Marketing—A Critical Policy for Today’s Information Centre

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Abstract

The challenge of coping with the changes in social, technological, economical environment has forced the library and information centres (LICs) to change their time honoured old practices. Pressure for accountability and the emergence of enterprise culture has led the library and information professionals to take aggressive actions for financial self-sufficiency. Hence in the present era, the library and information managers (LIMs) will have to think of producing an information product and project it in the market for potential users which will help to generate revenue. TERI-LIC contributes in different products and services which are generated in-house. These wide range of products and services are marketed and disseminated to the end users through an effective marketing strategy and also in coordination with separate marketing service area. Most of these products and services are price-based for the self-sustenance of the centre.

1. INTRODUCTION

In the last decade significant changes have taken place all over the world, and they have been posing challenges to various professions and professionals. It has brought about a sea change in the library and information profession.

The conditions of libraries and other resource centres in our country are not very impressive. This is due to an acute financial crisis, budget cuts in establishments and its subsequent impact on libraries and information centre. It is necessary to convince users, that information has a price label and to produce, retrieve, disseminate, the appropriate information and its packaging and repackaging also incurs cost implication. In Indian context, one has to keep in mind the budgetary costs, increased prices for collection, storage (in terms of space) and dissemination of information, which altogether compel to charge nominal fees for information services. Keeping in view the financial constraints, it is necessary that some of the cost has to be shared by the users. Many library and information services struggle hard to satisfy users within the limits, imposed by a small budget. In some libraries, no input has been given to infrastructure development, which has declined the quality of service. For survival, self esteem, and self-sufficiency, it is necessary to create a niche in the society, the libraries need to concentrate more towards marketing of library products and services. A well-planned marketing strategy can only solve this problem.

Library and information centres have been already in problems arising out of rising prices and shrinking budgets. The fresh burden of generating funds has further complicated their plight. There are several sources of fund generation which libraries can tap. These include:

(a) Library membership fee
Charges to library users
(c) Library services and in particular computer-based services
(d) Consultancy services
(e) Other services, and
(f) Training and education.
These can be further categorised into computer-based and non-computer based sources.

Library & information centre (LIC) of Tata Energy Research Institute (TERI) collects different types of information from various primary and secondary sources; both in raw as well as processed form. This information is meant for the end users, so it is repackaged and disseminated to the user’s community effectively and efficiently. It is preferred that the information collected from different sources are demand driven.

TERI has a vast collection of energy, environment, biotechnology, and sustainable development related information. This information is collected from far and wide for the use of in-house research professionals. TERI-LIC not only serves the in-house users but also caters to external users. The goal of the LIC professionals to render high quality products and services to users at the right time and at the right place, in the right format has always been an integral part of the professional ethos. Therefore, the information professionals have tried to bring efficiency of techniques to control and retrieve information for user’s satisfaction with the application of latest technologies.

2. SPECIAL LIBRARIES AND INFORMATION CENTRES

Evans¹ said that normally, in the special library or information centre environment, the focus is on small groups and individuals. Corporation, research institutions, professional organisations, and the like seldom have a sound knowledge of the basic issues related to acquisition and use of information within themselves, unless there are regular information assessments or audits. Some of the key issues are:

- What information resources are currently in use?
- How are these resources used?
- What are the outcomes, if any, of their use?
- What equipment is required to use the information, and who uses that information?
- What is the cost of the information and its associated equipment?
- What is the ‘value’ of the results?
- What is the cost/benefit of information acquisition and use within the organisation?

Based on the above mentioned issues, TERI-LIC periodically do rigorous exercise of information assessment study, evaluation of activities to keep abreast with the quality of information.

2.1 TERI-LIC: A SPECIALISED CENTRE

The TERI-LIC has emerged as a pioneering research library and information source, and its collection includes over 20000 books, reports and conference proceedings in the field of energy, plant biotechnology, forestry, natural resources, environment and sustainable development; around 670 current journal titles (including over 12000 back volumes); and a large volume of miscellaneous literature, including government documents, standards, pamphlets, reprints, press clippings and annual reports of ministries, companies, research organisations, voluntary agencies, and multilateral organisations. The centre provides comprehensive information services through its collection and by exploiting state-of-the-art IT.

The centre not only supports TERI’s programmes but also serves energy and environment professionals and institutions globally, providing effective, expeditious, and value-added information services. Apart from conventional services, the centre’s resource include a wide ranging CD-ROM collection of bibliographic and statistical resources and internet connectivity for accessing worldwide scientific information and databases. The centre also provides a daily online bulletin including newspaper headlines pertaining to energy, environment, biotechnology,
economy, transport, trade, regulatory issues, etc., and a calendar of events.

The centre has initiated efforts to establish an electronic library. Electronic information is collected from online and off-line sources, including the internet, and is organised to build the electronic library collection. In 1999/2000, the centre also initiated steps to build an electronic archive of in-house research material as knowledge repository.

A repository of literature on energy, particularly renewable energy sources, environment, biotechnology and sustainable development issues, the centre has been catering to the varied needs for information and by building bibliographic databases and by publishing secondary journals in the aforesaid areas. Besides data collection and information analyses, it provides support services to students, researchers, faculty of educational institutions, consultants, policy- and decision makers, and other end users in the form of query-based services; prepares up to date and exhaustive bibliographies on various subjects in response to specific requests; prepares the subject index for the Institute’s publications; conducts computerised literature searches; imparts training to in-house researchers; and serves as a reference and referral centre.

3. INFORMATION TRANSFER CYCLE

The primary purpose of libraries and information centres is to assist in the transfer of information and development of knowledge. Information transfer is an elaboration of the basic information cycle. First is the identification stage. Then there is a need to select the most appropriate information to acquire. After acquisition, the organisation organises the information in some manner. Upon completion of the organising action comes the preparation of the information storage, which should mean the information can be easily retrieved. Users often need assistance to describe their needs in a manner that leads to locating and retrieving the desired information (interpretation). Finally users draw upon the desired information to aid them in their activities/work (utilisation), and disseminate the outcome of the work to the internal or external environment, or both. If the transfer process is to function properly, there must be procedures, policies and people in place to carry out the necessary operational steps. As always, there must be co-ordination and money for the operations what they set up to do; this is the administrative and managerial aspect of information work.

![Information Transfer Cycle](Fig 1. Information Transfer Cycle)

4. CHALLENGES FOR INFORMATION MANAGERS

The challenge of coping with the changes in social, technological, economical environment has forced the LICs to change their old practices. Pressure for accountability and the emergence of enterprise culture has led the library and information professionals to take aggressive actions for financial self-sufficiency. Hence in the present era, the Library and Information Managers (LIMs) will have to think of producing an information product which is useful for revenue generation.

Availability of right information for the right user at right time and at right cost has become most vital. This scenario has posed major challenges to the information sector whose prime function is to satisfy the complex and increasing demands for information products and services. LIMs need to understand that just having information and storing it will serve no purpose, unless it is put to an effective use by those who need it. LIMs will have to bring the users and the information together. However, increasing technological advancements is still putting more and more pressure on dynamic managers. First, the technology in information...
work is vastly expanding the scope of their work. It is now possible to gain access to and process more information than it was possible only five years ago. Information networks have broken time and space barriers. User expectations are constantly changing and increasing, and hence creating a demand driven approach, for more sophisticated, high quality information products and services.

Information is becoming increasingly expensive and so is its packaging and repackaging. Value addition to the information, makes it more expensive.

5. CONCEPT OF MARKETING

Brown in his paper, mentioned that marketing activities are a prominent part of life today. Many people work in marketing jobs or holding positions with marketing departments. Most people think of marketing solely as advertising or selling. In reality, marketing is much more than selling the product or services. It is one to one interaction and an exchange of value in which both parties ‘gain something’.

Information professionals may not realise that they themselves are already engaged in some marketing activities every day. Information professionals have to recognize that creating and following a marketing plan is an invaluable tool; they should learn how to harness its power to benefit the corporate library and the enterprise as a whole.

According to Theodore Levitt, the difference between selling and marketing is that ‘selling focuses on the needs of the buyer’. Levitt goes on to say that marketing is concerned with ‘satisfying the needs of the customers by means of the product and the whole cluster of things associated with creating, delivering and finally consuming it’. To market effectively, information professionals must know their organisation’s business thoroughly to be able to contribute to its success.

Marketing aims at:
(a) Identification of the client base
(b) Determination of the needs, wants and satisfaction levels, and
(c) Fulfilment of the same through designing and delivering appropriate products and/or services more effectively.

5.1 Marketing Mix

The marketing mix consists of 4Ps which can be expanded to 6Ps.

(a) Product

The product is the heart of the system. It may be associated with the materials (books, non-books materials, software etc.) access channels (reference assistance, computer searches etc.) and programmes (instructions, demonstrations films etc).

(b) Price

Pricing of information services and products relatively a new concept. It has not considered seriously since library services were being provided “free”. But, with the increased emphasis on accountability and self sufficiency in relation to resources it has become necessary to cost the various activities and to recover costs as much as possible.

(c) Place

This component of the marketing mix is the channel that links product and consumer. When considering the distribution possibilities, it is important to remember that the product is removed not only in space from the location of the consumer, but also may be removed in time from when the consumer wishes to use it.

(d) Promotion

It involves mechanisms by which the target groups are informed about the resources available, services and products offered by the library and information centre.

Libraries and information centres have traditionally worked to satisfy the needs of their customers. But today more than ever, information professionals must be concerned with marketing their services within the organisation in order to thrive. More alternative sources of information exist than ever before. Although that can mean information centres face increasing competition, it also presents an opportunity.
for corporate libraries to help users choose the right source among the growing number of services.

TERI-IDS (Information Dissemination Services) area play a vital role in marketing the finished and processed information products to the end users. The role has been discussed later in this regard.

6. ECONOMICS OF INFORMATION

According to Glazer\(^4\), information as a commodity differs from the typical goods as:

(a) It is not easily divisible or appropriable (i.e. either I have it or you have it);
(b) It is not inherently scarce (although it is often perishable); and
(c) It may not exhibit decreasing returns to use, but often in fact increases in value the more it is used;
(d) Unlike other commodities which are nonrenewable and with few exceptions depletable, information is self-regenerative of feeds on itself so that the identification of new piece of knowledge immediately creates both the demand and conditions of production of subsequent pieces.

Mason\(^5\) provided a starting point for understanding what is meant by the ‘economic value of information’. He identified three key elements:

- **Efficiency**: where information helps the users to do the job faster, more accurately, and at lower cost (i.e., how to do the job ‘right’)
- **Effectiveness**: where information helps perform a task that could not be done before (i.e., how to do the ‘right’ job)
- **Responsiveness**: where information helps to respond to customer’s demands for service irrespective of efficiency or effectiveness.

Because of the unique features of information as a commodity, attempts to value information using traditional approaches have proven to be problematic. Typically, the notion of value has two components:

(a) **Value-in-use**: means the benefits of commodity to the user
(b) **Exchange value**: means the market place.

Consider value paradoxes in economics—for example, the fact that water is cheap whereas diamonds are expensive, even though water is vital to life, whereas diamonds are not necessary in day-to-day life. The solution to the paradox is the concept of supply and demand. Water is cheap where it is not scarce; where it is scarce, the market value of water increases. The divergence between the two types of value is often extreme in the case of information. Although information may be obvious value-in-use, it may be difficult to establish its exchange value, because information is not appropriable or scarce in the typical way. The challenge has been to create high value for information.

However, although scarce information may have value, one of the unique and salient characteristics of information as a commodity is that it is inherently not scarce and that its value-in-use-often increases with use.

7. NEEDS ASSESSMENT

Needs assessment activities are a regular part of the special library’s programme to a greater degree than in other types of libraries. Selective dissemination of information (SDI) is a technique often used in special libraries. By developing and maintaining user interest profiles, the library can continually monitor the information needs and interests of its service population, allowing more effective collection building. The technique also serves as a public relations activity. Every SDI notification serves a reminder of the library’s existence and value. Usually, SDI services are ineffective for large service populations, because the services are too costly to operate; however, several commercial firms offer SDI like services. The Institute for Scientific Information (ISI) is one commercial organisation that offers SDI like services; it also publishes several indexing and abstracting tools to which many special libraries subscribe (e.g., *Science Citation Index* printed or online).

Libraries consider the following questions when they assess the needs of users:

- What information users need?
8. INEFFICIENT USE OF INFORMATION

Inefficient use of information wastes money. Many examples of inefficiency can be found including:

♦ Information which is collected but not needed
♦ Information stored long after it is needed
♦ Usefull information which is inaccessible by the potential users
♦ Information disseminated widely than is necessary
♦ Inefficient methods used to collect, analyse, store and retrieve information
♦ Collection of the same basic information by more than one group of people in the same department
♦ Duplication in storage of the same basic information.

9. WHY INFORMATION PRODUCTS & SERVICES ARE AT A COST?

9.1 LIC Earnings

The information gathered by the LICs for the user community’s benefits, comes with a price tag. No information is available free, except in few cases. But the centre has to incur this expenditure on continual basis. Therefore, for the self-sustainability of the LICs and to meet the geometric increase in cost structure, they have to produce and sell value-added products to the customers.

9.2 Cost of Producing Information

In order to provide correct and timely information, LIC has to invest and regularly spend money for hardware, software, manpower, documents, etc., to keep the information input base up to date.

9.3 Limitation of Finance

There is a greater demand of information and financial resources of LICs for development of information products and services.

10. INFORMATION ACCUMULATOR VERSUS INFORMATION USER

Why a information seeker or user (project expert) needs information? Because, he has got an assignment to work on. Now the assignment, which he is going to accomplish, is for a price. Now there are two options, either the information seeker has ready-made information available with him and he passes it to the end user or he approaches the information accumulator (LIC professional) for repackaging as shown in figure 2. For example, suppose the information user receives a project assignment from an end user for a price, which is a compiled
information on ULSD (Ultra Low Sulphur Diesel). The information accumulator is now engaged to gather and repackage information on ULSD, here the manpower cost is involved. The information on ULSD is collected from various sources such as from internet, literature search of journals, online database access, etc. All these information sources carry a price tag, the information accumulator also charges for his services. Once the information is compiled on ULSD, the information accumulator pass the repackaged information to the information seeker and gets his share, who further passes it to the end user for the assignment cost.

11. MARKETING ACTIVITIES OF LIC FOR REVENUE GENERATION

Professional marketing approaches will help in achieving maximum utilisation of information products and services and thus generate more and more revenue. For this purpose, library and information managers have to take initiative and a lot of freedom has to be given by the management to them in their pursuit in this thrust area.

In order to generate suitable revenue, it is suggested that the LICs put a marketing programme which includes the following group of activities:

11.1 Awareness of Information for Development

The LICs should develop information that can be given to potential end users and make them aware of the same. This should include visit or talks of or demonstration to potential end users communities, preparation of attractive well presented brochures describing objectives, services, etc., of the LICs, publication of information articles about LICs services and products in various journals.

11.2 Promotion of Services

The LICs should engage in activities that help to promote the services to the specific individuals who can get benefit from them. This should include identification of user's groups, finding their information needs, sending them the promotional material/information, publication of newsletter, periodical surveys of end users, sending of specimen copies of information products/pamphlets, etc., to prospective users, users group meets, provision of evaluation card along with LICs services/products, identification of market opportunities. Figure 3 shows the promotional activities of LICs.

11.3 Prioritisation

Prioritise the market segments to be served first according to the strength in areas. This will help in initial acceptance as well as getting financial support.

11.4 Innovation and Creativity

For better marketing activities, information producers should concentrate on new avenues of products or services, which will attract more and more potential users. New innovative ideas to be generated in the context of information types, quality, economics, etc.

![Fig 3. Promotional Activities of LICs](image)

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11.5 SWOT (Strength, Weaknesses, Opportunities and Threats) Analysis

Before devising any marketing strategies, the LICs should do a detailed SWOT analysis of their products and services. This will not only help the LICs to market the products easily and confidently, but also explore the possibility of market segments and create niche for themselves. Table 1 shows SWOT analysis for a small corporate library.

12. INFORMATION SERVICES OF TERI-LIC

For Internal Users:
- **Online services:**
  - Current Awareness services (such as forthcoming events, recent additions, news headlines, online catalogue, current contents services)
  - Reference and referral services
  - CD-ROM database services
  - Virtual Information Centre (VIC) services
  - News clipping services

- **Electronic library services:**
  - Web links to selected journals
  - Collection of full text books, reports, papers
  - Virtual electronic collections

- **Specialised information centres:**
  - ENVIS (Environmental Information Systems) centre

For External Users:
- **Library membership for external users**
- **Document delivery services, reference and referral services, information retrieval services and photocopy service**
- **Virtual Information Centre (VIC) services**
- **Information products and services:**
  - *TERI Newsflash* (electronic weekly news clippings on oil & gas, power & coal)

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### Table 1. SWOT analysis for a small corporate library ( Keith Hart, 1999 )

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<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>Good reputation with users</td>
<td>Not well known to outside user base</td>
</tr>
<tr>
<td>Comprehensive collection of books, journals</td>
<td>With just limited staff, cannot cope up with the busy times</td>
</tr>
<tr>
<td>CD-ROMs and online databases</td>
<td>Inadequate infrastructures support for access</td>
</tr>
<tr>
<td>Experienced and knowledge staff</td>
<td>Access problems with the locality, infrastructure</td>
</tr>
<tr>
<td>Effective cataloguing and OPC system</td>
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<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
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<tbody>
<tr>
<td>Company intranet will reach most employees</td>
<td>Parent organisation management have appointed management consultancy to advise on knowledge management issues</td>
</tr>
<tr>
<td>Management interested in knowledge management issues</td>
<td>Some departments consider their own small collection to be adequate for their needs</td>
</tr>
<tr>
<td>Company performance excellent and resources available for expansion</td>
<td>No natural successor to experienced librarian</td>
</tr>
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*Mycorrhizainformationcentre*
*Regulatoryinformationcentre*

**Databases developed and maintained:**
- DIC - a bibliographic database on energy and environment
- ENVIS - Environmental Information System database
- FCE - Forthcoming Events database
- PBTA - Plant Biology database
- RIZA - A Mycorrhiza Network, Asia database
- REGI - A bibliographic database on Regulatory Issues
- TNW - A news-clipping services database
• **CoRE Clips** (electronic weekly news abstracts on environment)
• **TERI Newswire** (news abstract on economy, energy and environment)
• **TERI Information Digest on Energy (TIDE)**
• **TERI Information Monitor on Environmental Sciences (TIMES)**
• **MycorrhizaNews**
• **Regulateri**
• **Global Environmental Review (GER)**
• **EnCoRE**
• **Journal of Environmental Studies and Policy (JESP)**
• **TERI Times**
• **SAFIR Newsletter**

### 12.1 Role of TERI Information and Dissemination Services

The mission is to outreach the local and global markets using conventional and new media for information dissemination with focus on:

(a) Promoting the results of TERI's research, and

(b) Positioning TERI as a leading 'information provider' on energy, environment and sustainable development.

The main is to promote and disseminate TERI's information products, which include publications (primary refereed journals, abstracting journals, newsletters, books, directories, monographs, and conference proceedings, etc. on-line databases and audio-visual capsules through a vast subscriber database. It also participates in various trade shows, conferences, workshops and exhibitions to promote these products. The area acts as an interface between the stakeholders and information providing areas.

The major activities of this area are:

♭ Develop and maintain a network of individuals and institutes who seek information and knowledge to enhance their awareness and capacity, and facilitate effective and efficient resource utilisation.

♭ Provide information support by sharing TERI's experiences and knowledge with them. About 10,000 active subscribers spread across 50 countries seek information from TERI

♭ Use conventional and new media to facilitate information flow to the target audience through the right channels

♭ Keep the subscribers well informed about the latest in India's economic, energy and environmental sectors through **TERI News** service, using print and e-mail service

♭ Devise new and innovative methods of information dissemination: online catalogue, ordering and registration facilities, e-mail dissemination, distribution channels, direct mailing, bookstores, etc.

♭ Disseminate relevant information to the specialised working groups by offering customised information packages through memberships.

♭ Promote information reservoir through national and international exhibitions, trade shows and conferences.

*For further information, please visit:*
http://www.terin.org/division/itsdiv/orc.orc.htm

### 12.2 Value Added Services Marketed by TERI

#### 12.2.1 Virtual Information Centre (VIC)

Keeping pace with the rapidly advancing techno-savvy world, and in step with its objective of providing the world a better environment, TERI has launched this unique service. The VIC delivers information at your desk. This will bring information updates on Energy, Environment & Bio Resource Technology and delivered on the desks of corporate visionaries (such as GEOs, VPs, GMs, etc.), who are pioneers and want to do more in the field of energy, environment, and sustainable development.

#### 12.2.2 Benefits in membership of VIC

(a) **Today's News**

An interactive daily news bulletin. Here you choose the news headlines you want to read and we send them to you.

(b) **Cyber Highlights**

A weekly update on energy, environment and sustainable development from cyberspace.

(c) **Content List of Global Journals**
A weekly feature on the contents list prepared from a wide range of journals and rendered through electronic media at your desktop.

(d) Calendar of Events

This shall be sent across 'as and when'. This would help to plan your calendar of activities much in advance.

Those who opt for the membership are entitled to 50 requests for full-length articles from the above services. All these services will be available through e-mail. The membership fee of Rs 1,000 per month (Rs 12,000 per year) keeps users up to date on energy, environment and sustainable development, adding a new dimension to your vision.

12.2.3 CoRE (Corporate Roundtable on Development of Strategies for the Environment)

It has been set up to galvanize this latent knowledge and expertise and transform it into an agent for change. CoRE is a network of motivated and leading corporates, coming together to identify key problem areas in the field of industrial sustainability and develop strategies for addressing the same. Functional experts from these corporates identify and conceptualise projects. A team of industry members and TERI researchers then works to develop appropriate solutions/strategies for use by the industry.

For further information, please visit:
http://www.teri.in/core/

Under this we have two value added services which are:
(a) EnCore-A Newsletter for emerging news on CoRE
(b) CoRE Clips-A weekly e-mail news service relating to themes on environment and industrial sustainability. The service is offered free of charge to CoRE members. Non CoRE members can access only the headlines of the latest issue of CoRE Clips.

For further details, please visit:
http://www.teri.in/core/pub/pub.htm

12.2.4 TERI Information Monitor on Environmental Science (TIMES)

Times bifurcated from Energy and Environment monitor with an aim to expand its scope and make it a complete information product on environmental issues. The journal carries abstracts of current literature; announcements of conferences, symposia, workshops, books reviews and notices, bibliographies, etc., on topics of environmental interest. Supported by the Ministry of Environment and Forests, Government of India, the journal focuses on India and other SAARC countries.

For further details, please visit:
http://www.teri.in/pub/journl/times.htm

12.2.5 TERI Information Digest on Energy (TIDE)

TIDE keeps its readers informed about the latest developments in energy and related areas. Each issue of TIDE contains a review article, about 100 abstracts, and news briefs, conference announcements, book reviews, bibliographies, a statistical data capsule, and web sites on conventional and non-conventional energy resources.

For further details, please visit:
http://www.teri.in/pub/journl/tide.htm

12.2.6 Global Environment Review (GER)

(Formerly TERI Information Service on Global Warming - TISGLOW)

GER aims to keep policy makers, scientists, and technologists abreast of the latest developments in the field of global environmental issues. The policy forum section of GER focuses on the current scenario of the global environment with a view to generate meaningful discussions on environmental issues of global importance. It includes, viewpoints, interviews and reports. Each issue of GER contains about 125 abstracts, a few news briefs, concise digests, announcements of conferences, and so on.

For further details, please visit:
http://www.teri.in/pub/journl/ger.htm
12.2.7 Regulateri

It is a quarterly review of regulatory developments, provides information and disseminates knowledge to those in the business of regulation - both regulators and those in the business of regulation - and provides a forum for discussion and debate in this field.

For further details, please visit:
http://www.teriin.org/pub/journl/reguteri.htm

12.2.8 TERI Newswire

Every fortnight, TERI Newswire gives a selective, up-to-date coverage on the current economy-energy-environment scenario, gleaned from any newspapers all over India, thus keeping its readers abreast with the latest developments in the above field.

12.2.9 Mycorrhiza News

Provides a forum for dissemination of scientific information on mycorrhiza research and activities in the Asian region. It carries state-of-the art papers from eminent scientists, notes on important breakthroughs, brief accounts of new approaches/techniques, latest literature references, forthcoming events, etc.

13. CONCLUSION

Information has always played a central role in our economy—a simple fact that too often gets lost in all the hype about the information age. In this information age, with the information explosion new technologies has helped to access at a faster rate. Many of the great technological advances of the present century (information technology, telecommunication, etc.) have served to speed the flow and widen the availability of information. The arrival of the Internet is just the current clarion call—a very big step—in a process that continues to unfold. As access to information has expanded, so too have the opportunities for selling information to a broader and more diverse set of customers.

REFERENCES

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