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Contents

Knowledge Management

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Knowledge Management ('KM') comprises a range of practices used by organisations to identify, create, represent and distribute knowledge. It has been an established discipline since 1995 [1] with a body of university courses and both professional and academic journals dedicated to it. Most large companies have resources dedicated to Knowledge Management, often as a part of Information Technology or Human Resource Management departments, and sometimes reporting directly to the head of the organisation. As effectively managing information is a must in any business,and knowledge and information are intertwined, Knowledge Management is a multi-billion dollar world wide market.

Knowledge Management programs are typically tied to organisational objectives and are intended to achieve specific outcomes, these can include, improved performance, competitive advantage innovation, lessons learnt transfer (for example between projects) and the general development of collaborative practices.

One aspect of Knowledge Management, knowledge transfer has always existed in one form or another. Examples include on-the-job peer discussions, formal apprenticeship, discussion forums, corporate libraries, professional training and mentoring programs. However, with computers becoming more widespread in the second half of the 20th century, specific adaptations of technology such as knowledge bases, expert systems and knowledge repositories have been introduced to further simplify the process.

Knowledge Management programs attempt to manage the process of creation or identification, accumulation and application of knowledge across an organisation. As such Knowledge Management is frequently linked to the idea of the learning organisation although neither practice encompasses the other. Knowledge Management may be distinguished from Organisational Learning by a greater focus on specific knowledge assets and the development and cultivation of the channels through which knowledge flows.

Frequent Knowledge Management practices include:

- Enabling organisational practices, such as Communities of Practice and corporate Yellow Page directories for accessing key personnel and expertise.
- Enabling technologies such as knowledge bases and expert systems, help desks, corporate intranets and extranets, Content Management, wikis and Document Management.

The emergence of Knowledge Management has also generated new roles and responsibilities in organisations, a burning example of which was the Chief Knowledge Officer. In recent years, Personal knowledge management (PKM) practice has arisen in which individuals apply KM practice to themselves, their roles and their career development.

Knowledge Management has also been linked to knowledge manipulation - the creation, dissemination and use of knowledge are instrumental (Land, Nolas, Amjad). Hence actual knowledge management may constitute a kind of malpractice in which what purports to be knowledge is created to achieve an effect, such as the false accounts presented by ENRON.

Approaches to Knowledge Management

There is a broad range of thought on Knowledge Management with no unanimous definition. The approaches vary by author and school. Knowledge Management may be viewed from each of the following perspectives:

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- Techno-centric: A focus on technology, ideally those that enhance knowledge sharing/growth.
- Organisational: How does the organisation need to be designed to facilitate knowledge processes? Which organisations work best with what processes?
- Ecological: Seeing the interaction of people, identity, knowledge and environmental factors as a complex adaptive system.

In addition, as the discipline is maturing, there is an increasing presence of academic debates within epistemology emerging in both the theory and practice of knowledge management. British and Australian standards bodies both have produced documents that attempt to bound and scope the field, but these have received limited acceptance or awareness.

Schools of Thought in Knowledge Management

There are a variety of different schools of thought in Knowledge Management. These include:

- The Intellectual Capital movement with Leif Edvinsson and Tom Stewart and more recently Nick Bontis.
- A focus on collaboration including concepts of Community of practice and a range of collaborative technologies. Much of this work originates from research by Etienne Wenger and the Lotus Institute (now absorbed into IBM Research). Other prominent figures include Saint-Onge, McDermott and others.
- The use of social network analysis to understand interactions between people within organisations, both qualitatively and quantitatively, associated with Krebs, Stephen Borgatti, Cross and others.
- A body of work derivative of Information theory associated with Larry Prusak and Tom Davenport and linked to the conversion of internalized tacit knowledge into explicit codified knowledge (SECI) allowing successful knowledge sharing as highlighted by Ikujiro Nonaka and Hirotaka Takeuchi. This is probably the dominant school of thought, as represented by publications and includes later developments by authors such as Probst, Von Krough and Malhotra amongst many others.
- Management of tangibles and intangibles, living networks, co-creation and whole systems through value networks and value network analysis (Allee). This work also includes linkages and connections to theory associated with the Learning Organization.
- Complexity approaches associated with David Snowden (see Cynefin) Max Boisot, J C Spender and others. Variations of this include the use of narrative (Snowden, David M. Boje and others) as a form of fragmented knowledge

Key Concepts in Knowledge Management

Dimensions Of Knowledge

A key distinction made by the majority of knowledge management practitioners is Nonaka's reformulation of Polanyi's distinction between tacit and explicit knowledge. The former is often subconscious, internalized, and the individual may or may not be aware of what he or she knows and how he or she accomplishes particular results. At the opposite end of the spectrum is conscious or explicit knowledge. Knowledge that the individual holds explicitly and consciously in mental focus, and may communicate to others. In the popular form of the distinction. Tacit knowledge is what is in our heads, and explicit knowledge is what we have codified.

Nonaka and Takeuchi (1995) [2] argued that a successful KM program needs, on the one hand, to convert internalized tacit knowledge into explicit codified knowledge in order to share it, but, on the other hand it also must permit individuals and groups to internalize and make personally meaningful codified knowledge they have retrieved from the KM system.

The focus upon codification and management of explicit knowledge has allowed knowledge management practitioners to appropriate prior work in information management, leading to the frequent accusation that knowledge management is simply a repackaged form of information management.[3]

Critics have argued that Nonaka and Takeuchi's distinction between tacit and explicit knowledge is oversimplified and that the notion of explicit knowledge is self-contradictory. Specifically, for knowledge to be made explicit, it must be translated into information i.e., symbols outside of our heads.

Another common framework for categorizing the dimensions of knowledge include embedded knowledge (knowledge which has been incorporated into an artifact of some type, for example an information system may have knowledge embedded into its design) and embodied knowledge (representing knowledge as learned capability of the body's nervous, chemical, and sensory systems). These two dimensions while frequently used, are not universally accepted.

It is also common to distinguish between the creation of "new knowledge" (i.e. innovation) V/S. the transfer of "established knowledge" within a group, organization or community. Collaborative environments such as communities of practice or the use of social computing tools can be used for both creation and transfer.

Knowledge Access Stages

Knowledge may be accessed at three stages: before, during and after knowledge-related activities. Some people would argue that there is a life cycle to knowledge use. Starting with capture (although that word is itself contentious) or creation, moving on to use and refuse with the ultimate goal of enriching an organisation's capability. In counter to this many would state that such a life cycle view is too linear in nature and reflects an information centric view.

For example, individuals undertaking a new project for an organization might access information resources to identify lessons learned for similar projects , access relevant information again during the project implementation to seek advice on issues encountered and access relevant information afterwards for advice on after-project actions and review activities. Knowledge management practitioners offer systems, repositories and corporate processes to encourage and formalize these activities with varying degrees of success.

Similarly, knowledge may be accessed before the project implementation, for example as the project team learns lessons during the initial project analysis. Similarly, lessons learned during the project operation may be recorded, and after-action reviews may lead to further insights and lessons being recorded for future access. **Note:** in this context recording knowledge relates only to those aspects of knowledge which can be codified as text, or drawings.

Different organizations have tried various knowledge capture incentives, including making content submission mandatory and incorporating rewards into performance measurement plans. There is considerable controversy over whether incentives work or not in this field and no firm consensus has emerged.

Adhoc Knowledge Access

One alternative strategy to encoding knowledge into and retrieving knowledge from a knowledge repository such as a database is for individuals to make knowledge requests of subject matter experts on an ad hoc basis. A key benefit claimed for this strategy is that the response from the expert individual is rich in content and contextualized to the particular problem being addressed and personalized to the particular person or people addressing it. The downside of this strategy is that it is tied to the availability and memory recall skill of specific individuals in the organization. It does not capture their insights and experience for future use should they leave or become unavailable and also does not help in the case when particular technical issues or problems previously faced change with time to the point where a new synthesis is required, the experts memories being out of date. The emergence of narrative approaches to knowledge management attempts to provide a bridge between the formal and the adhoc, by allowing knowledge to be held in the form of stories.

Drivers of Knowledge Management

There are a number of claims as to 'drivers' or motivations, leading to organizations undertaking a knowledge management program.

Perhaps first among these is to gain the

competitive advantage (in industry) and/or increased effectiveness that comes with improved or faster learning and new knowledge creation. Knowledge management programs may lead to greater innovation, better customer experiences, consistency in good practices and knowledge access across a global organization as well as many other benefits, and knowledge management programs may be driven with these goals in mind. Government represents a highly active area, for example DiploFoundation Conference on Knowledge and Diplomacy (1999) outlines the range of specific KM tools and techniques applied in diplomacy.

Considerations driving a Knowledge Management program might include:

- Making available increased knowledge content in the development and provision of products and services.
- Achieving shorter new product development cycles.
- Facilitating and managing organizational innovation and learning.
- Leverage the expertise of people across the organization.
- Benefiting from 'network effects' as the number of productive connections between employees in the organization increases and the quality of information shared increases, leading to greater employee and team satisfaction.
- Managing the proliferation of data and information in complex business environments and allowing employees rapidly to access useful and relevant knowledge resources and best practice guidelines.
- Managing intellectual capital and intellectual assets in the workforce (such as the expertise and know-how possessed by key individuals) as individuals retire and new workers are hired.

Knowledge Management Technologies

The early Knowledge Management technologies were online corporate yellow pages (expertise locators) and document management systems. Combined with the early development of collaborative technologies (in particular Lotus Notes), KM technologies expanded in the mid 1990s. Subsequently it followed developments in technology in use in Information Management. In particular the use of semantic technologies for search and retrieval and the development of knowledge management specific tools such as those for communities of practice.

More recently social computing tools (such as blogs and wikis) have developed to provide a more unstructured approach to knowledge transfer and knowledge creation through the development of new forms of community. However, such tools for the most part are still based on text and thus represent explicit knowledge transfer. These tools face challenges distilling meaningful re-usable knowledge from their content.

Knowledge mapping is commonly used to cover functions such as a knowledge audit (discovering what knowledge exists at the start of a knowledge management project), a network survey (Mapping the relationships between communities involved in knowledge creation and sharing) and creating a map of the relationship of knowledge assets to core business process. Although frequently carried out at the start of a Knowledge Management programme, it is not a necessary pre-condition or confined to start up.

Knowledge Management Enablers

Historically, there have been a number of technologies 'enabling' or facilitating knowledge management practices in the organization, including expert systems, knowledge bases, various types of Information Management, software help desk tools, document management systems and other IT systems supporting organizational knowledge flows.

The advent of the Internet brought with it further enabling technologies, including e-learning, web conferencing, collaborative software, content management systems, corporate 'Yellow pages' directories, email lists, wikis, blogs, and other technologies. Each enabling technology can expand the level of inquiry available to an employee while providing a platform to achieve specific goals or actions. The practice of KM will continue to

evolve with the growth of collaboration applications, visual tools and other technologies. Since its adoption by the mainstream population and business community. The Internet has led to an increase in creative collaboration, learning and research, e-commerce and instant information.

There are also a variety of organisational enablers for knowledge management programs, including Communities of Practice, Networks of Practice, before, after and during action reviews (see After Action Review), peer assists, information taxonomies, coaching and mentoring and so on.

Knowledge Management Roles and Organizational Structure

Knowledge management activities may be centralized in a Knowledge Management Office, or responsibility for knowledge management may be located in existing departmental functions, such as the Human Resource (to manage intellectual capital) or IT departments (for content management, social computing etc.). Different departments and functions may have a knowledge management function and those functions may not be connected other than informally.

Knowledge Management Reasons of Failure or Success

There is no established evidence as to the reasons behind failure and success of Knowledge Management initiatives in organizations. Some argue that a failure to sustain investment is one factor, but it can equally be argued that if knowledge management delivered on its promises investment would continue. As with many management initiatives, particularly those with a heavy IT basis (as is the case in Knowledge Management), frequent questions are raised about the level of consultation necessary before a program is started; these questions are linked to issues of cultural change and a willingness to share and collaborate with colleagues. There is no evidence that Knowledge Management, in all these respects is any different from other management initiatives.

http://www.media-access.com/whatis.html, http://en. wikipedia.org/wiki/Knowledge_management.

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Research output on 'Meningitis': a Bibliometric Study

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Introduction

Bibliometrics is relatively a new discipline. It is a quantitative study of various aspects of literature on a topic. The word "Bibliometrics" first appeared in print in 1969 by Alan Pritchard.[1] As Bibliometrics evolved, a series of laws have developed. Some of the more well known laws are Bradfrod's Lotka's and Zipf' s law. These fundamental laws are as follows.

Bradford's Law- To identify the journals of a particular discipline Bradford's law[2] is perhaps the best known law of bibliometrics study. This law describes studying the extent to which literature in a particular discipline is scattered over a range of journals. It also states that if scientific journals are arranged in order of decreasing productivity on a given subject, they may be divided into a nucleus of journals more particularly devoted to the subject and several groups or zones containing the same number of articles as the nucleus when the number of periodicals in the nucleus and the succeeding zones will be as 1 : n : n2 — —.

Lotka's Inverse Square Law- In 1926, Alfred J. Lotka Statician in an Insurance company proposed his Inverse square Law correlating contributors of scientific papers of their number of contribution. He claims that "a large no. of the literature is produced by a small number of authors and it is distributed so as the number of author producing n paper is approximately proportional to 1/n2."[3] Author a (1/n2)

Where is the number of contributions on articles.

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For this, he analyzed the decennial index of chemical abstract from 1907-1916. He collected 6891 names of the authors contributing 1, 2, 3, etc. entries in literature.

On the basis of this data, Lotka deduced a general equation, for the relation between the frequency 'Y' of persons making 'X' contributions as follows:

Xn y = constant

If n = 2 then, the result as follows

In the case examined it is found that the number of persons making 2 contributions is about one fourth of those making one 'n' contribution is about 1/ n2 of those making one and the proportion of all contributions is about 60%.

Zipf's Law of Word Occurrence

This law was given by Zipf in 1933. Zipf developed and extended an empirical law, governing a relation between the rank of a word and the frequency of its appearance in a long text.

If 'r' is the rank of a word and 'f' is its frequency, then mathematically Zipf's law can be stated as follows:

R a (1/f) — rf = C, is a constant.

This law states that "in a long textural matter if words are in their decreasing order of frequency, then the rank of any given word of the text will be inversely proportional to the frequency of the occurrence of the work."[4]

Objectives

This study aims at identifying and describing some of the characteristics of the literature published in the field of "meningitis" over the period of 3 years (i.e. 2004, 2005 and 2006) with a view to identity the place, time, subject, area and country of origin form where the

documents, have been published. Meningitis is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain. People sometimes refer to it as spinal meningitis. Meningitis is usually caused by a virul or bacterial infection.

Main objectives of the study are:

* To know the core periodicals containing the most of the literature on meningitis;
* To know about the country producing most of the literature on meningitis;
* To know the most productive year of the literature published on the subject;
* To find out most used from of source material i.e. periodical articles, research reports, conference proceedings, bulletins etc;
* To know the dominating language in which most of the articles on the subject have been produced;
* To know the eminent personalities in the filed of meningitis.

Methodology

For the present study, 3035 references have been collected on 5"x3" size catalogue cards from the three volumes of index medicus. These volumes of index medicus were from 2004 to 2006. Each card contained information about author, title, name of periodical, year, place of publication, language and form of document. All 3035 references (cards) were arranged and rearranged in order to complete the following studies.

Data Analysis and Interpretation

Ranking of Periodicals- Data have been collected from 406 periodicals and 3035 references were noted down on the cards as mentioned above. Subsequently, ranking of periodicals was done. However, Table 1 lists only fifteen top periodicals in which the frequency of occurrence of items is over 50. While, Table 2 shows that most of the literature on the meningitis appeared in 4 periodicals as total no of 1009 items appeared in these periodicals. Therefore, these journals may be regarded as core journals in the field 'meningitis'.

The journals having their frequency of occurrence in the range of 198-397 is 4, those in range of 23-134 is 15, in range of 11-22 is 21 and those in range of 6-10 is 35. However, the number of items covered under the range of 23-134 is more than the items covered under the range of 11-22 (Table 3.1). It is therefore, obvious that though most of the literature constituting 33.30% references appeared in core journals, the number of periodicals has been increasing for finding out much less number of items i.e. as many as 58 periodicals covered only 213 items (7.02%) 363 periodicals covered 432 items 14.20%. This is in accordance with Bradford's Law of scattering.

This ranking list may be useful for the libraries in taking policy decisions regarding the subscription list of periodicals on the subject "meningitis". It will be equally important for the documentalists in preparing an exhaustive documentation list. The study may be useful for the scientists, as they would know the core journals carrying the highest percentage of items.

TABLE-1

RANKING OF PERIODICALS

Rank	Name of periodicals	Place	Frequency	%age
1	Neurology Science	U.S.A	397	13.08
2	Kaohsiuing journal of medicine	Taiwan	280	9.22
3	Internal medicine	USA	198	6.52
4	Neurology	USA	134	4.41
5	Journal of neurology	USA	109	3.59
6	Journal of pediatrics	USA	101	3.32
7	Clinical infectious disease	USA	99	3.26
8	Lancet infectious Disease	USA	92	3.03
9	Pediatrics	Ireland	76	2.50
10	Neurology neurosurgery and psychiatry	U.K	59	1.94
11	American neurology- USA	U.S.A	41	1.35
12	European journal of neurology	USA	33	1.08
13	Journal of neuroscience	Ireland	28	0.92
14	Neuroscience eithevature	Ireland	28	0.92
14	European neurology	Switzerland	28	0.92

TABLE-2
RANGE OF FREQUENCY

S.No	Freq. Range	No of periodicals	No. of items	%age	Cumu%age
1	198-397	4	1009	33.30	33.30
2	23-134	15	795	26.19	59.50
3	11-22	21	323	10.62	70.14
4	06-10	35	263	8.67	78.81
5	03-5	58	213	7.02	85.80
6	01-02	363	432	14.20	**100**

Country wise distribution- Table 3 contains a list of 10 countries producing research material on meningitis. These countries have been ranked on the basis of frequency of occurrence of items. It was observed that 61.15% of the total articles were published from USA only. This is followed by UK, Germany and Ireland which produce 12.85%, 6.75% and 5.46% research items respectively.

TABLE 3: COUNTRY WISE DISTRIBUTION

Rank	Name of country	Freq. of occurrence	% age
1	USA	1856	61.15
1	UK	390	12.85
3	Germany	205	6.75
4	Ireland	166	5.46
5	France	99	3.26
6	Spain	75	2.47
7	Switzerland	49	1.65
8	Russia	32	1.05
8	Canada	32	1.05
9	Poland	24	0.79
10	Japan	23	0.75

Language wise Distribution- Table 4 displays the publication of items in different languages. Out of a total of 3035 items, 2576 (84.87%) were published in English language. The second and third rank occupied by Russian and French with 150 (4.94%) 132 (4.34%) items respectively. This has been followed by Spanish and German.

TABLE-4

LANGUAGE WISE DISTRIBUTION

Rank	Name of language	Freq.	Freq.%age	Cum.freq
1	English	2576	84.87	84.87
2	Russian	150	4.94	89.81
3	France	132	4.34	94.15
4	Spanish	57	1.87	96.2
5	German	50	1.64	97.66

Form wise distribution- Analysis of collected data showed that literature on the subject meningitis was published in nine different Forms as shown in table 5. It is evident from the table that 2465 items constituting 81.21% of the total data collected were appeared. The next four positions were occupied by Reviews, Research report, survey report and case study.

TABLE-5

FORM WISE DISTRIBUTION

Rank	Name of forms	Freq	Freq %	Cum freq
1	Article	2465	81.21	81.21
2	Reviews	293	9.66	90.87
3	Research Report	115	3.79	94.66
4	Survey report	89	2.93	97.59
5	Case study	30	0.93	98.58

Ranking of Authors- Table 6 lists the name of authors with ten or more than ten papers. It is worth pointing out that 652 (21.48%) items were contributed by single authors and 2383 (78.51) items were having joint authors. This shows the present trend of research is having more associations of authors.

TABLE-6
RANKING OF AUTHORS

Rank	Name of Authors	Paper
1	Appenzeller,s	16
2	Saha, SK	13
3	Mirand, A	12
3	Powell, DA	12
4	Stephens, EB	11
4	Zou, Y	11
4	Oppermann, H	11
5	Lear's	10
5	Dimlegici, EC	10

Application of Bibliometrics Laws

Bradford's Law- Ranking of Periodicals 496 periodicals were divided into three zones according to their frequency of occurrence. In the first zone 4 periodicals carried 1009 items in second zone 30 journals carried 1008 items and the third zone consisted of 462 journals carrying 1018 items. The first zone is the nucleus zone as it contains 4 periodicals, followed by 30 journals in the second zone and 462 periodicals in the third zone. Number of permutations and combinations were tried to set data according to Bradford's law and it was found as follows:

1:n:n2

4:30:462

30 34 = 2x17 (Approx)

462 ≅ 578= 2x17x17 (Approx)

Therefore, now the series is

2:2x17:2x17x17

On substituting, 17=n ,we get

2:2n:2n2

i.e.1:n:n2

(Where 1 is the number of periodicals in the nucleus and n is the multiplier)

Hence Bradford law is proved scientifically.

Lotka's Inverse Square Law

The Lotka's Law states that the number of scientists who contribute 'n' paper will be 1/n2 of those who contributed only one paper during the present analysis it was observed that 1432 authors have contributed 3035 items out of 1832 contributors. Only 294 authors have contributed more than one paper and rest 1538 authors have contributed only one paper each giving single contribution. However, according to Lotka's law single contributing should account for 60% of the total.

Lotka's law was applied to know the number of scientists contributing 2 papers 3 papers and 4 papers respectively, as given below.

Scientists Contributing Two Papers

As we know that the number of authors contributing only one paper is 1268, the

number of scientists contributing 2 papers may be calculated by the formula.

No. of scientist contributing n papers=

$$\frac{No.ofScientistscontributing/paper}{n^2}$$

On substituting n=2 in the above formula

No. of scientists contributing two papers= 1538/22=1538/4=384

The number of scientists publishing 2 papers should be 384. However, an analysis of data from table 4.7 indicates that 139 authors have contributed 2 paper which is far less than the figure, obtained by applying Lotka's law.

Scientists Contributing Three Papers

On substituting, n=3 in the formula we get

No. of scientists contributing three papers=1538/32 =170.88=171

During the analysis it was found that only 31 authors have contributed 3 papers each. Which is again far less than the calculated figure i.e. 171.

Scientists Contributing Four Papers

On substituting n=4 in the formula we get

No. of scientists contributing 4 papers=1538/42 =1538/16=96

The analysis of the actual data shows that only 15 authors have contributed 4 papers each, which is far less than the calculated figure i.e. 96.

It may there be concluded that the trends of research now a days have changed as compared to the period when Lokta's law was formulated. At present inter-disciplinary method of research are common and most of the articles are now written in joint authorship on the basis of the analysis of the present data, it is difficult to testify the validity of Lotka's law.

Zipf's Law of Word Occurrences

This law states that in a long textural matter if words are arranged in their decreasing order of frequency, then the rank of any given word of the text will be inversely proportional to the frequency of occurrence of the word i.e.

Rá 1/f (where 'r' is rank and 'f' is frequency)

rf=c (where, c is constant)

Taking log on both the sides

Log (f) +log (r)=log c

Or log (f)+log(r)=c (where c is constant)

To apply this law the words (terms) were collected from the title of the articles and ranked according to their frequency of occurrence in decreasing order. Subsequently, it is found that log of frequency of occurrence of words when added to log of their rank; the results are almost same for each word.

The log of frequency of three most potent words appeared in the titles meningitis are gives below:

5.3.1 Word : Meningitis

Frequency : 420

Rank : 1

Log of Frequency+log of rank

Log 420+log=2.6020+0=2.6020 word

5.3.2 Words : Infection

Frequency : 390

Rank : 2

Log of frequency+log of rank

Log=390+log 2=2.5910+0.3010=2.8903

5.3.3 Word : Viral

Frequency : 295

Rank : 3

Log of frequency+log of rank

Log 295+log 3

=2.4698+0.4771

=2.9469

Thus, it is proved that Zipf's law is valid even today.

Findings and Conclusion

This study is conducted on the data collected from three volumes of Index

Medicus (i.e.2004, 2005, 2006)

The following are the major findings of the study.

1. From the study, it was found that the journal titled Neurology science published from U.S.A is most productive, reporting 397 items.
2. Subject wise distribution shows that 1275 (42.00%) literature belong to the subject MS-Psychiatry and Neurology, MS-Orthopedics and Traumatology with 437 (14.39%), Medical Sciences with 284 (9.35%) items and so on.
3. The language wise distribution shows that 84.87 of literature in the field 'meningitis' published in English language whereas 15.13 literature is published in other languages.
4. The literature on the subject 'meningitis' was found to be published from 29 countries. USA is the leading country with 1856 (61.15) items of the total. This is followed by UK and Germany with 310 (12.85%) and 205 (6.75%) items respectively.
5. The study regarding the form wise distribution of items concluded that the most of the literature on the subject was published in the form of articles in the journals.
6. Author wise distribution shows that 652 (21.48%) items were contributed by single authors and 2383 (78.51%) items were written by more than one author.

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The evaluation of Longman photo dictionary British English with audio CDs (New edition)

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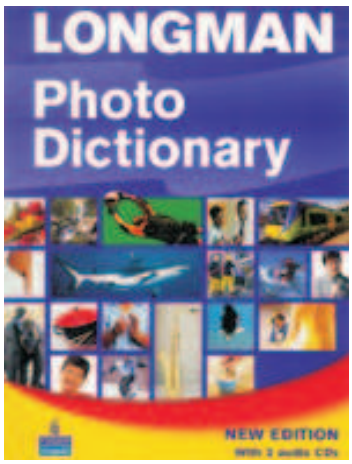

Publisher: Longman

Format: P/Bk

ISBN-10: 140582798X

ISBN-13: 9781405827980

Publication Date: 2006

Price: £20.00

Description: For adult learners of English.

The cover

The cover of this dictionary, like any other Longman dictionaries, is designed with the three standard Longman colors which are dark blue, red and yellow. As long as this book is a photo dictionary the cover clearly conveys this message by including photos used in the dictionary. The title is also clear and the user can easily with just one look understand what kind of a book this is. At the bottom of the cover the edition and the enclosures which are two audio CDs, are mentioned.

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Inside

1. Contents

The contents come right after the title page of this photo dictionary and divides into different headings such as clothes and fashion, health, transport, and so many other. Each heading divides into detailed subjects relating to the heading. In front of each heading and its subjects the user can find the number of their pages for easier access.

2. The main text

As far as this is a photo dictionary the main text contains text and photos. Each word or statement is translated into a photo. The word and its photo are marked with a number so that the user can understand which photo goes to which word. The photos used in this book are plain and actual (not drawn) and were taken by different photographers. Besides the text and the photos the user can find exercises at the bottom of each page which helps him/her with the learning process. The user can also get help from the audio CDs attached to this dictionary for listening comprehension and learning the correct pronunciation of each word. I believe the main privilege of this book is the inclusion of these audio CDs which gives a great opportunity to the user in order to learn English in its best way.

3. Word list

This part comes after the main text and gives all the words of the dictionary in an alphabetical order and their phonetic symbols for better pronunciation and the number of their pages.

4. Exercises

Each page of this part is devoted to a main heading of the book. This part is a really useful part for the user to examine his/her knowledge and measure the books usefulness. In order to

check his/her answers the user can refer to the key to exercises part which comes just after the exercises.

5. Grammar index

If the user needs to know in which pages he/she can find adjectives or verbs or pronouns or… this is the part that can help. Every grammatical thing is gathered in this part with the number of its page of course.

6. Photo credits

This part is exactly like a resource part. It introduces the photographers and the resources that this book have used for gathering it's photos. Such as BBC, royal mail, R&S Greenhill, DIY photo library and …?

7. Acknowledgments

This part introduces the people, who were in the process of producing this book like the director, the person who designed the exercises and…?

It also gives information about the publishing, the rights, the address, the website,…?

At the back of the book you can find a description of the book that gives brief and straight information to the buyer as follows:

For adult learners of English

The new Longman photo dictionary makes learning over 3000 English words easy. The clear and up-to-date colour photos help you learn words in their natural context which makes it easier to remember them.

- 1000 colour photographs.
- 3000 words cover all topics that you need in everyday life, from housing, food, and clothe to computers, jobs and sports.
- Conversation activities on each page for practice in class.
- 10 pages of additional activities for extra written practice.
- Two audio CDs- listen to every word pronounced.

Who can use this dictionary?

This dictionary is designed for adult learners of English but almost anyone with a primary English knowledge can use it.

Role of Information Technology in Library

Shaista Muqueem

Asstt. Librarian, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra.

Abstract

This article deals with the impact of the Information technologies on globalization and its role of bringing decision makers together and it discuss the importance of internet as a tool for development. In this paper information Technology is meant to cover the internet. It highlights about the interent, internet services and internet access tools.

Key words

Internet Services, Information Technology.

We are living in the age of information, which is available in many formats in vast volume. The advancement in technology has facilitated the dissemination of information in large amount and greater speed. Recent developments in Information Technology forced a traditional to new methods of operation for Libraries.

Information Technology is genetic term used to denote activities connected with Computer based processing, storage and transfer of information. It includes microprocessors, cable access television, fiber optics, satellites, teletext, word processing, electronic mail, video, robotic and such others. The components of information technology are computers, telecommunications, storage technologies, databases, information systems etc.

Library collection has ranged from clay tablets to papyrus sheets, paper documents and silicon chips, optical and magnetic disc and so on. In every age libraries have used the latest technology. The application of information technologies for operation and services in libraries has been increasing. Information Technology brought in libraries to speed by their activities.(Kaur and Sajita, 2007).

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Internet

In the advancement of Information Technology Internet will be acting as a media to get, to provide and to compile information to the benefit of academic community. The Internet played dynamic role in activating the technology. Internet technology in the contemporary times has brought out the whole universe of knowledge on a single platform, enable the user community to download any type of information from anywhere across the world, irrespective of the physical location. Library automation is an inevitable activity for any library and Information center to enable the users to travel across the information world and there by make them think globally and act locally.

The Internet has its origin in the US Defence Department's ARPANET (Advanced Research Project Agency Network), one of the fore runners of the Internet, which has now made this world an electronic global village. It was started originally in US in 1969 as defence project. The Internet is often referred to as the network of networks, a communication medium made possible by computer and networks. It can be defined as:

* Information Super Highway.
* A worldwide Channel of Communication.
* A Large store of information.

Services of the Internet

Email

The most important of all services available in the Internet is the electronic mail (e-mail). It has become one of the most widely used services on the Internet, it is a tool where messages are

transmitted and received through a network. It provides a fast, cheap and convenient means of sending messages from individuals to other individuals of groups. Although E-mail was originally designed for communication between a pair of individuals, it has been extended to provide communication among a group with a Computer Program.

Each participating individual or organization in the net has a personal file in the network called the mailbox, which is identified by an address known as an e-mail address. There is a surety of the delivery of mail. If the mail cannot be delivered due to some reason then the undelivered mail bounces back to the sender.

Bulleting Board Services (BBS):

The major bulletin board service available on the Internet is known as Network News. Bulletin Board Service is an electronic message system for reading and posting of messages. It facilities e-mail as well as chatting forum on topics with less expense and sometimes free to callers. Netnews consists of thousands of individual bulletin board on topics as diverse as education, hobbies, science, politics, Entertainment and employment opportunities.

Telenet:

The Internet's remote login service is called a TELNET. It is a facility by which one can log on to a remote computer or network. One can telnet into huge databases to do research or even telnet into the Libraries around the world to check their catalogues. It can also be used to access commercial databases to search the resources available on Internet through its navigation tools. Telnet is a simple programme created by the National center for super computing Applications (NCSA) that uses TCP/IP to provide connection onto another computer. Using Telnet you can contact a host machine by typing a host name of IP member and can transfer files, from the TCP/IP host to your own computer and access databases.

File Transfer Protocol (FTP):

FTP permits a user to transfer a copy of data file across the Internet from one computer to another. Information is stored on thousands of computers all around the world in their own file systems. These files can be transferred from the remote computers to the personal computers by a program in Internet called File Transfer Protocol (FTP). When using FTP, a user establishes communication with a remote computer and obtains authorization by sending a login and a password. The user can list the file available on the remote computer, request a copy of a particular file or send a copy of a local file.(Kumbar,2002)

Usenet:

Usenet stands for users network. It is the largest discussion forum throughout the world. Thousands of discussion group make Usenet. These are called Newsgroups. Actually they are electronic Bulletin Board Services associated with Internet, which facilitate exchange of views, comments, on particular topics. Special software packages are available to use the Usenet and to be Usenet site. By this, the newsgroup mail can be uploaded or downloaded.(Mahapatra,2004)

Internet Access Tools

Archie

Archie is a collection fo servers which can easily search for information at different anonymous FTP sites on the Internet and makes that information available to users.

Gopher

Gopher is software that connects a variety of computers, information data and information databases on the Internet and displays them as a series of same items.

Veronica

Veronica is a search tool that allows one to quickly scan gopher for particular files and directories.

Mosaic

Mosaic is a web browser which provides an easy way to access audio, video, text and graphics.

Wide Area Information System- It is a client-server based distributed hypertext multimedia, an information system on the Internet.

WWW

Web is a client server-based distributed hypertext multi-media information system.

Internet Search Engine-Heterogeneously organized information resources on the Internet is making it very difficult for anyone to search, locate and timely access the required information. There are some programs that help the searcher to browse/surf the net website and locate and timely access the required information.(Sarasvathy and Giddah, 2007)

Conclusion

Information Technology has brought about dramatic changes in the way libraries function in the nature of services offered and the organizational structure of Libraries. The Internet played dynamic role in actuality the technologies. The internet which is probably one of the most Significant Scientific achievement of this century, enables users all over the world to internet with each other.

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NOTES AND NEWS

Mr. A. Omkar Murthy was awarded Ph.D. Degree in Library and Information Science by Sri Venkateswara University, Tirupati for the thesis entitled **"BIBLIOMETRIC STUDY OF CITATIONS IN PH.D. THESES IN GEOGRAPHY"** under supervision of Prof. V. Pulla Reddy (Professor & Head), Dept. of Library and Information Science, Sri Venkateswara University, Tirupati, Andhra Pradesh.

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Motivation of University Library Professional in Karnataka: A Diagnostic Study

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Abstract

Motivation should always emerge from within in order to make things happen. The real challenge is not just attracting and retaining competent work force, but more importantly handling employee disengagement, cynicism and skepticism by managing expectations both effectively and efficiently. This paper reports on the views and perceptions of 188 University Library Professionals in Karnataka in respect of their job, job environment and organization in addition to identifying and analyzing the key individual work and organizational characteristics influencing their motivation performance and job satisfaction. This study unfolds major implications for Human Resource Management research and practice in university libraries.

Key words

Employee Motivation, Job environment, Job Satisfaction

Introduction

A constant and continuous endeavour to excel on all fronts is the hallmark of any progressive organization. Essentially, the determining factors of an organization include people, structure, task, technology, strategy, culture, systems, processes and environment. It is in the fitness of things that 'people' keep the place and set the pace of progress of any organization. The quality of people can make or mark the organizational success. It is widely acknowledged that incessant improvement in the organizational performance can be achieved only through a motivated, competent and committed workforce. University libraries cannot be an exception to this principle.

As noted above, the success of an organization depends on the competency (knowledge, skills, attitudes, values and habits) of its managers to provide a motivating environment for its employees. Motivated employees are more productive, contented and stay with the organization longer. Good librarians need to find out ways and means of motivating their staff by managing expectations. Librarians are persistently faced with the problem of varying levels of motivation among their employees. Some employees always perform at high levels, need little or no direction and appear to enjoy what they are doing. On the other hand, other employees perform only at marginal levels, require constant attention and are often absent from their work situation or consider work as a burden or punishment. Library, a labour intensive service provider, requires highly motivated personnel to provide adequate user benefit. Therefore, there is an imperative need to gauge present levels of motivation of library professionals and to explore various means of enhancing the same. The present study, 'Motivation of Library Professionals: A Study with Reference to the Karnataka State University Libraries' is a modest attempt in this direction.

Over the years, particularly after the recent emergence of the information era, it has become a challenge to motivate the library professionals. Factors like phenomenal widening of knowledge realms, enhanced user expectations, new and complex technology and also lack of promotional opportunities, overlapping scales of pay, early stagnation, internal problems of the institution, political interference, the burden of the daily maintenance work, lack of co-operation, co-ordination, communication, non-involvement in decision making, non-recognition of and lack of appreciation from their

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higher authorities are responsible for this disturbing trend. Therefore, in the present circumstances, what best can be done to motivate the library professionals and provide a better work environment need to be immediately examined and addressed.

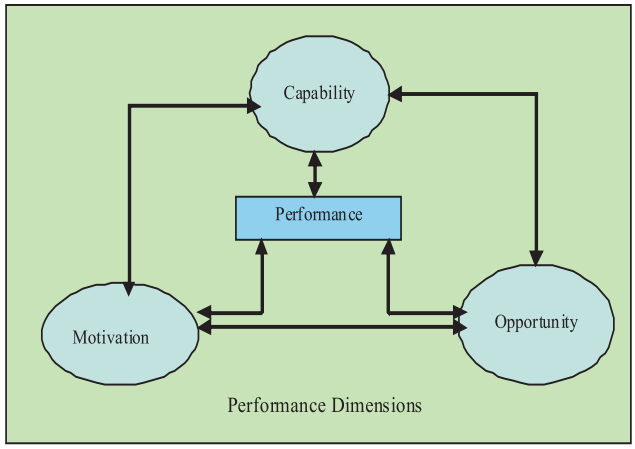
Conceptual Framework

Library is a tripartite organization consisting of reference materials of various kinds, users of various denominations and a good number of trained library personnel. The effective functioning of the library depends on the knowledge skills, attitudes, values and position work habits of its staff. If the staff members work to their fullest potential, they can serve the users of the library proficiently. Hence, the human factor plays a vital role in the valuable and competent functioning of libraries. From this, it follows that libraries in general and academic libraries in particular, need a highly committed competent and dedicated work force. Employees need to possess three critical qualities to be regarded as a superior work force (Figure 1). They are as follows:

1. Capabilities to work smartly (up-to-date domain-specific knowledge and highly refined and updated skill-mix);
2. Willingness to perform (attitudes and values); and
3. Opportunity to carry out the given assignment with a spirit of excellence (back-up support and help in times of difficulties). (Robbins 1999)[1]

It is admitted all over the world that high-quality performance and the resultant job attitudes (job satisfaction, job involvement and organizational commitment) can be ensured only when the employee is highly motivated to invest his/ her time, energy and resources to achieve the intended goals both successfully and competently. In this context, 'motivation' is a drive to perform, and the 'performance' is the result (outcome) of motivated efforts to convert plans into practice. 'Satisfaction' is an attitude of mind and hence, it is the 'contentment' experienced by the jobholder when a want is satisfied. It is a very relevant and interesting proposition for the researcher to understand the role of motivation of library professionals.

Figure- 1: Performance dimensions



Source Adapted from M. Blumberg and C. D. Pringle, "The Missing Opportunity in Organizational Research: Some implications for a Theory of Work Performance," Academy of Management Review [October 1982], p. 565.

Hence, an average library employee expects to experience a sense of accountability, identification, belongingness, accomplishment, achievement and freedom from his job and job environment. It is therefore, crucial that an attempt be made to study motivation of library professionals. Hence, this study is undertaken with the anticipation that it would make a modest contribution to the solicitous and intensification of staffing in the University Libraries in Karnataka State.

Objectives

The specific objectives of the proposed study are as follows:

(1) To discuss the views and perceptions of the library professionals in respect of their job, job-environment and the organization;

(2) To identify and analyze the major personal, work and organizational factors influencing motivation, performance and job satisfaction of library professionals; and

(3) To raise important human resource management implications and to offer suggestions for strengthening the 'motivation-performance-satisfaction' linkages among library professionals based on the findings of this study.

Methodology

The study is mainly based on the primary

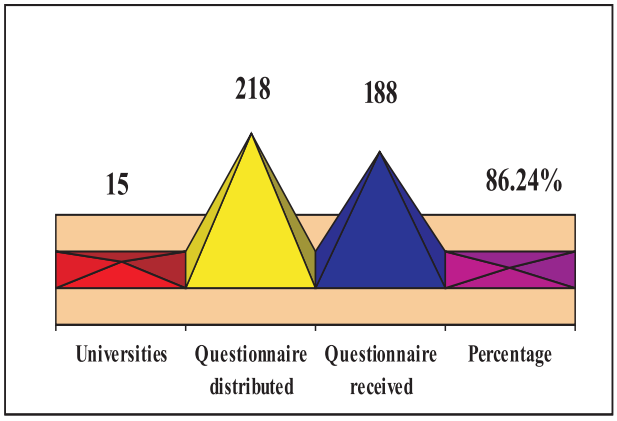
data collected from the professionals working in different university libraries (regular and deemed) of Karnataka State. Primary data was collected from the records of the university libraries. These official records include pathfinder, annual reports and special publications of the university libraries in Karnataka State. Having collected the primary data from the records and reports of the university libraries, further data was collected from the library professionals working in the university libraries. The study relates to motivation of library professionals. Hence, the information, opinions, perceptions and attitudes of these library professionals were unruffled and analyzed.

Selection of the Libraries and Library Professionals

There are 15 universities (regular and deemed) in Karnataka State, of which, six are the academic/general universities and nine are deemed universities. 218 libraries staff work in these universities. The library professionals identified in this study are grouped into two categories, namely, professionals and semi-professionals. The employees having bachelor degree/post-graduate degrees in the library and information science are considered as the professional staff of the library. The staff trained through diploma courses and certificate courses in library and information science are considered as semi-professionals of the library. Therefore, library professionals include Librarians, Deputy Librarians, Assistant Librarians / Documentation Information Officers. Library Assistants are semi-professionals. The total population considered for the current study was 218 distributed across the 15 university libraries.

The pre-tested, structured comprehensive questionnaire was sent to these 218 professionals and semi-professionals, who were considered for this study. The questionnaire was self-administered by the respondent population. 188 respondents submitted their questionnaire, which accounts for a response rate of 86.24%. The response rate was above the normal response for any mailed survey. Nachmias and Nachmias (1985)[3] and Bernard (1995)[4] state that "the response rate for a mailed survey is usually between (20 to 40%)". Although the questionnaire was mailed to the respondents through surface mail, the high rate of response for the current study could be attributed to the investigator's follow up activity through telephonic reminders and personal visits.

Figure 2: Response rate of library professionals



Results and Discussions

Factor Analysis

Factor analysis was performed for motivation of library professionals. The analysis has been discussed in terms of total variance and rotated component matrix. Kaiser's criterion (Child 1972)[5] was used to extract factors. The factors, which had Eigen value of more than one, were considered and the rest of the factors were not considered as they had insignificant Eigen values. The connotations of variables are interpreted as seen through rotated component matrix. The significance of rotated factor loadings was obtained through Burt-Bank's (Child 1972)[6] formula (+0.23 rotated factor loadings were found to be significant for a sample size of 188 at 0.05 level of significance). Factor solutions can best be interpreted with respect to the pertinent field of research as also the researcher's insight in-to the subject. The subjective interpretations are some-times essential in order to reach evocative conclusions, which may often lead to new thought in the fruitful field. (Thurston 1948)[7] and (Kim and Mueller (1978)[8] have recommended that one should look for subjective insights rather than looking for merely numerical values. Keeping these points in view, the researcher had taken the variables with bipolar loadings of 0.50 and

above as significant for each factor analysis. The theory of redundancy (Prakash 1995)[9] is followed, while considering variables in each factor, i.e., the significant variable measured in one factor is not measured in another factor. However, the interpretations are completed with respect to the relevance of an investigation with another factor, if there is a noteworthy loading. The results are also provided with scree plots for factor analysis.

Factor Analysis of Motivation

It is widely acknowledged that motivational factors, jointly and severally, influence the person as to how well he/she is performing in the job and the level of job-satisfaction, job-involvement and organizational commitment experienced by that individual. For this, an employee should possess three critical components-capabilities (knowledge and skill), willingness to do (attitudes, values, and habits) and opportunity to perform (a chance to perform and back up support). The results of this study pertaining to the motivational factors are furnished in the following paragraphs.

Factor analysis from the data set of 10 variables suggests three factors to be generated that account for 61.325 per cent of the total variance (Table 1) in the scores. The rest of 38.675 per cent of variance produced 'n' number of factors. These factors are insignificant because of low Eigen values and low per cent of variance in the data-set of 10 variables. These factors explain three major sub-systems of motivation pertinent to library work place, namely work environment, work ethics and the work itself. These factors individually possess 25.814, 20.792, and 14.719 percent of variances respectively. These sub-systems are components of a major system called motivation. The Kaiser's rotated component matrix is given in Table 2 and the scree plot of the same is presented in Figure 3.

Table 1: Total variance of motivation explained

Component	Initial Eigen values			Extraction Sums of Squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1.	2.581	25.814	25.814	2.581	25.814	25.814
2.	2.079	20.792	46.606	2.079	20.792	46.606
3.	1.472	14.719	61.325	1.472	14.719	61.325
4.	.902	9.025	70.350			
5.	.837	8.375	78.724			
6.	.714	7.143	85.867			
7.	.467	4.671	90.538			
8.	.393	3.930	94.468			
9.	.317	3.165	97.633			
10.	.237	2.367	100.000			

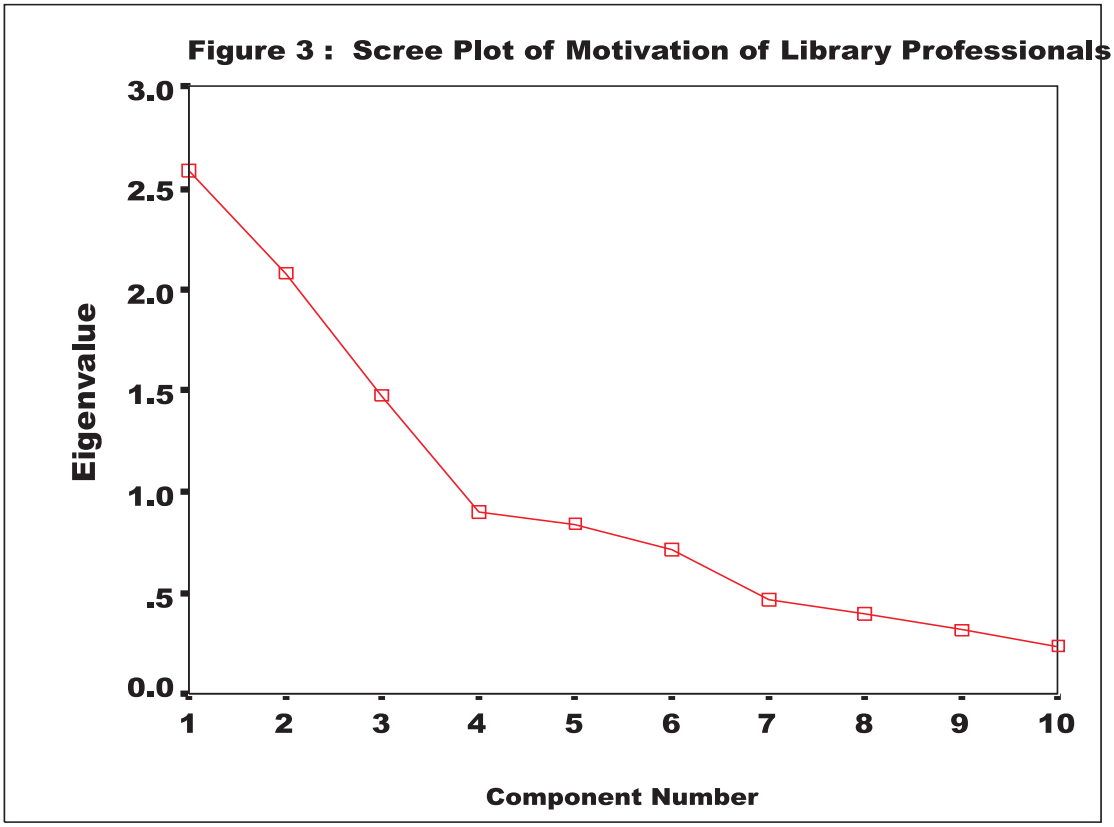


Table 2: Rotated component matrix of motivation

Sl. No.	Components		
	Work Environment	Work Ethics	Work Itself
1.	0.835	0.074	-0.102
2.	0.804	-0.217	-0.011
3.	0.795	0.110	-0.096
4.	0.592	-0.118	0.287
5.	0.312	-0.087	0.666
6.	-0.173	0.169	0.609
7.	0.006	0.046	0.775
8.	0.011	0.843	-0.126
9.	0.013	0.868	0.166
10.	-0.196	0.550	0.445

Factor I is defined as Work environment, which can measure the attributes of the employee work motivational factors and is presented in Table 3.

Table 3: Work environment

Sl. No.	Variables	Loadings
1.	Receive enough help and equipment	0.835
2.	Enough authority/power to do any job	0.804
3.	Co-employees are competent in their jobs	0.795
4.	Opportunity to achieve personal goals	0.592

Analysis of the above table reveals that the variable 'equipment and help' is significant with the factor loading of 0.835, followed by 'power and authority' (0.804 loading), 'competent co-employees' (0.795 loading) and 'opportunity to achieve personal goals' (0.592 loading). These together emerged as principal component of motivation in library work place. These variables explain the importance of motivational goals that are necessary for effective management of the library.

The skeptical vision of work environment results reveal that the physical, social and psychological conditions that individuals and team experience at work can either facilitate or retard continuous individual/team learning on the one hand and enhanced job satisfaction on the other. The work environment presupposes the presence of adequate help and equipment for the employees in the work place to perform his/her job in terms of effectiveness and efficiency. It also presupposes enough authority and power to carry out the given task, competent superiors, subordinates and colleagues and the potential to achieve one's own personal goals through accomplishing the work responsibilities.

As stated earlier, the work environment cuts both ways. If it is highly supportive as perceived by the employees, then they will be highly motivated for superior work performance and to derive high job satisfaction. On the contrary, if employees struggle for timely help and required equipment to discharge their duties; if they experience lack of power or authority to do the job in the way it is called for; working with ineffectual superiors or subordinates or colleagues; and finally are unable to achieve their personal goals, then these employees would become de-motivated, demoralized and cynical with a high degree of job-dissatisfaction.

Factor II is identified as work ethics. Individuals enter an organization with preconceived notions of what "ought to be" and what "ought not to be". Work ethics and values are known to influence a person's motivation, performance and job satisfaction. In this context, work ethics and values represent basic convictions that "a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (Rokeach 1973)[10]. Accordingly, work ethics and values contain a judgmental element in that they shape an individual's ideas as to what is right, good, or desirable.

Table 4: Work ethics

Sl.No.	Variables	Loadings
1.	I do not like many of the tasks I have to do	0.868
2.	I only do my work because I need money	0.843
3.	I have to ask my boss before I do almost anything	0.550

The analysis of the Table 4 highlights that variable 'job dislike' is loaded with 0.868, 'money minded' loaded with 0.843 and the variable 'autonomy' is loaded with 0.550. These variables identify themselves with personal satisfaction of the employee with respect to job and employer, which is most important as far as work ethics is concerned.

Some employees may do their job only because they need money. In that case, these employees do not love their work but they always crave for more money. This tendency is tested on a 'money-minded and opportunistic value'. Eventually, such employees are bound to experience low motivation, poor and reduced job performance. In addition to this, these employees, focusing more on money than the process of doing the work, may not like many of the tasks they have to do on the job. This would adversely affect the quality of their performance and the scope for enjoying higher job satisfaction. Thus, positive work ethics and values of the employees will have all the potential to promote their motivation, performance and satisfaction.

Autonomy is considered as one of the powerful motivators for employees working in various forms of organizations. "Autonomy" is conceptualized as an individual's perceived freedom to act or to take a decision. An employee will feel highly comfortable and confident, if he/she is given proper and adequate freedom to perform the job without any undue interference. It is quite understandable that if an employee has to ask his/her boss before he/she does almost anything, then the performance of the task would reflect low motivation, poor quality and reduced job satisfaction. In this sense, employee should be empowered to perform the given task effectively and efficiently only through the provision of needed autonomy, which will, in turn, enhance the level of employee motivation, performance and satisfaction.

Factor III is identified as the work itself. Attending the work on time is of utmost importance in the library and the work should be given top priority by the employees for efficient management of library.

Table 5: Work itself

Sl.No.	Variables	Loadings
1.	I am given the chance to do the things I do best	0.775
2.	The major satisfaction in my life comes from my job	0.666
3.	I can see the results of my work	0.609

The above Table 5 depicts that variable 'I am given the chance to do the things I do best' is loaded with 0.775, which identifies the importance of nature of work as against the personal goals of the employee. Another variable as perceived by the respondents is 'job satisfaction' (0.666 loading) and 'I can see the result of my work' is loaded with 0.609 also gives importance to work. All these attributes are very important for the nature of work and work environment.

As Herzberg (1959)[11] pointed out, intrinsic factors such as achievement, recognition, work, responsibility, advancement and growth are related to job satisfaction, while extrinsic factors such as supervision, organizational policy and administration, relationship with superiors, subordinates and colleagues, work conditions, pay, personal life, status and job security are associated with job dissatisfaction.

More often than not, the real satisfaction to the employees will always come from the process of doing the work. If an employee is not able to enjoy his/her job and job-environment, he/she will not be able to put forward genuine efforts to improve job-performance and derive higher job-satisfaction. This suggests that the nature of the job and job environment contains enormous potential to motivate the employees towards superior performance and higher job satisfaction. A person considering the importance of one's own work will always

derive major satisfaction from the work itself. Other things in his/her life will not be as important as the work itself. In such a holistic environment, employees will not experience any negative conflict between the organizational goals and their personal goals. At the end of the day, they will be able to see the results of their work, because the work itself will provide the relevant feedback about the quality of job performance. Furthermore, such employees will always try to do the things to the best of their ability. Since they love their work more than anything else does, they will concentrate more on turning out to be 'superior job performers' and they tend to perceive that their values and the departmental values are very similar without any conflicts. Hence, the work itself can either motivate or de-motivate employees towards achieving superior performance and job satisfaction.

One may arguably establish logical relationship between job satisfaction and future motivation. At the same time, a highly motivated individual need not necessarily derive high job satisfaction due to the pressure of some unexplainable intervening variables moderating the relationship between motivation and job satisfaction and vice-versa.

In the ultimate analysis, it could be inferred that personal and work related factors influence the perceived levels of motivation and job satisfaction of the library professionals. Furthermore, these factors also moderate the relationship between motivation and job satisfaction and job satisfaction and motivation. From this, it follows that a highly motivated library professional is expected to put forward genuine efforts (physical and mental efforts) in order to generate superior work performance. If the performance is appropriately and timely measured, assessed and rewarded, then he/she would get the recognition to the job well done. This kind of rewarding mechanism in libraries would go a long way in enhancing the levels of job satisfaction and its consequent positive impact on the future motivation of the library professionals.

Thus, the performance management cycle (motivation-effort-performance- reward-satisfaction-motivation) continues. In summary, the task of suitably and timely motivating and satisfying the library professionals with a view to improving work performance is a continuous process. Educational institutions can neglect this task only at their peril.

Conclusions

Work environment was a significant component in respect of motivation to the employees. 'Work ethics' and 'work itself' are the other two variables associated with employees' motivation. The librarians' perceived 'work itself' as a principal component of intrinsic motivation and a sense of personal worthiness was also significant factor in this regard. Performance planning and development was the key component in respect of librarians' performance management. The other factors associated with performance management were employee involvement and empowerment and organization-employee rapport.

The present study, as mentioned earlier, covers motivation of library professionals: A study with reference to the Karnataka State University Libraries. Further, keeping in view the atrociousness of the task, the researcher intended to limit the scope of this study to only university libraries of Karnataka State. The issues addressed, thus, include motivational factors, job and environment, level of satisfaction, employee relation and employee performance, placement of professionals and the like. The study concentrates on library professionals and semi-professionals and excludes other office personnel working in the University library system.

The researcher is aware of the fact that the concept of university library and its human resource management include a wide variety of facets and, within the limited time, it is extremely difficult, if not impossible, to study every aspect in detail. Hence, only a modest exertion is made here to present an overview of the current motivation climate relating to library professionals. Further, the study depends on the views of the library professionals working in the university libraries only. As such, it is amenable to divergent views and diverse perspectives and as such, the conclusion and inferences cannot be generalized.

This study, in particular, aimed to gauge the limitations of existing human resource management practices relating to library professionals and semi-professionals working in the university libraries of Karnataka State and to assess their views in respect of their work related aspects, keeping motivation at the centre. This endeavour was set against the background of the need for a consolidated approach to the development of professionals in the library and information field. This approach was perceived to be important to educate, enlighten, entertain and inspire the user-community by way of strengthening the university library system with competent, qualified, skilled and motivated staff.

This task, obviously, is an onerous one. We believe that a comprehensive work of such a magnitude cannot be taken up in one paper like the present one. We have within the limitations of the study, tried to analyse the task mentioned above by keeping motivation at the centre.

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Strengthening Access of Information in Higher Education for Providing Information Services in India.

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Abstract

Rearranging Library services are required in this new information technology environment to enable the staff to gain the necessary skills and build up confidence in dealing with the new information and communication technology. The higher education Libraries may arrange for short term courses for using the information services. Subject gateways provide links to resources like documents, sites or networks accessible via Internet. To enable equitable and universal access knowledge resources, Libraries should create more digital resources by digitizing relevent reading material and should be connected through networking. Library consortia is at the doorsteps to prove cooperation locally, regionally, nationally and internationally. One information officer post, brodband internet environment in the premices and regular funds for maintenance of computer systems in the Library are the essential requirements of the higher education Libraries.

1. Introduction

The higher education libraries are becoming digital libraries moving from print based information to an electronic environment is a challenging task, which requires dramatic changes in staff and attitudes in performing their jobs and interacting with the users. To adopt this new environment there should be a change in the organizational structure of the library to enable the staff to gain the necessary skills and build up confidence in dealing with the new information and communication technology.

In digital libraries, the user will not come all the times to library personally, but send his request online. It is essential to identify him as a registered user of the library. Then depending on his request, the library professionals must allow him to access a variety of networked electronic information sources and services from the digital storage. Such services include electronic mail, File Transfer Protocol (FTP), Remote Login (Telnet), Current Awareness Bulletin, Electronic Document Delivery Service, Bulletin Board Service, Web related services and Electronic Publishing. The www offered web server at the server-end and web browser at the client-end for all prevalent platforms. The internet and information communication technology, made it possible for web based services to include multimedia objects such as text, image, audio and video. An effective and efficient access mechanism that allow a user to browse, search and navigate digital resources.

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2. Information Communication Technology

As per the defination used by United Nations Information Communication Technologies (ICT) can be described as a varied set of goods, applications and services used to produce, store, process, distribute and exchange information. They include the most familiar technologies of television, radio and telephone and the relatively newer ones, personal computer, mobile phones, satelite and wireless technologies and the internet.

In India all these ICT are being used for various purposes not only for gathering information but also for giving opportunities to utilise them for imparting skills as well as enhancing the knowledge by way of showing various data to any remote locations with the help of connectivity through these technologies. Today wireless infrastrucure development in rural and urban areas are being utilized in various parts of the world through the penetration of internet and wireless services.

As per the report published by UNESCO in 2003 the advanced countries including Australia, South Korea, Singapure have integrated ICT into their education system. This includes that alomst all classrooms have been equipped with (a) computers and ICT, (b) a high student computer ratio, (c) a high level internet access for all schools, (d) a curriculum revised to insure that ICT become integral nationwide and deliver all class becoming increasingly online. The Library users should know about these internet and ICT technologies to search the information in digital age.

3. User Education

The user is an important component of any digital library or information system or a conventional library. The collection of resources in any library should be based on user's needs. As the digital library is a latest technological organisation, an average user do not know about information technology applications, access and searching for information and use of information. Therefore, user education is must in higher education libraries. For using digital libraries, printed media, Audio-visual instruction and programmed instruction methods are very much suitable for user education. The higher education libraries may arrange for short term courses and workshops for using the library sources. For user education and providing information services Library staff should know the information service skills.

4. Library Staff

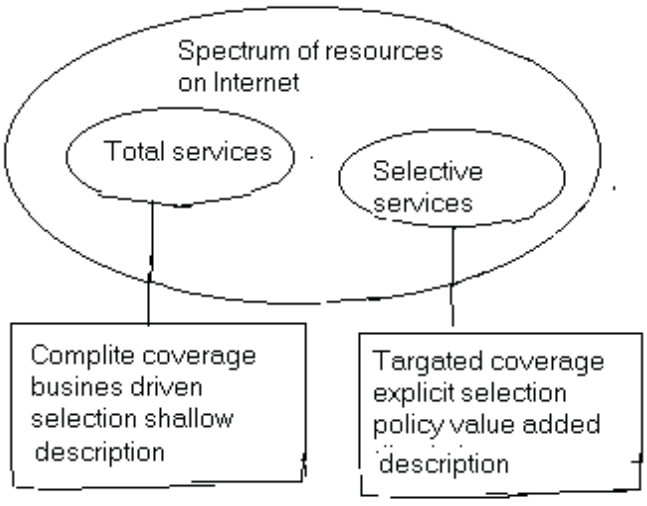
The new networking environment will make it essential for library and information professionals to learn more information skills and knowledge regarding technological developments in the filed and their practical applicaion to libraries. In India INFLIBNET, NISCAIR, DRTC, IASLIC are conducting short term courses and workshops in the technological applications to the libraries. The Library staff should know about open source Library softwares, portals and subject gateways for providing information services.

5. Subject Gateways

Moffat describes the establishment of the gateways as "a process of identification, filtering, description classification and indexing before they are added to databases which is freely available via www" . The gate ways are the internet search tools to help users for finding resources on the internet.

Subject gateway is nothing but the facility that allows easier access to networked resources in a definite subject area. The simplest type of subject gateways are sets of web pages containing lists of links to resources. Subject gateways are also known as subject index gateways, virtual libraries, clearing house,

Fig. 1 Distribusion of Internet Sources



subject trees, pathfinders, quality controlled subject gateways etc. They provide links to resources like documents, objects, slides or services predominantly accessible via internet. The service is based on resource discription. Key initiatives may be shown from following sites;

1] http://www.ilrt.bris.ac.uk/roads, 2] http:// www.desire.org 3] Imesh website 4] Reynard project etc.

6. Accessing Internet through mobile phones :

MOHANSUNDARAM K and GERSHOM JEBARAJ P (2007) said about use of the mobile phone technology that broadband internet facilities have now arrived to mobile phones. In the year 2007, 25% mobile phone subscribers include in Web browsing a report says. We hope that the continued advancement of handsets will make all the people to spend more time to familiarise them shelves with new services such as news report, finance, astrology, entertainment and weather updates and also in educational information.

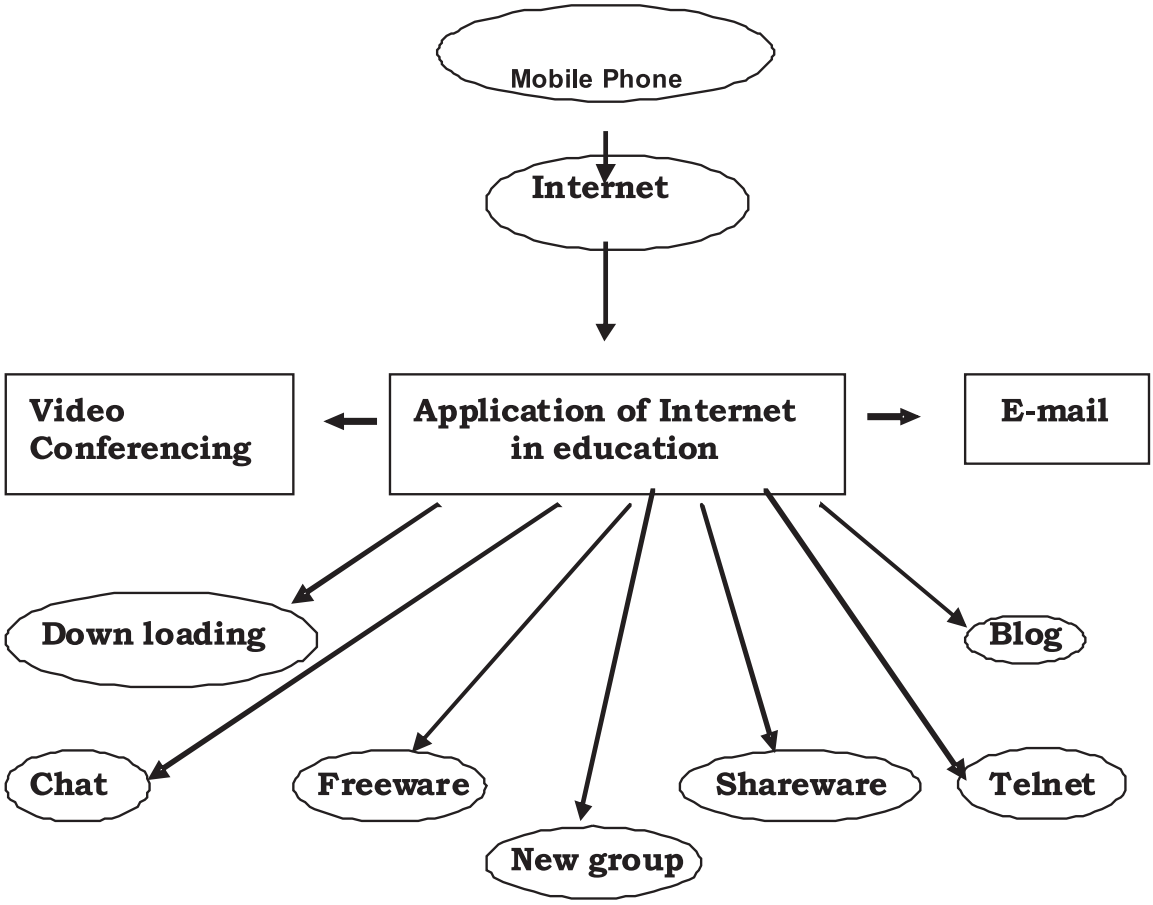


Fig. 2 Various application of internet in education through mobile phone

All the mobile service providers are providing the internet facility to their custmers at nominal cost. The educaters and learners can get the web based teaching, learning. The various services shown in fig. 2 can be integreted in higher education level.

7. Consortia Based Resource Sharing and Networking

In the present era of information technology the information needs of the users have increased enormously so much that no single Library on its own can meet their needs. This has necessitated the need for effective linkages and cooperation between Libraries and information centres for sharing of available resources and information through network services. Networks, e-mail, online access, use of CDROM, Software and Hardware systems etc. are now being used for resource sharing. The developments in the fields of computer and communication technologies increasingly relies on resource sharing through electronic media for achiving high speed in access, reducing time to search the information, shorter storage space, finding simple means of selectin materials.

The proliferation of the literature on all the subjects and the budget crunch made the libraries depend upon each other. This leads to library cooperation, resource, sharing and networks etc. At present the online databases and electronic Journals facilitate formation of the consortia and resource sharing among the libraries. There are many National, International and local library consortia's are existing and has taken to promote consortia based resource sharing among the member Libraries.

The consortium can share and take up programs of common interest. Periodic meetings for suggestions shared collection development methods consortia based subscriptions, dissemination of information and ideas to establish set guidelines and for discussing mechanism to reach wider andience in a cost effective manner. Consortia approach requires clarity of thought, cooperation and a belief that coordinating practice is better than isolated effort. Consortia promoters and Institutions have to overcome hurdles such as inadequate funding, Limited personnel, technology capability, Lack of motivation of users and Library staff to firmly root consortia activities in the country.

Galilio, Ohio Link, Tex share, VIVA and SUNY connect are some of the well-known Library consortia systems existed at International. The existing consortia in India are INDEST, UGC-INFONET, FORSA, CSIR consortia, consortia on ISRO Libraries and ICICI knowledge park. It is necessary to have consortia among Libraries and information centres for consortia based subscription of electronic resources apart from sharing their resources and services.

7.1 Development of Library Consortia in India :

JAYAPRAKASH A and KOTESHWAR RAO M. (2006) described that due to escalating cost of documents, decreasing budgets, inadequate storage area and competent staff, Librarians in different subject area in India are coming toghther to form consortia. Several Library consortia have been set up over last few years to obtain license and to enable desktop internet access to scholarly electronic resources like e-journal and databases. Some of the major consortia formed in India are ;

1. INDEST (Indian National Digital Library in Science and Technology.)
2. UGC-INFONET
3. J-GATE
4. NISCAIR E-Journal Consortia
5. FORSA (Forum for resource sharing in Astronomy)

7.11 INDEST :

The ministry of Human Resource Development (MHRD) in India, has set up a "consortia based Subscription to Electronic Resources for Technical Education System in India" on the recommendation made by the Expert Group appointed by ministry under the chairmanship of Prof. N. Balakrishnan. The consortium is named as the Indian National Digital Library in Science and Technology (INDEST) Consortium. The INDEST Consortium is the most ambitious initiative of

its type so far in India. It would not only benefit 38 major technological institutions in the country (including IITs, IISC, NITs, RECs and other), being an open-ended proposition, it also invites all AICTE-accredited and UGC-affiliated institutions to join hands with the leading engineering an technological institutions in the country.

INDEST is offering the following digital products to Indian academic and R & D institution: IEEE/IEE Electronic Library Online, Science Direct/IDEAL Library, Springer Link, Proquest's ABI/INFORM Complete, Applied Science and Technology Plus (ASTP) Online, ACM digital Library, COMPENDEX on EI Village, INSPEC on EI Village, SciFinder Scholar, Web of Science, and MathSciNet.

7.12 UGC-Infonet :

In 21st century witnessed the role of technology as a driving force in the education system. Fast innovations in technology result in frequent changes in curricula, introduction of new subjects, new orientation methods of the education system, also open new vista in new teaching-learning process. The UGC-Infonet project has provided enormous opportunity for the universities and institutes of higher learning to produce quality research work.

UGC-Infonet E-Journals Consortium has been set up by the Chairman, UGC to promote the use of electronic databases and full text access to journals by the Research and academic community in the country. The Faculty, Research Scholars and Students of Universities covered under UGC are the primary beneficiaries, however this scheme will be extended to colleges very soon. The scheme is likely to be open to other institutions such as ICAR and other institutions after singing MOU with UGC/INFLIBNET.

The universities have been funded for connectivity under UGC-Infonet and will have network connectivity. Individual university will then have unique IP adress through which access is given by the publishers for which subscriptions made. However entire programme will be Administered, monitored and maintained by INFLIBNET Centre. Under this Consortium, Access to gateway Portals is made available to the Universities covered under UGC grants. These gateway Portals provide access to more than 10,000 Journals in the area of Pure Sciences, Social sciences and humanities with Contents and Abstracts for major collections.

The UGC-Infonet E-Journals Consortium is the largest in the world plays a vital role in providing better and free access to scholarly information to the desktop of faculty and students in the country. This programme is implemented, executed and maintained by INFLIBNET. This has resulted in access to more than 4600 scholarly journals to around 100 universities in a phased manner. This has resulted in savings of more than 85-90% as compared to print subscriptions by individual universities.

7.13 J-Gate :

J-Gate is an electronic gateway to global e-journal literature. Launched in 2001 by Informatics India Limited, J-Gate provides seamless access to millions of journal articles available online. It presently has massive database of journal literature, indexed from 120+e-journals with links to full text at publisher sites. J-Gate also plans to support online subscription to journals, electronic document delivery, archiving and other related services. Currently J-Gate offers two types of products/ services:

(a) J-Gate Portal: Table of Contents (TOC) – For 12090+e-journals. Database – Acomprehensive searchable database with 4340000 + articles, with 4,000 + articles added every day.

(b) J-Gate Customized Services: J-Gate Custom Content (JCC).

Local Intranet/Internet solution to libraries, providing e-access for subscribed journals.

J-Gate Custom Content for Consortia (JCC)

JCC extended to a homogeneous group of libraries for sharing "subscribed" journal resources.

J-Gate is the first major e-journal service initiative in India seriously trying to address these two gaps, keeping in view the specific needs of Indian scholars and libraries. J-Gate is an e-journal portal and access gateway. It

provides means of access to global literature in scholarly and research journals. J-Gate aims to help users in:

- Browsing table of contents (TOC) of 8,000+e-journals.
- Searching a reasonably well-indexed bibliographic database of journal from these e-journals.
- Locating a local library in India, where the article he finds from the search could be available.
- Sending e-mail to authors for a reprint-request.
- Accessing full-text of about 1,000+free journals available online. J-Gate links to fulltext of more than 100,000 currently published articles since 2001, which are freely available.

7.14 NISCAIR E-Journals Consortia :

NISCAIR is the nodal agency for developing a "Consortium for CSIR Laboratories for Accessing e-jounals". The activity shall range from creation to monitoring of the access facility of scientific periodicals published by leading international institutions.

The objectives of E-journals Consortia are:

- To strenghen the pooling, sharing and electronically accessing the CSIR library resources.
- To provide access to world S and T literature to CSIR labs.
- To nucleate the culture of electronic access resulting into evolution of digital libraries.

To start with an agreement has been signed with E-journal publisher, M/s Elsevier Science for a period of four years for 1200 journals. Under this scheme, CSIR scientists shall be able to access these journals and download material for their use. Such access to world wide journal resources will play a vital role and strengthen research and development in CSIR laboratories, thus leading to knowledge generation useful for socio-economic development of the country.

7.15 FORSA:

The Forum for Resource Sharing in Astronomy and Astrophysics (FORSA) came into existence in the year 1982 for sharing the resource available in astronomy libraries in the courntry. The Indian Astrophysics a consortium grew out of the efforts of librarians known as Forum for Resource Sharing in Astronomy (FORSA).

7.2 The Future of Consortia among Indian Libraries :

Joining a consortium, integrating intellectual access, providing for both physical and electronic development process are all the distinct steps, moving towards 21st century libraries. Keeping in view the old traditions and applying them to the new environment will require a need for professional training for the librarians in the country. The government should make arrangements to conduct some workshops to include these upcoming topics as part of the workshop training. They should start a forum to bring the librarians and the publishers/vendors together for better communication and interaction. Indian librarians should seriously rethink and reinitiate consortium movement like western countries for maximum utilization of resources at a reduced cost, time and space. Library Consortia is at the doorsteps to prove cooperation locally, regionally, nationally and internationally. It is an encouraging sign with good number of consortia efforts are undergoing in India. But consortia efforts are time consuming, frustrating and difficult to build and maintain by groups of interested institutions in India. Hence, it is suggested that the issues can be taken at Central Government level and form a national level consortia covering all the educational and research irrespective of ministry, departments and states in India. This will provide good opportunities for exploiting the consortia resources effectively and efficiently in use.

The government should also make attempts to provide the necessary infrastructure such as high speed networks connections to access the electronic resources. Also it should make arrangements to conduct some training programme for the librarian on latest trends in Library and Information Technology. Setting up of the National Repository of Bibliographic records and a centralized Collaborative Virtual enquiry handling system using the latest tools

of ICT. To enable equitable and universal access to knowledge resources, Libraries should be encoraged to create more digital resources by digitizing relavent reading material in different languages, which can be shared at all levels.

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Information Management and Dessimination: An Innovative Practices in Libraries

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Abstract

It is not surprising to realize that man has always been interested in information, in producing it, in using it and presenting it. Information is a vital component for decision making. There is no field of human activity where information is not a component. Whether it is research and development, business and industry, government affairs, education and training, information has to be acquired, processed, stored, retrieved and disseminated for communication. In the present era of information overload it is very difficult for any libraries to collect, organize, manage and dissemination of information. The paper seeks to provide innovative services to be followed in libraries to enhance the effective use of available information.

Keywords

Information, Information explosion, Library innovative service, Management of information, Dissemination of information.

Introduction; Information

"I have a simple but strong belief: How you gather, manage and use information will determine whether you win or lose" said Bill Gates. (Satija 2004,151)

Information is a vital component for decision making. The information which is produced in the various formats such as print, electronic and micro form can be accessed in the libraries. Information is available in different forms and formats like books, magazines and journals, CD-ROM, Internet sources, online databases, microfilms, magnetic tapes etc. which are shown in Figure 1 (Manjunatha, and Shivalingaiah 2003, 85)

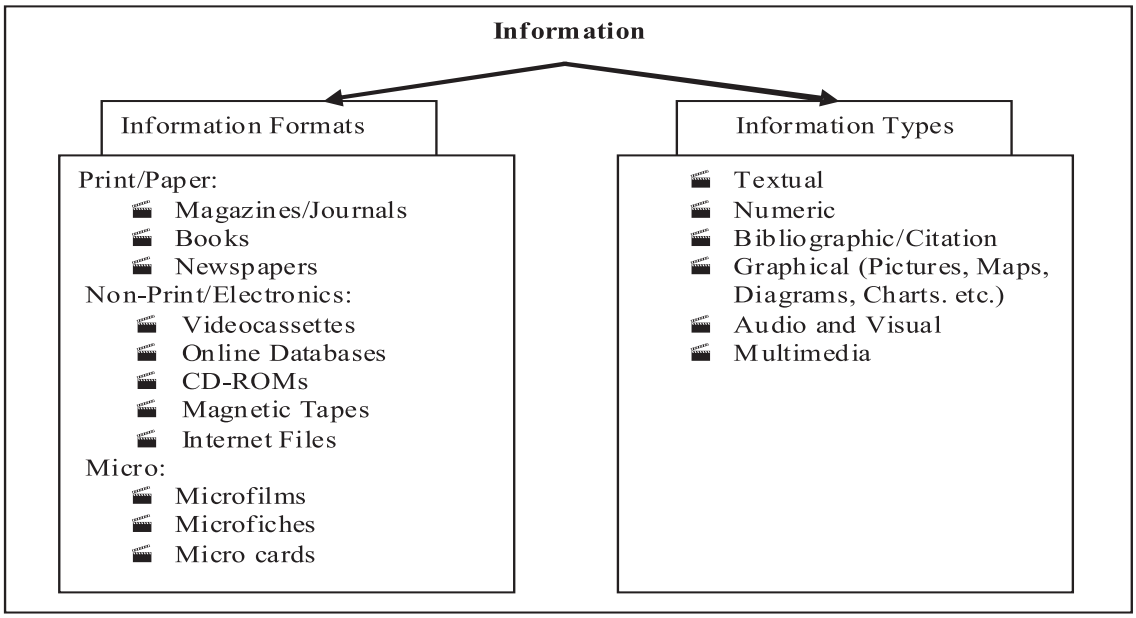

Figure 1: Information formats and types

The information which is produced in these formats is gaining momentum. The information

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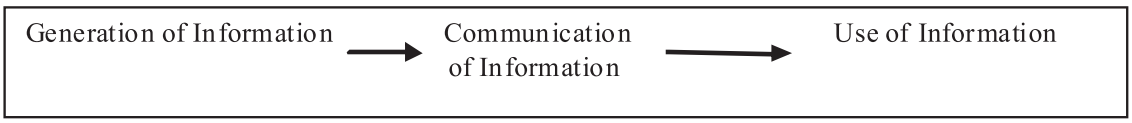
is also available in different types such as textual, numeric, graphical, multimedia and audio and visual form. This information should be made available at the right time in adequate quality and quantity. It is absolutely necessary for an information centre to respond to environmental stimuli and acquire and disseminate information to meet the requirement of users' interests.

Information system handles information with specific purpose of providing information to users. The process of transfer of information is usually a chain of activities. Information is being continuously generated, communicated and used. It is called information chain.

1.1 Information Transfer Chain:

Information Chain



1.1.1a -Generation of Information

Scientists, researchers, technologists, economists, statisticians, journalists and others are generating information for different purposes. The generated information may not always be new. It may be a new interpretation of a fact already known, a new formulation, a new relation, new formula, new data etc. It is difficult to separate the generation of information from its recording and dissemination. Information already existing in the highly structured "forms" is perceived, transferred, processed, abstracted, stored and transmitted in portions and manifested through various perceivable media. The generated information will be consumed by the end users for further generation of new information.

1.1.1b-Communication of Information-Library as a communication link

Information in itself has no value unless it is communicated and used. Communication involves transfer of information. A creator of information is always anxious to share his ideas, new findings with the others and want to communicate the new information as quickly as possible. According to W.H. Newman and C.F.Summas Jr., "Communication is an exchange of facts, ideas, opinions or emotions by two or more persons." (Raman 1998)

Information that has been produced by the scientists, researchers, academics etc. has to be communicated to the end users.

Libraries represent a major storehouse of human knowledge. They play a very significant role in increasing the quality of education and research. Thus act as a vital link between the producers and users of information. Libraries and information centers are vital components in the information communication chain, where the authors and writers are the originators of information and publishers and editors are the transmitters of information (for published document).

As a communication link the libraries should have sufficient relevant resources and the libraries are supposed to act as an affective agency for the communication of timely, relevant and comprehensive information. They provide information access to their users through the print and electronic media, computer aided services, resource sharing activities and Inter library loan, information services and document delivery services.

1.1.1c- Users of information

Users of information are at the receiving end of the information chain and create demand for information which will be communicated to them by the Information Centers. They are the important component of any Information Centre. But due to the exponential growth of information, it is very difficult for the information users to access relevant information in time. Hence with the application of Information Technology (IT) the Information Centres have made it possible to generate process, retrieve and disseminate information to the right reader at the right time.

The application of Information Technology

in libraries has brought tremendous changes in the library services. The library provides information access to its users through its print and electronic resources, routine and computer aided services, resource sharing and ILL and document delivery. These accelerating changes in the library services have brought libraries and librarians to the threshold of a new era.

"Everyday we are bombarded with reams of information in all forms. In the morning we read the paper; we watch the news; we listen to the radio. As we step out of the house the assault continues. There are advertisements on billboards and on the bus. At the work place there are mass e-mails, papers, work orders. There are books to read, forms to fill out and there is the web to surf. We are faced with the challenge of digesting it all… processing and making some sense of it. It's overwhelming…it's mind-boggling…it's Information Overload." (Lyman and Varian, 2003)

A study has been conducted at the School of Information Management and Systems at the University of California at Berkeley to estimate how much new information is created each year and distributed in four storage media like print, film, magnetic and optical and also seen or heard in four information flows telephone, radio and television and the Internet in the year 2002. The study estimates that almost 800 Megabytes of stored information are produced per person, per year. It is also estimated that the amount of information produced in the world increases by 30% every year. (Lyman and Varian, 2003)

The finding of the study reveals that most of the total volume of new information flow is derived from the volume of voice telephone traffic, most of which is unique content. The second largest component of information flows is the Internet.

In a library although acquiring materials in digital form and organizing them for use is both costly and challenging, the libraries are giving priority to the acquisition of electronic resources. This opens new vistas for teaching, learning and research.

But due to the exponential growth of information it is very difficult for the information users to access relevant information in time. Hence with the application of Information Technology (IT) the Information Centres have made it possible to generate process, retrieve and disseminate information to the right reader at the right time. Technology has changed the ways information can be stored, organized and retrieved. Libraries in the past were not as customer-focused or user driven as they are today.

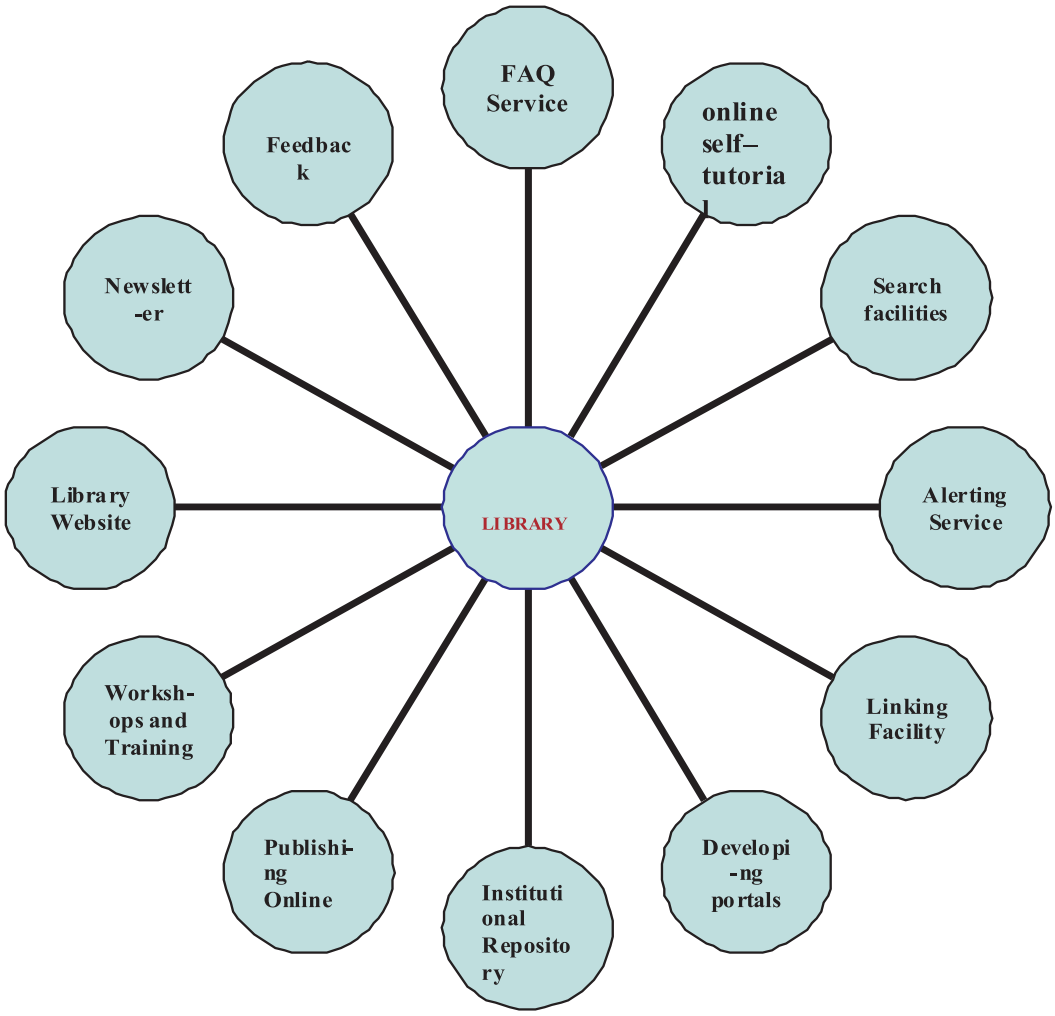
In the past, users had to adapt to the library system. But over time, libraries have realized the need to continuously rethink and reinvent their role and how they deliver their services.

The present era is predominantly called "information age" or "era of knowledge explosion." The dawn of information revolution is considered to be one of the marvels of twentieth century. With the majority of books and journals now electronically available, many libraries are cancelling print subscriptions in favour of electronic access. In addition, a growing number of peer reviewed journals are available free of cost as a result of the world wide Open Access movement.

In such an environment libraries are not restricting themselves to simply collecting and providing access to information. It is also their task to provide additional services. Finding themselves in a competitive environment, libraries are encouraged to initiate innovative outside traditional library functions to maintain their competitive advantage.

Information specialists and subject libraries now have to behave like account managers. They should posses a through knowledge of their target group and their demands. Libraries now need to adapt to Technology and initiate changes to keep up with their users changing needs and expectations. The librarian need to recognize and accept change but also initiate change to improve the profession and their services. The libraries have to accept the role of the intermediates between information and their end users.

Prominent innovative practices are discussed below with a diagram. (Figure 2)



* Providing search facilities enabling users to search simultaneously in journal packages from multiple publishers.
* Developing personal alerting systems according to profiles defined by users themselves.
* Linking facility to open access resources for each user group.
* Developing portals to assist users search and organize information sources relevant to their work.
* Creating an Institutional repository. Through this archives of Institutions research output are collected and preserved by the libraries and made accessible through university websites.
* Developing a service to enable their users to publish online.
* Organizing workshops and training sessions to help their users in handling, retrieving and using information for particular purpose.
* Holding interactive and enrichment programmes in the library.
* Embracing Technology to enhance services. (For eg. The library should provide user with remote communication with library staff via instant messaging for inquiries and help.
* Creating library website and email to relay announcements and messages. "It is the cheapest, faster and most effective tool for the promotion of library resources, services and facilities."

* Marketing the range of services offered by the library.
* Bringing out a newsletter of the library.
* Getting feedback from clients on an ongoing basis, formally as well as informally.
* Creating database of e-mail addresses of all its users and providing alert service.
* Including the list of names with telephone numbers and email addresses of the library staff. Providing well structured, Frequently Asked Questions (FAQ) as part of the library web site. This will allow the user to raise questions and clarify the doubt.
* Developing online user guide for accessing information and providing guidance for all levels of users, from the beginner to the advanced users.
* Giving greater attention on promotion activities. (Printed promotional materials like posters and guide still have the same importance as promotion on library web pages.)
* Marketing the products to library users.
* Conducting training courses and updates focusing on subject specific problems.
* Spreading word through academicians. If the library is successful in reaching even one academics, it is likely that word will spread.
* Creating a web–page for information literacy services stating the ongoing information literacy programmes and services. (It has to be designed, tailored according to user needs and implemented through collaborative efforts in all types of libraries.)
* Net working with scholarly leaders in other departments and engaging them to spread the word about the electronic journals' services.
* Maintaining online self–tutorial on the web page.
* Providing the library staff with adequate training and support in order to be aware of new development of technology.
* Promoting information literacy awareness through research, projects, seminars, workshops, group discussions and meetings.

Conclusion

Application of technology in libraries has affected significantly the core mission of the library. These technological advances have created new opportunities for librarians, libraries and users.

Views expressed by David S. Magier, the Director of Area Studies, Columbia University libraries, in an interview convey the importance of a librarian succinctly.

"The world of libraries is undergoing a churn. The information revolution, particularly the internet, has had a profound effect on the way scholars do their work. Obviously it has also had an impact on librarians. However, the initial euphoria about the net, that it would make libraries and librarians redundant is yielding to a more balanced assessment. Some people have speculated that because there is so much information available on the internet and because we have search engines like google, we may not need libraries anymore. I think it is just the opposite; we need Libraries and librarians more than ever before in order to make effective use of the information that is available". (We need libraries more than ever: Interview with David S. Magier, 2005)

It is also felt by the author that the dissemination of information to the right reader at a right time depends on how best the libraries are taking initiation in managing and publicizing their information. Marketing and publicity are the integral parts of successful of any library service initiatives. Along with traditional methods the modern methods should be accomplished to create awareness on the information available in the libraries. Again, it is the initiative taken by the librarian, the efficiency shown by the librarians that are the key factors in determining the success in managing and dissemination of information in the present era of information overload.

The late British Prime Minister Benjamin Disraeli once remarked: "As a general rule the most successful man in life is the man with best

information" (Seibert, Kraimer and Liden 2001,219)

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