

MICRO-COMPUTER SOFTWARE FOR THE CLASSROOM: SOME SOLUTIONS

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ABSTRACT

As more and more marketing faculty begin to utilize micro-computers in the classroom, a shortage of suitable and affordable software becomes a problem. This problem is explored and some alternative solutions presented. Specific sources of marketing software are cited, and typical costs presented.

THE PROBLEM

As business schools acquire substantial numbers of micro-computers for use by both students and faculty, finding suitable software for marketing applications becomes a problem of growing magnitude. The question for the faculty member who wishes to use micro-computer based exercises in the classroom then becomes one of acquiring good quality software at an affordable price.

There are a number of reasons why this problem is more difficult to solve in a specific functional area like marketing, as opposed to the more generalized areas of accounting or statistics. Most marketing problems are met by vertical market software. By their very nature, vertical markets are smaller, more specialized, and develop more slowly. Vertical markets require a much larger installed base of equipment before it becomes economical to develop applications software. As a result, longer developmental lead times are required. This means that vertical market software is generally much more expensive than generic software, and is not available in as great a variety. (Chin 1984). A recent search of a comprehensive software data base found that less than one percent of the 20,000 software packages available specifically covered sale and marketing functions (Sales and Marketing Management 1984).

Other problems can develop which are unique to the academic environment. Most marketing faculty will not choose to use micro-computer exercises in their large section courses, but will reserve them for case courses or senior-level electives. These courses are not normally offered every term, and may only be offered one quarter per year. When an administrator has to make budget allocations for software, the marketing faculty member who will only use a package once a year will generally receive a lower priority than the accounting faculty members who teach multiple sections of a financial accounting course every term.

A further problem is the attitude of foundations towards the use of grant money to purchase software products. Much of the micro-computer equipment being acquired by business schools is being purchased with funds from private sources. Our experience has been that these donors are reluctant to allow grant funds to be used to purchase software. In many cases these funds are restricted to the acquisition of hardware, peripherals, disk operating systems and equipment installation.

For the business user, software costs can easily account for 25 percent of the total cost of a micro-computer system. For the academic user, it can account for a much higher percentage, sometimes as

much as 50 percent. This is due to the fact that the business user typically buys a micro-computer for a single primary task, and one or two secondary tasks. This is the classic case of a "single station, single user" system. The machine may only be used a few hours a day, and then it is used for a single task such as financial analysis or word processing.

In contrast to the business world, the micro-computers in the academic environment are typically used by a large number of individuals and for a wider variety of tasks. The machines are usually housed in some sort of common laboratory situation, with teaching assistants checking out software to students on an individual basis. Micro-computers in this type of environment are in almost constant use. The machine may be used by a student to do an accounting problem, followed by a programming student, and then a student with a statistics problem for a marketing research class. This situation necessarily requires a larger volume and wider variety of software than the typical business application.

POSSIBLE SOLUTIONS

The purpose of this paper is to present several alternative solutions which can solve this software problem. Some solutions will be inherently more acceptable than others, and some will fit the unique situation at a particular institution better than others. Hopefully, within this array the individual faculty member will discover a solution to the problem of finding suitable micro-computer software for their marketing classes.

STEAL IT

Software piracy is rampant in today's market. It is generally conceded that from six to ten illegal copies of software are stolen for every legitimate copy of software which is sold. For many educators, "bootleg software" has been an answer to the problem. In fact, it is common knowledge in the market for educational software that most copies of software used in the primary and secondary school systems are pirated. There are several problems with the approach. For one, it is stealing. Ethics aside for the moment, imagine what getting caught and becoming a "landmark" case will do for a career. There are also some very practical problems with stolen software. The most important one is that there is no one to turn to for up-grades, manual revisions, and after-sale support and training. Also, as a result of the manufacturers' experience with the lower grades, many of them are opting not to enter the market for educational software. Continued piracy by users both in and out of the educational community can only result in problems for all users in the end (Oppenheimer 1983).

DEVELOP IT YOURSELF

A second option to solve the software problem is to develop software yourself, or have a student programmer do the work. Several such efforts by marketing faculty have been published (Kagel, 1983) and (Becker, 1983). In most cases, this software is

not of commercial quality. Typically these programs are written in BASIC and address a very limited problem. While adequate for their intended purposes, they are certainly lacking when compared to the commercial software available on the market.

A few years ago, both the micro-computers and the software were relatively uncomplicated. However, in today's market of the 16-bit, and soon-to-be 32-bit, micro-processors; it is virtually impossible for the amateur programmer to develop a worthwhile product for the classroom on a part-time basis. In this environment, software development is measured in man-years and requires a substantial capital investment. Further, student programmers simply do not have the experience and sophistication to develop the programming required for advanced marketing applications.

The exception to this rule is the creation of templates, or formatted spreadsheets. Templates are simply electronic patterns or models which guide the user through a particular program, usually a spreadsheet (Caruso 1984). The electronic model is used to carry the instructions for written labels, spatial relationships, formulas, and certain values. While template sets are widely available from various software manufacturers and consultants, the skills required for their development are well within the range of many faculty members and student assistants. (Collins and Shane 1984).

ACQUIRE IT AT A DISCOUNT

The most practical way to solve the software problem is to obtain a substantial discount from the supplier. There are a number of quite effective ways to go about this process, the most important of which are explored below.

Manufacturers. At the present time, most major micro-computer manufacturers are offering educational discounts on their software. As an example, IBM is currently offering the same 25% discount that applies to hardware purchases on all IBM software products. This discount is extended to institutions, individual faculty members, and students. Under this program all merchandise is drop-shipped to the nearest IBM Product Center or ComputerLand and full support service privileges apply. To apply for this discount, simply see the IBM Representative who services your institution, or contact your purchasing agent for details.

Bundled Software. In many cases, software can be bundled together with the hardware purchased from restricted grant funds. Bundling hardware with "free software" is an established marketing practice of a number of micro-computer vendors. While this practice is normally associated with certain hardware manufacturers, it is a common practice of retail stores and systems houses. In this case, the dealer charges you full retail price for the hardware, but includes a "free" package of software. The value of this software can be considerable and it is included in lieu of a discount.

User-Supported Software. The term user-supported software is a novel approach to the marketing of software pioneered by Andrew Fluegelman of the

Headlands Press and Jim Button of Bellevue, Washington (Clapp 1983). The basic concept is a unique experiment in capitalism whereby the users determine the value of the product. Instead of elaborate copy protection schemes and high marketing costs, the software is put onto the free market for public use. A nominal donation of from \$20 to \$50 is suggested by the author. A variety of software programs are available under this concept, including word processing, data-base management, and communications.

A number of user groups maintain libraries of software products. As an example, the Corvallis PC Computer Club currently offers a library of over 500 programs and utilities at a nominal rate to cover the expense of making copies and supplying diskettes. This group currently sells a double-sided diskette of software for only eight dollars. Programs available in this format range from games and utilities to print spoolers and tax packages.¹ Most users groups located in major metropolitan areas offer similar availability of these programs.

Software Reviews. At the present time, there are over 200 computer magazines which are devoted to the IBM-PC and compatible products (Rietmann 1983). Similar publications exist for other brands of micro-computers, as well as a wide variety of more general publications. Each of these publications is seeking qualified authors to review business software. In some cases these reviews are written by programming experts, but there is a growing need for applications experts to review vertical market software. Most publications allow reviewers the courtesy of keeping the software reviewed for their own use. While this option will not provide the large number of copies needed for student use, it may provide the academic with a very useful, and usually expensive, piece of software which can be used for classroom demonstrations.

Established Software Houses. While all of the above mentioned options present possibilities for obtaining suitable software, none offers the advantages of a direct approach to software houses. This approach has yielded the highest quality of software at the most reasonable cost.

The educational market represents a sizeable market segment for most software houses, and they are not normally inclined to donate software to educational institutions. This is especially true of the relatively new firms who are typically short on cash and still being managed by venture capital firms. However, business schools have a special advantage over other educational institutions. The business market is the largest segment for software sales, both in terms of units and dollars. It is also typically the most profitable and competitive. Our experience has been that these software houses are anxious to achieve any advantage, no matter how slight, in the business market.

¹ A copy of the software catalog can be obtained by writing to: Corvallis PC Computer Club, Attn: Librarian, P.O. Box 1977, Corvallis, Oregon 97330

The best approach to these vendors has been a straight-forward proposal requesting a discount or out-right grant on the basis that the software will be used by the future decision-makers in the business community. It is the same principle used in sampling and consumer trial. This particular approach works best on the marketing manager, since they are familiar with the basic concepts or are quite receptive to learning about them. Our experience has been that we literally have software vendors begging us to use their product in the classroom. To illustrate the extent and variety of discounts available, some examples are included. At the present time, these are some of the best deals available in the marketplace. Of course, this market is volatile, and new vendors and deals become available almost daily.

One of the oldest and largest software publishers in the micro-computer market is **VisiCorp**. This firm created the first spreadsheet program, and many people credit the VisiCorp with the financial success of the Apple II computer. The firm now offers a relatively full line of software for advanced spreadsheet applications, word processing, graphics, and forecasting. The current discount offered to academic institutions for classroom use is 65 percent off suggested retail price. This is approximately a 50 percent discount off of the regular market price. To obtain a copy of the current price list, terms, and conditions, simply contact the VisiCorp headquarters.²

Peachtree is another major supplier of micro-computer software for many popular machines. They are a highly reputable vendor who supplies several of the accounting packages marketed by IBM Corporation. This firm offers an even more complete line of software products than VisiCorp. There is an extensive line of office productivity tools for specialized word processing, direct mail, and list management. There is also a line of packages for spreadsheets, project management, and business graphics available. Perhaps the best known products are in the accounting area; where they offer a complete line which includes general ledger, accounts receivable/payable, payroll, inventory control, and sales analysis.

A completely new product offered by Peachtree is PeachText 5000. This software package consists of a word-processor, a Thesaurus, a spelling checker, a list manager, and a spreadsheet program all in a single package. The suggested retail price is \$395, but the package is available to any educational institution for classroom use at a cost of only \$50. Peachtree Software Inc. has extended this \$50 price to any software item in their catalog. This is basically the cost of production and shipping, and includes 180 days of toll-free telephone support. A copy of the complete catalog and further details on this excellent program is available directly from the Peachtree corporate offices.³

One of the most functional pieces of software on the market for the IBM-PC is **Lotus 1-2-3**. This software

package is one of the most advanced on the market today, and has proved especially useful for the analysis of complex cases. (Collins and Shane 1983). It is currently the number one selling piece of business software available for 16-bit machines. **Lotus 1-2-3** is one of the new generation of integrated software packages which combines extensive spreadsheet capabilities with color graphics, data-base management, word processing and tele-communications. A particularly useful feature of this software package is a well-developed disk-based tutorial and extensive help menus. This greatly reduces the amount of time that the instructor needs to spend in teaching students how to operate the software.

The suggested retail price of this software is currently \$495. Lotus Development Corporation offers a 90 percent discount off of suggested retail price when this program is used in the classroom. An administrative discount of 50 percent is available if the software is to be used by faculty or staff for administrative use. For further information on this program, contact the Western Regional Office of Lotus Development Corporation.

A common characteristic of all of the educational discount programs investigated is a very strict policy on how the software is to be used. Normally, this policy is spelled out in detail and a special licensing agreement is required. Typically the vendors require a letter from the department chairman or dean detailing exactly how the software will be utilized and by whom, a copy of the course outlines, a list of the models and serial numbers of the machines using the software, and a signed licensing agreement specifying that the software will not be copied, sold or redistributed. Considering the market, all very reasonable conditions of sale. Almost all of the vendors require that students have hands-on access to the software. For example, using a single copy of the software on your personal machine to prepare course outlines or to demonstrate in class will normally not qualify. It must be in a situation where students are using the software as a part of a scheduled course or other educational experience.

SUMMARY

In today's academic environment, faculty members are facing new and different problems caused by advanced micro-computer technology. One of these problems is the availability of suitable software for the classroom. At the same time, these faculty members have fewer and fewer resources with which to solve their problem. Given these budgetary constraints, several solutions have been offered. Each solution offers different advantages and disadvantages, which allows the faculty member to tailor one or more programs to fit their individual situation. On balance, however, the use of a powerful integrated program such as **Lotus 1-2-3** and accompanying customized template sets will solve most of the problems involved at a more than reasonable cost.

² VisiCorp Personal Software, Attn: Ms. Patricia Geary, Customer Marketing Manager, 2895 Zanker Road, San Jose, CA 95134

³ Peachtree Software Incorporated, Attn: Genie Rayen, Peachtree Marketing Dept., 3445 Peachtree Road, N.E., 8th Floor, Atlanta, GA 30326.

⁴ Lotus Development Corporation, Attn: Paul Salzinger, Western Regional Manager-National Accounts, 1750 Montgomery Street, Francisco Bay Office Park, San Francisco, CA 94111

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