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Bridging the gap between Data Processing and Operating Departments: A Fresh Approach

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Management has been told, ad infinitum, it must control data processing facilities. Nothing's happened; nothing's changed. Here's a prescription to ensure change—and to make sure that it's permanent—

BRIDGING THE GAP BETWEEN DATA PROCESSING AND OPERATING DEPARTMENTS: A FRESH APPROACH

by James N. Bieneman
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THE COMPUTER is a familiar corporate tool, neither mysterious nor awesome. The ease with which it can digest, manage, and meaningfully present data is universally respected, and its future contribution to corporate welfare is often described as unlimited. Still, the computer is severely and widely criticized. Many believe it has fallen short of expected performance, and some doubt it will ever live up to its much advertised potential. For many companies, the computer is an unfortunate paradox; on the one hand, it is a powerful tool of vast potential and known properties, on the other hand, it represents years of disappointing results at high costs.

Perceptive students of effective computer utilization have long recognized this paradox. Generally they have proposed a solution which admonishes business managers to stop treating computer departments with "kid gloves." The usual problem description and solution goes something like this:

1. The failure of computers to realize their potential can be traced to the failure of management to apply the same sound administrative techniques to data processing that are applied elsewhere in business.

2. The reason management does not apply these same techniques is that for all practical purposes management is not involved.

3. The solution is considerably more management participation in computer projects and considerably more management involvement in data processing operations.

4. The result will be a higher percentage of successful computer experiences, with fewer surprises at less cost.

The logic is flawless. The problem is that very few corporations have been able to apply it. This article considers why and, more importantly, this article proposes a new approach to administering the EDP function that will nat-

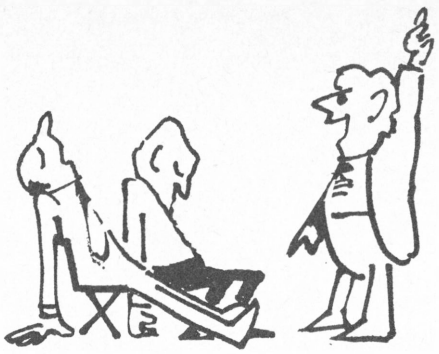
urally result in the presence of management involvement by whom and when it is needed. If the right kind of management involvement cannot be secured, the approach proposed here will prevent new (and most likely doomed) computer projects from happening.

Management remains uninvolved

It is apparent to anyone who cares enough to notice that most management people outside of data processing know and often care very little about what their counterparts in EDP are doing. In many cases, this situation is hardly accidental. The data processing people don't want to be hindered by their cautious and sometimes negative peers in the computer-using departments. For their part, the computer users hope that by remaining uninvolved with EDP they will avoid being the target of more automated systems "help" which has proven unsatisfactory in the past.

This breach between computer managers and computer users has long been acclaimed a calamity since the computer department exists for only one purpose: to provide service to the computer user. Of course the user is never satisfied unless he is involved in a dominant fashion, which is precluded by the previously described breach. The problem statement and solution end up contradicting themselves, thus accomplishing little or nothing. This contradiction is the status and the dilemma of many computer departments and the users they serve.

In the past, the problem of insufficient management and computer user involvement has been attacked most straightforwardly. Authors, teachers, enlightened managers, and consultants all have stressed the necessity of participation. Top management has been told to administer the computer department's activities much more closely, and middle management has been instructed to play a dominant role in the design of its own computer systems.



Many managers are tired of hearing the same old message about getting involved in data processing. They believe in the principle, but they don't really believe they'll be much involved —now or in the future.

But users aren't any more involved with their computer department counterparts today than they ever were. To make matters worse, many managers are tired of hearing the same old message about getting involved. They believe in the principle, but on a sustained basis they've not been successfully involved in the past and they really don't believe that they will be much involved in the future. The philosophy of "preach the need for involvement long enough and it will happen" has not worked, does not show much promise of working in the future, and forces one to look for another way to achieve user dominance in the EDP environment, and, as its consequence, satisfactory computer results.

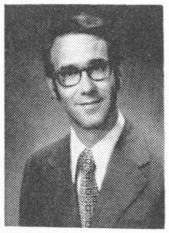
Misplaced responsibility

There are many factors contributing to the failure of operating management to become involved in the design of computer systems and in the proper utilization of computer resources. However, one explanation for this failure looms more important than all the others put together. The assignment of responsibility for developing computer systems and for determining automation priorities is misplaced. These functions generally are reserved for the data processing manager and his staff. The operating manager too often has neither the responsibility nor the right to determine the nature of computer applications for his own department. This situation should be reversed. Once again, the responsibility for developing computer systems and for determining automation priorities should be assigned to the management of those departments which require computer services.

Two separate worlds

All managers are busy, in their own view usually too busy. As a result, it is understandable that operating managers who are not really responsible for the utilization of EDP in even their own departments have little or no time to become involved with data processing. By the same token, those in data processing who are charged with the responsibility for systems design tend to design systems and develop applications to utilize computer hardware whether there is a substantiated need or not. This too is to be expected. All sincere individuals work hard to accomplish objectives in their assigned fields. The computer systems analyst is no exception. His motivation is strong to design and to implement computerized systems. To do otherwise would be to appear to fail in his responsibility.

Another result of assigning to computer personnel the responsibility for developing new applications is that the human tendency to guard one's domain often comes into play. Systems analysts push their own ideas upon users more strenuously than they should under the guise of fulfilling responsibility



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and protecting their prerogatives. Users who would like to be more influential in the design and implementation process consequently can be made helpless. They are unable to overcome the mandate of corporate systems responsibility held by a jealous data processing department, and they soon realize that, despite idealistic talk to the contrary, their involvement is not really wanted. While we preach involvement, we administratively have nearly precluded the possibility of it actually happening.

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Reassigning EDP responsibility

In order to resolve the dilemma described, several fundamental changes should be made in the organizational structure and the responsibility assignments associated with the data processing department. As suggested earlier, the responsibility for computer systems design should be placed with computer-using departments, not with the computer department itself. The position of computer systems analyst as we know it today should be abolished. Instead, data processing departments should be staffed to the extent necessary with "translators" who convert the system requests of user departments to programing specifications. Of course, computer-using departments will have to be given training in the techniques of computer systems design. Obviously, the more proficient they become, the less need there will be for translators.

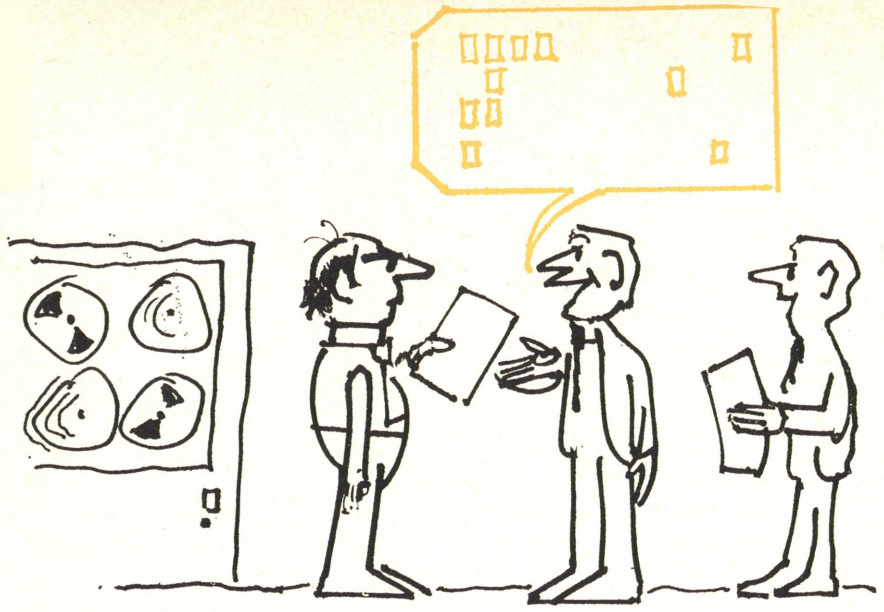
Having abolished the position of computer systems analyst and having assigned the analyst's former responsibility to the computer users, it is important that the data processing department's performance and contribution be evaluated on the basis of revised standards. No longer should the data processing department be expected to solve operating problems. Operating problems are the domain of operating management.

The extent to which computers are used to solve operating problems should be determined not by computer personnel, but, of course, by operating management. In order to accomplish this, the cost of data processing services must be charged back to user departments. As a result, those who receive service will pay for it; data processing's contribution versus its cost will be reviewed continually by operating managers, and the use of computers will be tied more closely to discernible payoff.

The data processing department should be measured on the basis of the quality and the cost of the service it provides. Job satisfaction in data processing will then come from providing first class service, not from utilizing the most advanced hardware on exotic applications. As this concept is developed, the data processing group will find many of its own frustrations eased. It will have less cause to be disappointed with operating managers who resist data processing, because fewer managers will resist once they can define their own systems. Data processing departments devoid of the systems responsibility will feel less compelled to engage in automation crusades, which so often utterly frustrate both sides. In addition, the data processing group which establishes a reputation for successfully implementing users' requests and for providing quality service will experience the sweet satisfaction of more and larger user-initiated projects. What data processing manager would not relish a situation in which his services are sought out instead of forced upon reluctant recipients?

Answering some of the objections

There will be complaints that the result of shifting systems design responsibility to user departments will be little or no progress toward more and better computer systems. There is reason to fear the operating manager who, upon learning of his systems design responsibility, breathes a sigh of relief and never again allows automation to cross his mind. There are, however, two controls over this possibility. In the first place, the operating manager usually is subject to "sound administrative techniques" because top management, in fact, does get involved in accounting, sales, and production. When top management reviews the performance of these departments it will do so with the awareness that the computer is available to the operating department at the initiative of the manager. Failure of the operating man-



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ager to take advantage of the computer should be apparent to top management just as is the failure to use market research in the sales function or quality control techniques in production. And there is an important advantage to evaluating the appropriateness of data processing utilization in this way. It is natural and automatic. Top management first looks at operating department performance. If there is cause to look further, then data processing is considered. Top management becomes involved in data processing because and when there is a reason. At other times, the utilization of EDP is controlled by the self-regulating demand for chargeable data processing services by operating managers.

The second regulatory control over the operating manager who never finds cause to utilize data processing is the placing of the systems design and new application initiative with the very man who never chooses to exercise it. The answer to this objection is obvious. At least, time and money can never be lost on a project which will probably fail because of inadequate operating management involvement anyway. The premise is that if the computer user doesn't care enough about a project to really work on the systems design, then the project is not worth doing, or, at least, the project is not worth doing so long as that operating manager is in control.

There will also be claims that the computer systems design process is technically too demanding for personnel in operating departments. The validity of this charge will vary from one situation to another. However, the technical demands on the computer systems designer are often exaggerated, particularly with reference to small- and medium-size installations. In larger installations serving larger companies, there is generally more money and more opportunity to provide the operating department personnel with the advanced computer training that they require. And, in any case, the premium in computer systems design is on desire and on correctly defining problems and valid solutions. Operating department personnel are ideally suited to fulfill this need, and not ill-suited to learn the required technology.

Of course, some will object that those who know nothing of computers will have difficulty anticipating what a computer application can do for them, or even what to expect from computers. This objection has some legitimacy, particularly during the period when operating managers are first assigned the systems responsibility. It is important, therefore, that operating managers quickly develop a minimum systems and EDP understanding.

This does not presume technical knowledge of hardware characteristics or programing languages. It does assume familiarity with the elements of computer system design, e.g. input definitions, processing logic, and output definitions, as well as an appreciation of generally what to expect from computers.

Such a background can be obtained in a variety of ways, the best of which is for the operating manager to recognize his limitations and then to jump in headfirst and learn by doing. In addition, there are a host of nontechnical books which describe in some detail what the operating manager can expect in a well-run computer installation, and how to go about conceiving computer-based systems. Both universities and EDP manufacturers offer courses which address these same topics. Existing systems personnel and data processing management also can serve as an important educational source, and consultants can be used for orientation and training.

As the operating manager becomes familiar with EDP fundamentals, it will not breed contempt but rather confidence and ease in dealing with the problem. Confidence will accelerate the manager's learning process and the effect will snowball.

In summary, it must be acknowledged that the control and management of data processing is difficult at best. This article simply suggests that we would make the task easier by placing systems design and project responsibility with the computer-using departments. It is argued that the result would be better systems, fewer failures, and substantially reduced frustration for everyone.