



Legal Information System: A Model Framework for Indian High Courts

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ABSTRACT:-

The present legal information system in India courts is working in its traditional environment when compared with its western counter parts. The demand of hour is to equip these courts with technology based legal information system. In this paper, a practical systems analysis approach is described for the planning, development and implementation of the information technology required to have a sustainable legal information system in a developing country like India. Considerations involved to compile and distribute the country's governing laws in electronic form are described .Based on a reasonable set of assumptions and general requirements for the courts of India in particular and for developing countries in general, a blue print of model legal information system is then presented suitable for present Indian courts in organizing the knowledge, and disseminating it with a press of a button across the length and breadth of globe. By using the approach suggested in this paper, every developing country can fully evaluate the cost-benefit tradeoffs, as well as all other tradeoffs, in determining the most appropriate information technology to use for the creation, compilation, and distribution of its laws in electronic form. Thus bringing efficiency in the dispensation of justice

KEYWORDS: Legal information system, Indian courts, Electronic Legal system

Introduction

Information system has been defined in terms of two perspectives: one relating to its function; the other relating to its structure. From a functional perspective; an information system is a technologically implemented medium for the purpose of recording, storing, and disseminating linguistic expressions as well as for the supporting of inference making. From a structural perspective; an information system consists of a collection of people, processes, data, models, technology and partly formalized

language, forming a cohesive structure which serves some organizational purpose or function. Defining technically an information system can be a set of interrelated components that collect (or retrieve), process, store, and distribute information to support decision making and control in an organization. Now talking of a computer-based information system (CBIS), it is described as an information system that uses computer technology to perform some or all of its intended tasks. Such a system can include as little as a personal computer and software. Or it may include several thousand computers of various sizes with hundreds of printers, plotters, and other devices, as well as communication networks (wire-line and wireless) and databases. In most cases an information system also includes people.

The aim of our study here is concerned with the Legal Information System (LIS). This system is defined as a system in which legal information is transformed, transferred, consolidated, received and feed back in such a manner that these processes function synergistically to underpin knowledge utilization by legal producers and consumers. The goal of any legal information system should be to achieve a threshold degree of transparency on a long-term sustainable basis. Indeed, a paper-based system has been the starting point in many countries. In today's digital world, however, it is desirable, practical and cost effective to employ some level of technology in the dissemination of country's laws, and if integrated with databases for access etc. In the same way **Paul & Baron (2007)** stresses that Information forms a fundamental base to the legal system. Accordingly, legal professionals must understand that information, as a cultural and technological edifice, has profoundly and irrevocably changed. Indian judiciary has a large network of courts, comprising about 15,000 courts situated in an approximately 2500 court complexes throughout the country. The total pendency of the cases in these courts is roughly 30 million. This shows slow rate of disposal of cases in all the High Courts. To meet these challenges, it is imperative that the functioning of the courts have to be modernized by better legal information system set up. The computers are being used

in the Supreme Court and High Court libraries of

India since 1990. Although the introduction of such gadgets in the Supreme Court and the High Court libraries has shown positive results by enhancing the efficiency of the courts and the speedy disposal of the cases. However, with the increasing size and complexity of the legal information, it is necessary to use some logical construct (or architecture) for designing and controlling legal information. But we have seen that legal and judicial information system has still not become an important input in the administration of justice in India. Therefore, the way it can be achieved is that if the Government can carve Policy on the computerization of judicial system with the following below mentioned objective. Objective.:

- To develop a computer based model of Legal Information System which can provide instantaneous and timely access to the legal information available in all the High courts of India, and which can foster good will among the participating judicial and legal institutions of the country.

Scope:

The scope of the study is limited to the information sources available in all the 21 High Courts of India

Discussion:

Proposed System features:

- An online application will be available in place of the present system which can allow wide range of users to interact with the system.
- Higher level of concurrency can be achieved as the application being totally and purely web application.
- The legal faculty and the officials will be provided with efficient and interactive interface to

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- interact with the system with optimum output reducing time and same.
- Broader level of feedback can be derived from the users across the country
- Store the information in a more coherent way.
- Add database support to avoid data redundancy and handle a higher data volume.
- Will be more secure; operate in two modes viz. general user mode with limited privileges and super user mode with full privileges which acts as the administrator of the system. The proposed system can be used as a replacement for the existing manual system. This system will enable the authorities to perform the following operations;
 - ▶ Access to daily orders judgments/decisions delivered on daily basis across the country
 - ▶ Manual intervention will be eliminated resulting in automatic generation of causerlists, strictly listed in chronological order of date of filing .
 - ▶ Full text accessibility of important decided cases, online books and journals
 - ▶ A user through this system is capable of getting linked to different legal information systems both of national as well as international scope.
 - ▶ A search federated through the designed *LIS* is able to rummage around renowned information systems in Law like Art Law, Lexis Nexis, JISC Legal, JURIS, Law Lex, Kluwer Law International, Law Book Online, and LawOne/Time Base etc.

▶ The designed *LIS* has the capability to provide networked electronic information

service, federate search facilities to facilitate cross searching of networked electronic

resources.

▶ Provide latest status of a case either pending or disposed by any High Court of the

country

▶ As the application is available on Internet, the litigant public can easily find out

whether their cases are coming for hearing or not, without bothering the advocates

▶ Not only the retrieval of cases through either petitioner or respondent can take place

but, Court wise, Judge wise can and Case no. wise access is also possible. Besides recall

of dismissed cases is also facilitated. Profile of various high court faculties, judges,

lawyers etc can be conveniently accessed.

▶ Information about fee procedure regarding filing of court cases is also available. procedure for filing cases and much more.

A special provision for novice users in the form of *Ask a Librarian* should be adhered to the system. To supplement the user services *Frequently Asked Questions, Live Chat and Virtual Reference Shelf* services should be made important elements of the system. The virtual reference

model should be based on *Collaborative Virtual Reference Service (CVRS)* platform which can to share experiences and exchange knowledge between different legal information nodes. Therefore this *LIS* provide a single point access window to legal information available in each High Court of the

country irrespective of time and space.

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Developing this type of information system will save the time, money and efforts of a

user.

Legal Information System: Anatomy

The anatomy of the legal information system will be based on:

- People
- Technology in Use

SDLC (Software Developing Life Cycle)

- Network

Humanware:

Humans are the essential component of any system and a legal information system is no

exception to it. They form a special component of a legalized system that keep track not

only of the events, activities, policies, strategies and things but also of where these

activities, events or things happen or exist.

The people involved with a *LIS* should possess various skills, depending upon the roles

they perform The human ware involved in developing LIS involves Software Engineers, Network Engineers, Computer Programme Developers, DBA(Database Administrators)

etc. In addition to this humanware there should be acquaintance of legal professionals

involved with the system. They should be referred to as *legally aware professionals, or LAP's*.

Technology in use:

The technology involved in sustainable survival of LIS is discussed below:-

a) Hardware

Hardware is the integral component of LIS .For developing comprehensive and interactive LIS we need quality hardware. It involves adequate

network facilities supplemented with sufficient devices like computers, cables, bridges, hubs, switches, routers. Two dedicated servers, one for production and another for backup. Servers must have the highest and latest configuration like dual CPU Intel Xeon Server (or with higher processor). It must have at least four hard disks

(4×146 swappable), high-configured primary

memory, high cache memory, and other higher specifications with dual Intel Gigabit Ethernet controller. In addition, a high-speed face-up book scanner with optical character recognition software to digitize print documents and an

MPEG card to convert video-recorded documents (interviews and live court cases) into digital form is required for implementation.

b) Software

The most conspicuous and most important is the software, reflecting a *LIS*. Measuring the efficiency of a LIS from software perspective in economic terms will be a costly affair. The

software to design a well knitted *LIS* will be a fusion of number of programmers, system analysts, application specialists, *LAP's* (Legally Aware Professionals).The basic requirements for the development of LIS software include any operating systems

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among these (Windows 98, 2000, NT, 2003, Vista, XP, Windows 7, Macx, Linux). The fundamental software tools required for the development

of LIS include any one among them (DOTnet, Visual studio 8, 9, 10, java, PHP, Drupal, Joomla) etc. We can use Oracle, MYSQL, INGRESS, MS Access, SQL Server or DB 2 as back end databases. Using open source software will be helpful in developing an economic legal information system.

However, on commercial platform INTERMEX Software & Communications Company,

as a significant participant within the current

judicial reform has designed, realized and implemented the “*INTERMEX JustIS CMS*” software for the needs and requirements.

Network:

A legal information system does have its well defined component parts, and network is a fundamental part without which the system will be having no existence. The LIS will heavily rely upon Internet and on its limited access cousins,

Intranet that will become the mechanism of information exchange between the legal societies, handling every sort of legal information. Creation of central information hub for coordinating with

different legal information systems based at state

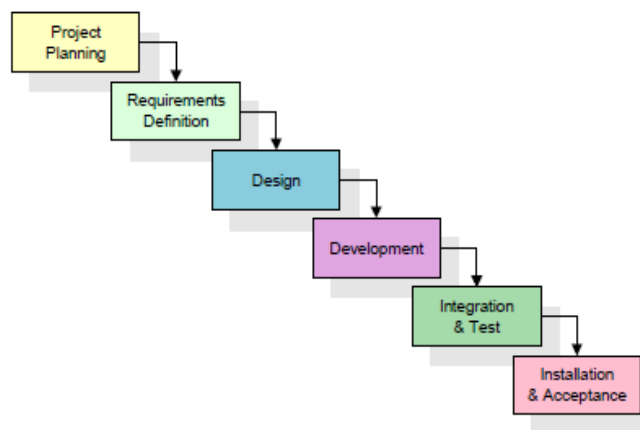
levels should be mandated in the *LIS*. Network to establish procedures for acquiring and processing materials according to the information needs of

highest courts in overseas (Courts the users should be framed out accordingly LIS

DLC (Development Life Cycle):

The DLC of LIS consists of six phases. All the phases involved are discussed below

fig 1



1 Project planning

This phase involves four sub phases:–

a) What we have to develop ?

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- b) Why we have to develop ?
- c) How we have to develop ?
- d) Whom it is going to provide benefits ?

2 Requirements

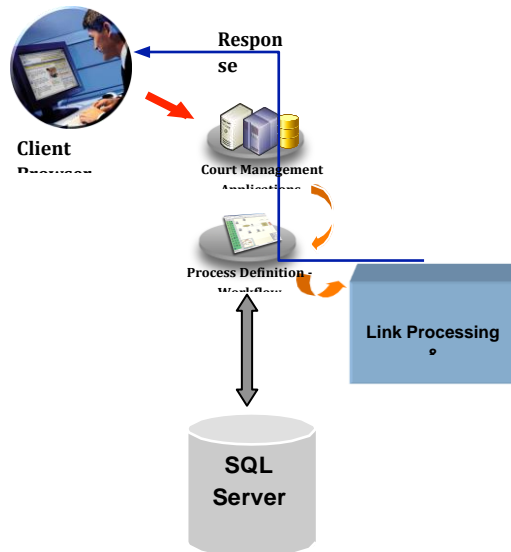
Here we pre-supposes requisites needed for constructing the legal information system, like hardware and software components, manpower, infrastructure and permission from the government authorities etc.

3 Design

In this phase, we design DFD (Data Flow Diagram), STD (State Transition Programme)

which displays the flow of information /data from one point to another.

Fig 2



4 Development

It involves coding and computer programming done by programmers who make various LIS modules as per

the analysis of legal information, using programme language like C#,C++. Java etc. All this is done by the computer professionals using computer languages.

5 Integration and Test

In this phase the computer professional

integrate these modules and test them individually. After it they again test them using various testing techniques like BBT,WBT(Black Box Technique, White Box Technique) in order to avoid future errors and flaws. This process is cyclic. It further involves one sub phase which is defined belowz

a) Implementation



Here the computer professionals put LIS applications on the server for in-house use.

6 Installation & Acceptance

What is required here is installation of application LIS on various systems and then Court Management Applications, Platforms Process Definition –

Workflow HTTP Link Processing Client Browser

Request

Complete acceptance by the users. It further involves the formation of two types of cells.

a) Training cell: It provides training to the people who want to use the services of legal information system.

b) Maintaine cell: This cell helps in removing any error or any fault a user encounters. A user can call the maintaine cell of the software development company for the help.

Network:

A legal information system does have its well defined component parts, and network is a fundamental part without which the system will be having no existence. The LIS will heavily rely

upon Internet and on its limited access cousins, Intranet that will become the mechanism of information exchange between the legal societies, handling every sort of legal information. Creation of central information hub for coordinating with different legal information systems based at state levels should be mandated in the LIS. Network to

establish procedures for acquiring and processing

materials according to the information needs of

the users should be framed out accordingly.

LIS (Process and Activities)

The system will consist of all the data pertaining to legal environment covering local, national and global law sources. The processes and activities involved with the system as specified in the Fig 3, clearly indicating the activities between the hardware, software, human ware, network and data, information and knowledge resources that help in developing a LIS on the basis of user needs.

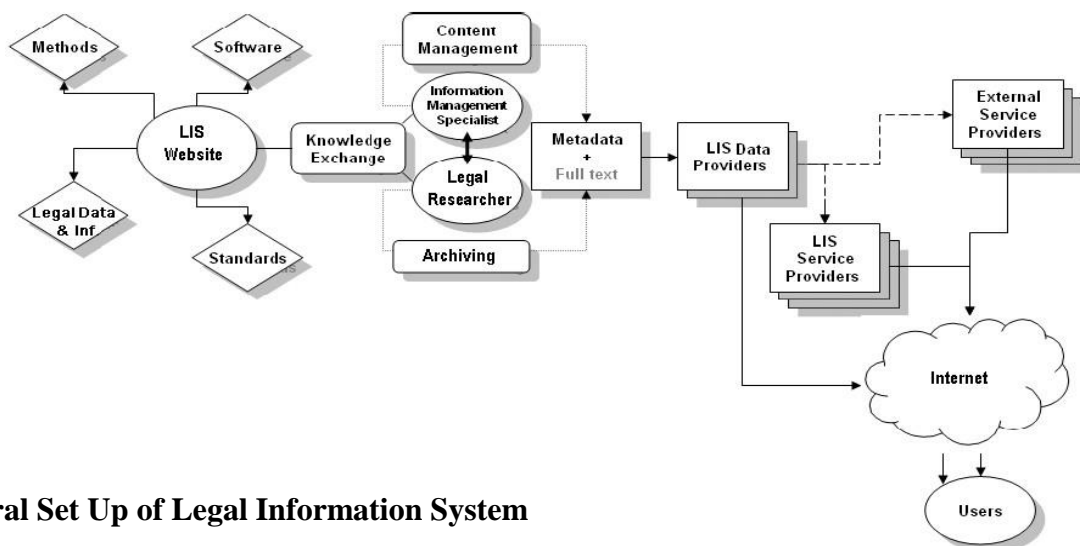
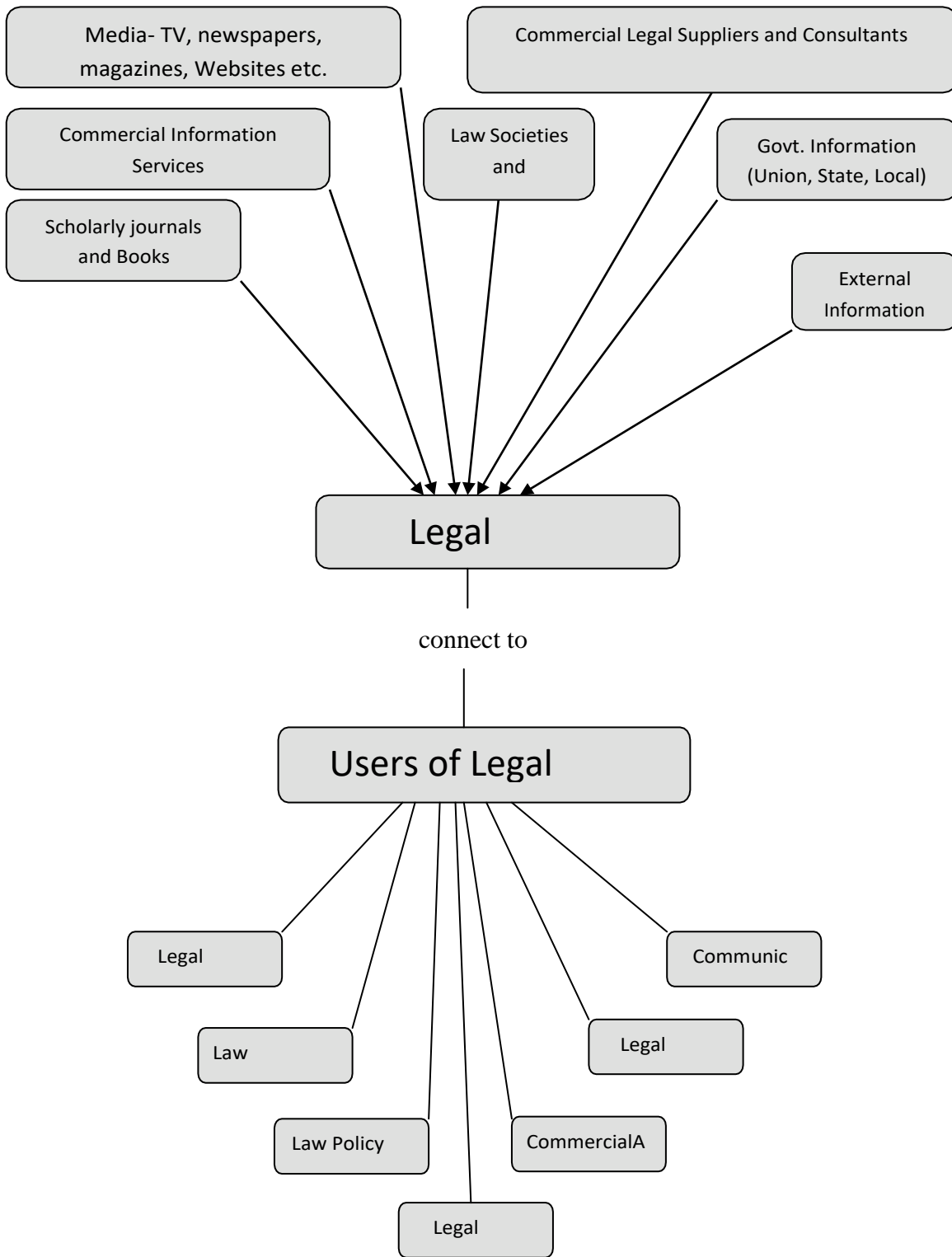


Fig 3 Procedural Set Up of Legal Information System



Time and Cost:

If all the 21 High courts start their work simultaneously in this project in a collaborative manner then it may take 18 to 24 months. However the actual time frame cannot be finalized and same is the case with cost .The cost of project can run either in lacs or in crores because we know that (**time** \propto **1/cost**) which explains that Greater the cost involved , lesser is the time taken and vice versa. After successfully completion of all these phases a model for developing the legal information system will be ready to use.

Conclusion

The launch of the Legal Information System (LIS) in the Indian Courts can mark the beginning of a new era of information system in the administration of justice. This can prove an important move towards streamlining the administration of justice .However, in making it practically to work; many hurdles will be faced till the dream of Legal Information System (LIS) based on modern technology will come true that is vivid in Fig 4.

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