

Non-Use and Non-Users of Libraries[@]

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Abstract

Giving analogy of business approach to market penetration describes the negligence of libraries about non-users and less fortunate users, explains how use of a library is a minority event, explores the relations of use and usefulness of a library, defines non-user, enumerates types of non-users and conceptual framework for use and non-use of information, discusses the possible reasons for not using libraries and what can be done about non-use as well as apprehensions of experts about lack of market penetration by libraries, lastly presents a case study of non-use and non-users of ISRO Satellite Centre (ISAC) library as an extension of earlier use and user studies.

Keywords: User studies; user research; use studies

1. INTRODUCTION

Business enterprises with the objective of maximising their profits strive hard to increase their sales which in turn require them to enlarge their market share. Market

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share is a concept meaningful in the context of total population/market and in relation to one's competitors. Market share is enlarged either by increasing the number of customers or increasing the quantity of consumption of the product by existing customers or both. It is essentially the market penetration by which a business enterprise enrolls more customers to its products. In other words, not only it tries to satisfy and sustain existing customers but also tries to attract non-users of their products. It is a game of survival and growth in business.

Libraries are yet to play marketing games in the strict sense. The least is to worry about non-users. The so called user-research has totally ignored the study of non-users leading to unbalanced ratio of user to non-user research due to extremely difficult nature of non-user studies (Slater, 1984, p1). One of the salient points noted by Line (1974, p53) while summing up the 47th Aslib Annual Conference deliberations is that the need for "exploration of the un-served and underserved: who they are, what they need, how to reach them, and who is to reach them". In the same conference Grose (1974) highlighted the deprived users and their information malnutrition especially among practitioners like doctors, dentists, solicitors, teachers, social workers, etc., and the negligence of library systems. Even after 15 years of such deliberations not much attempts have been made to look into the non-users, underprivileged, un-served, underserved and deprived users and their problems of information malnutrition.

Use of a library is believed to be a minority event i.e., a small segment of rightful users of a library really use their library. The number of users who have need for information far exceed those who actually use information (Atherton, 1977, p7). Even among users, the use of a library

typically follows Matthew effect¹, 80/20 rule, inverse law and success-breeds-success phenomenon resulting into the fact that a very small cross section of users account for a large chunk of the use and the rest of large number of users account for a small part of the use.

The ratio of actual users to potential users of a library serves as a rough measure of the impact of the library and its market penetration capability. At the same time one should be aware of limitations of use studies, including spillover effect of use (Wilson, 1977, p83), indirect use of a library and various interactions of users with a library. Use of a library by its users and its utility to its users are often quite different. "An information-system may be used, then, but not be useful; it may also be useful, but not used. It may even be neither useful nor used. It is ideal if it is both used and useful" (Kochen, 1976, p150).

The purpose here is to examine the non-use and non-users of libraries, possible reasons for non-use and how to overcome this problem together with the nature, characteristics and quantum of non-use and non-users of ISRO Satellite Centre (ISAC) library as a case study in the light of a series of user and use studies completed by the author.

2. DEFINITION AND TYPES OF NONUSERS

The terms 'non-use' and 'non-user' are difficult to define without answering the questions such as 'non-use of what?' and 'how much use or how frequently using can be

¹ Merton (1968) first proposed "Matthew effect" which was based on Matthew's Gospel 'For unto every one that hath shall be given, he shall have abundance; but from him that hath not shall be taken away even that which he hath'.

termed as non-use?' A non-user of a library is one who has a right to use the library but he does not do so over a specific period and/or for a specific sample of collection or transactions. Here we are not concerned with involuntary non-users who unfortunately do not have a library to use, but interested in voluntary or willful non-users (Slater, 1984, p2) of a given library. For Grose (1974,p9) non-users are the "... groups of people in an affluent society who are never given the means to satisfy their needs, or are geographically cutoff from centres of provision which are theoretically open to them or are so occupied that even while surrounded by all they need never stop to enjoy it and suffer a form of (information) malnutrition...". These nonusers live in an information-rich society and yet voluntarily suffer from information malnutrition. Deprived users are usually considered to belong to the first group (ie. involuntary nonusers).

A library can have some non-user who do not use library or its collection or services at all and such non-users are absolute non-users. However, a substantial number of users who make marginal use of a library can be called marginal users. The result of some absolute non-users and many marginal users makes a library under-used. In other words, a library may be under-used due to absolute non-users and marginal users but absolute non-use of a library is quite hypothetical. Under-usage of a library is equally important in the study of non-use and non-users of libraries because from the angle of the library there is no measure or standard to say how much use can be called fair usage.

3. CONCEPTUAL FRAMEWORK FOR USE AND NON-USE OF INFORMATION

It may not be out of context, while studying the problem

of non-use, under use and non-users of libraries, to briefly look at the process of seeking and collecting information by users. The process of a user coming in contact with a source of information (including a library) depends on many factors which can be grouped under the following three categories: (i) the need (ii) the user (iii) the source (or library). The process of matching a (specific subject) requirement or need for information with a source of information or library is subjected mainly to cost-efficiency of the process, errors in matching, ignorance of user about the source and the degree of interpretedness of the source. The process is also dependent on the alternatives available, the degree to which the source adopts to the needs of the user and relative cost of generating new knowledge rather than expensive and possible fruitless search. The alternatives include relying on memory (reserve), skirting around the issue, accepting incomplete, vague or relatively unsatisfactory information, abandoning the requirement and not pursuing to continue the search, etc.

3.1 The need: The need is roughly identified as wanting to know or an awareness or recognition of not knowing or existence of an uncertainty. The strength, urgency, clarity and certainty of a need substantially contribute towards use or nonuse of a source of information. The strength of a need in conjunction with the perception of possible efforts required to satisfy the need determines whether or not a user pursues his or her search and if pursued how far he pursues it. The urgency of a need or requirement will determine when a search is pursued and how it varies over a period of time. The more clear and unambiguous the need, more likely that it will be perceived as strong need by user. Lastly, the more certain the need the better the perception of opportunity to do something to satisfy the need.

3.2 The user: The user includes the non-user, marginal user and sometimes the delegated user and delegate user. The initiative, drive, self-motivation, objectivity, habits, styles, ideosyncracies, past experience, cultural and social settings and expertise in searching for information matter very much in moving user towards a source of information. The expertise in searching includes personal knowledge as well as cognitive skills.

3.3 The Source: The source of information could be a document or a group of documents, a system like library, an individual or a group of individuals like institutions. The existence or availability, knowledge about existence, physical proximity, accessibility, ease of use and perceived utility of a source determine whether or not a source of information will be approached and used by a user. Ignorance about existence of a source of information has often caused the non-use of a source. Though technologies like telecommunication, online systems and mass storage media can overcome the geographical barrier, use of a library as well as quantity or intensity of interpersonal communication are found to be inversely proportional to the square of the distance between the user and the source (Frohman, 1969). Sometimes the source or the information system itself is so complex and it requires assistance to explore.

3.3.1 Accessibility: Accessibility means bringing together physically or technologically the source and the user so as to enable user to become informed or learn from a source and accede to the evidence that the source will yield the information required. Access to a source can be better understood by looking at the possible barriers to access. Barriers are of two kinds. Firstly, non-intellectual barriers are those which are not directly concerned with communication or transfer of information from the source to the user but

concerned with bringing physically the source and the user together. Following are some important non-intellectual barriers. **(i) Lack of indicative or bibliographic access:** The indicative or bibliographic access is concerned with the way of ascertaining existence of a source and having knowledge about existence of a source. or identification of a source. **(ii) The Physical barrier:** The physical access or the document delivery which is a logical extension of bibliographic access, depends on available logistics and technology. Classified nature of a source, policy of the information system and other logistics play their own roles in creating physical barriers between user and the source. **(iii) Cost barrier:** 'Cost of access' is the cost in terms of money, time, efforts and discomfort or inconvenience to be incurred by the user **(iv) Barrier of system cost:** Cost to the system or the source or provider of information in terms of money, time, efforts and discomfort or inconvenience. Non monetary values like social, cultural and political values including the reasons of national security, private or corporate vested interest and indecent or irreligious materials can also contribute to the cost of the system.

The second kind of barriers are **intellectual barriers** directly concerned with communication or transfer of information from the source to the users. These barriers are more or less created by or concerned with the user and his limitations. There are two groups of intellectual barriers. **(i) Lack of expertise:** Inability to have cognitive and conceptual access (or subject and knowledge access) due to insufficient expertise of user to understand a source. In other words, the user need better understanding of basic concepts of the subject before he uses a source of information which could be intensely theoretical and goes over head. There are two ways to overcome this barrier of

cognitive and conceptual access to a source of information. Firstly, more explanation can be provided to the source of information in terms of providing a translation (if the failure is due to linguistic access) or easily understandable summary or informal explanation or interpretation to the source. In other words the source is augmented with explanation to ease the cognitive and conceptual access. Second approach (which is quite traditional to libraries) is concerned with helping and providing education to the user including consultation of dictionaries, encyclopedias, experts, etc. **(ii) Unacceptability of the source:** Choice of a source is a matter of judgement depending on purpose. Information found in a source could be 'soft' and the user might be seeking 'hard' information. Unacceptability of the source may be due to individual's attitude as well as misperception of the source and/or the need. The user could be reluctant to accept the source of information as credible source or find it not having adequate 'cognitive authority'. It could also be due to 'cognitive dissonance' ie., users unwillingness to accept the evidence of the source as it conflicts with his other beliefs.

Further, three very interesting aspects of access to the source of information need mention here. Firstly, the access itself could become a barrier to use of a source of information when it becomes excess. This problem of 'information explosion', 'information indiscipline', 'information overload' or 'access to excess' is the result of ill effects of luxuries of 'information revolution' and quite opposite to information malnutrition. In addition, inevitable duplication, deliberate redundancies and representations of information in different sources or within the same source further add up to the pollution. For example, the observations like "90% of all scientific papers are unread by anyone but their authors" (Longuet-Higgins, 1970)

and "it is cheaper to conduct an experiment to find something out rather than to attempt to discover whether the experiment has previously been performed" (Kemp, 1976,p131) speak of the intensity of problem of 'access to excess' and are much against the principle of 'reinventing the wheel'.

Secondly the technological affluence has also caused some barriers. With easy and cheap way of reproduction of reading materials and abundant Xerox machines, the document delivery and physical access to information sources have so much improved that the users have started 'accumulating' Xerox copies rather than attempting to 'assimilate' all that is copied and possessed. Possession of large amount of Xerox copies of would-be-reading materials itself has become barrier to access, retrieve and use information. Otherwise, 'access to excess' is a problem could also exist in the minds of the users and cause stress and frequently increased errors. Some of the possible solutions for this problem are increased specialisation of users, frequent delegated approach to search and collection of information, more efficient ways of processing information including information analysis and consolidation services with greater selectivity, evaluation, review and synthesis.

The third unusual barrier in accessing the source of information is none other than the organiser or the intermediary (ie., librarian) himself. One may wonder how the organiser of information sources could become a barrier. In the normal process of organising a library and its collection and establishing a system lot of rules and procedures are instituted restricting access to the source of information with punitive measures for those who violate the rules. Traditionally, libraries have many restrictive practices like closed access, chained books, restricted membership, restricted borrowing facilities for a limited

time, restricted hours of opening , punitive fines for late returning etc. Further, the means and techniques like classification schemes, storing mechanisms, etc, and tools like catalogues, bibliographies, etc. created in the process could also be hurdles between the user and the source if these tools and techniques are badly developed or excessively deployed. The very effort of librarians to linearly store multidimensional information embodiments rather than having a 'hyper-stack' is a classic example of access limitations to users. Knowingly or unknowingly, intentionally or unintentionally many such barriers have been evolved or created by librarians.

3.3.2 Ease of Use: Ease of use is another important condition for an user to use a source of information. This condition has far reaching and very large implications on the physical and other organisation of the sources of information. Physical storing and arrangement, classification, indexing and cataloguing of documents at the system level and the physical medium, organisation and presentation of contents at document level might cause barrier to use of sources of information. The popular Mooer's law (1960,p204) states that *"an information retrieval system will tend not to be used whenever it is more painful and problem some for a customer to have information than for him not to have it"*.

The role played by the building, layout, interior decoration, furniture, lighting, fixtures, colour, etc., which create 'conducive environment' in a library, on ease of use cannot be undermined. A thorough understanding of 'zones in personal distances' and 'types of human territories' within library environment are necessary. The design influences of libraries on user-behaviour are not yet known fully (Shlechter, 1979).

3.3.3 Perceived Utility: Perceived utility of the source also matters very much for a user to select the source. How the user perceives the source about its usefulness to him is very important irrespective of the intrinsic worth of the source. This is basically a user related factor and depends on the quality and quantity of information expected from the source by the user. Perception involves detection, selection, organisation and interpretation of sensory stimuli/information. Perception can be seen as an active and constructive process affected by internal factors like interests, needs expectation, emotion and motivation as well as external factors (physical characteristics) like intensity, size and contrast. Above all perception is also selective. Perception is the sensation reinforced by memories, images, etc., derived from past experience and called up by association. Both the processes of falling back on past experience and calling up by association while perceiving a source can cause havocs. For example, if a user is already exposed to an inefficient, irrelevant and difficult-to-use type of source, his perception of the utility of that or other similar sources is obviously be very low. Similarly, if an user has an 'ill' feeling about or an 'unpleasant' experience with an institution, it is likely that by association, he perceives very low utility of library of that institution.

Subjectivity in perception of utility of a source could be caused by 'perceptual constancy' as well as misperception. The error due to 'perceptual constancy' occurs when a user attributes qualities to an object in perception which are not merely additional to but incompatible with the qualities that are actually sensed. In case of misperception, the perception is greatly influenced by the preliminary direction of users attention, by expectation, or by desire. In other

words, familiarity, expectation or interest or wishful thinking of user may lead to sub-excitement of brain pattern before the actual perception occurs. The subjectivity in perception of utility of a source is not necessarily be adverse or negative. For example, bewilderment of a user at large collection or huge library building could lead him to perceive it as highly useful collection or source of information.

Perceived utility of the source talks of the 'psychological distance' between the user and the source. And often, the 'psychological distance' may be more serious barrier than physical distance (Line, 1974,p48).

4. REASONS FOR NONUSE OF LIBRARY COLLECTIONS

Another interesting question is what are the reasons for nonuse of a library by its rightful users. All the factors discussed so far, have their own contributions in the success or failure relating to use of a source of information by a user to satisfy a need for information. These factors and their several interplay need to be understood to know why library collections are under used or not used. Analysis of these factors tell us the reasons for under use and nonuse of a source of information and what can be done about the nonuse and nonusers.

As discussed under the conceptual framework, nonuse of a library may be due to lack of strong need or lack of awareness of need on the part of nonusers. It could also be due to lack of initiative on the part of nonusers. Another possibility is that nonusers may wrongly perceive the usefulness of a library. Lastly, it is quite possible that the difficulties in accessing and using a library may also act as barriers and do not encourage a less motivated

nonuser. They may not perceive that the benefits of use of a library commensurate with the efforts they need to put forth in order to access and use a library (Mooer's law and law of least efforts). Grose (1974) analyses his survey results to show how practitioners like doctors, dentists, solicitors, teachers, social workers are partly or totally neglected by library systems because of geographical distance, lack of time and inclination on the part of practitioners, the very special nature of their need, limitations of available type and form of information and many other inhibiting factors. In other words, he points out how practitioners and field workers are doing without proper and adequate information.

5. 'BELLING THE CAT'

At this stage one might ask a question that what are we going to do with a study of nonuse and nonusers of a library and even express a pessimistic view about converting nonusers into active users of a library which is not only costly (Luckham, 1971) but difficult. It is also believed that any promotion of services in terms of attracting the nonuser is ineffective and such actions may increase the level of usage among existing users than attracting non-users (Delia, 1980). It is further argued that it is better to increase the quality and quantity of service to existing users than trying to take nonusers into fold. On the contrary, the paternalistic and missionary view could be that the less fortunate nonusers be made as users of library (Vermaelen, 1981). Irrespective of encouraging users or nonusers by a library, the 'rich become richer' phenomenon (Matthew effect) holds good about users. In other words, it is quite evidently established that those who use one type of document/service have a better chance to use other type of documents/services and those who use library documents tend to interact more with library and vice versa (Sridhar, 1987,

1988). As mentioned earlier, it was also found that the intensity of use and in-house use of a library are related to use of other libraries by the user (D' Elia, 1980).

The problem of nonuse or nonusers of a library is akin to the problem of not exercising franchise in a democracy. Though such persons (non-users) can put forth logical arguments about not using a library or not exercising franchise in the election, it cannot always be considered as a rational action or attitude. Library professionals are divided on the issue of tackling this problem. While one group feels that libraries should forget hard core (absolute) non-users and should not spend time, money and efforts to change such non-users who are unlikely to change, the other group feels that the non-users need the library most and all stimulating, persuading and marketing efforts of libraries should be concentrated on absolute non-users. A via media of trying to see whether the characteristics of these hard core (absolute) non-users vary and if so can they be divided into two or more subgroups so that identify among those who could be changed into users by stimulating and persuading them as well as modifying the provision of library services to suit their requirements. In other words, if anything can be done about the problem of non-use we must not only analyse the non-use and non-users to see for any pattern among themselves, but also see whether the problem is in the factors relating to the need for information or the user himself or the source of information (i.e., library) or any combination of these factors. Systematic efforts have to be made to develop accurate and reliable profiles of non-users. These profiles should highlight lifestyles, attitudes, behaviours, interests, opinions, characteristics and their relationship with use and non-use of libraries. It was found in a study that prediction of library use verses non-use as well as frequency, diversity and duration of library use

depended on different groups of variables (Lange, 1987). Interestingly, another study revealed that the former users of a library were found to resemble more the current users than non-users in terms of socioeconomic characteristics (Sone, 1987)

6. A CASE STUDY OF NON-USE AND NON-USERS OF ISAC LIBRARY

Let us now look into the non-use of documents and services of ISAC library and the characteristics of non-users of ISAC library. Table 1 provides a summary of non-use and non-users of ISAC library with number and percentage of non-users of library documents and services together with the extent of non usage in terms of 'library-use index' and 'library-interaction index'¹. While nearly 12% of the population are absolute non-users of documents as revealed by library-use index, as many as 40% are non-users of various library services and had no interactions with library. Yet the absolute non-users can make 'delegated' or 'spillover' use of library documents (Wilson, 1977, p83) through other users. It may also be noted that it is not necessary that user should make use of every type of document or every type of service of a library.

¹ In order to simplify the analysis of various modes of use of library documents and user-interactions with library, these two indexes were developed in the original study based on individual frequencies of component data. Library use index has as its components Xerox copies of reading materials taken, inter-library loan, in-house and borrowed use of library documents. Library interaction index consisted of documents suggested to and procured by library, reservations made for library documents, literature search and reference services availed (Sridhar, 1987).

It is interesting to note from Table 1, that if 31.6% of users have not made borrowed use of documents as per three-months 'circulation sample', only 14% were found to have not made borrowed use of documents as per 5% systematic random 'collection sample'. This indicates that 5% collection sample is a better sample than 3 months circulation sample to define non-use and non-user. This is exactly the difficulty of definitions of non-use and non-user discussed earlier.

From Table 1, it is obvious that among the components of library-use index (i.e., Sl. Nos. 1 to 5) the inter library loan use is made by least number of users followed by use of library documents through reprographic service and in-house use of library documents. It is also not proper to expect a user to make inter library loan, reprographic or in-house use without making borrowed use of library documents. Secondly it is the borrowed use which is primary, traditional and more popular service and a way of using documents than others. Lastly, any library is hardly equipped to serve effectively if every user makes frequent demand on inter-library loan, reprographic and inhouse use of documents. In other words, there is an unwritten understanding that the later services or facilities are provided to a limited extent to supplement the borrowed use of documents.

As far as library interaction index is concerned the least interaction is made regarding literature search service followed by reference service, document reservation facilities and finally interactions and suggestions for procurement services (Sl.Nos. 7 to 11 in Table 1). Document reservation service is a complimentary activity to lending service of the library and naturally had interaction from maximum number of users. Surprisingly, low participation of users in collection development (procurement services and suggestions for new documents) has been discussed elsewhere

in detail (Sridhar, 1983). The long range reference service and literature search service are meant to be used by a handful of users. These services require adequate professional manpower if more users avail them and normally users who do not make use of other fundamental services like lending service of library may not expect and seek these services.

Having seen how the use of library documents and interactions with library varied over different type of facilities and services, let us try to look at the non-usage of library documents and services in relation to the background of non-users. More particularly, seeing how the (lent out) non-use of books, reports and journals, absence of in-house use, and not availing reservation and procurement (participation in collection development) services varied with status, academic qualifications, nature of work, specialisation, length of experience and professional activities and achievements of these hardcore non-users.

Table 2 presents how the percentage of non-users varied with their status in the organisation. From the Table, it is amply clear that proportion of non-users regards borrowed use of library books and journals has linearly decreased as their status increased (except for those in status E). The same is true about borrowed use of reports but linearity at higher echelon is not that clear. The activity of document reservation which is closely related to borrowed use of documents has identical result of decrease in non-users as status increases but the highest status (ie., A to E) claim exception. There is slightly higher proportion of non-users in these grades regarding reservation of books and reports. This could indicate a slightly relaxed attitude of these highly placed persons in not pursuing specific title search through reservation or more easily finding a substitute

document when something is issued out than persons at lower grades. Again in-house use of documents and participation in collection development (through document suggestion) are positively and linearly related to status of users (except those with status F and E respectively). In other words, the proportion of nonusers has decreased with increase in status for in-house use and procurement service. It can also be noted from the table that the percentage of non-users at the lowest bracket of the organisation is as many as six times that of highest bracket in case of use of books, more than three and a half times in case of in-house use of library and more than two and a half times in case of documents reservations.

Table 3 presents the percentage of absolute non-users of books, reports, journals, in-house mode of use, reservation service and document suggestion interactions against their academic qualifications. As could be seen from the table the number of non-users regarding borrowed use of reports, reservation service and document suggestion interactions with library has linearly decreased as the qualifications increased. The same is true about borrowed use of books and journals as well as in-house use of library but for postgraduates having much smaller proportion of non-users than doctorates. Interestingly, the percentage of non-users of books among undergraduates is more than three times that of postgraduates. Similarly those who does not make inhouse use of library among undergraduates are four times that of postgraduates.

How non-users are distributed against nature of their work is presented in Table 4. It is obvious from the table that those involved in planning and system analysis work have least (proportion of) non-users followed by those involved in design, development, management and supervision. Maximum

(proportion of) non-users are found in those involved in fabrication, testing and operational activity. (The only exception appears to be that of those involved in management and supervision activities who have least proportion of non-users of journals and document suggestion interactions). If we compare the proportion of non-users among those involved in management and supervision work with those involved in design and development, we find substantial higher proportion of non-users among managers and supervisors as far as use of technical reports, in-house use of library and document reservation services are concerned. However, ratio of nonusers among those involved in fabrication and testing is almost same as that of those involved in operational activity.

How do these non-users of ISAC library stand against their subject of specialisation (in the highest academic qualification) is presented in Table 5. Mathematicians have least proportion of non-users in respect of borrowed use of books (5%), in-house use of library (10%) and document reservation service (11.8%). They have second lowest proportion of non-users in use of journals. However, mathematicians have highest (95%) proportion of non-users of technical reports. This may be an indication of forms of literature required by mathematicians. Physicist have the least proportion of non-users of journals and relatively low percentage of non-users of books, reports and even other services. In other words, physicists have relatively low non-users in almost all aspects of use of library and user-interactions with library. It is quite interesting that aeronautical and structural engineers have least (proportions of) non-users of technical reports. They also have relatively less non-users of books and reservation services. However, they have highest proportion of non-users (75%) of journals (like that of mechanical engineers). It is mechanical and

electrical engineers who have very high proportion of non-users of library documents and services. The situation of electronics engineers is equally bad and even worse in some cases (for example use of books and reports) but they have very low proportion of non-users regarding in-house use of library. To put it in nutshell, scientists (ie., physicists and mathematicians) have less non-users than aeronautical and structural engineers and aeronautical and structural engineers than other engineers.

Table 6 presents the distribution of non-users of library documents and services against their length of experience. Though there is no clear and strong pattern emerging from the table one or two weak indications are worth noting. New comers with least experience have least non-users of books, journals and in-house use followed by those with more than eight years of experience. However less experienced have maximum non-users of technical reports.

Lastly, Table 7 presents the distribution of non-users against professional activities and achievements index¹ specifically developed for a study of information behaviour of space technologists (Sridhar, 1987). The main study has already indicated a positive and strong relation between professional activities and achievements index and use of library documents and services. It is very interesting that all the non-users of reports and all the non-users who did not suggest documents to library have zero score on professional activities and achievements index, thereby

¹ The index consisted of lectures delivered, seminars, symposia and conferences attended, internal documents/reports prepared, papers published, patents obtained, awards and citations received, memberships of professional associations, societies, board of studies, editorial committees, internal committees as well as official tours, in-service trainings and part time studies undertaken.

indicating that any effort to increase the professional and academic activities of non-users of library could help and might lead to better use of library.

7. CONCLUSION

Information malnutrition, under usage and nonuse are common features in libraries. Yet systematic efforts have not gone into understanding the non-users, under privileged, unserved, undeserved and deprived users. Only a minority of rightful users account for a large majority of usage of libraries. The profession is even divided about the concern for nonusers. The problem is more serious in case of voluntary or willful non-users than involuntary non-uses or under privileged, un-served, undeserved and deprived users.

Several factors relating to the need for information, the user and the source and their interplay cause under usage and non usage of information and libraries. Delineating and identifying these factors affecting nonuse can help libraries to tackle the problem. Identifying the characteristics of these non-users and their specific needs and characteristics of such libraries go long way to increase market penetration of libraries.

A case study of hand core or absolute non-users of ISAC library has revealed several patterns of the non-users. Various services of the library forms a hierarchy and users do not reach advanced information services without going through rudimentary services like lending service and in-house use. The omnibus library facilities and services to some extent fail to meet requirements of diverse set of users having different status and other characteristics. It was revealed in the survey that increased status in the organisation lead non-users to become users of the library.

Further, as academic qualifications and the status in the organisation are highly correlated, the non-users are more among less qualified persons. Those who are involved in planning, system analysis, design, development and management have better chances of becoming users of the existing pattern of library system than those having fabrication, testing and operational activity as nature of work. Interestingly physicists and mathematicians (ie., scientists) are less likely to be non-users than aeronautical and structural engineers and aeronautical and structural engineers than other engineers. It appears that too little (less than 2 years) and too much (may be about 8 years or more) experience is related to increased use of libraries and decreased the proportion of non-users. Promotion of professional and academic activities of non-users and thereby professional achievements is likely to make many non-users of library to use library.

Lastly, designers of library systems should not be carried away by the present users of library but look into some of the basic factors which prevented some rightful users from using the library.

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TABLE 1
NON-USERS OF ISAC LIBRARY (N=807)

Sl. No.	Type of use/ interaction	Sample size	Not used		NA	Error
			No.	%		
1.	Borrowed use	3 months 'circulation sample'	248	31.6*	22	0
2.	Borrowed use	5% random 'collection sample'	98	14.0	106	0
3.	Library visits (inhouse use)	3 months sample	369	47.7	33	1
4.	Reprographic service	one year sample	449	69.1	157	0
5.	Inter-library loan service	"	699	95.2	72	1
6.	LIBRAEY-USE INDEX	(Based on 1 to 5 above)	75	11.9	179	0
7.	Procurement services	one year sample	462	73.6	177	2
8.	Suggestions for new documents	"	463	73.5	176	1
9.	Document reservations	"	336	50.8	146	0
10.	Literature search service	"	726	98.9	75	-2
11.	Reference service	"	606	82.2	73	-3
12.	LIBRARY-INTER-ACTION INDEX	(Based on 7 to 11 above)	253	40.2	178	0

Note: Percentages are worked out ignoring not applicable cases and error from total defined population of 807.

Key : *, the percentage of users who did not borrow any book, journal, report and standard over a quarter respectively are 36.5, 79.3, 88.8 and 99.5.

NA, Since data are collected over a period of two years, cases partially represented due to resignation and long absence are excluded.

TABLE 2

STATUS-WISE DISTRIBUTION OF NONUSERS (IN %)

Status	Books (N=800)	Reports (N=803)	Journals (N=801)	Inhouse Use (N=772)	Document (N=630)	Document Suggestion (N=650)
Reservation						
A, B, C&D	11.5	88.5	57.7	25.9	50.0	40.7
E	33.3	80.6	58.3	27.1	64.3	41.4
F	18.6	78.8	54.1	32.3	62.5	37.8
G	19.0	88.1	54.2	28.7	62.7	38.3
H	19.5	94.8	62.3	39.4	66.7	42.0
I	21.3	96.3	68.5	48.1	75.3	42.9
J	21.6	98.0	73.5	67.1	90.6	61.8
K	51.4	97.3	91.9	83.8	97.3	89.2
L	66.1	100.0	91.3	85.5	96.8	88.7
M&N	66.7	98.1	92.2	91.3	100.0	96.3
Total	28.9	91.3	66.9	47.8	73.5	51.7

Note: Status A to N are in the descending order of hierarchy.

TABLE 3

QUALIFICATIONS-WISE DISTRIBUTION OF NONUSERS (IN %)

Qualifications	Books (N=691)	Reports (N=693)	Journals (N=692)	Inhouse Use (N=674)	Document Suggestion (N=587)	Document Reservation (N=605)
Undergraduates	56.3	97.2	90.1	83.7	97.0	86.8
Diploma Holders	28.2	98.6	75.3	60.8	81.2	58.0
Graduates	20.7	89.9	55.3	35.9	62.6	38.8
Postgraduates	17.5	84.7	52.6	22.8	60.4	32.9
Doctorates	20.0	67.7	56.7	26.7	44.4	27.6
Total	28.7	90.8	65.9	46.6	72.7	51.2

TABLE 4

NATURE OF WORK-WISE DISTRIBUTION OF NONUSERS (IN %)

Nature of work	Books (N=458)	Reports (N=458)	Journals (N=458)	Inhouse Use (N=439)	Document Suggestion (N=362)	Document Reservation (N=371)
Management/ Supervision	21.4	90.5	52.4	48.8	55.3	53.8
Planning/Systems Analysis	15.1	81.1	56.6	28.8	64.1	27.5
Design and Development	20.5	86.5	55.8	24.3	56.8	39.0
Design, Develop- ment, Fabrication and Testing	22.2	92.6	63.0	40.7	75.0	54.2
Fabrication and Testing	32.8	93.8	77.3	65.8	83.7	60.6
Operational Activity	38.2	97.1	73.5	63.6	88.0	59.3
Others	44.4	100.0	55.6	58.8	92.9	71.4
Total	25.8	90.0	63.3	43.5	69.9	49.1

TABLE 5

SPECIALISATION-WISE DISTRIBUTION OF NONUSERS (IN %)

Specialisation	Books (N=431)	Reports (N=431)	Journals (N=431)	In-house Use (N=415)	Document Suggestion (N=355)	Document Reservation (N=361)
Physics	19.5	87.8	53.7	24.4	54.8	43.8
Mathematics	5.0	95.0	55.0	10.0	75.0	11.8
Mechanical Engineering	38.5	92.6	75.4	68.1	80.0	67.9
Aeronautical and Structural Engineering	12.5	56.2	75.0	37.5	66.7	30.8
Electrical Engineering	47.1	82.4	58.8	58.8	81.2	50.0
Electronics	80.3	94.9	62.8	37.6	66.9	44.1
Total	26.7	91.6	65.4	44.3	70.7	49.3

TABLE 6

EXPERIENCE-WISE DISTRIBUTION OF NONUSERS (IN %)

Experience (in years)	Books (N=379)	Reports (N=398)	Journals (N=394)	In-house Use (N=397)	Document Suggestion (N=398)	Document Reservation (N=398)
2	20.0	97.4	61.5	41.0	76.9	53.8
2 - 3	37.5	90.5	61.0	42.9	73.8	50.0
4 - 5	35.6	97.9	72.9	62.5	83.3	52.1
6 - 8	39.7	92.6	78.2	60.0	78.8	58.8
9 -11	31.6	82.7	66.7	41.2	58.0	42.0
12 -14	28.6	88.1	62.7	40.7	71.2	50.8
14	34.7	91.8	77.1	63.3	83.7	65.3
Total	33.2	91.0	69.3	50.4	73.9	52.8

TABLE 7

PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS-WISE

DISTRIBUTION OF NONUSERS (IN %)

Professional Activities & Achievements Index	Books (N=171)	Reports (N=181)	Journals (N=179)	In-house Use (N=181)	Document Suggestion (N=180)	Document Reservation (N=181)
0	50.0	100.0	80.8	80.8	100.0	84.6
1 - 3	34.4	93.9	72.7	48.5	69.7	54.5
3	18.6	86.1	55.8	26.2	51.2	27.9
Total	26.3	89.5	62.6	38.1	61.7	50.8

About the Author

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