

## CHARGING USERS FOR LIBRARY SERVICE

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**Abstract**—The question of instituting direct charges for library service is examined and is contrasted with the current indirect charging system where services are paid for by taxes of various types. The policy of whether to levy direct charges for on-line bibliographic searching serves as an example for the analysis. In this case it is concluded that due to considerations of information as a merit good, the service should be supplied free of direct charges to certain users in a specified amount. For other users it is reasonable to impose direct charges.

### INTRODUCTION

In this paper the issue of whether libraries should charge for their services is examined. The service that is used for an analysis of current and possible future charging policies is that of the provision of information with specific examples drawn from on-line bibliographic searching. First, the fundamental question of whether government should supply information services or whether this function should be left to private enterprise is addressed. Second, if there are grounds for public information services, should such services be funded through indirect charges such as property taxes or should direct charges be levied on the user?

The introduction of computerized literature searching by commercial vendors has or is forcing many libraries to re-examine their policies of charging or not charging for the services they provide to their users. Libraries have as one of their major objectives the provision of accurate, up-to-date information for their users; on-line searching aids them in satisfying this goal. Many libraries would like to introduce this service but are financially incapable of supporting it. Faced with funding at an almost constant level[1], and very little external financial support such as through the Federal Government, libraries are placed in a difficult position. Assessing direct user charges is one solution to this dilemma.

It can be argued, however, that on-line search services differ from those services traditionally provided by libraries and that it is misleading to extrapolate from the arguments that can be used for the imposition of charges for these services to library services which are connected with printed materials. First, on-line searching is relatively expensive. Twenty to thirty dollars is not an unusual amount to pay for an on-line search[2]. Second, on-line searches are tailored to the individual user and may have little value to others. This contrasts with the utility of a book, which may have broad appeal and repeated use in time. Third, direct charges to the library from a search service vendor accrue each time an on-line search is conducted, i.e. there is a specific, measurable cost to the library for providing a single unit of service. Finally, by providing on-line searches, libraries are in direct competition with the private sector which also provides such service.

A blanket decision to charge for this specific and expensive service however presents problems for librarians. On-line searches may be necessary to meet a particular user's need because an on-line data base has access points that are not in the hard-copy version of the base, or the logic of the search request may be so complicated as to preclude the use of a manual search. To further complicate matters, there are no readily acceptable guidelines that can be used to decide when an on-line search is appropriate vis-a-vis a manual search, especially when there is considerable overlap between the hard-copy versions of a data base and the machine readable form of the base.

This paper analyzes some of the issues of charging in the context of an experiment providing on-line search services to several public libraries in the San Francisco Bay Area, and derives pricing policy recommendations from economic theory and user demographic characteristics.

## SHOULD THE GOVERNMENT SUBSIDIZE INFORMATION SERVICES?

Before it can be decided whether libraries should charge for computerized literature searches and other information services, it must be determined whether libraries should even offer them. At the heart of the problem is whether institutions like libraries should provide such services or whether they should be provided by private enterprise.

The information supplying sector of our society is composed of public and private organizations and individuals who create, repackage, or distribute information. The public or government sector consists of libraries, as well as non-library information and referral agencies, and state and federal information publishers, such as the U.S. Government Printing Office and the National Technical Information Service. The private sector includes commercial and professional society publishers of books and journals, data base suppliers, on-line search service vendors, information brokers, information design and research groups, information processing equipment manufacturers, and information management system suppliers.†

If private enterprise supplies the information, then reliance is placed upon the market mechanism of the economy to allocate the information to individuals in the society. In the United States, the operation of the market mechanism means that a product or service is supplied by producers at a certain price and those consumers who are willing to pay the price can purchase the product or service.

The more of a particular type of item produced, normally the lower will be its price and eventually the greater will be the quantity purchased, since more people will purchase when the price is lower.

Use of the market mechanism implies that people who have sufficient funds to purchase a particular product at a particular price will be satisfied by the system and those who do not have the money will not. If a public institution provides information, it is likely to be supplied free of direct charge, while if private enterprise supplies it, there will be a fee. The situation is not quite clear-cut, though, because in some cases public institutions charge for services, but do not necessarily make a profit on their transactions.

The public and private information suppliers are in a conflict situation over whether information services should be provided free or whether there should be a fee charged. Members of the for-profit sector feel that if private industry supplies information, there will be more sources from which information can be obtained and thus more open access to it [4, pp. 74-82]. They also feel that private enterprise can be more flexible in repackaging the information, and that if government performs the task, this will hamper information dissemination, as well as force commercial suppliers of information out of business because the information sector cannot yet support a large number of similar information products.‡ The for-profit sector also urges that recognition be made of the fact that libraries are not currently providing free services but that their service is paid for out of general governmental revenue. Already there are a number of situations in which direct charges are currently levied on library users. For example, fees are assessed for the photocopying of library material, use of rental collections, placing holds or reserves on books, and delivering books or photocopies of materials to users. In addition, certain users such as corporations using university library facilities or non-resident public library users may have to pay for borrowing privileges.

The government view of the situation is that the public, through taxes, has paid for the creation of information. Examples of this include supplying funds for basic research projects or testing and evaluating of products by government or government-subsidized agencies. Since the public has already paid for creation of the information, the government view is that the

†For a comprehensive analysis of the scope of the information sector see [3].

‡There are a number of sources of more information on the market position of the for-profit sector. For example, see [5-7]. One interesting legal case that demonstrated the potential difficulties encountered between public and for-profit organizations in supplying information was that of the System Development Corporation vs the National Library of Medicine [8]. In this case, SDC sued NLM in order to obtain access to the MEDLINE data tapes. Presumably, SDC wanted to use these tapes as part of their ORBIT system and allow users other than those NLM allowed to search the tapes. SDC sued under the Freedom of Information Act to obtain the tapes; it was ruled that the act did not cover the situation and the case was dismissed.

public should not have to pay a price which includes a profit component. By providing access to the information even for a nominal fee, the government argues that the cost to the user would be less than if the information were provided by the private sector. The government's position is not restrictive: the private sector can repackage and distribute information in the market for a fee [4].

Social and political factors play an important part in this problem. From an equity standpoint it is necessary to insure that access to information is provided to all who need it, and from a political standpoint it is important to realize that lobbying efforts may influence the decision. Since the problem originates with considerations of who should supply information and the severe financial problems of public information agencies, an important method of investigation is through economic and policy analysis. The rest of the discussion is devoted to those approaches.

#### THE RATIONALE FOR A CHARGING POLICY

Economists distinguish two categories of goods and services: private and public goods. Private goods are those that primarily benefit the person who buys them (e.g. steak). The consumer purchases a private good in response to a need to maximize personal satisfaction. Further, only those individuals who are willing to pay for a private good can receive its benefits, and those who do not pay for it can be excluded from having or using it.

In contrast to a private good, a public good (such as a lighthouse, or a national defense system) benefits society as a whole rather than one person. There are several other characteristics of public goods. First, once public goods are produced, no one can be excluded from benefiting from them, and thus there is no incentive to voluntarily pay for them. This implies that the demand for a public good must be expressed through the political process (i.e. publically) and not through the market mechanism. Not only is there no incentive for a person to pay for a public good, but there is also no incentive to register a preference as to how much of a public good is desired. Second, public goods are not depleted by use; if one person uses a public good, this does not mean that another person will not be able to use it. In the case of the lighthouse, the act of using its beacon for navigation does not prevent others from using it or possessing its light, or in any way reduce its effectiveness.

Information, be it in the form of books, documents, journal articles, or bibliographic citations, has many of the same characteristics as other goods and services that are produced. For the most part, information is a definable product in the sense that a particular book or specific citation can be uniquely labeled or accessed. In addition, information is marketable and many organizations profit by selling it. While information is thought of as benefiting society as a whole—even to the point of being necessary for survival—and as essentially non-depletive in its formless state (e.g. that the grass is green, that the population of California is  $x$ ), the tangible form in which information is available makes it have private good characteristics.

This dual and conflicting nature of information has to be recognized before any decisions about who should provide it can be made. Currently the overriding attitude in libraries is that information is a national resource, yet librarians face the everyday economic reality of escalation of the prices of library materials and operations costs. But the private good aspect of information does not imply private enterprise control or dominance. It does suggest the need to look at how a public organization like a library provides this private good.† There are cases

†Alternative analysis of whether information is a public or private good can be made by separating "information" from "access to information". Information originates in any number of ways, such as through basic or applied research, or through some creative writing process. In many cases the creation of the information is sponsored by public agencies. (This is especially true for scientific and technical information.) After its creation, information could be considered as a public good since it is not depleted by use, it confers benefit upon society as a whole as well as individuals, and offers benefits to all individuals in a non-discriminatory manner. While provision of information could be considered to have public good aspects, access to it and distribution of it could be of a private good nature. Consider the problem of information in the form of a book. In a theoretical sense, the fact that one person reads a book does not diminish its usefulness to another person, unless the first reader mutilates or otherwise alters it in the reading process. The difficulty comes when more than one person wants a particular copy of a book at the same point in time. Then the non-depletive character of public goods no longer holds because one person's use of the material prevents another from gaining access to it.

when benefits of a good go beyond the purchaser: these will be discussed later in the section on Externalities.

### *Information as a merit good*

A merit good is a private good that society thinks is important enough to be supplied publically. It is supplied by interfering with consumer preferences, because, left alone, the consumer would purchase less of it than society thinks worthwhile. For example, school lunches are provided to many children free of charge[9, p. 13] and low income housing is provided. In each case society is acting in a regulatory capacity on the belief that it knows best. "The initial attitude toward merit goods was to see them as imposed on the population by a group of moralists, or the intellectual elite, or a pressure group with power, but with a recognition that the imposition might be a legitimate activity in a democratic society"[10, p. 41]. This seems to be particularly true in the case of education where MUSGRAVE[9] suggests that the advantage of education is more evident to the informed than the uninformed and therefore should be provided as a merit good.

If education is considered to be a merit good, should not information fall into the same category? In the case of the experiment that provided on-line search services in San Francisco Bay Area public libraries (the DIALIB project[11]), there is no strong evidence that information should be supplied as a merit good. One reason is that the information available through the Lockheed DIALOG system is primarily of a scientific and technical nature. Although, in its ultimate application, the information may be extremely valuable to society, as retrieved from the system its use is limited. It does not have the same present value to society as school lunches and there is likely to be no public clamor for its public provision.

Assuming that society wants to encourage increased use of information by all individuals, then is access to information a merit good? It is possible to narrow this query by considering specific groups of individuals and analyzing the extent to which society feels they should have their information needs satisfied. For the most part, the users of the DIALIB system were professionals such as engineers, medical doctors, lawyers, educators, scientists and librarians, as well as graduate and undergraduate students.† Business people or professionals using information for job related tasks would probably make their inquiries irrespective of whether access to the information was provided by society or not. On the other hand, as long as the level of information service requested does not exceed some agree-upon norm, it is reasonable to say that there are merit good aspects to the queries of the students. Arguments for this are similar to those used in the case of education. However strong the argument holds for the free provision of information service because it is a merit good, it is only reasonable to assume that the service would be supplied up to some predefined level, and that financial considerations would determine this level, although other factors might come into play.

### *Externalities in the provision of information service*

It is important that the public sector maintain a role in the provision of information and try to continue to maximize the level of information services because of the positive externalities involved. Externalities occur when someone other than the original purchaser of a product or service is affected by the purchase decision. For example, a person smoking a cigar enjoys the benefits of its purchase but people surrounding the purchaser may experience discomfort. Similarly if a new road is constructed into a previously undeveloped area of the country, there will be benefits to society in excess of the money that the contractor makes on the road construction project. Individuals will gain access to a new recreation area (positive externalities) and at the same time, perhaps, a species of animal might be further endangered by the inroads of civilization (negative externalities).

The extent to which externalities are present in the provision of a particular product or service tends to influence how much of it is supplied and who supplies it. The externalities that may be present in the provision of educational services are a good example. It can be argued that there is a minimal amount of education that a person must have in order to function in society, and the effect of not having this minimal level may be quite damaging to the rest of the

†Professionals asked about 51% of all queries while students asked approx. 27% (see[1], p. 27] for details).

members of a community. This is one argument for publically supported education. Also there may be externalities in the production of education in that some students may influence the academic performance of others. Finally, the quality of the public education provided should be equalized in order that there may not be any overt differences between individuals which could lead to social inequality. This is the argument used in the case of *Serrano vs Priest* [14] where the California Supreme Court held that education must be provided equally to all regardless of differences in wealth between school districts. The parallels between the arguments for the existence of externalities in the provision of education and information are quite similar.

The existence of externalities implies there are benefits to society in excess of benefits received by an individual, and that society as well as the individual has gained. Users of the DIALIB service gained in the sense that they received their on-line search free of charge (during the first half of the experimental period). They also benefited from the information received from the on-line search. While it is clear that there were individual benefits, it is not so clear that externalities were generated, in the sense that the individuals living in the surrounding community benefited from the services any more than if regular library service had been provided.

In the more general case, it is reasonable to assume that externalities do exist in the provision of information products and services mainly because of the educational nature of information. The benefits of information to society are thought to be greater than the benefits received by a single individual, but there is no quantitative evidence to support this position.†

Even if one admits the existence of externalities for information products and services, one would have to admit that externalities also exist for many other government-provided services such as health care, housing for low income groups, public transportation, legal aid, and social welfare payments. If libraries feel that they can justify the provision of information services on the basis of the externalities generated, many of these other services could also do the same.‡ There is no reason to believe that there will be more externalities generated by libraries than, say, health care. Therefore it is prudent for libraries to argue for the public provision of services on grounds other than externalities.

Assuming that information is a merit good and that public institutions want to maintain some part in providing it, decisions need to be made about how to finance this activity.

#### DIRECT CHARGES FOR LIBRARY SERVICES

As mentioned in the previous section, even if information service is considered as a merit good, it will only be supplied up to some predefined level. There is a limit to what a library can provide given its financial and staffing situation, just as there is a limit to the amount of "free" education that is provided. Beyond a predefined level (which is determined by each institution

†Two conflicting views on the presence of externalities in library service can be found in the literature. PFISTER and MILLIMAN[5] suggest that the existence of externalities can not be used to justify free public library service and question the extent to which a library can help develop a better informed and educated citizenry. Their argument is that if a public library is mainly providing auxiliary support for schools, and if school libraries are inadequate then funding should be shifted to support school libraries. With respect to adult library use being for educational purposes, they suggest that most use by adults of a public library is light reading and reading about "how to do it". Further they say that provision of reference services is not all educational", . . . some of it is simply obtaining information for immediate and practical needs rather than enhancing the education of the user" [15, p. 53]. These arguments are questionable mainly because they imply that while one sort of library use (educational) may have external benefits, another sort of use (recreational) probably does not have external benefits.

GODDARD[16] suggests that educational externalities are present for library service, but finds little empirical evidence to support such a position. He suggests that there are externalities in the provision of library service to school age children, disadvantaged minority groups, government agencies, the elderly and the infirm. He considers that library service to meet leisure time pursuits do not generate externalities, nor do services to civic or cultural organizations, nor to most of the business community (law and medicine being the possible exceptions). Goddard's arguments are not persuasive, because they are mainly speculations without empirical data to support them.

‡A somewhat similar argument against the case for considering externalities in education is advanced by BLAUG[17]. His conclusion is that the lack of the presence of externalities in education is enough to warrant a reexamination of the principle that education should be provided by the public sector.

individually) society is no longer willing to assume the burden of providing the service free. If libraries want to meet some of the more specialized demands of their users they will have to consider redefining what level of service to provide, redefining what constitutes a merit good, deciding what level of service to provide and instituting direct charges on some services, or some combination of these three alternatives.

If the private sector supplies information to its users, then direct charges will be levied depending on the service provided. The question that must be addressed next is whether there should be direct charges if publically funded organizations such as libraries provide information services.†

#### *Use of direct charges by government agencies*

The idea of implementing direct charges for government services is not a new one. Many agencies assess fees for services. Many government supplied health services often levy direct charges for inoculations, X-rays, and ambulances. Public transportation systems have subway and bus fares, bridge tolls, and parking meter fees. Some educational institutions charge for the use of books and gymnasium uniforms. Public recreation facilities levy greens fees for golf courses, parking charges, admission fees, and many other direct charges. There are fees charged for sanitation, sewerage, housing, and public utility services as well as a large number of licensing fees (e.g. dog tags, contractor licenses, taxi licenses).‡

The distinction between a public and a private agency collecting a fee is that in the case of a private enterprise the fee includes a profit component and is usually designed to cover the cost of the product or service, while in the case of public agencies the price may or may not be related to the cost to reduce it.

In the public sector, the extent to which direct charges are levied depends upon a number of factors [19, pp. 43–44]. It is more likely that direct charges will be instituted when it is relatively inexpensive to collect them and when they can serve as an aid to the distribution of the limited resources available to the agency. As more revenue is collected by local governments, it is likely that individuals will become more conscious of the cost and the effectiveness of governmental services and also will be conscious of the services they do and do not use or gain advantage from. When this situation arises people are more willing to pay for the specific services that they do use as opposed to the ones they currently finance but do not use. An example of this could be in the case of a public library which is forced to move to direct charges for its service because a majority of its voters are unwilling to support it in any other way.

Instituting direct charges for service is a major policy decision with strong political and social overtones because of the long tradition libraries have of providing “free” service. As mentioned previously, library service is not in fact free. A more correct statement is that librarians do not often levy direct charges for services but charge indirectly.

Indirect charges include property taxes in the case of public and community college libraries, income taxes in the case of state college and university libraries, and tuition in the case of private colleges and universities. Direct charges are more common in special libraries, but much of the special library’s budget comes from the parent organization.

The point is that people are currently being charged for library service. Perhaps it is time to make a conscious decision about whether they should pay directly or indirectly or by some combination of these methods.

#### *Paying for library service*

A determination of whether direct user charges are satisfactory depends on the social equity of the charges as opposed to other forms of collecting revenue or making allocation decisions. A decision needs to be made on whether it is more equitable for the library user to pay a direct charge or have the fee for the library service collected from general tax revenue. In the case of public libraries, the major source of tax revenue is the property tax, and it is widely agreed that this tax is regressive. That is, those individuals who can least afford it, pay a larger proportion

†A direct charge is for a specific service received as opposed to an indirect charge which is not specifically related to the service provided, and is levied irrespective of the amount of service, if any, that a person uses.

‡See [18] for a survey of the use of pricing in the public sector.

of their money than do those who are relatively wealthy. Further, the actual users of the public library tend to have middle to high levels of income and are relatively well educated.† Thus there is an imbalance in financing and use in that those people who can least afford to pay for library service are paying the most for it and at the same time are using it least. This fact is clearly illustrated by a study of the City of Oakland, California conducted in 1966 by LEVY, MELTSNER and WILDAVSKY [22]. The authors examined the branch library structure of the city and found that the cost per resident to support libraries in economically poorer neighborhoods was considerably higher than the cost per resident for libraries located in the more affluent areas of the city [22, p. 201].

Even though there are deficiencies in the property tax system as a method of financing library service there may still be reluctance to rely on direct charges because society believes access to information is an important right, that the ability to access and use information can enhance upward mobility, and that if a direct charge is instituted, the people who might need it the most will be less able to afford it. A corollary of this argument is that by instituting direct charges the library is discriminating against the poor. Second, by instituting direct charges, the library may be allocating its resources in response to what users will pay and not in response to what the public feels is socially optimal. Also, if direct charges are assessed, then the library may be imposing a form of double taxation because users will be both paying for the service through property tax or tuition as well as through direct charges. If, as a result of instituting direct charges, the library reduces its budget requests then the problem is mitigated. The more likely situation is that the revenue from the direct charges would be used to finance a new or expanded information program and the double taxation situation would still exist but to a lesser degree because only the people using the services would be paying for them the second time.

However, if the Federal or State government were to institute more income taxes with a simultaneous reduction in State and Local sales and property tax, and if these agencies were to redistribute the funds back to the local level of government, such as through Revenue Sharing [23] then inequities resulting from user fees would be minimized because they would be a relatively small assessment. Finally, direct charges will be helpful when users from a different geographic area wish to use the library's services. If there were no direct charges, the library's community of users would be supporting use by outsiders. The situation aggravates interlibrary loan and borrowing, library cooperative activities, and simple problems of users from one city borrowing materials at another locale.‡

There are additional reasons why a library may consider instituting direct charges for information services. The most obvious one is to raise enough revenue to support additional or specialized services. It is also possible to use pricing policies to allocate scarce resources and to insure that the resources that are available are fully utilized.§ For example, if a library were to offer a specialized service such as on-line searching free of direct charges presumably there would be a budgeted amount of funds available for the purpose and when the funds were exhausted, no more on-line searches could be provided. A pricing system could serve to ration the service to all those whose need was specialized enough for them to be willing to pay a fee.¶

In an indirect charging situation allocation decisions are difficult to make. One can periodically conduct surveys of users and allocate information services in response to their stated needs. The problem is that, on the assumption that it will cost them less, users tend to understate their needs.

If there is no tax support at all, and if direct charges are levied, only those people who use

†There are a considerable number of studies of public libraries that support this description of user characteristics. [20] and [21, p. 58] are but two examples.

‡The problem is solved by some librarians who refuse service to outsiders and do not participate in interlibrary loan activities.

§If it can not lower its price and maintain a fair return on its investment this may be a situation where the public sector is unfairly competing with private enterprise. In all likelihood, the service is not the same and price competition is not a factor.

¶In the private sector, there are a variety of pricing policy objectives such as pricing maximize profit, maximizing total scales, maintaining management satisfaction.

Objectives that are often stated for pricing public services involve the need to treat people fairly, maximize user or society benefits within the pricing system, or discourage use of a product (alcohol, tobacco, gasoline).

library services will pay for them and people who do not use the service will not have to pay. By being willing and able to directly pay for the service, the user is indicating that the service is valuable and should be continued. Further, once the service has begun to be supplied, the fact that the user continues to pay tells the library how much to supply. And an obvious result of such a system is that revenue is generated which allows user needs to be met.

A combination of direct and indirect charges can be used to allocate information services. Currently when information services are provided without direct charges to users, a rationing system is in effect, namely that those people who are willing and able to wait for service will usually receive it free of direct charge. Such a system has the effect of making people place a value on their time in terms of its alternative value. The result of such an allocation system is not entirely bad. Young people, and older people who are retired have a large amount of leisure time and its alternative value is relatively low.† Users who place a higher value on their time will be more willing to pay for information service than those who impute a relatively lower value on their time.

#### SUMMARY AND CONCLUSIONS

The dual and conflicting nature of information in that it possesses both private good and merit good aspects has been stressed in this paper. So too the position of libraries is not without its conflicts; on the one hand information can be viewed as a national resource, but on the other hand libraries struggling with inadequate funds to implement their programs can view it as an expensive luxury whose current users have alternative methods of access to the information they require.

A good case can be made for the use of direct charges to finance public information activities such as on-line searching especially since specific, measurable costs accrue to the library for providing a single unit of service. However, to move from the provision of library services on a "free", that is indirect charging basis constitutes for libraries a major policy shift which involves political and social consequences. Therefore, the most likely scenario is that libraries will continue to rely heavily on taxes of various types to support their activities and that the strategy will be concurred with on the grounds that information is a merit good. It is also likely that libraries will find it desirable and necessary to expand their activities to support more client groups and include more services. Beyond a certain type and level of service, libraries will institute direct user charges mainly to recover costs associated with the new activities, and to allocate the financial burden of the services to those people who are actually using them.

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