The management of change, with implications for a systems approach to administration, is examined in terms of the uses made of technological and methodological devices. Institutions now have machinery that can present data useful in decision making in a variety of formats; which can build models for expenditure, for student and faculty distribution; which can simulate conditions not yet experienced; and which can answer difficult and complex questions. The potential benefits of such computer generated data are acknowledged, but reservations are held regarding the impact on non-management as the result of machine-made decisions. The destructive potential of quantitative analysis is described, along with difficulties in resisting the trend toward mandatory uniformity and centralization. Suggestions are offered for flexibility in university management. (LBH)
THE MANAGEMENT OF CHANGE IN HIGHER EDUCATION

By Glen R. Driscoll

The following paper was delivered by Dr. Driscoll on October 15, 1973, at the CACUBO Annual Meeting in Wichita, Kansas.

Within the last decade an effort to “manage change” in higher education, with implications for some kind of systems approach to administration, has gained impetus and attracted more and more interest. As an umbrella covering many other related problems, the management of change is the single most significant issue facing higher education today.

This is not to imply that during the last few years higher education has just begun to cope with change. Traditionally, higher education has not only dealt with but has also stimulated change. However, in the affluent period of the late 1950’s and the 1960’s, it was almost possible to cope with change through “nonmanagement.” Burgeoning enrollments and an ever-abundant public treasury, frankly, covered up many administrative and managerial moments of indecision, or nondecision. Much of what higher education did was accomplished in an ad hoc, nonpurposeful, unintentional, accidental way. Small, low-level, individual decisions had a way of becoming a part of ongoing practice and policy, with real implications for the operating budget, and without any conscious institutional choice having ever been made. One could “play the academic market” without any alarm over the almost certain knowledge that many of the investments made would pay no dividends. One knew that next year’s efforts would be recapitalized by additional income produced by ever-expanding enrollments and improved public support.

Coping with Change

Please understand that I am not suggesting that most administrators of that affluent age were unconcerned, disinterested and incompetent. But one could “manage” with fewer computer-generated data and with less concern for the development of some massive management program as an insurance policy against administrative error.

Now, as then, higher education must cope with myriad and rapid change. In one sense, things are no different. The technological and knowledge explosion continues to place tremendous pressure on institutions of higher education. The general public’s demand for service is greater than ever. This, however, is accompanied by a second, negative, offsetting element of change—static or declining enrollments, and a tighter lid on the public treasury. The question now becomes how do we cope with both kinds of change at one and the same time?

Many persons seem to agree that much of the answer to the dilemma must lie in more efficient management. This does not just mean a tougher management, as most business officers have always had the ability to say “no.” Even though it was not necessary as often in the 1960’s. But the negative response is sometimes just another example of “non-management.” One can deny food to a victim of malnutrition and eventually that person will die of starvation. That is one way of getting rid of a problem, but it is hardly an acceptable kind of management decision. One can also do nothing for the person (non-management), who will probably still die of malnutrition. That is equally unsatisfactory. Solutions must be found, other than malnutrition or starvation, and found in a period when food supply is increasingly less abundant. That is the nature of the dilemma.

In recent years, managers have turned more and more to technological and methodological devices, which are meant to provide an abundance of data from which intelligent decisions can be made. Institutions now have machinery which can present the same data in an almost limitless variety of formats; which can build models for prediction, for student and faculty distribution; and for any other situation one chooses to describe; which can simulate conditions not yet experienced; which can apparently crank out answers to some very difficult and complex questions. The computer can produce data on where everyone and everything is and where the dollars are placed.
and can figuratively move each piece to a different location in order to assist in determining what might be the results of such relocation.

Frankly, as president of a complex university, I am delighted to have available the abundance of data which can now be produced. I am not about to throw our computers on the scrap heap, fire the director of planning, close the doors of the office of institutional research, or stop all efforts at budget analysis. At the same time, I view this entire thrust with daily reservation, and with occasional real alarm.

**Machine-Made Decisions**

If chief administrators were ever faced with the potential for nonmanagement, it is now. It is all too simple to permit the machine—the computer, the automatic program, the mathematical model—to make the administrative decision, and to delude oneself into thinking that reading a printout is an exercise of free choice. It is all too easy to arrive at the point where in reading a printout one reads a decision. Thus, the tools and techniques can actually get in the way of intelligent decision making.

A chief administrator must never become unduly entrapped by the fiscal or business officer, and the technology or methodology and apparatus which are standard parts of any business or fiscal operation. The president, and for that matter, the dean, must never be satisfied with the declaration that “This decision cannot be made because the system is not equipped to implement it,” or “The system employed by the accounting office will not allow handling the problem in this way,” or “It will not compute.” One who is victimized in this manner soon finds himself guilty of nonmanagement. The machinery and the tools, and those who run them, are meant to serve the university; and the university dares not be enslaved by the technology.

I am reminded of that bit of humor which relates that the most giant of all computers, covering many blocks, and climbing many stories, had the question put to it, “Is there a God?” Lights flashed, bells rang, the computer whirred, and the card finally dropped out. It read, “There is now.”

**The Unquantifiable Truth**

It is too easy to assume that all truth has to be quantifiable. Modern science and technology bend us in that direction. As long ago as the 17th century, when truly modern science had its origins, Galileo declared, “Mathematical principles are the alphabet in which God wrote the world.” One of his contemporaries declared, “God created everything in weight, number and measure. Therefore we will weigh, count, and measure all things.” These men, almost seemed to say, if it is not quantifiable it is not knowable. Hopefully, the efforts of colleges and universities to improve managerial competence will not fall victim to that kind of notion.

A certain academic division devised an elaborate formula for evaluating faculty members for purposes of promotion, tenure and salary increment. The results were expressed in quantitative language. After being rated on a variety of characteristics, the faculty member was given a 18.3, 22.4, or some other total. Those who came out at a level of 17.9 or above were eligible for promotion to assistant professor. Of course, those rating only 17.8 were not eligible for promotion. There is obviously a difference between 17.8 and 17.9, but I would hate to have to explain to some faculty member the significance of that difference with respect to advancement in academic rank. Of course the dean of the college, in this instance, could plead the necessity for non-management, allow the machinery to speak, and avoid any decision other than reading the printout.

There is also the danger that we will equate good management with the management of change. The two concepts are not necessarily equivalent. One can manage efficiently and well, but with an aim to keep things exactly as they are. The corner sandwich shop can be well managed, and it can still be the corner sandwich shop. It can cope with the pressures of all kinds of change around it, and insist on remaining as it is. The numbers, the formulae, the data which are employed and produced, can be useful as springboards to decisions. These decisions can be useful, or they can be harmful; they can lead to progress, through change, or they can produce efficient static immobility. The data do not guarantee any decisions at all, and certainly do not ensure good decisions. One can spend $20,000 on the installation of an elaborate system, and produce nothing but numbers. One can also allow an analysis of these numbers which leads to doing some things destructive of a university.

**Efficiency and Quality in Conflict**

Perhaps I can illustrate this destructive potential of quantitative analysis best with a narrative recently related to me. A management consultant (an efficiency expert) was called in to analyze and write a report on a symphony orchestra. He reported that there were four oboe players in the orchestra, and that frequently all or some of them had nothing to do. Therefore, some of them should be released; the playing should be spread more evenly, and obviously budgetary savings would be realized. The consultant also noticed that groups of violins were playing exactly the same notes. This seemed to be unnecessary duplication. Therefore, several violinists should be released with, again, large budgetary savings. If additional volume was the requirement, it could be achieved through some simple amplifying device. The consultant also noticed that frequently long musical passages were simply repeated. He suggested, therefore, that musical scores could be reduced in length. In fact, he thought it might be possible to
perform the entire two-hour concert in about twenty minutes. This would cut down on total man-hours, avoid an intermission, save on utilities, and free a handsome sum of money for other purposes. Finally, he noted that considerable effort was exerted in the playing of semi-quavers. He suggested that this was an unnecessary refinement and urged that all notes be rounded to the nearest quaver, in which case less experienced musicians might be employed at substantially lower salaries. Needless to say, the conductor was not happy with this report, and suggested that audiences would fall off substantially. The consultant doubted that this would occur, but suggested that if such decreases were experienced it would be possible to close sections of the auditorium and thus save lighting, salaries of ushers, and overhead expense.

The orchestra might easily be a university. One must not allow the numbers and their analysis to become ruthlessly destructive of an institution which is highly sensitive, and in certain of its parts quite fragile.

**Resisting the Trend toward Uniformity**

The above story leads directly to another concern. It is obvious that the consultant would have declared, "An orchestra is an orchestra, is an orchestra is an orchestra." That is, one orchestra should be like any other. A clear potential implication of the present emphasis on management tools and systems is a press toward uniformity. Uniformity would suggest that a credit hour in one department is the same as credit hours in all departments, and a full load for one faculty member is identical to a full load for all other faculty members. Accordingly, the cost-per-credit-hour of instruction in a statistical average sense should be the same across the campus, regardless of the level of instruction or the nature of the department. An assistant professor is an assistant professor, and they should be paid the same. If one can come up with a dictionary of definitions and apply each definition uniformly across the campus, the "machine" will operate more smoothly. Frankly, I urge institutions not to press for substantial uniformity, to accept it as serendipitous fallout when it does occur, and to try to understand the absolute necessity for diversity. Without diversity, there is no university.

It is difficult to resist the trend toward mandatory uniformity. State and federal pressures are all in that direction, urging reports in a common format on an overwhelming variety of data. Either all fiscal officers keep books in the same way, or each is forced to keep two sets of books—and sometimes three. Federal agencies, state commissions, coordinating boards, budget offices, and legislative bodies all are demanding data. These same groups are then interpreting this data and using it for comparative analysis. The trend is toward the conclusion that all universities ought to be pretty much the same, doing the same things in the same way, and getting measured by the same yardstick.

Thus, one finds legislatures mandating the number of hours which constitute a normal teaching load. One receives requests from state agencies asking for student credit-hour production per faculty, by rank and by department and college. The request is not empty, as it is meant to lead to conclusions and certain kinds of implementation. The state is using the same technology—the same tools and techniques—as the campus. The state is also developing a system of management and the very questions which it asks tend to impose a similar system upon the campus. Any system legislates away from diversity and toward uniformity, and that is a cause of great concern. If it were certain that institutions had a monopoly on truth, to the end that one knew what constitutes the wisest and best university for all people for all time, then there would be no problem. Such a monopoly, of course, is not possible, and it will not be produced by any amount of data production and analysis.

It can become a rather vicious circle—uniformity makes it easier to achieve centralization (state, regional, and federal); and at the same time, centralization invariably produces even more uniformity. Both, unfortunately, are fed by the mechanical, automated, computerized approach which is being taken to management problems. Such techniques, therefore, are not unmixed blessings—if, indeed, they be blessings at all.

The chief executives of colleges and universities do not hate business officers, but should have a proper amount of distrust for the tools they use. When the president and the academic staff make a decision which would change the way business officers and their system have been operating, the answer simply must be, "Mr. President, we can find a way to alter the system, rewrite the program, or, if necessary, ignore the system, in order to permit the university to do what it must do. One must be willing to make the above commitment even though it may violate the neat format which has been followed in order to respond to various state or federal requests for information.

**The Need for Flexibility**

What is being suggested is that the very machinery which has been developed to manage change in turn may make the university so inflexible that it is incapable of coping with change. There are a number of issues which cry for immediate attention. The current issues, which may only be the tip of the iceberg, are clear to everyone.

1. Static enrollment.
2. Static resources or, at best, resources which keep up with inflation and provide the same purchasing power.
3. An increasing percentage of tenured faculty.
4. An increase in the average age of faculty.
5. The need for more careful articulation between two- and four-year institutions.

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6) The public demand for more effective interaction between the university and the community—a special pressure for those institutions in an urban setting.

7) The pressure from the Carnegie Commission and The Council for Economic Development to bring public institutions more in line with those of private institutions.

8) The need to serve a rapidly changing student body—one which is older, and which more and more frequently stops in and stops out.

Many of these "changing students" are seeking something other than a degree, and are demanding what Sam Gould's commission has styled the "learner service." As the Carnegie Commission reports, in its soon to be available publication, Toward a Learning Society Alternative Channels to Life, Work, and Service, "academic degree-credit instruction for full-time students is an absolutely essential part of the whole, but is not by any means the sum total of the formal education of Americans beyond the high school."

If colleges and universities are to cope with these changes there must be an array of totally flexible machinery which allows for more intelligent decisions, but does not make decisions on its own. A bit of major surgery has to be performed on the university, and in such a way as to revitalize and regenerate while retaining the individuality and diversity which are prerequisites for a successful academic and intellectual future. We have to perform the surgery on ourselves, and that is never easy. It must be done in the absence of anesthesia, and that compounds the problem. The patients will insist, more often than not, that they do not need or want surgery—and will continue to insist. I fear, right up to the point of death. And I must compound the problem even more by not believing in enlightened despotism as the solution. That is, I do not believe in allowing either our machinery, or arbitrary administrators, to perform the surgery as they choose. Such despotism will be more "despotic" than it is "enlightened."

There was a time when one kind of change in the university—for example, the development of a new program—could be written off by another kind of change which was almost automatic—a new growth in student population. The new academic program still has to be written off by another kind of change, but it is not automatic. It may require excision or a transplant. It is necessary to identify the appropriate trade-off to accommodate the desired change. The task of business officers is to provide all of the data necessary to permit the academic decision makers to determine whether or not surgery is warranted, and which organ it is that is deserving of the knife.

Data to Open Doors

In order to avoid misunderstanding, it should be emphasized that I want all of the data which can be acquired concerning my own institution, the number of students, and how they are distributed, by department and by time of day, the same kind of information about faculty and staff, the gross and net square footage of the campus, and complete statistical data describing the utilization of that space by hour and by function, whether or not the budget is being implemented as it was originally planned—every budget, be it an academic department or the business office, how much it costs per day or per month to heat and cool buildings; the effect on cost if temperatures are lowered by some amount during the heating season, and raised by a like amount during the cooling season. All of this information, and more, should be quickly available. In that sense, I am wed to the computer and to automation. But I want all of this information to open doors, not to close them: to permit answers, not to dictate them.

And, certainly, these kinds of data should be generated in a format which is most useful to the individual campus. The format should not be forced by patterns predetermined by a university system, or by a state, regional, or federal agency. One should resist and prevent...