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Library Goals and Library Behavior

Libraries are multigoal organizations. A simplified form of utility theory is used to identify three classic patterns of multigoal maximization. Formulas describing these patterns can be applied to libraries to provide a tool for defining library goals and analyzing library behavior.

THE PROBLEM OF LIBRARY GOALS weighs heavily on the collective library mind. Whenever librarians gather, be it for a library staff meeting or for a formal conference of a library association, a discussion of library goals or objectives is inevitable. The discussion may be on the elevated plane of philosophy or on the lower level of "what we are trying to do" in concrete behavioral terms. In either case, the discussion is apt to proceed at some length and may conclude by producing more confusion than insight. This impression of deep professional concern over library goals is confirmed by a cursory glance through recent issues of *Library Literature.* During 1972 no less than fifty-five citations appeared under the subheading of "Aims and Objectives." For 1973 the count was a more modest thirty-four.

Among the many factors stimulating increased attention to goals and objectives, two deserve mention. Goals are inextricably linked with change, and as we all know change is one of the few certainties left in our modern world. Like death and taxes, change seems to be inevitable. Some librarians seem to pursue change for its own sake while other li-brarians seem to resist change for the same reason. Most librarians, however, would prefer to deal with change and its effects on a rational basis. And for this group, goals are important as the necessary starting point to deal with change.

Equally noteworthy is another factor: the impact of systems theory on library education. While perhaps strongest among younger librarians whose formal library education has included the basics of systems theory, the impact upon the whole profession has been significant. Much of the current professional literature includes elements of systems thinking either explicitly or by implication. Thus older librarians with a commitment to continued professional development are apt to have adopted the systemic view of the importance of goals and objectives. According to systems theory, a clear understanding of goals is a sine qua non. One must understand what the system is supposed to do before one may address the question of how it is working or how to perfect it.

DEFINING LIBRARY GOALS

Given the recognized importance of library goals, it is perhaps a bit disheartening to find so much confusion and so little agreement about them. One of the difficulties may lie in the way in which the subject has been approached. Tra-

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ditionally, defining goals has been an exercise in deductive reasoning. First, broad philosophic principles are enunciated which can compel general agreement, and then specific goals for behavior are set forth which attempt to translate theory into practice. The problem with this approach is apparent: by the time a philosophic principle is broad enough to achieve consensus, it is too broad to be of much use as a guide to practical conduct and policy.

In order to deal intelligently with goals and objectives, librarians must somehow bridge this gap between philosophy and practice. The concept of utility maximization, derived from economics and the behavioral sciences, may provide a tool which can be applied to this problem.[1]

Behavioral studies of man make it clear that he is a multigoal directed creature. Further studies of group behavior have led some organizational theorists to conclude that organizations share this characteristic.[2] Thus the actions of the business firm are not solely dictated by the goal of maximum profits; the firm is also interested in status, power, and perhaps even some humanistic goals as well. Librarians will recognize that there is no single goal which determines their actions, or the actions of their libraries, to the exclusion of all else. In real life situations multiple causes and conflicting priorities are the rule rather than the exception.[3]

Utility theory is based upon the assumption that man acts so as to increase his own satisfaction—utility maximization.[4] The theory recognizes that behavior generally springs from multiple causes and conflicting goals, and attempts to use mathematical formulas to describe the situation.[5] These formulas, in effect behavioral models, may be used both inductively and deductively. By examining examples of overt behavior, one may induce the type of utility maximization which has been fol-

lowed. If the type of utility maximization preferred is known, then the course of action which will maximize that utility may be deduced.[6]

Needless to say, one person's utility may well be another's debility. Yet since all are striving for maximum utility (satisfaction), it is possible to generalize about general types of behavior. Using a much simplified version of utility theory, three behavioral archetypes can be identified. Each of these types of utility maximization or satisfaction can be expressed by a formula called a utility factor.[7]

Type A, or independent behavior, can be expressed by the formula

$$U_a = f(p_a, q_a, r_a, \ldots, z_a).$$

In this equation U is the utility maximization or satisfaction of a and is seen to be a function f of p, q, r, etc., which are specific identifiable goals which a wishes to achieve. Here satisfaction is dependent strictly upon the degree in which these identified goals are met. This type of satisfaction can be characterized as indifferent to the environment in the sense that satisfaction is dependent only on one set of goals.

Type B, or altruistic behavior, can be expressed by the formula

$$U_a = f(p_a, q_a, r_a, \ldots, z_a; U_b, U_c, \ldots, U_n).$$

In this formulation, the satisfaction of a is a function not only of the degree in which one's own specific goals have been met but also the degree in which the satisfaction of certain others, b, c, etc., has been achieved as well. This type of satisfaction is dependent on the environment in the sense that selected and identifiable elements of that environment, each characterized by its own utility factor, must also be satisfied.

Type C, or competitive behavior, can be expressed by the formula

$$U_a = f(U_a - U_b, U_a - U_c, U_a - U_d, \ldots, U_a - U_n).$$

In this archetype, the satisfaction of *a* is achieved according to the degree that the satisfaction of others specified is diminished. Once again satisfaction is dependent on the environment, but this time in a negative manner.

Appreciation of the three classic types may become easier if they are personalized. The Type A individual is one whose happiness depends solely on self-gratification. The Type B individual is one who wants things for himself or herself but who regards the happiness of others, perhaps family or friends, as equally important. The Type C individual is one who derives happiness from seeing others made miserable. Less value laden but equally valid characterizations at the corporate level may be seen in business. The Type A firm sees its success in terms of higher production, higher sales, profits, etc. The Type B firm may share these goals but is also interested in employee welfare, safety, customer satisfaction, etc. The Type C firm views its success in terms of market position; it is successful only if it is superior to its competitors.

Now that these three classic behavior patterns have been identified, it is time once more to consider libraries. As indicated before, there are two ways in which these utility factors may be utilized. The first to be discussed, deductive reasoning, is much the same as what many librarians have been doing for years. However, the presence of the utility factor may do much to reduce the usual confusion.

Most librarians would agree that of the three types of behavior identified, Type B, or altruistic, is most appropriate for libraries. Therefore, the task is to identify those terms which should be included in the utility factor for any given library. There are, of course, a large number of internal goals which are important to library success. Thus the *p, q,* and *r* of the Type B formula might be identified as the construction of an adequate sized building, reaching a specific collection standard in terms of quality and quantity, obtaining certain items of new equipment, etc. A list of such internal goals for a given library might well be longer than this essay. Some objectives will be more important than others. Some may be achieved within a relatively short time while others may remain forever an objective rather than an accomplishment.

Once the internal goals of the library have been identified, attention must be turned to the second half of the equation. The library must face the arduous task of identifying those groups whose satisfaction is most important to it. If the formula is to be used, the familiar platitude of "service for all" must be abandoned. Among groups whose satisfaction is important to public libraries might be found legislators of responsible funding agencies, library board members, pressure groups, and subgroups of users identified by socioeconomic status, age, ethnic background, geographical location, etc. For academic libraries the list might include administrators, faculty members or subgroups of the faculty, students, subject specialists, researchers, etc.

As indicated before, each of these groups whose satisfaction has been identified as necessary to the success of the library has a utility factor. In order for the library to truly satisfy those groups, it must attempt to identify both the type of utility factor exhibited by each group and the library-related terms within it. The library must know its clientele in something more than a superficial manner. The development of utility factors for important client groups will provide additional inputs to the list of internal library goals since the library will become more aware of what it needs to satisfy its users.

Obviously, an analysis of library goals along the lines proposed here must be a paper and pencil exercise of protract-

ed length and not a theoretical discussion. Limited library resources alone, to say nothing of the inevitable contradictions between the utility factors of different user groups, must make the necessity for assigning priorities and making difficult decisions graphically clear. One of the significant benefits of using utility factors is the help it provides in decision making. For it not only makes the necessity of choice explicit but also indicates the impact of decisions on the goals of the library.

As an example, let us theorize that academic library X is faced with a demand by a group of students and faculty members to create a satellite departmental library. Satisfaction of the demanding groups is an element in the library's utility factor, but other elements in that utility factor include the following: the goal of satisfying other user groups whose satisfaction depends on having all materials available in one location, the goal of adding subject specialists to the reference staff before adding any other staff positions, and the goal of satisfying Dr. Y, chairman of the demanding group, who also serves as budget review officer for the library.

Taken to its conclusion, utility theory purports to be able to produce the best decision in a case such as this on the basis of mathematical calculations. While most librarians would probably be unwilling or unable to assign mathematical values to the variables and make the requisite calculations, most librarians would appreciate this kind of awareness of what is involved in the decision before making a judgment.

Perhaps the most important advantage of the deductive use of utility factors is the framework it establishes for dealing with library goals. It is the constraint imposed by working within the formulas which forces the library to identify that which is important to it in terms which remain meaningful for library practice. Once established, the utility factor of the library describes goals which must be achieved for success. Library behavior can then be designed as strategies to achieve those goals rather than to frustrate them.

Another advantage of this method is that it provides a means to evaluate library performance both on the individual and institutional level. Just as the success of the library can be judged on the basis of its achievement of the goals identified within its utility factor, the success of the librarian may be judged on the basis of his or her contribution toward achieving those goals. Note here the emphasis on total library goals as opposed to the goals of the individual librarian or the goals of an operating department within a library. It is the task of library management to assure that personal and departmental goals are congruent with those of the library as a whole. This process, while admittedly difficult, may become less baffling if approached in the same manner. Each staff member and operating agency within the library has a utility factor whose terms must be identified and dealt with.

The completed library utility factor should provide a new position from which to evaluate library behavior: a position which does justice to the true complexity of the situation, a position which is intelligible, and a position which spans the gap between theory and practice. Library success has been identified as the achievement of certain internal and external goals, and those goals have been identified in terms of specific behavioral objectives. Two tasks remain: first, the library must examine its present behavior to assure that it furthers rather than frustrates achievement of library goals; second, the library must introduce new modes of behavior consciously designed to achieve the goals that have been chosen.

ANALYZING LIBRARY BEHAVIOR

The concept of utility maximization,

used inductively this time, may prove to be of some help in the evaluation of present library behavior. In fact, librarians and libraries who choose not to bother with the lengthy deductive process just described may still wish to adopt this method of evaluating library operations. The basic concept remains unchanged. Libraries, whether they realize it or not, act in such a way as to maximize their own satisfaction. Therefore, by examining library behavior as it now exists one can induce both the type of utility factor exhibited by the library and the identity of the terms within it.

Attention should first be directed toward the internal goals which the library seems to be serving. A convenient starting point for this analysis is the library budget since the allocation of financial resources indicates both a goal and a relative priority. Equally important, however, are library policies, procedures, statistical data and reports, and the actual conduct of library operations. Throughout the analysis the focus of attention must be on what the library is doing in terms of behavioral outcomes which can be determined objectively rather than on desired or anticipated results. And as the behavioral objectives are identified, the relative priority assigned to their achievement should be noted.

In all likelihood a behavioral analysis of this type would produce some disagreeable surprises. Policies and procedures designed to do one thing may in fact do something quite different. The library may also find that a disproportionate share of its resources and efforts are being spent on goals with only marginal importance. Furthermore, some objectives which the library has always espoused in theory may be conspicuous by their absence in practice.

The examination of the relationship between the library and its client population will be equally difficult. The library must identify the various groups and subgroups of library users and non-users, and determine those whose satisfaction seems to be most important to the library on the basis of library behavior. Again the library may discover that it is in fact maximizing the satisfaction of some groups at the expense of other groups whose satisfaction is in theory more important.

Once the internal and external goals which are actually being served by the library have been identified, it becomes possible to generalize about the type of utility factor which characterizes the library. It is entirely possible that the library will be forced to conclude that it qualifies as a Type A, or independent, library. If so, library behavior will have been shaped by a dedication to internal goals so strong that it dominates the external goals. The library operates for its own sake rather than for the benefit of others. Such libraries are not unfamiliar to the casual or even trained observer. But in all probability this concentration on internal goals has not come about by design but by failure on the part of the library to maintain the connection between theory and practice.

The competitive aspect of library behavior, while not previously discussed, is nevertheless familiar to most librarians. Competition exists within libraries and library departments, between different libraries, and between libraries and other agencies and information sources. It is unlikely that competition would dominate library behavior to such a degree that it must be considered a Type C, or competitive, organization. But the analysis is apt to reveal more instances of behavior shaped by competition than the library either recognized or desired to exist.

Most libraries will, of course, reveal themselves to be Type B, or altruistic, institutions. And the goals which have been identified from the behavior of the library may be considered to constitute the library's utility factor.

This behavioral utility factor shows what goals the library is in fact working toward and must be reconciled with what the library believes it should be doing. Even if the theoretical goals of the library have never been articulated, the library should have an intuitive grasp of what it is trying to achieve. Library behavior which does not appear to further these aspirations should be modified.

If a library utility factor has been previously established, it is a relatively simple task to match the deductive formulation with that induced from the library's behavior. Where the utility factors agree, the library can be confident that it is working to achieve its goals; where they disagree, the library must either change its goals or its behavior.

When the concept of utility maximization and the utility factor is used deductively, it describes what goals the library wants to achieve in theory. When the same concept is used inductively, it describes what goals the library is achieving in practice. The differences between the two may be modest, or they may be enormous. In any case, awareness of the discrepancy between library goals and library behavior is a necessary first step in bringing them together.

REFERENCES

1. Peter Fishburn, *Utility Theory for Decision Making* (New York: Wiley, 1970).
2. Robert L. Burr, "Librarians, Libraries and Librarianship; A Model," *Libri* 23:181–209 (1973).
3. R. T. Eckenrode, "Weighting Multiple Criteria," *Management Science* 12:180–92 (1965).
4. Milton Friedman and L. J. Savage, "The Expected Utility Hypothesis and the Measure-
ability of Utility," *Journal of Political Economy* 60:463–74 (1952).
5. L. Thurstone, *The Measurement of Values* (Chicago: Univ. of Chicago Pr., 1959).
6. Morris Hamburg and William F. Matlack, "Maximizing Insurance Buyers' Utility," *Management Science* 14:B-294–301 (1967).
7. H. Johnson, *Business in Contemporary Society: Framework and Issues* (Belmont, Calif.: Wadsworth Press, 1971).

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