiting until the book was completed.

McGRAW-HILL BOOK COMPANY, INC.

330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000

Industrial and Business Book Department

December 14, 1959

Mr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Charlie:

I was pleased to learn that we may look forward to receiving your proposal soon, and also that SRI is being so cooperative.

Thanks for sending Dr. Hayes' address; we plan to contact him immediately.

Cordially,

Alex

Alexander A. McKenzie
Editor, Engineering Books

abc

December 8, 1959

Mr. Alexander A. McKenzie
Editor, Engineering Books
McGraw-Hill Book Company, Inc.
330 West 42nd Street
New York 36, New York

Dear Alex:

Thank you for your letter of November 24 and your helpful pointers. I have chosen the single-author approach and have already started the draft work on some of the sections. When I have finished with several of the chppters, I will forward them to you (in proposal form) for a more detailed evaluation. In the meantime, I am happy to report that SRI has agreed to furnish me with all the clerical help and support services that I need for this work.

In answer to your previous question, I can't think of any reason why you shouldn't contact Bob Hayes regarding his book. He can be located at the following address:

Dr. R. M. Hayes
Magnavox Research Lab
2255 Carmelina Ave.
Los Angeles 64, Calif.

Sincerely,

Charles P. Bourne
Research Engineer

CPB'eg

McGRAW-HILL BOOK COMPANY, INC.

330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000 *Industrial and Business Book Department*

November 24, 1959

Mr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Charlie:

Thank you for your letter of November 20 about your information retrieval project. There are a number of interesting points including the fact that Dr. Bob Hayes of Magnavox has nearly finished a book on the subject. We are naturally much interested in the possibility of publishing his book and should like very much to correspond with him. I would appreciate it if you could give me his full name and address if you feel that there is no reason why I should not write him.

I can see that it is going to be necessary to feel our way along on this project, and there is nothing wrong with this technique. Books with multiple authorship are much more common these days because there seems to be so little time and things do not stand still long enough for one man to write a definitive book on anything. To answer your question No. 1 directly, I believe that multiple authorship can be a great virtue providing that such a book is under the iron control of an editor who knows exactly what he wants and is capable of getting it out of his authors. It should, however, be perfectly possible for such an editor still to be on friendly terms with his authors after the book has been published! As for question 2, it is generally better for a publisher to deal with a minimum number of people, and in this case, we should prefer to work directly with you as the sole contracted party. Although we would help as much as possible, it would probably be incumbent upon you to get the necessary authors and to arrange with them the satisfactory reimbursements. When there are more than two or possibly three co-authors, the royalties become less and less significant. The real value in being a co-author of a successful and distinguished book is the prestige it brings. On this account, handbooks (which may involve scores of authors) pay the individual contributors very little in cash. A very good technique is to decide how many pages you wish from any given author, multiply this number of pages by your page rate (which may be as high as $5) but then offer the author the dollar product rather than specifying the page rate. For example, if you agreed to pay an author $5 per page for 20 pages and he turned in 50 pages, of which only 21 were usable, he might expect to be paid $250. If you

had initially offered him $100 and specified the approximate limit, he would then hold to the specification.

Although your list of selected topics on the Mechanization of Information Retrieval are interesting, I think we should have to have some adequate sample of the writing before we can come to any definite publishing decision.

Cordially yours,

Alex

Alexander A. McKenzie
Editor, Engineering Books

AAM:vv

McGRAW-HILL BOOK COMPANY, INC.

330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000

Industrial and Business Book Department

November 17, 1959

Mr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charlie:

As you know from my September letter, we are interested in your proposal for a book on information retrieval. We had hoped to receive a table of contents before the beginning of November. How is this item coming along?

I trust you received the copy of the McGraw-Hill AUTHOR BOOK that was sent to you early in September.

Cordially yours,

Alex McKenzie

Alexander A. McKenzie
Editor, Engineering Books

AAM:vv

November 20, 1959

McGraw-Hill Book Company, Inc.
330 West Forty-Second Street
New York 36, New York

Attention: Alexander A. McKenzie
Editor, Engineering Books

Dear Alex:

Thank you for your very subtle reminder that I am late with the sample copy that I had promised earlier. I have not been idle, but I have taken some false starts, and have had some interruptions from my other work. In particular, I had sketched out the outline, method of approach, and an introductory chapter. However, further discussions with a colleague of mine (Dr. Bob Hayes, Magnavox Research Lab, Los Angeles) revealed that he was nearly finished with a book on information retrieval which was based on a two-week course that he had just finished teaching at U.C.L.A. At that time, he had still not submitted the book to any of the publishers, and was anxious to finish it before contacting anyone. A discussion of the contents of the book revealed some similarities and parallel coverage which led me to alter the approach that I had planned. When I discussed my revised approach with him, he could see no conflict, and even suggested that the two books might go well together as a series. However, we did not pursue this line of thought in any more detail.

My recent thinking about the market potential for a book on this subject is that the most salable product would be an edited collection of coordinated and integrated sections which were written by people who have already achieved some recognition in this field. This might have the added advantage of producing a final product in a shorter time scale. The accent would be on the mechanization of information retrieval by systems other than manual means. My very tentative outline for the contents are described on the attached page. To date, none of the contributors which are under consideration have been contacted, but I feel certain that all of them would be willing to contribute to this effort.

Before I take any more action, I would appreciate hearing from you with regard to the following items.

1. With regard to this topic, what are your feelings about collections of contributions instead of the works of a single author?

2. What arrangements should be made with the contributors, and how should this be handled (for example: contracts, re-imbursement, editing, and checking)?

I did receive your AUTHOR BOOK, and it has been helpful. Arrangements are being made so that I can do some of the work, and obtain clerical support at SRI. This will help quite a bit.

I'm looking forward to hearing from you.

Sincerely,

Charles P. Bourne

CPB'eg

attachment

SELECTED TOPICS ON THE MECHANIZATION OF INFORMATION RETRIEVAL

Some Fundamentals
Types of Operations which can be mechanized
The use of computers for searching patents
" searching chemical compounds
" automatic indexing
" automatic abstracting
" automatic routing and dissemination
" searching document collections using conventional techniques
" searching document collections using unusual techniques
The use of conventional punched card machines and systems (IBM cards)
The use of special punched card machines and systems (aperture cards, CIM cards)
The use of optical systems for storage and retrieval (Minicard, etc.)
The use of special magnetic media searching systems (GE-250, Magnacard, etc.)
The present status of character recognition systems
The present status of memory systems for information storage and retrieval
The processing and interpretation of pictorial data
The special characteristics of very large file systems

SELECTED TOPICS ON THE MECHANIZATION OF INFORMATION ~~PROCESSING AND~~ RETRIEVAL

Some Fundamentals

Types of Operations which can be mechanized

The use of computers for searching patents

" searching chemical compounds

" automatic indexing

" automatic abstracting

" automatic routing and dissemination

" searching document collections using conventional techniques

" searching document collections using unusual techniques

The use of conventional punched card machines and systems (IBM cards)

The use of special punched card machines and systems (aperture cards, CIM cards)

The use of optical systems for storage and retrieval (Minicard, etc.)

The use of special magnetic media searching systems (GE-250, Magnacard, etc.)

The ~~state~~ present status of character recognition systems

The ~~state~~ present status of memory systems for information storage and retrieval

The processing and interpretation of pictorial data

The special characteristics of very large file systems

McGRAW-HILL BOOK COMPANY, INC.

330 WEST FORTY-SECOND STREET, NEW YORK 36, NEW YORK

LOngacre 4-3000 *Industrial and Business Book Department*

September 8, 1959

Mr. Charles P. Bourne
Research Engineer
Stanford Research Institute
Menlo Park, California

Dear Charlie:

I was glad to see you at WESCON and I hope that you will go through with your plan for submitting sample material for a book on information retrieval. As you know, this is an area in which we are much interested, and although we have been trying to interest a number of people, we still have no definite commitments. I believe that this is the kind of book that should be written with a view toward filling the greatest needs and perhaps a bit more steering will be necessary than the average book. We shall be happy to work as closely as possible with you on it.

We are sending you a McGraw-Hill AUTHOR BOOK, which you should find constructive and useful.

Cordially yours,

Alexander A. McKenzie

Alexander A. McKenzie
Editor, Engineering Books

AAM:vv

MEMORANDUM OF AGREEMENT

WITH

_____

AUTHOR OF

_____

AND THE

McGRAW-HILL BOOK COMPANY, INC.

* * *

DATE_____

MEMORANDUM OF AGREEMENT

Charles P. Bourne

hereinafter called the Author, hereby agrees to prepare and supply within a reasonable time to the McGraw-Hill Book Company, Inc., hereinafter called the Publishers, a work entitled

DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL

or such other title as may be agreed upon by the parties hereto, the said work comprising a typewritten, double-spaced manuscript suitable for use as printer's copy and acceptable to the Publishers in content and form, together with illustrations as may mutually be deemed desirable, and index. The Author does hereby grant and convey to the Publishers the sole right to: publish and sell the said work including all revisions and future editions thereof; translate, publish, and sell the work in foreign languages; sell all subsidiary rights to the said work subject to provisions in 1(*c*) below; copyright throughout the world in the name of the Publishers the work or any revision thereof; and renew any such copyright.

The Publishers, in consideration thereof, agree to publish said book at their own expense, in suitable style as to paper, printing, and binding, and to use all ordinary means to market said book, upon terms as follows:

[1] ROYALTIES.

(*a*) The Publishers agree to pay the Author royalties, based on the retail selling price in the United States of all copies actually sold, on the following schedule for each edition:

Sales made in the United States
15 per cent on all copies sold.

Sales made outside of the United States, and sales made through the Publishers' Book Clubs
One-half the royalties payable on the above schedule.

Other sales made through the mails direct to the consumer through the Industrial and Business Book Department
10 per cent on all copies sold.

(*b*) The Publishers agree to render statements of copies sold, semi-annually to January 1st and July 1st, and to make settlements therefor within sixty days thereafter.

(*c*) The Publishers shall have the sole right to publish, or permit others to publish, such selections from said work as they think proper, and any revenue received by the Publishers for the publication of selections or the sale of serial, translation, moving picture, radio broadcasting, television, book club, or other rights shall be divided equally in lieu of royalty between the parties hereto. No royalty shall be paid upon copies sold at or below the cost of manufacture as "remainders."

[2] AUTHOR'S CORRECTIONS. Should the Author make or cause to be made any alterations in type, illustrations, or plates which are not corrections of typographical or draftsman's errors, which shall exceed 20% of the cost of composition independent of the cost of said alterations, such excess alterations shall be charged to and paid for by said Author.

[3] MANUSCRIPT REVISIONS. The Publishers shall have the right to make such editorial changes in the manuscript as they deem desirable and necessary, but the Author shall be given an opportunity to review all such changes.

[4] AUTHOR'S COPIES. The Publishers agree to give the Author six copies of said book, and to sell him such further copies as he desires at a discount of 25 per cent, F.O.B. New York.

[5] COMPETING WORKS. The Author agrees that he will not, during the continuance of this agreement, without the consent in writing of the said Publishers, write, print, or publish, or cause to be written, printed, or published, any other edition of said book, revised, corrected, enlarged, abridged or otherwise, or any book of a character that might interfere with or injure the sales of said book.

[6] REVISED EDITIONS. The Author agrees to revise the said work when the Publishers, after consultation with the Author, shall decide that a revision is desirable. Should the Author be unable or unwilling to undertake such revision, or be deceased, the Publishers may arrange for the preparation of a revised manuscript, the Reviser to be compensated by a division of future royalties or by a fee paid by the Publishers and charged against the first income which may accrue to the Author from the sale of the revised edition.

[7] WARRANTY. The Author warrants that the work is original except for such excerpts from copyrighted works as may be included with the permission of the copyright holder and author thereof, that it contains no libelous statements, and does not infringe on any copyright, trademark, patent, statutory right, or proprietary right of others, and that he will indemnify the Publishers against any costs, expenses, or damages for which the Publishers may become liable as a result of any breach of this warranty.

[8] ASSIGNMENTS. This agreement may be assigned by either party, but only as a whole, and no part of the respective interests of either party may be assigned in any manner whatsoever.

This agreement shall be binding upon the parties hereto, their heirs, successors, assigns, and personal representatives.

IN WITNESS WHEREOF this agreement has been executed by the parties hereto on the dates following their signatures.

WITNESSED BY
As to Author:

(Signature of Author's Witness)

As to Publishers:

Ethel F. Strauss

(Author's Signature)

DATE . . . . . .

McGRAW-HILL BOOK COMPANY, INC.

Edward [illegible]
Vice President

DATE April 22, 1960

The Macmillan Company

CABLE ADDRESS PACHAMAC NEW YORK *Publishers* TELEPHONE OREGON 5-4000

Sixty · Fifth Avenue · New York 11, N. Y.

TECHNICAL AND BUSINESS BOOK DEPARTMENT

July 13, 1960

Mr. Charles P. Bourne
Stanford Research Institute
Division of Engineering Research
Menlo Park, California

Dear Mr. Bourne:

Thank you for your letter of July 7th. I am only sorry that we did not move faster on this project but our advisors took too long examining the material so we were not able to come to a decision on this matter soon enough.

I hope you will not regard us in a too unkindly light because of our dilatory work.

I also hope that you will let us examine future manuscripts you may develope. We would be interested in any further work you might do on the computer classification project.

Our Admiral Kinert will probably visit you from time to time and will discuss any other projects you may have up your sleeve.

Congratulations on signing your contract with John Wiley. We wish you success.

Sincerely yours,

George F. Hawkins

GFH:acj
cc;JOK
enc.

The Macmillan Company

CABLE ADDRESS PACHAMAC NEW YORK — Publishers — TELEPHONE OREGON 5-4000

Sixty · Fifth Avenue · New York 11, N. Y.

TECHNICAL AND BUSINESS BOOK DEPARTMENT

June 27, 1960

Mr. Richard Meyer
Engineering Division
Stanford Research Institute
Menlo Park, California

Dear Dick:

This is just a note to let you know how much I enjoyed visiting with you on my recent trip to California.

I hope that your colleague Mr. Templeton has recovered his health by this time. I also hope that Mr. Bourne has not gotten too impatient with us on the appraisal of his manuscript on Information Storage and Retrieval. My boss, Mr. Enslow, is hard at work on it.

I trust that Admiral Kinert will be in to see you from time to time, and that he will be able to discover other manuscripts in your department.

Thank you again for your kindness to us.

Sincerely yours,

George

GFH:acj

The Macmillan Company

CABLE ADDRESS PACHAMAC NEW YORK — Publishers — TELEPHONE OREGON 5-4000

Sixty · Fifth Avenue · New York 11, N. Y.

TECHNICAL AND BUSINESS BOOK DEPARTMENT

June 29, 1960

Mr. Charles P. Bourne
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

We have had your manuscript Devices and Techniques for Information Processing, Storage, and Retrieval gone over carefully by two experts. While they agree that this manuscript has good possibilities, they feel that there would have to be quite a bit of work done on it to make it a publishable manuscript.

Before we go into the problems involved in this manuscript, I would like to learn from you whether or not you have received an offer from another house. If you have not, we would like to consider the possibility of our publishing this book providing you would be willing to make certain changes which we hope would substantially improve its organization and content.

Your cooperation is appreciated.

Sincerely yours,

George F. Hawkins

GFH:acj

P. S. How are you coming along with your project on classification of computers?

GFH

7 July 1960

Mr. George F. Hawkins, Managing Editor
The Macmillan Company
60 Fifth Avenue
New York 11, New York

Dear Mr. Hawkins:

Thank you for your recent note which reported on the reviewing of my partial manuscript of "Devices and Techniques for Information Processing, Storage and Retrieval". When I talked to you early in April, you stated that you would have the manuscript reviewed and be in touch with me in three or four weeks. I was interested in getting a reply from Macmillan as soon as possible, because I had already heard from the other publishers and was delaying a decision until I heard from you. When several months passed by without any word from your organization, I assumed that you had lost interest in the project. Consequently, I then signed a publication agreement with John Wiley for this work. I'm sorry that I didn't hear from you sooner. I think I would have enjoyed working with you. In any case, thank you for your interest and consideration.

As a side note, I should mention that we have postponed work on the computer classification project because our current and projected work schedule is rather full. However, you might be interested in some of the results which came out of our study. The paper which I have enclosed was presented as the opening paper at the 1960 Western Joint Computer Conference.

Sincerely,

Charles P. Bourne
Research Engineer

CPB:js

Enc.

let sales price = P

let publisher's receipts = P(1 − discount)

Royalties

discount	Wiley (McGraw) < 3500	Wiley (McGraw) > 3500	McGraw all	P-H all
U.S. trade book stores 1/3	.18P(.67) = .12P; 18% publ. receipts	.2P(.67) = .133P; 20% publ. receipts	15% .15P sales price	15% publ. receipts
U.S. text outlets 20%	.18P(.8) = .144P; .18P	.16P	" .15P	"
direct mail more 10%	.18P	.20P	10% " .1P	10% "
foreign sales 35%	.18(P)(.65) = .117P	.13P	7½% " .075P	10% "

in all instances, P-H is more favorable than McGraw

Total Revenue (for 8000 copies)

outlet	fraction of sales	Wiley: revenue from 1st 3500	Wiley: revenue from all 4500	McGraw: revenue from 8000
U.S. trade stores	.15	.15(3500).12P = 63P	.15(4500).133P = 90P	.15(8000).15P = 180P
U.S. text stores	.35	.35(3500).144P = 176P	.35(4500).16P = 252P	.35(8000).15P = 420P
direct mail	.30	.3(3500).18P = 189P	.3(4500).2P = 270P	.3(8000).1P = 240P
foreign sales	.20	.2(3500).117P = 82P	.2(4500).13P = 117P	.2(8000).075P = 120P
		510.5P	722P	960P
		Wiley = 1232.5P		McGraw = 960P

(domestic & foreign)

	Matthew	P-H	Wiley
U.S.	15% of retail sales price	15% of publishers receipts	18% for first 3500 copies, 20% thereafter } of the receipts to the publisher
Foreign	7½% " " "	Foreign: 10% mail orders 10%	
direct mail	10% " " "	10% auth. Corr.	15% allowed for author corrections
	20% auth. corr.		

Wiley discount

15% domestic trade book stores (at ⅓ discount)
30% direct mail (no discount)
35% domestic text outlets (20% discount)
20% foreign sales (35% discount)

31 May 1960

Mr. Walter G. Stone, Editor
Engineering Sciences
John Wiley & Sons, Inc.
440 Park Avenue South
New York 16, New York

Dear Mr. Stone:

After reviewing all of the proposal agreements from the interested publishers, I am convinced that I would prefer to work with Wiley. I am returning a signed copy of your agreement, while retaining a copy for myself.

I'm not sure what your first step will be, but I would appreciate it if you would have a copy editor check the partial manuscript that you have. The manuscript was checked by an editor at the Institute, and I would like to know what differences exist between our editing, and what you require. This would guide our editing effort and possibly eliminate the need for some future corrections.

I feel certain that I am going to enjoy my working relations with Wiley, and I am glad that there will be an opportunity to coordinate the text with the work of Messrs. Hayes and Becker. Thank you for your patience and consideration.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/js

Enc. - Publishing agreement

John Wiley & Sons, Inc.

NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

EDITORIAL DIVISION
J. S. SNYDER
VICE-PRESIDENT
W. G. STONE
ASST. VICE-PRESIDENT
W. H. GRIMSHAW
ASST. VICE-PRESIDENT
G. S. IERARDI
ASST. VICE-PRESIDENT

May 23, 1960

Dr. Charles P. Bourne
Computer Techniques Laboratory
Stanford Research Institute
Menlo Park, California

Dear Dr. Bourne:

In accordance with our telephone conversation of last Friday, I am enclosing with this letter our proposed contract for the publication of your work tentatively entitled DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL. Please read the proposal carefully and if questions come to mind, by all means telephone me collect.

The suggested royalties pertain to both domestic and foreign sales.

We of the editorial division and our associates in the marketing division are agreed that your work will make for an excellent reference and companion volume to our basic book on INFORMATION STORAGE AND RETRIEVAL by Messrs. Hayes and Becker. We feel very strongly that the two books would complement each other and would serve to give both the student and professional a basic comprehension of the problem and the tools and techniques which will be available to resolve practical problems. You should know too that Dr. Hayes hopes very much that you will publish with us since your book and his will make for an excellent firm foundation in this field and each book will help the other in attracting interest and further research and development work. As a matter of fact we believe that the two books will in effect be the foundation for a program of books on information systems and documentation which we are in the process of developing.

As we visualize the sales picture today, we anticipate a projected sale of 8000 copies of which perhaps 15% will be sold through domestic trade book stores at a 33-1/3% discount, 30% through our domestic direct mail efforts (no discount), 35% of the sales should be forthcoming through domestic textbook outlets at a 20% discount, and foreign sales will account for 20% or more at 35% discount.

I should like to elaborate briefly on the three major parts of our publishing process. The Editorial phase encompasses the part in the development of the book up to the point where it is considered final from the point of view of professional contact. Our active participation will begin immediately upon your signing our contract. We would propose

to have portions of your final manuscript reviewed as they are prepared by qualified professional people and with the addition of our own comments, would expect to provide you with constructive suggestions which you may reject or accept as you see fit. Dr. Hayes has already stated his interest and willingness to exchange knowledge with you with a view to making each volume self-contained and at the same time complementary to each others work.

The Production of your book, after the content is finally settled upon, is a process that is conducted as rapidly as possible consistent with highest standards of physical excellence. As a routine part of this operation, your manuscript will be read carefully by a copy editor who is concerned with such matters as consistency of grammatical usage, punctuation, clarity of expression and other detailed items. You will, of course, be asked to review and check this editing carefully before the manuscript is forwarded to the printers for processing into galley form. Before the manuscript reaches this stage you will also be asked for your suggestions and approval of our items concerning design, photography and layout of the book. Final copy for illustrations are prepared by our own draftsmen on the basis of sketches supplied by you. The average time for production, including copy editing and checking proofs, varies from seven to nine months, depending primarily upon the authors availability to meet a schedule for returning proofs, etc. A complimentary copy of our new Author's Guide is going forward to you by separate post.

The process of marketing your book actually begins with the development of the manuscript itself since the editorial phase is partially concerned with the perfection of the most marketable book from your work. The implementation of our marketing plan begins with the manuscript going into production. At that time a detailed schedule of advertising, promotion and distribution plans will be laid out for your book. You will also be asked for your ideas, since you will also be invited to see some of the promotional material which we will send out on your book. In summary, you will be invited to work closely with us regarding styling and content so that we can initiate the most effective advertising that is possible.

Our organization is an international one having a John Wiley and Sons, Ltd. in London and full representation in Europe, Asia, South America and Australia as well as South Africa. Wiley currently has a travelling staff of thirty-five men whose principal activities are sales in colleges and industry in this country and Canada. Please bear in mind that John Wiley and Sons' list of publications is reasonably restricted and this enables our staff to give the most concentrated attention and service which is available to any author from publishers effective enough to handle a book such as yours. You are well acquainted, of course, with the publishers' procedure of sending out hundreds of review copies of each book and utilizing journal and direct mail advertising to complement the efforts of the domestic and international field staffs.

FROM JOHN WILEY & SONS, INC.

TO Dr. Charles P. Bourne FOLIO 3 DATE May 23, 1960

My associates and I are enthusiastic about your planned book and we look upon it as a forerunner of many which will eventually be written on specialized technical aspects of the subject. We consider your planned work as one which will make an important contribution to the literature and believe sincerely that it will be an effective writing which will stimulate wide interest and further work and research on this important problem.

We shall look forward hopefully to working with you and publishing your book.

Sincerely yours,

Walker G. Stone, Editor
Engineering Sciences

WGS:ML
Enclosures

AGREEMENT

AGREEMENT made this twenty-third day of May 1960

between Charles P. Bourne

of Menlo Park, California

hereinafter called the AUTHOR and JOHN WILEY & SONS, a New York Corporation of the City of New York, hereinafter called the PUBLISHER:

1 The AUTHOR hereby agrees to prepare and supply to the PUBLISHER, subject to the terms of this agreement, a work now entitled DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL (or such other title as may be agreed upon) and grant to the PUBLISHER the exclusive right to publish and sell this work during the full term of all copyrights and all renewals thereof, and the right to apply for and register the first copyright and subsequent copyrights, if any, in the PUBLISHER'S name and at the PUBLISHER'S expense. In the case of any violation or infringement of the copyright of this work, the PUBLISHER, with the consent of the AUTHOR, may bring suit or employ such other remedies as may be expedient and the cost of such suits or remedies shall be at the joint expense of the AUTHOR and PUBLISHER, and the net proceeds of any recoveries shall be divided evenly between the AUTHOR and PUBLISHER.

2 The AUTHOR hereby agrees to deliver to the PUBLISHER the manuscript of this work which shall be acceptable to the PUBLISHER in content and form and shall consist of double-spaced typescript, or its equivalent, together with all necessary illustrations. Copy for line illustrations shall be suitable for use by a draftsman in making final reproduction copy, and copy for halftone illustrations shall be clear, glossy photographs. The AUTHOR agrees to read and correct all proofs and to furnish copy for the Table of Contents and Index. The cost of AUTHORS' alterations (hereby defined as deletions, additions, or other revisions in proof, drawings, or cuts, made by the AUTHOR, and excluding the correction of typographical and drafting errors) in excess of 15% of the original cost of composition shall be charged to the royalty account of the AUTHOR. The AUTHOR agrees to obtain at his expense and to deliver to the PUBLISHER written permission to use all previously copyrighted material reproduced in this work.

3 In consideration of the foregoing, the PUBLISHER, at its own expense, and upon delivery of a complete and acceptable manuscript, will proceed at once to manufacture and publish this work and to employ its best efforts to promote the sale of this work.

4 The PUBLISHER agrees to pay the AUTHOR royalties as follows: Eighteen per cent (18%) on the first 3500 copies and twenty per cent (20%) thereafter of the receipts to the publisher on all copies sold.

Royalties shall be paid semiannually in the months of February and August, for the preceding six months, or fractions thereof, ending December 31st and June 30th, statement of account to accompany payment. Should the AUTHOR receive an overpayment of royalties on copies sold but subsequently returned, he agrees that the PUBLISHER may deduct such overpayment from future royalties accruing to his credit from the sale of this work or any other work by him which may be issued by the PUBLISHER.

5 The AUTHOR agrees that as long as this work remains in print he will not prepare or cause to be prepared without written permission of the PUBLISHER any book of a character that will be specifically detrimental to the sale of this work.

6 The AUTHOR warrants and guarantees to the PUBLISHER that this work is original on his part except for such material from copyrighted sources as is reproduced by the written permission of the copyright holder and is in no way whatsoever a violation of or an infringement upon any copyright belonging to any other party.

7 If in the opinion of the PUBLISHER a revision of this work is necessary, the AUTHOR agree to prepare such a revision and to supply any new matter which may be necessary. Royalty terms specified for the original edition shall apply to all revisions thereof. The AUTHOR further agrees that, in the event of any inability whatsoever on his part to revise this work, or to furnish new material, the PUBLISHER may select, subject to mutual consent, some other person or persons to make the necessary revision on terms satisfactory to all the contracting parties.

8 If it is mutually agreed to publish this work in two editions in order to achieve maximum distribution, the one edition being a special edition at a higher list price than the primary edition, then the AUTHOR agrees to accept the same royalty per copy in dollars on this special edition as on the primary edition.

9 The AUTHOR and PUBLISHER agree that the income from book club rights, translation, permission, reprints, television, or other rights shall be divided evenly between the AUTHOR and the PUBLISHER. Fees received for the rental of electroplates, negatives, or type, which are the property of the PUBLISHER, shall be retained by the PUBLISHER.

10 The PUBLISHER agrees to furnish the AUTHOR with six copies of this work without charge and to supply additional copies for his personal use, but not for resale, at author's discount of 25% less than the retail price.

11 The AUTHOR agrees that, if the sales of this work should become so materially lessened, in the opinion of the PUBLISHER, that it would not be profitable to continue this work in print, the book may be allowed to go "out of print," in which case this agreement shall terminate and all rights granted herein shall revert to the AUTHOR.

12 The AUTHOR and PUBLISHER agree that the terms of this agreement shall apply to and bind the executors, administrators, and assigns of the AUTHOR and the successors and assigns of the PUBLISHER.

.....

Charles P. Bourne AUTHOR

JOHN WILEY & SONS, INC.

By W. Bradford Wiley

President

AGREEMENT

BETWEEN

Charles P. Bourne

AND

JOHN WILEY & SONS, Inc.

FOR THE PUBLICATION OF

DEVICES AND TECHNIQUES FOR INTORMATION PROCESSING, STORAGE, AND RETRIEVAL

Dated May 23, 1960

JOHN WILEY & SONS, INC.

ESTABLISHED 1807

PUBLISHERS OF BOOKS

440 FOURTH AVENUE

NEW YORK 16, N.Y.

MURRAY HILL 9-7630

March 11, 1960

Mr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Mr. Bourne:

I should like to acknowledge the receipt in good order of your manuscript, DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE AND RETRIEVAL. I have informed the editor concerned and you will hear from him shortly.

Sincerely yours,

Mary D. Balestrieri

Mary D. Balestrieri
Editorial Department

8 March 1960

Mr. Walker G. Stone
Engineering Editor
John Wiley and Sons, Inc.
440 Fourth Avenue
New York, New York

Dear Mr. Stone:

I believe that I have reached the point where enough of my book material is finished, and in a form which is suitable for your review. Mr. Donald Wilson, of your West Coast office, suggested that I send it in instead of waiting until the book was completed. I have enclosed a rather detailed outline of the book contents, as well as four of the complete chapters. Naturally, these items will be subject to change as the writing continues. I have chosen several sections from the middle of the book to give an example of the writing style and depth of coverage. These sample sections were chosen so that there are examples of equipment and application descriptions, as well as an academic discussion of some information processing techniques.

If there are questions of technical competence, or a requirement for the analysis of the submitted copy, I suggest that Dr. Robert Hays, Vice President of Research at Electrada Corporation, 9744 Wilshire Blvd., Los Angeles, would be a good person to contact. He has taught classes on this subject at UCLA and American University, and will be the chairman of the session on Information Retrieval at the 1960 Western Joint Computer Conference. I have also included a personal resume to describe some of my previous experience in this field.

The Institute will continue to provide whatever support services that are required for the book. This should serve to speed up the delivery of the final manuscript.

I think that you should know that I have taken the liberty of submitting this proposal to several other publishers who have shown an interest in this subject. If there is any further information that I can provide, please let me know.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/js
Enc.

8 March 1960

Mr. Walker G. Stone
Engineering Editor
John Wiley and Sons, Inc.
440 Fourth Avenue
New York, New York

Dear Mr. Stone:

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I think that you should know that I have taken the liberty of submitting this proposal to several other publishers who have shown an interest in this subject. If there is any further information that I can provide, please let me know.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/js
Enc.

Prentice-Hall, Inc.

EXECUTIVE OFFICES

Englewood Cliffs, N. J.

June 3, 1960

Mr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Chuck:

I was very sorry to hear that you will be working with Wiley rather than Prentice-Hall on your "Information Storage and Retrieval" book. I have the feeling that it will be a very good book and one that will command a good deal of respect in the field. You have chosen a good publisher, and I think that you will probably be happy with them. I hope that in the future we may be able to work together on another project.

Best regards,

John H. Davis
Associate Editor

JHD/mhh

P.S. I am enclosing your outline and four sample chapters.

27 May 1960

Mr. John H. Davis
Associate Editor, Engineering
Prentice-Hall, Inc.
Englewood Cliffs
New Jersey

Dear John,

I have finished reviewing the publication agreements of several organizations, and have decided to work with John Wiley and Sons for my book, "Devices and Techniques for Information Processing, Storage and Retrieval".

You have been patient and considerate in your dealings with me, and I sincerely appreciate it. I hope that we may have another opportunity to work together at some time in the future.

Thank you.

Sincerely,

Charles P. Bourne
Research Engineer

cc: Dean C. Smith
Gene L. Mason

CPB/js

Prentice-Hall, Inc.

EXECUTIVE OFFICES

Englewood Cliffs, N. J.

April 5, 1960

Mr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Chuck:

I have had your material reviewed and it is certainly the nucleus for a very promising book. I am having Gene Mason drop in to see you with our Publication Agreements and also a copy of the review.

I am looking forward to working with you on this project.

Sincerely yours,

John H. Davis
Associate Editor

JHD/mhh

Prentice-Hall, Inc.

EXECUTIVE OFFICES

Englewood Cliffs, N. J.

April 5, 1960

Mr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Chuck:

I have had your material reviewed and it is certainly the nucleus for a very promising book. I am having Gene Mason drop in to see you with our Publication Agreements and also a copy of the review.

I am looking forward to working with you on this project.

Sincerely yours,

John H. Davis
Associate Editor

JHD/mhh

December 29, 1959

Mr. Robert S. Tinnon
Prentice-Hall, Inc.
4680 Portola Drive
Fremont, Calif.

Dear Bob,

I have finished a moderate expansion of my book outline, as well as a very quick analysis of the potential market for a book of this type. Both of these items are enclosed with this letter. I am looking forward to your comments and suggestions.

Another question which comes to mind, is whether or not a book publisher, in general, would object to having one or more of the book chapters published as papers in the technical journals before the book was published? There appear to be some major advantages to doing it this way.

Thanks again for the copy of the author's guide. It has already helped to answer some questions. I am looking forward to that copy of "Systems and Procedures" that you mentioned.

Sincerely,

Charles P. Bourne

CPB'eg

Enclosures

PROBABLE MARKET AREAS WHICH EXIST FOR BOOKS CONCERNING INFORMATION RETRIEVAL

1. Librarians and information specialists who are actually concerned with the day-to-day operation of information centers and collections (such as the technical libraries in the industrial and government laboratories). Most of the technical libraries will be interested in methods or ideas to apply to their specific problems.

2. Reference book for business applications, to be used by methods analysts who are setting up microfilm systems or other special files.

3. Suggested reading for classes in schools of Library Science.

4. Reference book for engineering or scientific personnel who are designing equipment or systems to do some of these jobs, but have little or no background information.

Comments:

Regardless of its quality, any new book in this subject area will sell well, and there are several examples of this. This is similar to the earlier rush for books on transistors.

This is not a flash-in-the-pan subject. There has been an increasing amount of interest in this subject during the last several years. For example, within the last two years the IRE and the ACM have devoted special sessions for this topic at their national conferences, where previously no papers were presented in this subject area. There have also been an increasing number of articles (and Senate Hearings) on this subject.

Books which have previously been published in this general subject area are:

Casey, R. Punched Cards - Their Applications in Science and Industry, second edition (Reinhold Publishing Corp., N. Y., 1958.

Perry, T. Tools for Machine Literature Searching: Semantic Code Dictionary, Equipment, Procedures (Interscience Publishers, N.Y., 1958)

Doss Information Processing Equipment (Reinhold, 1955)

Perry, T. Machine Literature Searching (Interscience, 1956)

Coordinate Indexing, Vol. 1-5, (Documentation, Inc.)

3 March 1960

Mr. John H. Davis
Associate Editor, Engineering
Prentice-Hall, Inc.
Englewood Cliffs, New Jersey

Dear John:

I believe that I have reached the point where enough of my book material is finished, and in a form which is suitable for your review. I have enclosed a rather detailed outline of the book contents, as well as four of the complete chapters. Naturally, these items will be subject to change as the writing continues. I have chosen several sections from the middle of the book to give an example of the writing style and depth of coverage. These sample sections were chosen so that there are examples of equipment and application descriptions, as well as an academic discussion of some information processing techniques.

If there are questions of technical competence, or a requirement for the analysis of the submitted copy, I suggest that Dr. Robert Hays, Vice President of Research at Electrada Corporation, 9744 Wilshire Blvd., Los Angeles, would be a good person to contact. He has taught classes on this subject at UCLA and American University, and will be the chairman of the session on Information Retrieval at the 1960 Western Joint Computer Conference. I have also included a personal resume to describe some of my previous experience in this field.

The Institute will continue to provide whatever support services that are required for the book. This should serve to speed up the delivery of the final manuscript.

I think that you should know that I have taken the liberty of submitting this proposal to several other publishers who have shown an interest in this subject. If there is any further information that I can provide, please let me know.

Sincerely,

Charles P. Bourne
Research Engineer

CPB/js
Enc.

Prentice-Hall, Inc.

EXECUTIVE OFFICES

Englewood Cliffs, N. J.

March 8, 1960

Mr. Charles P. Bourne
Division of Engineering Research
Stanford Research Institute
Menlo Park, California

Dear Charles:

Thanks for your letter of March 3rd and for sending the duplicate copies of your detailed outline and four sample chapters of your proposed manuscript on DEVICES AND TECHNIQUES FOR INFORMATION PROCESSING, STORAGE, AND RETRIEVAL for our consideration. The material was received safely in our office and immediately went out for review to one of our editorial advisors. Just as soon as I have some definite information from the field as to the publication potential for such a text, I will be in touch with you again.

I appreciate very much your thought of Prentice-Hall and want to thank you for giving us this opportunity to see your work. In the meantime, if there is any way in which we can help you on this interesting project, be sure to let us know.

Sincerely yours,

John

John H. Davis mh
Associate Editor

JHD/mhh

a publication agreement

made between CHARLES P. BOURNE *(author)*

and PRENTICE-HALL, INC. *(publisher)* on APRIL 4, 19 60

THE AUTHOR AND PUBLISHER AGREE THAT:

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1. The Author will write for publication a work on DEVICES & TECHNIQUES FOR INFORMATION PROCESSING, STORAGE & RETRIEVAL

The Author grants this work to the Publisher with the exclusive right to publish and sell the work, under its own name and under other imprints or trade names, during the full term of copyright and all renewals thereof, and to copyright it in the Publisher's name or any other name in all countries; also the exclusive rights listed in paragraph *I* below; with exclusive authority to dispose of said rights in all countries and in all languages.

Delivery of Manuscript

2. The manuscript, containing about 150,000 words or their equivalent, will be delivered by the Author by _____ 19____

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3. When the manuscript is ready for publication, it will be published at the Publisher's own expense. The Publisher will pay the Author a royalty, based on the actual cash received by the Publisher, of ~~10%~~ 15%

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4. The Publisher will report on the sale of the work in March and September of each year for the six-month period ending the prior December 31 and June 30, respectively. With each report of sales, the Publisher will make settlement for any balance shown to be due.

5. Paragraphs *A-M* inclusive, on pages 2 and 3 following, are parts of this agreement as though placed before the signatures.

_____
Author

PRENTICE-HALL, INC.

By _____

p/h

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A. The Author will deliver the manuscript in typewritten form (or, in the case of anthologies and revisions, in typewritten and printed form). The manuscript will be submitted in duplicate and a third copy will be retained by the Author. It will be in proper form for use as copy by the printer, and the content will be such as the Author and Publisher are willing to have appear in print. The Author will read the proofs, correct them in duplicate, and promptly return one set to the Publisher. The Author will be responsible for the completeness and accuracy of such corrections and will bear all costs of alterations in the proofs (other than those resulting from printer's errors) exceeding 10% of the cost of typesetting. These costs will be deducted from the first royalty payments due the Author.

Changes in Proofs

Items Furnished by Author

B. The Author will furnish the following items along with the manuscript: title page; preface or foreword (if any); table of contents; index; teacher's manual or key (if requested by the Publisher); and complete and final copy for all illustrations properly prepared for reproduction halftone illustrations; pencil sketches for line drawings which will be prepared for reproduction at the Publisher's expense up to ____ drawings.

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C. The Author guarantees that he is the sole owner of the work and has full power and authority to copyright it and to make this agreement; that the work does not infringe any copyright, violate any property rights, or contain any scandalous, libelous, or unlawful matter. The Author will defend, indemnify, and hold harmless the Publisher against all claims, suits, costs, damages, and expenses that the Publisher may sustain by reason of any scandalous, libelous, or unlawful matter contained or alleged to be contained in the work, or any infringement or violation by the work of any copyright or property right; and until such claim or suit has been settled or withdrawn, the Publisher may withhold any sums due the Author under this agreement.

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F. The Publisher will have the right: (1) to publish the work in suitable style as to paper, printing, and binding; (2) to fix or alter the title and price; (3) to use all customary means to market the work.

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G. The Publisher will furnish six copies of the book to the Author without charge. Additional copies for the Author's use shall be supplied at a 20% discount from the lowest list price.

H. The Author agrees to revise the work if the Publisher considers it necessary in the best interests of the work. The provisions of this agreement shall apply to each revision of the work by the Author as though that revision were the work being published for the first time under this agreement. Should the Author not provide a revision within a reasonable time after the Publisher has requested it, or should the Author be deceased, the Publisher may have the revision prepared and charge the cost against the Author's royalties, and may display in the revised work, and in advertising, the name of the person, or persons, who revise the work.

Revisions

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Discontinuing Manufacture

K. The Author agrees that during the term of this agreement he will not agree to publish or furnish to any other publisher any work on the same subject that will conflict with the sale of this work.

Competing Publications

L. This agreement may not be changed unless the parties to it agree in writing.

M. This agreement shall be construed and interpreted according to the laws of the State of New York and shall be binding upon the parties hereto, their heirs, successors, assigns, and personal representatives; and references to the Author and to the Publisher shall include their heirs, successors, assigns, and personal representatives.

JOHN T. CRAIN
INDUSTRIAL EDITOR

464 MAYLIN STREET
PASADENA, CALIFORNIA
TEL: SYCAMORE 5-4546

PRENTICE-HALL, INC.
ENGLEWOOD CLIFFS
NEW JERSEY

AGREEMENT

harles Bourne (*author*)

and PRENTICE-HALL, INC. (*publisher*) on April 8, 1960 19____

THE AUTHOR AND PUBLISHER AGREE THAT:

1. The Author will write for publication a work on
Information Storage and Retrieval

Grant of Rights

The Author grants this work to the Publisher with the exclusive right to publish and sell the work, under its own name and under other imprints or trade names, during the full term of copyright and all renewals thereof, and to copyright it in the Publisher's name or any other name in all countries; also the exclusive rights listed in paragraph *I* below; with exclusive authority to dispose of said rights in all countries and in all languages.

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2. The manuscript, containing about 160,000 words or their equivalent, will be delivered by the Author by August June 19 61

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3. When the manuscript is ready for publication, it will be published at the Publisher's own expense. The Publisher will pay the Author a royalty, based on the actual cash received by the Publisher, of 10% 15%

5^{00} - 10,000 in first 3 yrs.

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C. The Author guarantees that he is the sole owner of the work and has full power and authority to copyright it and to make this agreement; that the work does not infringe any copyright, violate any property rights, or contain any scandalous, libelous, or unlawful matter. The Author will defend, indemnify, and hold harmless the Publisher against all claims, suits, costs, damages, and expenses that the Publisher may sustain by reason of any scandalous, libelous, or unlawful matter contained or alleged to be contained in the work, or any infringement or violation by the work of any copyright or property right; and until such claim or suit has been settled or withdrawn, the Publisher may withhold any sums due the Author under this agreement.

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Construction, Heirs