"THE ADMINISTRATOR AND THE COMPUTER-
A NECESSARY RELATIONSHIP"

by

ERIC G. REITER

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Why is it necessary for administrators and congregations to understand the computer? We, as administrators are charged with the responsibility of operating our organization as efficiently and as economically as possible. With the right computer knowledge, in conjunction with the needs of a Temple, as seen through the eyes of an efficient successful administrator, these goals can be achieved.

The intent of this paper is to acquaint an administrator with knowledge of the computer field, with the latest information to successfully determine the type of computer and/or services he will need, and how it can help him organize and run his business more efficiently.

In order to accomplish this, we must examine the various uses an administrator may have for a computer in his organization and the many components of the computer system.

The first step for the administrator is to understand the various uses he presently has for a computer or computer service in his operation. Some of these uses to consider are:

1. Accounting - A computer will process all of the Accounts Receivable, Payable, Payroll, General Ledger, very quickly and efficiently.

2. Word Processing - All of your letters, reports, and other forms of typing can be handled with the least amount of time using the word processing system.
3. Mailing labels and rosters are updated and printed instantly. This also includes Congregation, Sisterhood and Brotherhood rosters. This application can usually be incorporated with word processing to give you the ability to send individually addressed form letters to selected members for various reasons.

4. Yartzeit notices can be listed and printed automatically. The same program can also provide weekly yartzeit lists for the Rabbi. Letters of reminder of yartzeits can also be sent automatically.

5. All cemetery records can be computerized. This can include records of payment, perpetual care, and all the historical facts necessary to be remembered.

6. The computer has the ability to process registration for all schools, including religious, hebrew, nursery, and day schools. It is also capable of keeping class lists and student records.

In order to obtain a further understanding of computers and services, two common terms must be defined. They are software and hardware.

Software is the most important part of any computer system. The software is the application program used to activate the computer. It is a series of programs used to direct the computer to achieve the desired or designated functions. Software consists of the operating instructions in computer language( programs) and the interaction enabling the user to communicate with the computer.
Software is the part of the computer system which basically gets the work accomplished. One has to be able to understand the operation of the computer through the software. Reciprocally, the computer also needs to understand the requirements of the end user through the software.

Hardware is the actual physical box which we call the computer. This includes the CRT (video terminal), printers, CPU (central processing unit), power drive, and some type of storage facilities for the information. The selection of hardware is far less important than the selection of software. It can be said, "a hardware box is a hardware box," and there are many different brands available. (Therefore, it is the software that makes your hardware system unique and perform the functions you expect it to perform.)

The question frequently asked is, "Do I really need to buy a computer? Not necessarily. There are other ways to obtain computerized assistance for the congregation. Each has advantages and disadvantages to be examined below.

1. A Service bureau is an organization designed to service businesses. The service bureau owns one large computer and runs specific applications for businesses. Information is prepared and submitted to the service bureau for processing. Usually, a few days after submission of the information the results are received. The advantage to this method is that you are only responsible for submitting the information. The more difficult part of processing is left to the service bureau. A service bureau can often provide an economical, low risk way of beginning to use a computer (service).
The major problem with a service bureau is the "turn around time," the time gap between data submission and receiving the results. Another disadvantage is the lack of originality of application. Usually the user must conform to the specific application programs the service bureau has available, which are limited to accounts payable, receivable and payroll. (The specific programs for mailing list, word processing and yartzeits are usually not available.) Remember you are always dependent on an outside service which is responsible for many other accounts. Therefore likely your work will be scheduled with the others and the time it takes to receive your reports will depend on the amount of processing of many other businesses. This time gap will usually vary widely. Also, a service bureau makes money on their standardized applications (accounts receivable, payroll, etc.). So, you will have to adapt to their applications which can be a limiting factor for your operation.

2. Time Sharing is exactly as it sounds. You share computer time and run your processing on a computer hooked up via telephone lines. You will have a CRT and printer in your office, which is linked with the Time Sharing company over phone lines. The main advantage to this method is the elimination of "turn around time." Results are received as soon as they are input. You also are able to begin to computerize with a minor investment. On the other hand, the applications available for you to use usually are limited to already available situations presently being used by other businesses.
Also, while there is limited investment necessary, operating costs could be very expensive since the Time Sharing company must be paid on a time used basis. You also have the additional telephone costs to consider.

3. There are a large number of IN HOUSE computers available. They vary by the size of their memory and the number of jobs they can perform consecutively. The smallest is a MICRO (microprocessor). These systems are designed specifically for small businesses and homes. Some micros include Apple, Radio Shack TRS, IBM PC. These computers process information very slowly and usually can accommodate only one user on the system at a single time. The MICRO usually uses a "floppy disk" (explained later in this report) for its memory. The next larger and also very popular In-House Computer in today's business world is the MINI computer. MINI'S can accommodate many users at one time. They are also capable of running several applications at the same time. For example, one person may be typing a letter while someone else is entering invoices to be paid under Accounts Payable. Relative to costs, the MICRO is the most inexpensive computer to purchase. With the use of today's technology, the physical size of computers is becoming smaller as the power of the system becomes larger and larger. The MINI of today is generally not much larger than the MICRO. The largest In-House system available today is the MAINFRAME. These systems are generally very large (room-size), very expensive, and very difficult to operate. Mainframes use large hard disks or tapes for storage of memory. Most banks and large businesses use mainframes. Also time sharing and service bureaus use large mainframes.
Although the "in house computer" is the most expensive investment, it gives you the independence from outside services. You have a system that can adapt to your needs, rather than visa-versa. An "in house" system will provide you with greater capability and efficiency of operation.

The most important measure of a computer is the amount of memory it has. The size of computers vary with the amount of space available for its memory. In order, micro computers have the least amount of memory, mini's is the next in size, and the mainframe would be the largest computer with the most amount of memory available. The relative price of computers follows the same order.

Memory is the part of the computer in which the instructions, numbers, and all other data are stored when not being used by the processor. There are two basic types of memory storage, magnetic disks and magnetic tape.

Disks are round plastic or metal platters with a magnetic coating. They range from about five to twenty inches in diameter. They operate like a phonograph record except that the pickup is positioned over rings on the disk instead of having a needle's track, a spiral groove, as on a phonograph record. A microprocessor generally uses a floppy disk. This is the smallest type of memory and it is made of flexible plastic. A metal platter is usually called a hard disk.
Most mini computers use this type of memory storage. Platters generally run faster and store much more information than floppy disks. They operate in a similar manner to the floppy ones, however they do not have the possibility of wearing out like the floppy disks do.

Magnetic tape is very similar to stereo recording tape. It uses small cassettes for small machines and up to 10 1/2 inch diameter reels for the super large MAINFRAME computer. The main disadvantage of tape is speed. Due to the method of reading the tape from beginning of the tape to the end every time it needs information, it is the slowest type of memory. A hard disk has the advantages over tapes because the data is accessible at random in a few thousandths of a second. Tapes use a much slower method of retrieval called off-line as I have already described.

A personal note...Having considered using the time sharing and service bureau, I decided to purchase a MINI computer for my congregation. I have had the pleasure of using it in all aspects of operations in the past year and a half. My entire operation is vastly improved with the computer due to the speed and efficiency it provides me. The noticeable speed is obvious when I am called on to produce a current roster of the Congregation, Brotherhood, or Sisterhood. Within five minutes, my roster can be printed with current updates. Individually addressed letters to my Board of Trustees can be written and printed using the word processing system.
Individual letters can be written to collect delinquent dues from Congregants which look personal though they are computer generated. This system improved my ability to collect outstanding dues quickly. I also use my computer for Accounts payable, receivable, payroll, yartzeits, and storage of the main Congregation Master List, consisting of personal data of each family member. This information from each family is used to run surveys and studies of membership types, sizes, and activities needed to satisfy the members.

The in-house computer has proven to be very successful to me for the various reasons presented above. There is however, no standard procedure for each Congregation to follow when it comes to computerizing.

Again, the intent of this paper was to acquaint the administrator with a brief overview of the computer vs. congregation/administrator role. Since the marketplace is rapidly changing, no particular plan or system can hereby be recommended. Hopefully gained is a basic understanding for assessing your needs and the various ways computers and modern technology can help you in the future to achieve your goals as the efficient successful Temple Administrator.