1 Chapter : Introduction

1.1 Preamble
Advances in ICT have altered the education field by opening new ways of learning and information sharing. Understudies are honored with a wealth of knowledge for their studies and research, in correlation with the pre-ICT period, particularly after the invention of the World Wide Web, which is an effective ways to find and distribute information. Yuen, T. J. & Shaheen, M. (2006)

As libraries push ahead into the digital era, our web vicinity turns out to be progressively essential for addressing the needs of our clients. The pattern of teaching & learning in academic sector is changed drastically in the age of internet. Prior web applications were straightforward and utilized static page design, though, now the sites offer advanced application with client interfaces.

Libraries are major information providers and facilitators. Moving from clay tablets to card catalogs and then to digital catalogs, libraries have always played a very important role in purveying information as a social commodity. In an extension to this traditional role, librarians have become some of the earliest adopters of social networking technologies in order to connect with their users. Although libraries have always connected people with information, social media is beginning to play an important role in marketing information to library users and in branding the library as a community hub.

The right to information can only be fulfilled by the right to have access to information Koren, M. (2000)

Libraries play an important role in facilitating the right to information as well as to freedom of expression as outlined above. Koren further states “one can hardly form an opinion, discuss matters, write an article or make a news programme without sources of information.” This right to access information can only be fulfilled with free and open access to information, whether it is print, digital or networked access.
Innovative services in the library are the need of the hour. It is high time for library experts to be cautious & update the technical skills & implement best practice to survive.

Libraries can become key players in the process of economic restructuring & development of the nation. To survive and sustain in the present environment, one has to have combination of generic, traditional and ICT related skills like, digital archiving, content development, developing metadata, electronic database searches, network consortia access etc.

Library sites are advancing into information gateways, access to library resources & services additionally electronic databases essential research materials on the net. With the use of library sites, library specialist can offer information to the library customers productively. To make library user friendly, guidelines about library information can be delivered through the library sites. Iqbal, M. & Warraich, N.F. (2012)

The website of each library is a mirror of that library & a guide for internet users. Through website/web pages library can introduce them & market their services. As libraries advances into the computerized age, web vicinity turn out to be progressively critical for addressing the needs of library supporters. Custodians are required to embrace promoting techniques to make the library sites well known for more extensive use. They ought to take users’ criticism regarding services and resources offered on the webpage and for development of their quality.

Advancement of website started during the year 1993 in the scholastic wellbeing science libraries in the United States Brower, afterwards this pattern became overall & production of site got to be basic at this point. Muhammad, M. (2013)

Lee and Teh (2001) A site’s first role is to give a web search tool to assembling and reporting information accessible on the web or a part of the web. The fundamental capacity of a library page is to give path to research devices and overall content databases for the purpose of research.

Lopes, R. & Carrico, L. (2008) the development of the web is significantly modifying the way individuals collaborate with information and with other people. As libraries push ahead into the electronic era, our visibility on web turns gradually imperative for
addressing the needs of our patrons. Academic libraries have accepted the capability of www by growing better approaches to meet reader’s needs, in a digital culture by designing simple sites.

Here is some checklist of innovative services giving by the library through webpage.

- **Use of interactive & innovative web features**
  - In today’s surroundings Web 2.0 administrations are progressively getting to be fundamental parts in libraries. Innovative improvements including web innovation have developed making all the more cordial, social and light situations for recovering & allocation of data.

- **OPAC / Web-OPAC internet / intranet**
  - With the invention of advance technology and automation in libraries it is possible to have online catalogue of all library books which can be accessible via web or within the campus by intranet.

- **Institutional repositories**
  - Institutional repositories are digital collection of the institutional data available on intranet within the institution. Library website gives links to IR to access that material intranet or can be shared on web.
  - E.g. E prints, book chapters by academic staff, conference proceedings, research projects & theses etc.

- **Interlibrary loan**
  - Library is growing organism, whatever available in the library is not sufficient. User may explore more collection by taking inter library loan from other libraries within the city.

- **Quick links**
  - Library provides quick links to other useful website which directs the user to browse that link without searching on net. For. e.g. link to free journals, E books, databases

- **Online feedback**
  - Library creates online forms for library feedback and gives link to library website asking feedback from the users online. That helps to
analyze better and improve the library services as per feedback given by the users.

- **Online library membership**
  - Public libraries can give online library membership by paying membership fees online. British library is online where online catalogue is available. User can check the catalogue online, and put a request. Pick up and drop facility is given by the library.

- **Virtual library tour**
  - Libraries should add the facility of virtual tour where users can browse the different sections and shelves of the library. This service will encourage clientele to make maximum use of library resources which is the ultimate aim or basic law of librarianship i.e. “Books are for use.” This law states that books are for use but all the information formats such as online reference queries, databases, subject gateways comes under the new concept of librarianship that states all latest information should have its users. *Chakravarthy, R. & Kiran, A.(2013)*

- **Virtual reference desk**
  - Through virtual reference desk user can ask reference query via e mail, messenger etc. User need not to come to the library physically. His queries can be solved virtually or through web forms.

- **Ask a librarian service**
  - Libraries can create service of Ask –A –Librarian where users can ask reference queries through online chat with reference librarian. Libraries should provide discussion forum & feedback facility so that they can give their valuable suggestions for the new services which can be started or can suggest to modify present service for the better usage.

- **E announcement**
  - Various library activities or events can be set up on library site, so just a mouse click reader knows the details of what is new in the library. This helps to market the library services online that helps to increase the visibility of that particular library.
• E newsletter by libraries / librarians
  o Libraries can start E newsletter of institution activity or including library services and the new arrivals in the library. Book review can also be added in the newsletter to promote reading habits among readers.

• FAQs
  o Frequently ask questions can be put up on the website to know everything about the library. Some queries are generalized and asked by all the users, these queries can be put up in the form questions and the answers of the same.

• Suggest a book online
  o Library can ask the users to suggest a book if not available in the library, that helps to build up quality collection in the library.

• Social media application
  o In order to reach maximum users of society, libraries can create their account on social networking sites and can be connected to them. Libraries can use these platforms to announce various services, new arrivals, various announcements like membership, workshops, seminar, exhibitions etc.

  o Advanced education Institutions in developed nations have begun utilizing SM for the procurement of value training and the generation of valuable research, however the circumstance is not extremely promising in case of developing nations. **Casey, M.(2005)**

• Online library data
  o Usage statistics of any particular library can put online through website showing usage of various services to attract the readers more in the library. New arrival list, current journals list and special collection can be shared via website.

• SMS in Libraries
• SMS text messages can be sent to the customers (users of a library) in order to remind them of the overdue books and when they are due. The SMS facility can be used as a medium for the communication of reference queries in libraries. It is a form of virtual reference service. The text messaging technology can be used for referral services, to guide the users to the source of information

• Online Survey

  • A survey which is online is an electronic variant of a conventional study, for example, a mail or phone study. Online studies are a practical and, for the most part, unprejudiced approach to gather conclusions, intrigues, perspectives, inclinations, and true data around a huge number and wide assortment of youthful understudies. Online studies give a dynamic, moderate, and simple approach to figure out what libraries ought to be improving serve this age bunch. They are an extraordinary approach to achieve countless without a moment's delay. They are additionally a brilliant apparatus for pulling in clients to the library's site. Contrasted with different mediums, online reviews are a standout amongst the best method for gathering and examining information. Information examination is simple, incorporated, and constant. Surveymethods.com empowers you to effortlessly make studies and send them to a huge number of people in seconds.

Library website

Significance of the online environment in the libraries can never again be addressed. Associations perceive the significance of the www as a tool for accessing data, as well as a method for disseminating information about their products & services. Indeed, even a good library may have a low quality site that may turns clients off.

It has been watched that notwithstanding the exertion made by in house expert or outside organization, a large number of the library site are not overhauled consistently. In the meantime the information accessible on the library websites is additionally not up to the imprint. **Bhattacharjee, J. & Sinha, M.K. (2006)**
1.2 Effect of website on services given by the library
Mission of the learning center is to join clients with the data they are looking for. The joining of new data innovation has really turned into the impetus. That change the library into a more essential and basic scholarly focal point of life today. The libraries must give a client centered suite of reference services. Chunli, W. & Jinmin, H.(2011)

1.3 Positioning the Study
Information explosion is a big problem which is being faced by libraries & users. Now library users are more aware for the latest information. They want all the information about library without physically visits to the library with just a click of a mouse and for that library website is a solution .It is a need of an hour that libraries should change their perspectives to make the content of library services (CALS) available through library home page or website.

CALS are used to embrace and administer widespread information pertaining to library holdings, external information resources, library users, library suppliers, library dealings, as well as managerial information essential for operation and management of libraries. The study of organizational resources, that is obligatory and used in production and management of information, create a field of study called Information Resource Management (IRM), which in turn is a subcategory of Library Science. The thought of Information Resource Management was generated in the 70s. Since then, this notion has been the subject matter of elaborate discussions. Numerous examinations of IRM have materialized and the thought has been characterized in a variety of ways.

CALS are the foremost information resource within libraries. Hence, a study of the CALS (as an Information resource) and its execution falls within the field of IRM. Moreover, the management of other resources essential for CALS selection, purchase, implementation, management, and use also fall within the limits of IRM and Library Management. The objective is that this study will broaden the field’s understanding of the process of CALS selection by rethinking the concept of CALS strategy process and outlining promising concerns and insinuations that require additional consideration by both Practitioners and theorists in the field. Although, due to sheer numbers it is
intricate to accomplish a comprehensive summation of the topics covered in the field of IS, common trends can be delineated.

Coming to core study approach we can analyze that, different information systems have been the subject matter of previous investigations. A consideration is therefore, needed to delineate characteristics of CALS to permit positioning of CALS in a comparative scheme. This would allow a more informed comparison of a CALS with other IS. The characteristics imparted here can be confirmed by appraisals of introductory material and textbooks in the field as well as a review of the information provided on the web by the vendors, and libraries’ websites.

CALS are widespread enterprise information systems that are used in libraries throughout the world. The CALS accessible on the market can differ from each other based on their technical abilities and the type of library that they execute. On the other hand, some of the obtainable systems can be personalized to meet the needs of different types of libraries and can function on numerous hardware platforms allowing the use of various operating systems and other third party products. That is to say, the same product can be tailored to match different technical environments and user needs. Moreover, CALS are used in both very small libraries as well as sizable libraries with tens of branches, situated in diverse geographical locations. In recent times, it has even become common for a number of libraries to come together and use the same CALS in a consortium to administer their joint collections and activities.

Due to changeable size and nature of libraries, library caters for a large distinction in both the content size and area of operation. While a small library may focus on a narrow area of interest and maintain a small collection, a large library may possess millions of items. Some libraries only deal with limited library related activities such as cataloguing and limited circulation activities, while at other libraries the full range of facilities are in extreme use. Some of the existing library caters for a broad range of library types, collection size, and areas of use.

The stuff about which information is held within a library is largely books and other types of documented material regardless of media and format. In a modern library system, not only meta-data is held about these objects, even the concrete objects are stored and managed. In addition to these, information about people, organizations, services, financial transactions, and more is also stored and managed. Simpler
information systems may not possess and administer information on diverse objects and larger enterprise information systems that hold information about a wide range of objects, do not disclose the fundamental focus of a library. A few other organizations such as museums and archives are perceived as close relatives of libraries. Even the systems that are used in these organizations vary from a library. Either the contents held by these organizations’ systems differ, or due to their business maneuvers, the system functionality varies. The character of the contents held on an library directs to high demands on the potential anticipated from these systems. Whereas common objects held on database systems may be effortlessly acknowledged by illustrative metadata, the recognition and repossession of significant textual objects necessitate a more sophisticated treatment to allow a more directed, content-based, and language sensitive access.

Today, a common library is regularly in use throughout days, nights, and holidays and is obtainable throughout the globe by a large number of different types of users. While all the bibliographic information is to be simply available, other information on these systems is to be kept confidential. Therefore, these systems need to proffer a high level of joint accessibility and security at all times. A social characteristic associated with the information held on a CALS concern the personal nature of the information held on these systems. Approach to reading habits of users by the wrong people in some conditions can head to life threatening dangers. Conserving records of individuals’ readings has substantiated to be of significance in protecting individuals’ social rights and, in some instances, lives. This debate can be widened further in relation to the historical and social roles of libraries and the issue of ethics in contrast with other commercial organizations that have or can obtain entry to uniformly susceptible information but which are not bound by the same ethical principles to protect individual’s rights.

Some activities, such as operation of libraries, air traffic control, management of the dairy industry, and so on are reiterated in various parts of the world. Due to indigenous differences in conducting some of these activities, it is complicated to fabricate a system that administers the associated information uniformly well in different countries or circumstances. Many of the standard CALS are marketed and used internationally. The organization of libraries can differ from one organization to the next. The size and type of libraries diverge, so do the governing bodies and mother
organizations and the embedding technical and social environments. These relative reasons generate a demand on CALS to permit for local adjustments within these systems. The manner a specific CALS appears and functions can vary tremendously from one installation to the next, although the genuine source system is the equivalent. This has been feasible due to the broad suppleness that these systems tender.

The libraries of the associated institutes did not all have an automated system before the advent of University. Those associated libraries that did have a system did not share the same union catalogue or routines and policies. A wider goal underlying the formation of University was for the efforts and services offered by the associated institutes to feel seamless, unified, and functional. To achieve this goal, it was imperative to establish a higher level of cooperation and similitude among the associated institutes. Having the same library system and union catalogue had created a unity and synergy within the libraries. It also allowed a more unified library service to all the University library users regardless of their actual physical location. The implementation of Web OPAC system achieved the goal of unifying the library catalogue in particular, and libraries and library work and services in general. Nevertheless, some variations remained and portrayal of a fully united view was not yet entirely achieved.

Research within the Field of Online Library Systems

The scholastic field of IS has been a new area of exploration in the course of recent decades and grants a broad scope of examination on an expansive cluster of points. This can be found in the broad examination introduced at meetings, for example, ICIS (International Conference on IS started in 1980) and ECIS (European Conference on IS); in diaries, for example, Information Systems Research and Information Systems Frontiers. Extra substantiations can be found in the development of working gatherings (data frameworks in associations and society) of IFIP (International Federation on Information Processing) and in production such as Sastry, H.G. & Reddy, L.C. 2010)
Within the field of IS, the relationships, as well as actions and interactions, between information systems and individuals, groups, organizations, markets and societies are key areas of interest. Therefore, as well as encompassing a wide range of topics, the research in this field exploits various theoretical perspectives, methodologies, analytical tools, and research settings. One can find a number of diverse definitions of IS in King, D. L. (2009).

Neither of these definitions identifies the study of strategy making or system purchases as central to the field of IS. This is not the case, however, for all definitions of the field. Some definitions certainly embrace the acquisition of systems for information use as an area of interest. Consequently, one could assert that my study would well fit within the field of Information Systems.

In this study, the concentration is not the technical aspects or the influences of a CALS on its embedding organization or the diverse impacts of the embedding organizations or society on the design and growth of these systems. The influences that are fundamental here associate with the actions by human agents and the embedding structures that whittle and are whittled by the CALS strategy making related activities. The concentration is on the social interactions that materialize within the strategy process and their relationships with the strategy outcomes. Unlike some IS studies, the influences of the embedding context on the design and technical functions of CALS are not the central issues here.

Many scholars within the field of LIS lay the focus on the implementation of information systems and consequently the diffusion theory has been extended. Akoglu, C. (2002) proposes a combination of the diffusion model and the application implementation research and add errand and environmental characteristics to a former model. Kirakowski, J.(2000) further revised this model by suggesting an implementation process that incorporates initiation, adaptation, acceptance and infusion stages. The Theory of Reasoned Action, by Nielsen, J.(1993) is concerned with people’s actions in relation to their persona and attitudes. Hasan, L. & Abuelrub,E.(2006) build on theories in different areas, social psychology, and learning to recommend a model in which the constructs of Technology Acceptance Model are perceived to arbitrate the relationship between individual differences and IT acceptance.
Shacklett, M. (2001) found that Technology Acceptance Model (TAM) and its comprehensive versions were weak predictors of a large amount of discrepancy in their investigation, which was based on a field study in contrast with previous experimental or quasi-experimental studies. An auxiliary focus in a considerable range of IS research is on acquiring means of enhancing technology adoption effectiveness and on plummeting resistance. In the extensive collection of studies that are based on these and associated theories, concentration is sited on the procedure of adoption and not pre selection stages. Predominantly in some areas such as ‘resistance to change’ and ‘conflict management’, much of the empirical research is conducted after technology implementation.

Unlike such studies, my concentration is on the concerns that surface in the process of strategy making which precedes the point of selection and adoption. In this thesis, researcher does not share the purpose of enhancing the efficacy of CALS diffusion; rather focus on broadening the understanding of the CALS strategy process by attempting an alternative investigation of this observable fact.

In the IS research that are of more significance for this thesis, the social features are brought in spotlight. Some such studies scrutinize the social corollaries of implementation and/or diffusion of IT in different organizational settings and advise new methodologies for studying such phenomena. Some investigate the social roles of IS or the intricacies of social influences. Others argue or re-appraise research approaches and meta-theoretical issues of information systems. A number of such studies Zhang, P. & Dran, G. (2001), Lautenbach, M. A. (2006) illustrate that even indistinguishable technologies can have diverse outcomes in different organizations. Likewise, Nielsen, J. (2001) portrays the diverse use of CALS in French public libraries. It is sensible, therefore, to presuppose that the social issues that surface differ are also based on the dissimilarities in information systems that are premeditated. The nature of information systems, promptly considered within the field of IS, encompass strategy support systems, database management systems, management information systems, health-care systems, office automation/information systems, expert systems and more. CALS and organization of libraries do not gather much notice in typical studies.
The suppleness in a CALS associates to, for example, provision of diverse categorization systems, local policies, multiple-languages of the material held, and multi-lingual human computer interactions, using different alphabetical systems, interconnections with changeable hardware and software mechanisms and more. A characteristic CALS endows with a widespread strictures and other set ups that permit for local fine-tuning of the systems to accommodate national and local preferences and even differential procedures within diverse sections of the same library. The demands for such flexibility inhibit some other information systems to cater for a wide use across national boundaries. This subject is of concern in relation to how this may influence the standards and prospects related to CALS and how in turn this may influence the issues related to CALS strategy process. Many information systems are still built to cater for precise local needs and are serviceable within restricted predefined contexts.

Another section of comparison between CALS and other information systems relates to the category of organizations in which these systems are operated. A number of organizational aspects impinge on the IS selection strategy process and are worth pondering. The source of financing is one such aspect. The libraries incorporated in this study obtain public funding. This denotes that the CALS selections in these libraries vary from the selection of information systems in private or commercial organizations. There is one more difference between this study and other IS research. Many other studies of selection and implementation of information systems are carried out within organizations that are male dominated, while library workers are largely female. This distinction in the embedding organizations can also have an influence on the findings.

Libraryexercise, with its principal business being the organization and management of a substantial quantity of information, comprises an interesting organizational setting, rendering CALS, as the chief information system in this particular area of practice, worth investigation. The findings of this study could be, therefore, constructive in expanding our insight of associated issues in the field of library and information science. Although a CALS is analogous to other IS in a many modes, there are also disparities between CALS and other systems formerly investigated. A number of issues related to the specialized nature, organizational contexts, and social aspect of CALS add to the discernible significance of this study.
Therefore, this research is anticipated to broaden our perception of the social aspects of the strategy making process that precedes the implementation and adoption stages by studying a less contemplated information system within an organizational setting that has tended to be neglected in previous studies.

**OPAC, WEB 2.0 Enabled Library Management Systems**

It was only in the fifties and early sixties that the development in computer technology permitted the mechanization of some of the customary library work. The initial development proposals characteristically embarked on a moderate level to comprise single purpose functions such as creating a list of keywords. Then more superior systems were created that took care of the entire section of library work such as cataloguing, circulation, or acquisition functions. This was proceeding by the influx of even more inclusive systems that bunched collectively a number of different single modules. Primarily the modules incorporated in the early multi-function systems which were not included and, for example, the data input in the cataloguing module had to be exported to the circulation module to allow the use of the lately catalogued records in circulation activities. In this section researcher expound a number of related terms in order to elucidate what is meant by the term CALS in this thesis.

The term ‘automation’ in libraries has been freely used to refer to significantly differing levels of use of computers. It has been used to signify anything from having a simple personal computer or having access to a locally held CD-ROM, to the most urbane use of technology. Performing all library routines, use of robots for heavy-duty jobs, use of the latest most sophisticated multimedia and communication systems to permit the exchange of information and services with practically the entire world can be incorporated here.

While automation in common can denote an extensive range of the use of technology, Automated Library Systems are a more specialized unit. According to **Schmidt, J. (2004)** A library can be regarded as being made up of functions such as acquisitions, serials control, cataloging, circulation, and the online public (or patron) access catalog
When a computer system is used to operate these functions, the term Automated Library System (ALS) is used.

Of all the automation potentialities, it is integrated Automated Library Systems that are reaching to materialize the nucleus of this study. Integrated Automated Library System, refers to an Automated Library System where all its subsystems, also called modules, function effortlessly and impeccably with each other. This implies that a section of data would only require to be entered in the system once for it to be useable throughout all the pertinent sections of the system.

Though, even Integrated Automated Library Systems differ noticeably from one another. Some comprise the basic minimum of modules while others consist of all the modules identified above, and many more such as Requisition, Interlibrary Loan, Mobile Library/Housebound, Closed Reserves, Community Information, Offline Transaction Logging, Day Log, Reports and Statistics, Administration, Inffronts/Gateways, Federated Searches, and others. There prevails a modification between different systems; for example, products such as Pepsi and Pepsico lay prominence on management of serials while other products such as HL, Hero, Bajaj, Tata, and so on are more inclusive and integrate a variety of modules and add on sub-systems. In appendage to these, some systems embrace discrete modules for some operations while others include these amenities in the complete system so that there is no different module by that name available in the system. On the other hand, some suppliers name some subsections of their explanation as principal modules and component of their standard system, while they label other operations as extra add-ons. Additionally, some of these systems embrace proprietary database management systems, word processing, etc., while others trail accessible standards that formulate the integration of third party products achievable in a flawless fashion instead. One other factor pointing stupefaction can be the changeable names used to designate these systems and their several components both by the system vendors and usually, by others, whether at libraries or as acquired from the literature.

Names generally used Library Systems, Automated Student Systems, Library Automation Systems, Integrated Library Systems, Management Information Systems, Library Systems (LS), Content Analysis Library Systems (CALS), and more. I find the later two to be among the better explanatory names for these systems. Still, as the final
term has been increasingly used and it is a succinct alternative, Content Analysis Library Systems (CALS) is the name assumed in this thesis because author here will analyze the contents on the online library websites. This is obviously OPAC feasibility study and to be implemented in author institute in near future. Hence this is the right path of analysis to know how much existing OPAC systems from India (Mumbai) regions are useful for students as well as faculties along with social coverage.

To resolve the limitations and the sorts of systems that are incorporated or barred in this study, here the term CALS is described as a system that describes at least three of the core modules of Cataloguing, Circulation of documents/e-books/literature among users and OPAC is an integrated way, despite of the names given to these modules are different. There will be no greater limit for the number of modules or operations integrated in the system. Since this work confers only the topics concerning CALS, when I refer to automation or the process of automation using WEB 2.0, I use these terms only to refer to execution and use of CALS and not any other technology that could be implemented by the libraries.

To recapitulate, normally the works on the LS selection appear to share the objective of formulating improved and more efficient methods of obtaining progressive and optimal systems to accomplish successful results. Intrinsic in that line of thinking is the understood assumption that there is such a thing as an optimal system, or a successful result. It should be noted that many facets and complications of the CALS strategies are emphasized in unique or composite forms in different publications. These facets comprise exterior and political influences, power issues, complexities of the systems, the marketplace, the evaluation process, as well as restricted resources and expertise, and more. However, in the view of this author, the aggregated complications brought forth by all these different pertinent factors are not satisfactorily addressed.

A website with .gov as a part of its domain is a government website. A govt. website provides factual information and resources from leading researchers. Even though no government will ever point itself in a negative light regardless of its current issues, they can generally be considered trustworthy sources of information.

.org a nonprofit organization provides information for the benefit of the general public without any financial gain.
A nonprofit organization does not always make a website trustworthy, be sure to consider who they are affiliated with, what their goal or mission is, & how they are funded.

First impression is always last impression. If the website does not look professional and if it does not function in an efficient and attractive way as well as being attractive, potential client may be lost. Prior clients went by the library to counsel the list and utilize the physical books, diaries, CDs in the library. With the quick changes in the field of ICT lib and inf. Focuses have been completely transformed.

Utilizing web 2.0 features individuals don't just inactively devour data, rather they are dynamic benefactors, notwithstanding altering devices and innovation for their utilization.

**Arroyo, N. (2007)** The contrast between conventional pages and web 2.0 in this manner lies in the way that in the former people or organization only provided information about themselves, whereas the communication channels in web 2.0 are two way: Top down & Bottom up.

Website means information found online outside of the library databases. Library websites are mirror of the library which services can be provided to users online. Web 2.0 tools will help in enhancing these services through library website.

In the conventional library, users needed to visit personally keeping in mind the end goal to utilize its various collections, services and also seeks help in library services. With the improvement of electronic collections and services libraries have begun to offer another virtual passage to their services: the library site. Users can visit the library and use a significant number of its services from remote spots i.e. from their working environment or from home.

The library homepage may be the library's own space, or it might be places inside of the organization’s site. The library site content depends on the type of the population, whether it is academic, special or public library.

Websites can be created by Librarians, Web developers, IT professionals & Subject experts. Users of this library information could be students, Faculty, Scientist, Researchers or General Public depicted in Figure.1
Table 1.3.1 : Creators & Users of Library Website

Following points to be considered for evaluating the website –

1. Objectivity – What are the objectives to create that particular site or webpage should mention. Whether they fulfill the objectives of the organization from where it belongs to. Website should clearly specify the audience i.e. students, faculty, scholars or general reader.

2. Authority – It is essential to know the status and qualification of the author who has contributed the article / content on the website. The reputation of an author is an important factor in evaluating the web information available on home page or webpage or website, as anybody can publish any information on net without taking any consideration of organization’s objectives. If the author is qualified enough for content writing? Contact information like email address, phone number of the author should also be considered while judging about content writer.

3. Accessibility of the website- Some of the website only opens with some browser, some site specified the best viewed under which browser and resolution. Some of the online resources are only in PDF format which requires
acrobat reader to access the document or download the same. If any special software is needed to access the page that also should be mentioned.

4. Accuracy: Accuracy of the information provided on the website should be judged by considering the following factors: is the information available on the site is reliable and error free; is there an editor of someone who checks the information. Spelling mistakes of the page have to be considered. If a page contains more spelling mistakes and grammatical error then it is not considered as accurate. If more errors appears on the webpage user will not turn to the site again.

5. Currency: The use of information depends on whether it is provided on right time or not. The website should be updated regularly then only we can say it is current information. Current information is an important criterion to evaluate the net sources: whether the page is dated; when it was last updated; have some of them expired or moved; what is the frequency of updating; and there any other indications that the materials are kept current.

6. Arrangement: The links and buttons of pages should be consistent and logical and the screen should be easy to read.

7. Audience: The objective of given the information should be defined clearly. As the relevancy varies with purpose and users needs for each and every site targeted audience should be defined. If any college website then it should mention clearly that this site is for college students giving various information and services about the institution.

8. Coverage: The questions to be asked while evaluating a site on the basis of coverage are: what topics are covered; how in-depth is the material; what languages are covered; what time period is covered.

9. Stability: Stability is another criterion which can be used to evaluate the websites. We need to check whether the site is stable or the link address changes frequently, if the address changes whether the old page is left open with new link or address to direct users from old page to new page.

10. Relevance: The site should be relevant to the organization/firm/corporate sector which it belongs to. For e.g. if it is Medical Library site then it should provide information regarding medical journals, diseases, treatments, books on health, online journals in the discipline of medical and health only.
11. Response time: A site is evaluated on the basis of how much time it takes to load a page. A response time of 10-15 seconds is considered to be limit of user’s patience. Though the response time is not fully controlled by the designer a good page will be built to load in a few seconds on most client servers. Khan, K.M. & Raju, C.(2013).

12. Always verify information with another source. Look at the URL and Domain name like .com, .net, .edu, gov, org etc.

Look for publisher of the site, date of last updated and ‘about us’ to know the authors credentials. Date of access is very important in evaluation of the website because today lot of information available on the site and tomorrow may not. Any organization can change their website layout and design any content time.

The study evaluates user interface features of select library websites of Mumbai and uses a blended strategy approach that joins both subjective and quantitative examination of site assessment with the assistance of an exceptionally planned agenda. The different components of sites/landing page are assessed.

A literature search was administered in library science full text articles which includes innovative services like web 2.0 tools and social media. EBSCO, Emerald, LISA was utilized to retrieve journal articles for literature search.

Apart from this the library blogs and the various academic institutional websites, which are linked to value added services, will be surveyed and evaluated. In addition to that UGC-NLIST consortium will be used to search latest scholarly articles. Secondary sources of information will be gathered through an extensive survey of the relevant literature available on internet also in reference material and also on the books.

A university with a site that is hard to utilize and communicate can make the University position lower. In this way it is essential for any association to be able to make an appraisal of the nature of their e- services to enhance their offerings after some time and criteria against rivalries and the best practices in any sector. Barnes, S. & Vidgen, R.(2002)

In that capacity it ought to in a perfect impression of the needs of the customers its serves. Lamentably, site outline is regularly determined by innovation, authoritative
structure, or business targets, as opposed to by clients' needs. In any case, as of late site proprietors and designers have steadily started to recognize and address the issue of ease of use Pierce, K. R. (2005)

Islam, A. & Tsuji, K. (2011) A well designed library website is not only an excellent media for publicizing library services but also helps to bring it to users if anything new in the library. Website should make on the basis of usability and not often as business objectives driven by technology. An institution's site is a gateway to showcase its entire information, and services.

Poll, R. (2007) A library webpage should provide quickly to FAQs about library. It serves as reliable tool of the library services and gives an outline of library without confusing users.

Virtual worlds

A virtual world is a recreated situation, visited by different clients through an online interface. Virtual users can then interact with these worlds using unique, customizable avatars that are virtual representations of themselves. Chow, A. & Bucknall, T. (2012)

A virtual visit is characterized as a client's solicitation on the site from outside the library premises, paying little mind to the number of pages or components saw. A website visitor is either a one of a kind and distinguished web program or a recognized IP address that has retrieved pages from the library's site. ISO, (2006)

A blog is a type of webpage that is simple to create and disseminate and is used as a form of online journal by millions of users.

Some sites provide links to information detailing the purpose in creating the website. Take the time to explore a website to determine if the information is mostly subjective (biased or opinionated), objective (factual) or mixed. Does the site provide balanced, objective or factual information? Does the site provide subjective, editorial or opinion statement?

Library stands an important position in the promotion of education and research. The emergence of internet has changed the role of libraries. Library websites are online appearance to the dynamic website over the years, which encourage user participation.
more & more. The internet provides a variety of services to different types of users. Whole library collection can be located through the website or webpage.

With the invention of Tim Barnes, World Wide Web has impact in the change of libraries as learning asset focuses instead of storehouse of print media. Technical improvements have hugely expanded the capacity to get to, store, and process, impart, and convey information services to the work place of the libraries customers.

Library website provides a gateway to journals, e resources and online material available on the web. With the creation of websites, libraries have taken advantage of the innovation by moving from the conventional library where users need to enter the library so as to utilize its services, their collection, & help services. By accessing library website staff, students and scholars visit the library details and access the library collection and facilities. Library website provides links for other online resources connecting millions of library users in the academic community.

Two way communications is also possible with the help of interactive tools such as blogs, social bookmarking, twitter, face book, FAQs etc. With the ever increasing usage among staff & students library sites are updating their content and structure, with the help of SNS.

New tools and services utilizing web 2.0 are changing the way individuals utilize the web, making it less demanding to collaborate, convey and share data. Web 2.0 is a space that permits anybody to make and share information on web, a space for joint effort, conversion, and cooperation, a space by way of exceedingly rapid, adaptable and versatile. **Vasantha, R.N. & Harinarayan N.S.(2009)**

A client visit actually goes to physical library where the collection is transparently & plainly shown with great signage & things are simple to discover. A website can't interface with clients as effortlessly. A successful site can prompt shared fulfillment in for client and custodian. **Nooshinfard, F. (2011)**

Why do we need to evaluate WEBSITE? What criteria can we use?

The website evaluation study has been carried out based on the following methods:

- Checklist method - Nancy Everhart’s web page evaluation worksheet (1998)
- 10 C’s for evaluating internet resources- Betsy Richmond (2000)

- Five W’s of website evaluation, Kathy Schrok (2001-2003); Who; What; When; Where & Why.

- The quality criteria for website excellence using a 100 factor scoring system.

Evaluate the website in three steps – i) Usable ii) Useful iii) Desirable

The Library Website is part of the public image in the community. Library website can act as a mirror of library. It is nothing but virtual entrance to its collection, services, facilities, communication & other information.

Website is an effective tool for exploring library activities now days. To sustain in online environment continuous updating of site is must by webmaster.

Feedback form is an important feature of the website. SNS & interactive features in the libraries made Librarians to develop their own web pages.

ABCD is powerful tool for all libraries to create library website & also used as content management tool for libraries. ABCD allows librarians to build their own website themselves without any knowledge of web-technology or HTML coding. Dhamdhere, S. (2014)

SNS provided a chance to formal & informal communication with their colleagues or friends which helps to increase the knowledge and contact.

Web2.0 tools facilitate sharing, networking & dissemination information among users & other professional groups. Sarkhel, J.K. & Khan, M.M. (2014) with the library website it is possible to take library services outside the library walls.

Books are like people: they can become good friends, and you get to know them quicker when they come half way to meet you.

Conclusion of the Film Libraries on Wheels (1945)
1.4 Characteristics/ features of library website

A library website or home page should have below mentioned features. Khan, K.M. & Raju, C. (2013)

1. The Page should highlight the name of the library & its parent organization in an appealing manner.
2. Highlights of some important events, lecture series, book talk, book exhibition, special collection etc.
3. A brief listing of library services, hyperlinks of services is required wherever necessary.
4. Direct links of online resources given through library website which that particular library website subscribes.
5. Hyperlinks of Electronic journals, popular magazine, E-newspapers given through library page.
6. Information about latest conferences, seminars, workshops given.
7. Guideline of how to use library services, e resources, internet guide with Boolean operators, scholarly article search tips given.
1.5 Significance of the study

No one judge the quality of information found on the net before it is published, so we must evaluate the information available of the website. Some sites are created by experts or by Librarians who have experts in the field. However, the majority of World Wide Web sites are designed and authored by non-experts.

This study is to evaluate the status of library home page that links to the entire colleges/institutes website that comes under the jurisdiction of Mumbai district. A checklist has been used to gather the data for all library webpage to find out the innovative services in the library.

The library website continues to develop as an access to offer library services via web to the users. In the conversion it has included the features of web, offering distant access to data more simple and practical and is getting cheaper & to stay up with the latest. There is thus improving interest for the web empowered services to be given by the libraries. In India and elsewhere libraries have developed sites to show their resources.

Determine the purpose of the website by looking closely at the content of the information.
1.6 Need of the study

Anyone can create a website; No one has evaluated the accuracy of quality of the information found on the website. Some websites are created by subject experts. Some of the associated pages are authored by librarians who are experts in the field of information. It is not necessary that all the librarians are expert in website development. The vast majority of the web-pages are created by non-experts. Many times it was created by out of curiosity and not updated regularly. It is important to find out the author’s identity and his or her expertise in order to determine the credibility and reliability of the information.

Due to changeable size and nature of libraries, library caters for a large distinction in both the content size and area of operation. While a small library may focus on a narrow area of interest and maintain a small collection, a large library may possess millions of items. Some libraries only deal with limited library related activities such as cataloguing and limited circulation activities, while at other libraries the full range of facilities are in extreme use. Some of the existing library caters for a broad range of library types, collection size, and areas of use.

In a modern library system, not only meta-data is held about these objects, even the concrete objects are stored and managed. In addition to these, information about people, organizations, services, financial transactions, and more is also stored and managed. Simpler information systems may not possess and administer information on diverse objects and larger enterprise information systems that hold information about a wide range of objects.

Today, a typical library is frequently being used all through days, evenings, and occasions and is possible all through the globe by an extensive number of diverse sorts of clients. While all the bibliographic data is to be essentially accessible, other data on these frameworks is to be kept private. Hence, these frameworks need to favor an abnormal state of joint openness and security at all times.

Some of the intentions of this study are to detect various practices that are probably employed in order to institute ‘matters of certainties’, and to concentrate how diverse beliefs and criteria, which are used during the determination process, realize their
status and reliability and how accord and conclusion is reached. Therefore, Needleman, M. (2007) perspectives to impart an opposite analytical dimension as part of the theoretical framework for investigating parallel questions in relation to the LS strategy.

1.7 Scope of the study

This study will give snapshot of value added services that are required in the library website. This will help to market library services & resources through the site that reflects the institution as well. Research output will help the librarians & web designers to increase the frequency of visits & fulfill user’s satisfaction with the implementation of new services in a site.

Applications of innovative techniques in libraries will result in a significant change in library collection and methods of mode of services.

Application of innovative and interactive tools is likely to improve popularity in the group. These innovative services are likely to make libraries more visible and better place.

The library homepage are image of their resources and services. It provides rich quality content that plays a principle role in teaching & learning. Web content of the library gives more accessibility than to the physical library. The library websites act as knowledge gateway to provide direct answer to their users. Study recommends dynamic library websites in Colleges & University coming under the jurisdiction of Mumbai District with useful content & value added services for wider use.
1.8 Limitations of the study

The study excludes personal web pages, blogs, websites created by Library professionals and other faculty giving personal information and achievements not linked to the institution website.

Website providing basic library information like rules & regulations, library staff and timings are not considered under this study. It is understood that all the basic information are available in all the libraries homepage. The study excludes the website where dynamic content are available regarding institution but very little library information was available on the website. However, IIT, BARC, TIFR and TISS (Deemed University) included in the study.

The study excludes the other criteria of website quality as user interface feature, usage and analytics of web etc.

1.9 CALS Approach As Compared with Other Information Systems

Coming to core study approach we can analyze that, different information systems have been the subject matter of previous investigations. A consideration is therefore, needed to delineate characteristics of CALS to permit positioning of CALS in a comparative scheme. This would allow a more informed comparison of a CALS with other IS. The characteristics imparted here can be confirmed by appraisals of introductory material and textbooks in the field as well as a review of the information provided on the web by the vendors, and libraries’ websites.

CALS are widespread enterprise information systems that are used in libraries throughout the world. The CALS accessible on the market can differ from each other based on their technical abilities and the type of library that they execute. On the other hand, some of the obtainable systems can be personalized to meet the needs of different types of libraries and can function on numerous hardware platforms allowing the use of various operating systems and other third party products. That is to say, the same product can be tailored to match different technical environments and user needs. Moreover, CALS are used in both very small libraries as well as sizable libraries with
tens of branches, situated in diverse geographical locations. In recent times, it has even become common for a number of libraries to come together and use the same CALS in a consortium to administer their joint collections and activities.

Libraries normally provide varying types of users, each with different needs, necessitating a high level of sophistication in indexing, classification, and information reclamation. CALS are adaptable and demeanor a range of different errands from ordering and financial accounting to keeping record of the schedules for regular and irregular serials and loan transactions, to supervise information and more. In addition to these, convenience to other internal and external resources and services, stipulation of portals, and self-service functions are universal.

**Virkus, E.S. (2008)** in agreement with Nelson Goodman, states that our language and our social life are so intermingled that our habits of speech help determine the way we see the world and thus help form the basis for social interactions. However, he proposes that although Goodman may have resolved a philosophical problem, he has not unraveled the sociological puzzle as he fails to answer questions such as how we first came by these particular orderly ways of seeing, how we maintain them and how we develop new ones. Outlook is that at times there are a number of uniformly ensconced terms accessible, therefore, the subsistence of ensconced terms “does not explain the orderliness of any mode of perception. He then elaborates the discussion to all perceptual modes, from language to every cultural activity and asks whether there subsists a set of rules fixed within our brains that accede us to systematize sense experiences, and recommends that Wittgenstein’s analysis of rule following suggests that such an uncomplicated solution would be unsustainable.

**Laura, B.C. (2003)** presents that we all know the exact way of following a rule and disagrees that this is not due to rule’s specifiability. Thus, while suggesting that there must be something more to a rule, he advocates that this something is ‘social convention’. According to Laura, puts this in saying that we know how to go on in the same direction as we share a ‘form of life’

An investigation was executed by **Julie, A. & Wagner, C. (2010)** on information sources that were accessed by librarians during the LS change process. That study incorporated all Swedish libraries that had gone through the acquisition of new LS during the years between 2001 and 2005. The consequences of that study revealed that
very few of the concerned library staff had accessed written sources in their search for related information. Of those few written sources that were used, not many were of the type of guidelines cited above. The purpose for this can be many, but what this information signifies is that the suppositions that fortify this gigantic sea of literature are dubious.

A number of articles in other fields deal with technology acquisition and other pertinent issues such as subsistence of qualitative characteristics in multiple characteristic strategies Gruber, A. B. (2009) emphasize that various techniques of assisting manifold characteristic strategy lack sufficient procedures for dealing with qualitative attributes. Consequently, they build an attitude that comprises value functions and paired comparisons. Though that attitude enhances on previous techniques by contemplating the subsistence and significance of qualitative attributes, it does not resolve the problem of LS strategy process for at least two causes. First, that methodology is build with a single strategy maker in mind and does not provide for the intricacy of organizational group strategy making. Second, the qualitative characteristics that enter a LS strategy process are exorbitant and generate a complication that cannot be sufficiently addressed by that approach.

The topic of this research concerns to the process in which library’s future CALS is determined. In this study, this is called the CALS decision process. The cases included in this study were selected because in each one, the associated libraries were about to board on the procedure of making a decision related to the future of their CALS, despite of whether it directed to LS change or LS selection. As the study outspread, discrepancies became apparent in whether or not a selection process took place, whether or not a procurement process was penetrated into, or whether or not the present CALS supplier was substituted. Regardless of these discrepancies, it was apparent “what this research subject is a case of”. I intended to study the decision process and activities that related to the future CALS used at these libraries. Therefore, it was probable to structure a general view about the activities, people, and documents that were to be integrated in the study from the commencement.

The recognition and assortment of the data took improved structure as the cases advanced, and the list of people, meetings, and documents incorporated in the study
were attuned correspondingly. That is to say, a procedure that have entitled as the CALS decision making process was trailed. Allied activities, documents and pertinent people were acknowledged and incorporated in the study. When it came to each process and its period, it was effortless to spot the cut off point for the conclusion of each case. The opening point was rather less definite as informal talks and efforts could start a number of years before the official decision to commence a more proper process. Participation in each case commenced before, or concurred rather closely with, the official start of each CALS decision process. To acquire access to the history and milieu that had directed to the process initiations, attempts were made to shape a retrospective account of such events by accessing related documents and through interviews.

In study, a number of people were recognized as main people in the process. Some of these people met at number of times, executed various errands, prearranged various activities, and conversed among themselves and with others. Such activities were integrated in the case studies and pursued. In order to eradicate the peril of omitting essential information or activities, the methodology implemented was to incorporate more rather than less of what might demonstrate to be of significance or concern. Therefore, some data related to other events and activities that could some way be linked to the CALS selection were collected, but of course again only as far as the conditions and participants permitted. This integrated scrutinizing meeting at a higher level where for example, the funding or strategic issues related to the library and the CALS selections was discussed rather than just the meetings at the genuine library. Even talks with people representing all levels of staff who possibly were not unswervingly concerned in the selection decision were also incorporated in the case studies.

The opening point in the current investigation is that preceding research on other information systems in other organizational settings does not furnish us with sufficient understanding of the CALS strategy process within libraries. CALS and their technical and social contexts have distinctive properties that make them constructive as objects of research in their own right. As a feasibility study of pilot research, we collected data regarding library websites of IMR [Institutes of Mumbai Region].
As per feasibility study, it was concluded that there are common features available for all IMR Institutes of Mumbai Region. As there are similar contents available on almost all IMR and all are static contents. So, analyzing such contents it is not possible to conclude future recommendations. Hence as a further stage of research study, focused over dynamic content library systems including “Web-OPAC”. This study analyzed such Web-OPACs in further chapter which led to define our CALS strategic approach in a practical manner.

In the next sections, researcher concisely confer a few characteristics of CALS in order to impart an impression of understanding of these systems in contrast with other organizational information systems, which are normally studied within the field of IS.

**1.10 Organizational Strategy Theory**

Rich, L.A. & Rabine, J.L. (2001) imparts the long tradition in strategy theories of implementing a perception of ‘from within’ the institution of strategy, whereby some
fundamental characteristics are taken for granted by the researchers, just as they are taken for granted by others in the same culture. In this view researchers impart general institutional assumptions such as regarding ‘choice’ and ‘strategy’ as tantamount, or screening strategies as deliberate acts, or that both the cause and effects of strategy’s include choice. That is to say, both the objectives with, and the results of, strategies are seen to be choice of action.

An optional perception is that of looking at strategy making “from the outside”. A decisive perspective where institutional characteristics are not taken for granted and undeniably a question of study could be “why certain things are taken for granted”. In this viewpoint, therefore, it is not taken for granted that the causes and effects of strategies are choice of actions, nor is it taken for granted that there is essentially any relation between strategy and action, or that a high degree of rationality is endeavored for or that rationality is attainable. Assuming this stance rather prompts other types of questions such as:

what gets people to make strategy’s, when or in what situations are strategy’s made and when are they not, and what actions are preceded by strategy’s and which ones are not? Who are allowed and willing to act as strategy -makers in various contexts, and what are the requirements, the incentives and ways of achieving the authority to perform the role? What are the effects of strategy’s, and are there other effects apart from action choices?

It is this, “from the outside” perception, that is advocated by Robbins S.S.& Stylianou,A.C. (2003) and is employed to his examination of strategy making in organizations, and the strategy making’s consequences for action and change.

Rather than viewing strategy as synonymous with choice, Robbins argues for considering strategy as “an institution – as a well-known pattern of action with a ready-made account and with rules that are taken for granted”. Strategy making is the associated process. Customarily, the strategy making process has been perceived as involving the identification of needs and wants, assessment of the prospective alternative options, and a rational selection of the best result.

Robbins questions both the general expectation in traditional theories, that individuals and organizations are to be rational, and the supposition that this rationality is likely or
that the lack of it is a problem. Normative strategy theory sticks to rational norms for attaining the best strategies. As explained by Robbins, the general normal expectations in rational strategy making are that one should envisage preferences, produce action alternatives, forecast all consequences of each of these alternatives and then contrast and appraise all of the consequences in order to select the best potential outcome. In practice, it has been shown that following the rules of rational strategy making is complicated and divergences arise. Strategy are frequently based on current preferences although they may transform later, very few alternatives are usually taken into consideration, consequences are not often known and are often considered by the rule of thumb and even when strategy are made, one fails to function according to. Even so, in normative strategy theory, these divergences are not seen as undermining the norms themselves. The underpinning view is that in order to choose the best alternative, one should struggle to chase the rational norms, as strongly as one can, although this is not completely possible.

In an alternative view, “strategies are seen as ways of finding out the choice prerequisites rather than the other way round”. Here, instead of waiting for uncertainty to be dissolved before the strategy, the strategy can be used for dissolving uncertainty where at times strategies are not associated with choice at all. In line with this view, Robbins secedes the strategy process from choice (a strategy process does not necessarily lead to a choice, and a choice can be made without the presence of a strategy process) and therefore, strategy from action.

George, C.A. (2005) gets encouragement from related research to demonstrate that people habitually use other forms of intelligence embracing imitation, rule following or experimentation, and that divergence from the rational norm is customary. While, conventionally a regular supposition has been that individuals and organizations pursue a premeditated and cogent logic, the perception anticipated by George is to look at strategy making as instances of rule-following. Rather than being directed by prophecies of future states and selecting the preeminent outcome based on meticulous assessment of all the options, one is directed by previous thoughts where accessible rules guide the actions. Rules regarding apposite actions can regularly be recognized by shared beliefs and norms, which can generate an analogous blueprint of actions.
among those who share these beliefs and norms a view in which exclusive consideration is paid to social institutions and cultural systems of beliefs and norms that people take for granted. George illustrates social institutions as sets of very general rules which affect many people’s actions in various social settings, thus explaining much individual and organizational action.

**Sin, S. C. J. et al (2011)** puts forward three stipulations for organizational action: expectation, motivation, and commitment. The first two stipulations, expectations and motivation, are susceptible to ambiguity. If organization members are unsure of what outcome can be expected or are uncertain of an action’s value, they are less probable to embark on the necessary individual actions. The third stipulation, commitment, is the social aspect of action. In order for people to be enthusiastic to partake in a common act, they will necessitate some kind of check over one another in being proficient to rely on particular types of attitudes and behaviors in the rest of the team. “This control is secured by creation of mutual commitment”. These conditions are not jointly autonomous and their significance differs with the situation. Therefore, in authentic strategy situations the standards of rational strategy making are not always pursued nor are these most constructive as these standards can counter the conditions for action. Therefore, Sin argues that in “big” strategy’s, which are to be used in productively instigating potentially perilous change action ‘strategy rationality’ is less helpful, and recommends that here action would be aided by “action rationality” which includes amalgamation of rule following and systematic irrationality and refers to circumstances that direct to endorsement of the significant conditions of action identified above.

Adopting **Harms, I. & Schweibenz, W. (2001)** views as a lens through which the CALS strategy process is scrutinized is such an attempt where an alternative perspective to the customary views is held. This has a number of chief inferences for this study. First, the types of research questions that are posed are dissimilar to those asked in conventional rational strategy models. Rather than looking for normative strategies to exploit efficacy, questions are asked associated to the reasons and consequences of the strategy process. Second, implementation of this view influences the position that is held in this study and the types of analyses endeavored. Harms take a ‘from-the-outside’ stance and consider strategy making as occurrences of rule-following. Rather than supposing that the upshot of a LS strategy is the option of a
system, for example, prospective alternative outcomes have been permitted attention and space.

1.11 Concluding Remarks

Library exercise, with its principal business being the organization and management of a substantial quantity of information, comprises an interesting organizational setting, rendering CALS, as the chief information system in this particular area of practice, worth investigation. The findings of this study could be, therefore, constructive in expanding our insight of associated issues in the area of library science. Although a CALS is analogous to other IS in a many modes, there are also disparities between CALS and other systems formerly investigated. A number of issues related to the specialized nature, organizational contexts, and social aspect of CALS add to the discernible significance of this study.

At end of present thesis, we presented interactive study about how can we implement new system with adoption of all positive aspects of online library and rectifying negative element.