Current Comments®

Sci-Mate 1.1: Improved Customer Services and a New Version of the Software for Personal Text Retrieval and Online Searching

Almost a year has passed since we announced ISI®'s new microcomputer software package, *Sci-Mate*™.[1] Briefly, *Sci-Mate* consists of two components: the *Personal Text Manager* (formerly the *Personal Data Manager*) and the *Universal Online Searcher*. The *Personal Text Manager* is a data base management system designed specifically to accommodate textual material—especially bibliographic material. It allows scientists to keep tabs on reprints, correspondence, lab notes, and even patient records. The *Universal Online Searcher* allows users to search any of the hundreds of data bases mounted on several large commercial vendors, without learning any special command languages. Using both *Sci-Mate* components, one can "offload" items retrieved through the *Universal Online Searcher* (from data bases which permit downloading) for permanent storage in the *Personal Text Manager*. See the appendix following this essay for a summary of this software system's principal features. (A revised version of the original *Sci-Mate* description[1] is in preparation. This will take into account changes in the system.)

Enough time has now elapsed for us to evaluate our first venture into microcomputer software. *Sci-Mate* has been well received by users. But even though we anticipated that providing support to customers would be an important factor

in its success, we underestimated just how important it would be.

If you're one of those who has used a personal computer, surely you remember your first encounter with it. Who could forget the instruction manual's "technogibberish" and the repeated error messages caused by seemingly minor mistakes? For the moment, "booting-up" a microcomputer is not as simple as plugging the electric cord into an outlet. Clearly, most people can quickly learn what is involved, but no thanks to the manuals generally provided.

The fact is, like many hardware and software manufacturers, we at ISI overestimated scientists' sophistication in the use of microcomputers. Although we expected to have some novice users, we underestimated the number of individuals who would buy their microcomputers just to use *Sci-Mate*. Therefore, many scholars were sitting down to their microcomputers for the first time when they received their *Sci-Mate* diskettes and manuals.

In spite of the complexity of hardware and software systems, manufacturers continue to advertise their use as virtual child's play. Certainly that's the message conveyed by ads showing cute six-year-olds playing the latest video games with computer keyboards. With products as potentially intimidating as digital computers, this desire to exaggerate the ease and downplay the difficulties is under-

standable. But the result is a legion of frustrated users. They've been primed to expect immediate gratification. In reality, beginning to use these systems demands some hours of contemplation.

Alphonse Chapanis, Communications Research Laboratory, Johns Hopkins University, Baltimore, Maryland, recently commented to the effect that "computers are not quite as easy to work as the glossy brochures suggest. Most systems have languages that are too cryptic, too difficult to remember and too large."[2] He went on to note that users can't communicate their difficulties to designers and that systems don't warn the inexperienced of potentially serious mistakes. Similarly, an editorial in *Info World* notes, "There is a communication barrier between manufacturers and consumers.... The people who buy the machines, in general, do *not* know what they are buying and, in general, the people who make computers can *not* explain to the consumers what it is that they are buying."[3]

User difficulties are compounded by the current shakeout in the microcomputer market. With apparently well-established companies such as Osborne folding, support services cannot always be relied upon. As a well-written article in *Monitor* aptly puts it, "The only thing that is safe to predict in this emerging industry is that, in two years' time, it will all be different."[4] That article emphasizes the dizzying choices available to the consumer and attempts to provide some rough guidelines for buyers. These boil down to: (1) go ahead and buy something now—who knows when the market will finish shaking out? and (2) talk to other users rather than relying on manufacturers' literature, which will only dazzle and confuse you. Again, the information gap between user and manufacturer is emphasized. And this prob-

lem can certainly be generalized to the software market.

It is this information gap that ISI has made every effort to close. If we've learned nothing else in the past year, we've learned that the quality of customer support is just as important as the quality of the actual software. Selling software is simply not enough. Often we must first virtually teach people how to operate their microcomputers, as well as such basics as Boolean logic, field definition, etc. Then we can help them install and use *Sci-Mate*.

In addition, as with *Current Contents®* (*CC®*) or any other ISI service, we must carefully evaluate the feedback we receive from *Sci-Mate* users to continually improve our product. The commitment to customer service at ISI begins with yours truly. ISI takes pride in the quality of its products, as I have repeatedly explained.[5] Customer support for *Sci-Mate* is an extension of this philosophy. It begins with the relevant ISI director, Catheryne Stout, and continues with the manager, Cynthia Lopata. Among other departments at ISI, there is also the Customer Service Department's *Sci-Mate* Hotline. This service is staffed from 8 a.m. to 6 p.m., Monday through Friday. The senior customer service representative is Robert Rodgers. He has worked for several years in quality control of ISI's online systems. He's supported by several experienced assistants.

The hotline deals with dozens of calls every day. Questions range from the most elementary to the extremely technical. As indicated earlier, problems encountered by novice users in installing and using *Sci-Mate* are quite common. Some questions may require referral to one of our specialists in research and development. Scientists have a propensity for demanding profound explana-

tions. Many questions have no direct bearing on *Sci-Mate* software, yet we endeavor to answer them all. Customer service representatives are often asked how to formulate search strategy, or how to design records. Since we have handled thousands of calls by now, we have accumulated a bank of valuable information on particular applications of *Sci-Mate* and its installation on various hardware systems. We have even served as a go-between with users and their hardware manufacturers.

When we first launched *Sci-Mate*, our user's manual assumed that users knew how to operate their own computers well enough to install any new software package. Since this was a mistaken assumption, many hotline calls concern *Sci-Mate* installation in the different hardware systems our customers own. (See the appendix for a list of hardware systems with which *Sci-Mate* is compatible.)

We have completely revised the installation section of the manual. It is written in simple language, in a step-by-step format that makes no confusing conceptual leaps. Our manual no longer refers users to their microcomputer manuals. For example, to copy the *Sci-Mate* diskettes, we guide you through every step involved. There is a separate section specifically geared to each of the hardware systems. Incidentally, the manual is sold separately, and many *Sci-Mate* users acquired it first before ordering the software.

One of the most significant sociological aspects of the microcomputer revolution is the growth of users' groups or clubs. Emulating software organizations such as SHARE, these consumer groups have become an important source of market feedback. We will be encouraging the formation of local *Sci-Mate* clubs. In the meantime, we have launched *Sci-Mate Matters*, a free, bi-

monthly publication available to all customers. It is designed to help scholars, physicians, and others use *Sci-Mate* to best advantage.

In *Sci-Mate Matters* we discuss specific applications, such as using *Sci-Mate* as a reprint file, or to keep track of lab notes. *Sci-Mate Matters* also covers data base development and maintenance. For example, in the first issue we thoroughly review "templating." This is the procedure used to customize your record formats in *Sci-Mate*. Also covered are the fine points of Boolean searching. *Sci-Mate Matters* will also keep you informed about new and proposed improvements. Finally, we intend to make *Sci-Mate Matters* a user's forum, through which you can share experiences. Most scientists I've encountered are eager to tell colleagues and fellow *Sci-Mate* users about their own information retrieval systems.

In my previous essay,[1] I cautioned you not to expect *Sci-Mate* to be the ultimate intelligent software. Every important program must be continually improved. *Sci-Mate 1.1*, the first revised version of *Sci-Mate*, has now become available. Among other features, *Sci-Mate 1.1* includes a multiple-line report generator. Columnar formats, as shown in Figure 1, can be extremely useful. Many report generators are limited to printing one format. *Sci-Mate*'s multiple-line report generator allows you to vary your report formats so that fields are listed in any order you choose. In addition, it allows you to print the entire entry in each field. *Sci-Mate 1.1* also includes a number of programming changes that further simplify the system.

We are working on a variety of other improvements. Among them is an optional bibliographic formatter. This package will not only allow you to print out the references you cite in a manuscript, it will also tailor the format to a

Figure 1: Sample multiple-line report showing full entries under fields for author, title, citation, and Original Article Text Service (*OATS®*) number.

AUTHOR	TITLE	CITATION	OATS #
ABER M; SALLE G	HISTO-CYTOLOGICAL STUDY OF THE PRINCIPAL PHENOCY TOLOGICAL STAGES OF ORBA NCHE-CRENATA FORSK	BIOLOGY OF THE CELL 44(1):A021 —A021, 1982	NX753
HAMZA R; TOUIBI S; ZAOUCHE A; KAMMOUN M; ELLOUZE R; BARDI I	CANCER OF THE CAVUM IN TUNISIAN CHILDREN — A HI STO-RADIOTOMODENSITOMETR IC CORRELATION REVIEW OF 47 CASES	PEDIATRIC RADIO LOGY 12(6):311- 312, 1982	PW387
JOLY R; CHAPUY MC; ALEXANDRE C; MEUNIER PJ	OSTEOPOROSIS AT HIGH REM ODELING AND PARATHYROID FUNCTION — HISTO-BIOLOGI CAL CONFRONTATIONS	PATHOLOGIE BIOL OGIE 28(7):417- 424, 1980	KJ588
LAGERON A	LIVER STORAGES INDUCED BY PERHEXILINE-MALEATE — HISTOLOGICAL, HISTO-EN ZYMOLOGICAL, BIOCHEMICAL DATA	THERAPIE 36(3): 289-291, 1981	LZ046
MEYER WW; KAUFFMAN SL; HARDYSTASHIN J	STUDIES ON HUMAN AORTIC BIFURCATION .1. HISTO-AR CHITECTURE OF THE BIFURC ATION	ATHEROSCLEROSIS 37(3):377-388, 1980	KR778
MIYAYAMA Y; FUJIMOTO T	FINE-STRUCTURE AND HISTO -CYTOCHEMICAL STUDY OF NEURAL CREST CELLS IN CH ICK-EMBRYO	JOURNAL OF ELEC TRON MICROSCOPY 31(1):113-113, 1982	NR451

given journal's style. You could prepare your first draft for submission to the *Journal of Biological Chemistry*, and then, if necessary, revise it for resubmission to the *Journal of the American Chemical Society, Nature,* or *Science.*

Obviously, it is not my intent to discourage anyone from purchasing a microcomputer for *Sci-Mate* or any other purpose. In the long run, our sensitivity to problems encountered by users should help them to overcome unnecessary apprehensions about computers. It is not necessary to soft-pedal the commitment required to use a new software system. On the contrary, a realistic attitude about the long-term benefits versus the short-term problems of developing a computerized information system will overcome these fears.

An automobile dealer can't assume that you're a mechanic. We can't assume that you're either a computer programmer or an information specialist. But we carry our understanding a step further than a used car salesman. He can assume you know how to drive. But he may not know the traffic laws where you will drive, or the terrain. We don't assume you're thoroughly familiar with your hardware system. Not only will we help you make the most of *Sci-Mate*'s sophisticated search, storage, and retrieval functions, we'll also do our best to help you avoid simple mishaps.

In the *InfoWorld* editorial I referred to earlier,[3] there is an anecdote about someone who obtained excellent advice from computer experts. He bought a computer, set it up as instructed, and turned it on. His next step was, with the best of intentions, to peel off the protective paper cover of the floppy disk, inadvertently destroying it. The whole field

Figure 2: Sample format for record in the *Personal Text Manager*.

USER File Accession Number 3

Data Base	SOCIAL SCISEARCH 197
Acc. No.	1630144
Title	THEY STAND ON THE SHOULDERS OF GIANTS—SOL SPIEGELMAN, A PIONEER IN MOLECULAR BIOLOGY
Language	EN
Doctype	ARTICLE
Author	GARFIELD E
Address	INST SCI INFORMAT/PHILADELPHIA//PA/19104
Citation	CURRENT CONTENTS, MAY 23, #21, P5-12
Year	83
No. Refs	11 REFS
OATS No.	QP 603
Refs.	SHAPIRO A (J GENET, V34, P237, 193.,
	SPIEGELMAN S (SCIENCE, V104, P581, 1946)
	SPIEGELMAN S (CANCER RES, V7, P42, 1947)
	HALL BD (P NAT ACAD SCI US, V47, P137, 1961)
	HAYASHI M (P NAT ACAD SCI US, V50, P664, 1963)
	DOI RH (SCIENCE, V138, P1270, 1962)
	TEMIN HM (NATURE, V226, P1211, 1970)
	HARUNA I (P NAT ACAD SCI US, V50, P905, 1963)
	MILLS DR (P NAT ACAD SCI US, V60, P713, 1968)
	LEVISOHN R (P NAT ACAD SCI US, V60, P866, 1968)
	BISHOP DHL (BIOCHEMISTRY US, V7, P3744, 1968)
Res Spec	
Notes	

of microcomputer use is mined with such potential errors. That's why diligent customer support is essential to user success.

Perhaps the best thing I can do is share with you my own experience with *Sci-Mate*. As you know, I've been writing essays for some time. I decided to experiment with my file of essays. I wanted even better access than using the indexes to the five volumes published until now. I could have asked my secretary to keyboard all the bibliographic data for my essays. Instead, I decided to use *Social SCISEARCH®*. To do this, I used *Sci-Mate's Universal Online Searcher* to automatically dial up the *Social Sciences Citation Index®* files on DIALOG. By going through a quick succession of multiple-choice screens, I did an author search on my own name. At 1,200 baud, or 120 characters per second, I downloaded or offloaded over 650 records. Each record included not only the title, journal, pagination, etc., for each paper, but also a condensed list of every reference I had cited. Once the downloading onto the temporary file was completed, I transferred the records into my permanent file. Figure 2 shows an example of a record templated in the permanent file.

Since that time, I have used my *Sci-Mate* file almost daily. I don't often have the time or the inclination to browse through the filing cabinet outside my office. Whether at my desk at home or in the office, I can now quickly answer questions like, "In what paper did I cite an editorial in *Lancet* or *Journal of the American Medical Association*?" or "When did I evaluate Italian research?" or "Where did I discuss scientific dictionaries?"

As has often been documented by researchers and clinicians with access to mainframes or minicomputers, the flexibility of a *Sci-Mate* microcomputer system can change the way you function. You may have to change your habits

somewhat but the greater flexibility in using your own information system will be worth the initial effort. Those of you who, like me, can easily afford a *Sci-Mate* system may not have the time to get started. You can turn the start-up task over to an assistant. With the help of the *Sci-Mate* manual you can be operational overnight.

But don't take my word for it. If you are planning to attend the annual meeting of the American Society for Microbiology, March 4-9, in St. Louis, or of the Federation of American Societies for Experimental Biology, April 1-6, also in St. Louis, drop by our *Sci-Mate* exhibit and we'll give you a demonstration of the software, and show you how you can begin *SCISEARCH*ing with a minimum of effort.

For more information about *Sci-Mate*, call the hotline at 800-523-4092. Back-up numbers include 800-523-1850, 800-523-1851, or 215-386-0100. When using these last three numbers, ask for extension 1418. After hours or on weekends, you may leave a recorded message at 800-523-4092. A customer service representative will call back as soon as possible. *CC* readers in all European countries except Scandinavia can contact our UK office at 132 High Street, Uxbridge, Middlesex UB8 1DP, UK; telephone: 44-895-30085; or telex: 933693 UKISI. In Scandinavia, contact Lab Comp—Laboratory Computing AB, Gelbgjutarevägen 4, 17148 Solna, Sweden; telephone 46-8-7303598.

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The *Sci-Mate* Software System

Sci-Mate™ is a menu-driven microcomputer software package for offline and online information retrieval. *Sci-Mate* consists of two components, the *Personal Text Manager* and the *Universal Online Searcher*. The offline component, the *Personal Text Manager*, is intended to accommodate bibliographic references, lab notes, correspondence, abstracts, and other forms of textual material. The online component, the *Universal Online Searcher*, allows searching of data bases mounted on several large commercial vendors using a universal command language.

Although both the *Personal Text Manager* and the *Universal Online Searcher* are available as separate packages, they are also in-

tended for use as an integrated system. Using both components, items can be retrieved through the *Universal Online Searcher* from data bases that permit downloading, for permanent storage in the *Personal Text Manager*.

Sci-Mate is designed to be "user-friendly." It has a menu-driven (or multiple-choice) command system with a tutorial subsystem. At each step, the computer asks you a question and presents a short list of options. If any choice needs clarification, you can ask *Sci-Mate* for help by entering a question mark.

The *Personal Text Manager* has a variety of text-handling functions. One of its major uses is as a reprint filing system. Of course, the

bibliographic records kept are representations of the original reprints. The actual reprints are filed separately. The same holds true for storage of lab notes or correspondence, unless the full text is so small that it constitutes the entire document.

The *Personal Text Manager* actually consists of two interrelated files. Users can temporarily store and manipulate records retrieved online or read from a word processor or any other text file in the *temporary work file*. The *permanent user file* is a free-text searchable system where information is permanently stored. Information in the user file can be stored as free text, or by using one of 20 customized, self-generated formats, or templates. Variable-length records of up to 1,900 characters can be used. Records can be linked to extend record capacity. Any record is searchable as soon as it is entered.

Menu-driven searches of stored records can be refined through Boolean logic. This means that "and" and "or" can be used to combine search terms. For example, two title words could be combined, or an author's name could be combined with a journal title and year of publication. Truncation can also be used to allow stem searching, e.g., bronch# for bronchitis, bronchial, etc. A search string can consist of 255 consecutive characters. Ironically, the longer the string, the faster the search.

The *Personal Text Manager* has several special features for manipulating textual material. Bibliographic or other material can be flagged to indicate action taken, such as a reprint ordered or a letter answered. You can review these records periodically to determine their status. Also, the multiple-line report generator feature allows you to print lists of authors, titles, and other elements of records in a columnar format.

Sci-Mate's *Universal Online Searcher* allows you to search data base hosts such as DIALOG, BRS, MEDLINE, ISI, or SDC. *Sci-Mate*'s menu-driven language frees you from the need to know numerous command languages, but the "host" language can be used, if desired. For all host systems, the *Universal Online Searcher* will "logon" automatically. It will also automatically dial up the system if an automatic modem is used. In addition to *Sci-Mate*'s search functions, such as Boolean logic and truncation, you retain all of the important search functions offered by the host system. Transferring information into the *Personal Text Manager*, from data bases that permit downloading, allows you to create data bases that are free-text searchable.

Sci-Mate is available for the Apple II (IIe and II+), Vector 3 and 4, TRS-80 Models II and 12, Kaypro 4 and 10, IBM PC and XT (using the PCDOS operating systems), and CP/M-80 systems with Z-80 microprocessors and eight-inch disk drives. A modem is necessary to use the *Universal Online Searcher*. The *Sci-Mate Personal Text Manager* costs $540. The *Universal Online Searcher* costs $440. If purchased together, they cost $880.