

CHAPTER 8

Design & Development of Proposed Model

8.1 Necessities for Designing a Model

A model is one type of framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions. Most models of information behaviour are based on various issues such as statements, often in the form of diagrams, which attempt to describe information seeking activity, the causes and consequences of that activity, or the relationships among stages in information seeking behaviour. Information seeking behaviour research has centered on the creation of models from factor relationship models, through sense-making models, search process models, task based models, to non-linear models; and on to integrated general models.

The present study has been undertaken to know the information seeking pattern of the scientific community who belong to different universities under the study. In this study, it has been tried to find out the utilization of print or digital information resources available in the digital environment with a view to understand the situation of the existing library system. After evaluation and observation of the findings of the study critically, it leads to create confusion regarding the nature of information seeking pattern by the scientific community.

In fact, there seems to be almost opposite picture of the digital information service provided by the universities as far as the information seeking behavior is concerned. This picture is not only for scientific community, the existing library information system is seemed to be less functional. The experience gathered from

personal visit, observation and discussion with scientific community by the researcher also has realized that there is a big gap or problem in accessing information from university library system, which needs to develop an appropriate mechanism in many aspects to provide information to users.

Libraries must have to provide adequate numbers of material/ subscribed journals in relevant field, search ability of document from library should be enhance, new/ attractive services should be added from the library, resources sharing facility must be develop in such case. The prevailing situations, thus, create demands for having an effective system of the common platform for information searching in the university library system, with particular reference to scientific community.

8.2 Proposed Model of *Library & Information System Network for Scientific Community of Assam (LISNSCA)*

It is very much clear from the above discussions that the scientific community have been getting problems while accessing information. This leads to dissatisfaction among them. The general findings of the study, the problems they encountered and their willingness towards improvement of the existing system with various kinds of suggestions have revealed the need for making certain possible mechanism for onward implementation of new findings.

Thus, to fill-up the gap between information and scientific community users; there is an urgent need for having an effective model to fulfill the needs of scientific community. In this regards, a new model has been proposed keeping in view the changing scenarios of digital environment to fulfill the ultimate goal of the information needs. It was also decided to build a proposed network of information first; which would be known as “Library and Information System Network for Scientific Community of

Assam” (LISNSCA). This LISNSCA would be searchable by a proposed search engine “Common Searchable Platform” (CSP); which would work together to retrieve the various kinds of required information; which has been search by the Scientific Community Library Users.

The objectives of the “Library & Information System Network for Scientific Community of Assam” (LISNSCA) would be:

- To identify the various information needs by the scientific community library users;
- To assemble, interpret, retrieve and transmit information to the various groups and levels of scientific community;
- To execute plan, manage and appraise local, national and global level of priorities;
- To find out a mechanism to fulfill the various and complex information needs for them;
- To provide innovative supports/ services by solving problems of information seeking with instant service.

Thus, LISNSCA has been being proposed with a plan to create database with link to Library Network, Information Centres, various Institutional Repositories, digital resources, publisher databases, consortia services, NIC, metadata refine, Scientific Institutions and many other related agencies, which would be taken care by Department of Library & Information Science, Assam University, Silchar as Community of Information Management System; which would also be known as Assam University Information Management Community (AUIMC). It would act as the Central Body and would work as an independent body/ agency. AUIMC would control and manage the issues related to the searchable platform and networking of all information related

agencies. Besides AUIMC must possess adequate funds, rich collections including national/ foreign e-journals, e-books and other e- resources, printed collection's database and new ICT facilities must be made available.

A "Common Searchable Platform" (CSP) has been proposed with a plan which must be capable to search the document from the database of LISNSCA. CSP must be capable to search the various kinds of required information. It should be designed with the semantic web technology. AUIMC would look after the matter with serious concern by appointing a professional who can design and process the required information search by latest upgradable technology. Thus, it leads to develop a new model which might be fulfilling the information needs of scientific community. CSP as information search must have the following features:

- Capable to search the required information for the scientific community,
- Assemble and analyze the information to the scientific community;
- Retrieve the proper information by eliminating the extra information;
- Fulfill the complex information needs of them;
- Easy accessible common platform for information search;
- Should be design with artificial intelligence; and
- Should be feasible and user friendly.

CSP would act link Meta Search Engine; which would give a platform to gather the information by creating index of its own as per the information needs of scientific community. Whereas LISNSCA would help to create index for CSP by collecting data about foreign e-journals, e-books and other e- resources from all well-known publisher/ vendors such as Emerald, Springer, Scopus, etc. and others or by going through other free online publishers. A database should also have to be created from the printed resources also to make information accessing service effective.

This whole function of proposed model of “*Information Seeking Model of Scientific Community at Assam*” (ISMSCA) can be built in three different stages.

Stage: I

At the first stage of the proposed platform, the following functions need to be performed:

- Planning and Framing the Policy statement;
- Constituting with the Policy Makers/ Executive Bodies/ Ministry of HRD, Department of Higher Education;
- Constituting with Publishers for their approval;
- Creating library in-house database;
- Developing necessary infrastructures in terms of
 - finance;
 - man-power;
 - other related aspects;
 - physical infrastructure; and
 - technological requirement.

Stage: II

After getting approval from the Policy Makers/ Executive Bodies/ Ministry of HRD, Department of Higher Education along with publisher, we may go for the next steps; which would mainly deal with following aspects:

- Planning for the technical issues related to build common platform;
- Software/ hardware professional should have to take part actively;
- Common platform should be act as search engine; so for indexing fusion technique can be used;
- Further, for in-house collection, to make those searchable as per common term new database should be create;

- Develop of common platform must be compute with semantic web technology;
- Rejuvenating existing libraries with high speed Internet connectivity;
- Setting up new libraries in all the department of the universities.

Figure: 8.1; shows how the proposed Library & Information System Network for Scientific Community of Assam (LISNSCA); which would help user community to retrieve document from common searchable platform. Here, common searchable platform would work as search engine, which will retrieved information from various kinds of sources provided by LISNSCA and it would link of resources to meet the requirements of information for scientific community.

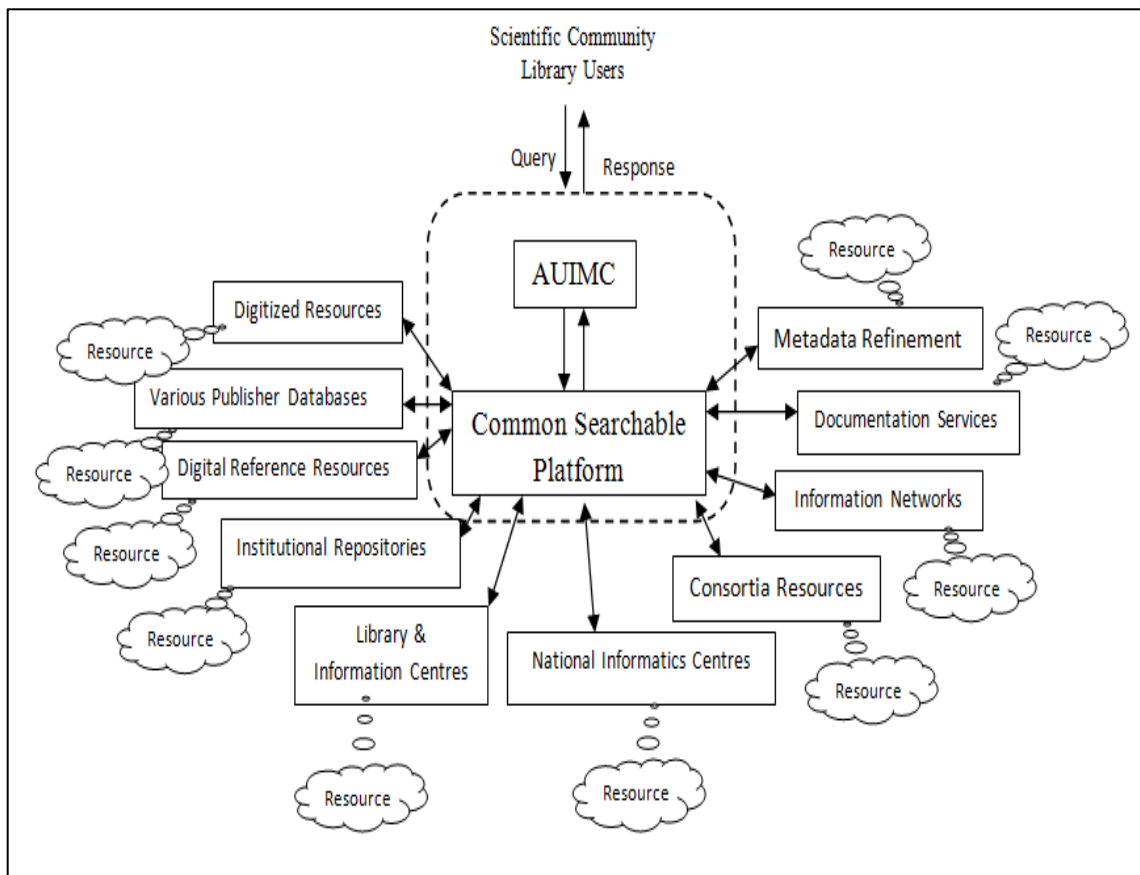


Figure: 8.1: Proposed Library & Information System Network for Scientific Community of Assam (LISNSCA)

Stage: III

After making the Common Searchable Platform as search engine, we can go for the last steps; which would mainly deal with following aspects:

- Seeking expertise for the expert team ;
- Educating the users about the accessibility of the common platform;
- Making all monitoring and reviewing the outcome; and
- Conducting continuing education programme for the professionals and users community.

8.3 Information Seeking Model of Scientific Community at Assam (ISMSCA)

Figure: 8.2; which show that how the proposed model of “**Information Seeking Model for Scientific Community at Assam**” (ISMSCA) would work to find out the required information.

The scientific community would search of information as per their requirement by using CSP. CSP will check the database of documents in “Library & Information System Network for Scientific Community of Assam” (LISNSCA). After the fetching designed documents; if they satisfied with the retrieved information; this would leads to an end of information searching process. Whereas if the retrieved document would not meet their requirements; they may start their new search/ query by re-defining the key term or by taking help form information professional for assisting them. Thus, the role of information professional/ library professional would be very important in this regards. The Library and Information Professional would act here like a bridge between information and scientific community users. They would assist the scientific community

users about the information/ documents and thus it will leads to fulfill the process of information seeking.

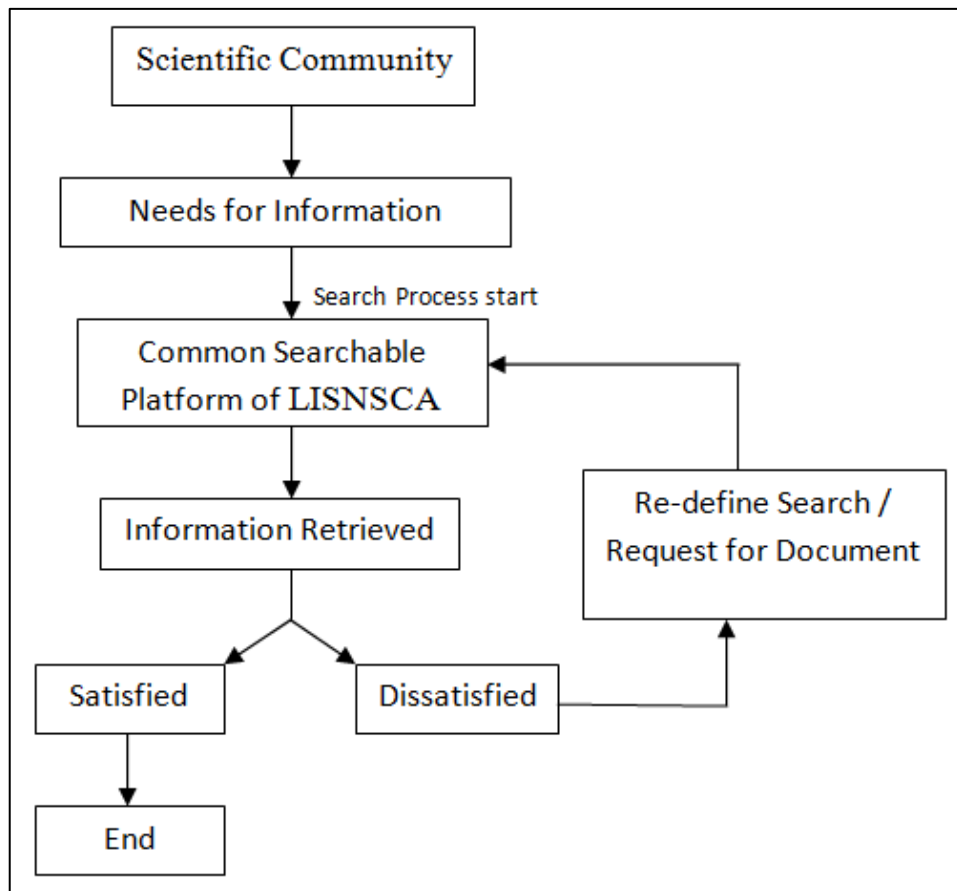


Figure: 8.2: Proposed Information Seeking Model by Scientific Community (ISMSC)

8.4 Action plans for Implementation of the Model

There are many meta-search platform exist in today's scenario, but no common platform which search the required relevant information can be found particularly in the field of Library and Information Science. There is a need to develop a common platform which can search to make database of all required information from various agencies/bodies. In India, there are lots of Institutional Repositories exist, but it can't fulfill the needs of users due to its many constrain. Thus, establishing platform, however, is the need of the hour. Certain action plans, thus can be formulated in this regard towards implementation of the proposed model:

- There should be an independent body to provide advisory as well as technical services to CSP;
- The Government should come forward for necessary funding to develop such an essential scholarly communication system in the digital era;
- Strategies should be developed to make CSP as a permanent and sustainable part of the state and National research infrastructure;
- Regular workshop/orientation etc. should be conducted for all the participating members to transact common issues and exchange of knowledge;
- Guidelines for metadata entry and best practices to be followed should also be set;
- Also proper guidelines should be made for mediated to all the publishers to provide research data for making indexing of the searchable terms from papers, dissertations, theses; and
- Mechanisms should be developed to greater information from National and International information system.

8.5 Conclusion

The findings of the present study have revealed that with the changing scenario of information seeking behaviour, users are shifted towards new information searchable technique; where by clicking library users want to get their required material. The existing libraries and information system can't fulfill/ satisfy the specific group of users under study i.e., the Scientific Community. One of the important aspects of the studies in Library and Information Science Research is to propose a model of a new information system through which the needs of the users under consideration can be fulfilled. As

libraries or information systems are in existence to serve their users, the same is required to be reengineered for their all-round development so that users are satisfied. In this backdrop Information Seeking Behavior of Scientific Community have been analysed, and the results of the same have endorsed the investigator to design a model through which they, as expected, can meet their needs. If implemented the proposed model, the Scientific Community under study would be in a position to get their desired information in the new environment. Fulfilling the needs of the user's community will foster the academic and research pursuits which would, in future, contribute towards national development in general and Assam/ North-East India in particular.

8.6 Scope of the Further Study

The present study is concentrated on the information seeking behaviour of Scientific Community Library Users of Assam. Keeping in view the limitation of the present study, the scope of future research on the similar and related topics can be undertaken as follows:

- A comparative study of Information Needs and Seeking Behaviour of higher academic institutions in Assam;
- A comparative study of Information Seeking Behaviour among social scientist and scientific community users of their;
- To build proper software for information retrieval system;
- Future output of newly develop ISMSC model.

It is expected that the present study will serve the purpose of information seeking behaviour of university library users belong to scientific community. It is also believed that newly proposed ISMSC model will served the required information needs of the scientific community.