CHAPTER 4

STATE -OF –THE-ART UNIVERSITY LIBRARIES, KARNATAKA

4.1 HIGHER EDUCATION IN INDIA: A Brief Introduction

Higher education in India today is the target of many positive challenges such as: fast-track growth in the enrolment ratios to achieve inclusive growth; substantial improvement in the quality to face the competition from global players; transformation from the current exam and text-book centric model to research and learning centric model; developing capacity to create new knowledge that contributes to the growth and development of the State and the Nation. In this context, Library assumes an all important role as a critical and essential medium in the University and college campus for access to the global knowledge. The learning system in higher education, without doubt, will have to become library-centric if knowledge for development is the mission of the State.

India's higher education system is the third largest in the world, after China and the United States (Agarwal, 2006). The main governing body at the tertiary level is the University Grants Commission (India), which enforces its standards, advises the government, and helps coordinate between the centre and the state. Accreditation for higher learning is overseen by 12 autonomous institutions established by the University Grants Commission.

As of 2011, India has 42 central universities, 275 state universities, 130 deemed universities, 90 private universities, 5 institutions established and functioning under the State Act, and 33 Institutes of National Importance. (UGC, 2011) Other institutions include 16000 colleges as Government Degree Colleges and Private Degree Colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions. The emphasis in the tertiary level of education lies on science and technology. Indian educational institutions by 2004 consisted of a large number of technology institutes. Distance learning and Open education is also a feature of the

Indian higher education system, and is looked after by the Distance Education Council. Indira Gandhi National Open University is the largest university in the world by number of students, having approximately 3.5 million students across the globe. Some institutions of India, such as the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), National Institute of Technology (NITs) and Jawaharlal Nehru University have been globally acclaimed for their standard of education. The IITs enrol about 8000 students annually and the alumni have contributed to both the growth of the private sector and the public sectors of India.

The University Library

The fundamental role of a university library is to provide the scholarly resources to support the research and teaching needs of its faculty and staff. Currently library facilities in higher education institutions are not in tune with the global standards. There is a huge gap between the total books published globally and the acquisition of books in Universities in the state of Karnataka. It is estimated that individually our universities in the State are buying less than 3% of the total production of non-fiction subject books. Even what they are able to buy collectively is less than 10% of what is published and needed by them. This is also further evidenced by the existing scenario of poor funding to universities and colleges for purchase of Books and journals by the Government of Karnataka. Out of the budget allotted to Higher Education in the state hardly around 0.5% is being spent for the purchase of reading materials in our colleges and universities.

Service to users: All libraries are challenged to meet their patrons' changing expectations. For an academic library to remain a vital and well-funded member of the campus community, it must provide resources in ways that its patrons would like to find them. In the context of the internet's vast and easily-reached content, the campus library is no longer the automatic source of information and knowledge. Library 2.0 is a vision of providing seamless access to a wide array of sources for a distant population of users.

Collection Development: Libraries are in the business of building collections, of which IRs are potentially a new type. In addition to gathering community created material that may have been published elsewhere, IRs may enable libraries to gather and organized unique materials such as gray literature, datasets, multimedia works, and student scholarship, as well as digitized copies of research material that the library already owns.

Such exclusive collections are gaining importance as a measure of library quality. As more users want material in digital format, libraries are recognizing that they cannot be first and foremost storehouses for bound volumes. Print is being transformed and moved off-site. Many special collections are being digitized to enable wider access.

Preserving access to licensed content: A growing proportion of library holdings are licensed. In addition to its high cost, there is the problem of retaining access to this material once the license ceases. Libraries make efforts to negotiate licenses that promise "everlasting access" but many providers simply cannot guarantee this – nor is it in their interest to do so. There have also been calls for libraries to "demand archival deposit by publishers as a condition of licensing electronic journals." (A. Foster, 2006)

Promoting Open access: Among the original justifications for building IRs is that they support Open access. Consequently, major funders such as the NIH and the Research Councils of the UK consider Institutional Repositories one potential home for long-term storage of research results. This may be accomplished by posting copyrighted material after a set embargo period, or by authors self-archiving their work (pre- or post-publication). For libraries, the advantages are not only the possibly lower cost of acquiring this material but also the possibility of preserving it.

Pros and cons: Building an Institutional Repository would allow libraries to address all these concerns; improved service, collection-building, preserving digital content, and supporting Open access—but will require them to take on new tasks. Digital preservation, for example, requires an ongoing commitment to refresh or

move about materials into new formats, with unknown long-term costs. Similarly, the push for libraries to collect and disseminate unpublished material may call for new roles such as peer review that are generally coordinated by publishers.

Though there is a wealth of resources on a host of subjects in all University Libraries of the state of Karnataka, situation today is as follows:

- There is no efficient method for academic scholars in these universities to benefit from the widely held collections.
- Majority of academic scholars particularly in the rural regions served by the Universities, do not have access to useful resources.
- There is significant overlapping of resources across all the University libraries since none of them is aware of the resources of each others.
- Lack of trained library professionals in University Libraries in using newer technologies, particularly web technologies and how to utilize resources on the web for the benefit of students and faculty.

Many research studies have established that the situation of libraries in Universities and colleges in the state are not satisfactory in meeting the academic and research needs of Higher Education. Further, Karnataka Knowledge Commission (KKC) Government of Karnataka have also recommended for revamping of our University and college Libraries. KKC has appointed a study group to study the status of academic libraries in the state and to come out with recommendations for their improvement. After detailed deliberations, the working group has come out with the following issues for the consideration of KKC and for making necessary recommendations to the Government of Karnataka:

4.2 THE STATE OF KARNATAKA: A Brief Introduction

The state of Karnataka is situated on table land where the western and Eastern Ghats ranges converge into the Nilgiri Hill complex. It is confined roughly 11.5 degree

north and 18.5 degree north latitudes and 74 degree east and 78.5 degree east longitude. The state is bounded by Maharastra and Goa States in the North; by the Arabian Sea in the west; by Kerala and Tamilnadu states in the south and by the state of Andhra Pradesh in the east. The State extends to about 750 km from North to south and about 400 km from east to west and covers an area of about 1,91,971 sq.km. Physiologically, the state can be divided into four regions. They are; Coastal region, the malnad, the northern plains and the southern plains.

Karnataka is the eighth largest state in India both in area and in population. In an independent India, when the new state of Mysore was created in 1956 by the states Reorganisation Act, it was not only a grouping together of Kannada speaking regions, but a reintegration of the people who after a rich history over 1500 years, were dismembered under British rule. The name of the state was changed as "Karnataka" on November 1, 1973.

4.3 HIGHER EDUCATION IN KARNATAKA: Prior to Reorganisation and Post Reorganisation of the State.

Education development in any country is one of the indicators, which normally determine the level of economic and social developments. The educational system in the state has been gradually built up to meet economic and social needs. Karnataka being far away from the university centers like Madras and Mumbai, could not get the advantage of modern university education in the early days of the establishment of these universities and suffered a great disadvantage in educational matters in the 19th century. Even important cities like Bangalore, Belgaum, Mysore and Hubli-Dharward had to wait for decades to get a University Institution.

The earliest college to come into existence in the entire Karnataka territory was the Second Grade College started by Madras Government in Mangalore. F.A. class was started in Government High School that was already in existence in Mangalore in the year 1868-69. The Name of the college was changed to Government College in the year 1879. The Government High School at Bangalore which was

called Bangalore High School at that time was upgraded into a college in the year 1875. It was named as Central College.

Higher education got a boost in the state in the 20th centenary. Mysore University, which was established in 1916, was only the sixth university to be established in the entire country. In Mangalore the Carmelite sisters started the St. Ann's College for women. In the Belgaum area, the first college was started only in 1917. The Karnataka Lingayaths' Education Society (KLE) opened colleges in the 1930. By 1947 there was no provision of any kind in the Gulbarga area for higher education and it was only in 1930 that intermediate classes were started at Gulbarga.

At present, there are 356 Government degree colleges, 297 private aided degree colleges, 815 are general degree colleges, 128 engineering colleges, 37 medical colleges, 43 dental colleges, 111 pharmacy colleges, 49 Ayurvedic colleges, 166 nursing colleges, 170 polytechnic colleges, 12 homeopathy colleges. Among these, there are government colleges, fully managed by the Government under the Directorate of Collegiate Education, private aided colleges fully managed by the private management. University colleges, also called as constituent colleges run and managed by the concerned universities (MHRD, 2011).

Table 4.1 List Universities in Karnataka

Sl. No.	University Name	Estd. Year
1	**Bangalore University, Bangalore-560 056**	1964
2	Davangere University, Shivagangothri, Davangere –577 002	2009
3	**Gulbarga University, Gulbarga-585 106**	1980
4	Kannada University, Hampi, Bellary District,Kamalapura-583 276	1992
5	**Karnataka University, Dharwad-580 003**	1949
6	Karnataka State Women University, Bijapur-586 101	2004
7	**Kuvempu University, Shankaraghatta-577 451**	1987
8	Karnataka Veterinary, Animal & Fisheries Science University, Bidar-585 401	2010
9	Karnataka State Law University, Hubli	2009
10	Karnataka State Open University, Mysore-570 006	1996
11	**Mangalore University, Mangalore-574 199**	1980
12	**Mysore University, Mysore-570 005**	1916
13	National law School of India University, Bangalore-560072	1992
14	Rajiv Gandhi University of Health Sciences, Bangalore-560 041	1994
15	Rani Channamma University, Vidyasangama, Belagavi – 591 156	2010
16	Tumkur University, Tumkur-572 101	2004
17	University of Agricultural Sciences, Bangalore-560 065	1964
18	University of Agricultural Sciences, Dharwad –580 005	1986
19	Vesveswaraiah Technological University, Belgaum-590010	1999
20	Vijayanagara Sri Krishnadevaraya University, Bellary– 583 104	2010

Table 4.2 List of Deemed Universities in Karnataka

Sl. No.	University Name	Estd. Year
1	B.L.D.E University, Bijapur	2008
2	Indian Institute of Science, Bangalore	1958
3	International Institute of Information Technology, Bangalore	2005
4	J.S.S. University, Mysore	2008
5	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore	2002
6	K.L.E. Academy of Higher Education and Research, Belgaum	2006
7	Manipal Academy of Higher Education, Manipal	1993
8	National Institute of Mental Health and Neuro Sciences, Bangalore	1994
9	NITTE Univesity, Mangalore	2008
10	Sri Devaraj Urs Academy of Higher Education and Research, Kolar	2007
11	Sri Siddhartha Academy of Higher Education , Tumkur	2008
12	Swami Vivekananda Yoga Anusandhana Samsthana, Bangalore	2002
13	Yenepoya University, Mangalore	2008
14	Christ University, Bangalore	2008
15	Jain University, Banagalore	2008

Source: http://www.ugc.ac.in

4.4 UNIVERSITY PROFILE

4.4.1 University of Mysore

The University of Mysore is among the prime institutions of its kind. It was founded by the then Maharaja of Mysore, His Highness Sri Krishnaraja Wodeyar IV and his Dewan, the distinguished engineer-statesman Sir M.Viseswaraya, on July 27, 1916. The Maharaja of Mysore became its first Chancellor. The University came into existence on the basis of a report on educational progress in the USA and Australia, submitted by Messrs Thomas Denham and C R Reddy who visited these countries respectively (Mysore Gazette, 1993, p.2).

The Mysore University became the first University outside the domain of the British domain of the English administration in India, the sixth University in India as a whole, and the first ever University in Karnataka. It is a state general University of the affiliating type, and turned autonomous on March 3, 1956, when it got recognition from the University Grants Commission (UGC).

The main campus of the University shaped in 1960, lies in a picturesque area of 739 acres at the western end of the Kukkarahalli Lake. The University headquarters, the Crawford Hall is located right across the lake on the eastern end. This inspiring background of the campus was aptly named Manasagangothri (Fountainhead of Ganges of the Mind) by the poet-laureate, Dr.K.V.Puttappa (KUVEMPU). In due course, three satellite campuses were set up in response to the demands of postgraduate education from rural areas: Sir M.Visveswaraya Postgraduate Centre at Tubinakere, Mandya, Hemagangotri, Hassan and Chamarajanagar satellite PG Centre, Chamarajanagar.

The University has 196 affiliated colleges and 5 constituent colleges during 2010-11 with 82,908 students (95th Annual Report 2010-11). In addition, the University has 43 postgraduate departments, 11 dedicated research and training centres and 3 postgraduate centres that together offer about 60 regular academic programmes to 4,500 students. It also runs a number of employment oriented courses viz. 28 one year PG Diploma courses, 9 two year Diploma course and many certificate programmes.

The postgraduate departments are mediocrity in advanced studies and research and have attracted projects and grants worth crores of rupees from many institutions across the world.

4.4.1.1 Mysore University Library.

The University Library is one of the largest University libraries in the country. It has a glorious record 95 years of service with a resource collection more than 8 lakh volumes in its system today. It was originally established in the Jubilee Building with a core collection of 2,211 gift books in 1918, then moved to Maharaja's College campus and finally to its new building in the postgraduate centre in 1965. The foundation stone of this functional building was laid by the first UGC Chairman, Prof. C.D.Deshmuk, on July 11, 1960, and it was inaugurated by then President of India, Dr. S Radhakrishnan, on December 7, 1965. The library collection was shifted from the Maharaja's College building measuring 83,576 Square feet in floor area is modular and functional, housing precious archival and rare material collections.

The University library has total collection of more than 5 lakh books; subscribing to 252 Indian journals, 20 newspaper, 24 magazines, 10 online databases and more than 7000 e-journals through JCCC; it has around 13000 reports and Govt. Publications, 15000 theses and dissertations; more than 10000 bound volumes of journals; 250 microforms; 25 audio cassettes, 40 video cassettes, and more than 40 CD-ROM databases.

4.4.1.2 Vidyanidhi: Mysore University IR

The Vidyanidhi is a national digital library for electronic theses and dissertations (ETD), initiated by the University of Mysore in 2002 and supported by the Department of Scientific and Industrial Research (DSIR), Ford Foundation and Microsoft India. Vidyanidhi aims at enhancing visibility of Indian doctoral research through archiving and disseminating doctoral dissertations of researchers submitted in Indian universities to a global audience. This is a national level Repository, covering major Indian universities. Presently, 5482 full text thesis available in its portal. In 2000, financial

support for a pilot project was approved by Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Research (DSIR), Government of India.

As more and more individuals, universities and institutions become a part of this consortium, Vidyanidhi will come closer to achieveing its goal of becoming a national Repository of Indian e-Theses.

Vidyanidhi maintains mainly two kinds of databases, a bibliographic database and full text Repository using DSpace software. Its bibliographic database has interfaces for simple search, advanced search, field-specific search, subject search, supervisor search, author search, and search in Indian Languages Kannada/Hindi. Vidyanidhi also maintains an experts database, where details of university faculties can be searched by the name of the guide or research area. If electronic copies of doctoral theses are available to partner universities, they could immediately be uploaded to the Vidyanidhi Electornic Thesis Database (ETD) database.

The electronic theses Repository can be browsed by name of the communities, name of collections, title of theses, name of researchers/authors, and by date. This Repository can be searched by any metadata element or combination of elements (using Boolean operators), such as keywords, subject, and title of theses, name of the researcher and name of the university. The information retrieved from the execution of a search query leads to retrieval of full-text contents of theses. Vidyanidhi is listed in and harvested by many online directories and metadata harvesters such as Google Scholar, OAIster, OpenDOAR, and CASSIR. Vidyanidhi is currently focusing its R & D efforts towards Unicode and XML implementation for Indic scripts, Cross Language Information Retrieval and Topic Ontology.

Vidyanidhi offers access to more than 1,00,000 Indian theses metadata and also Unicode compliant, it includes 1500 records in Kannada for Kannada theses and 4000 record in Hindi Language. It enables to 5482 doctoral theses, to view, access and download and available in full text searchable PDF format.

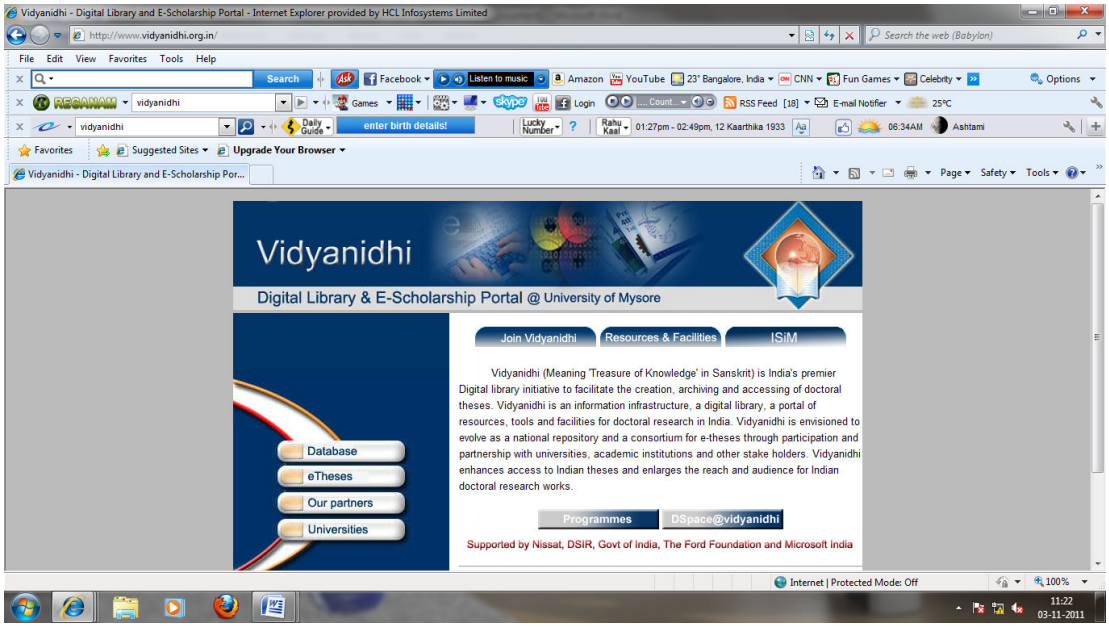

Figure 4.1 Screenshot of Mysore University Repository

4.4.2 Bangalore University

Bangalore University located in the Garden City of Bangalore aptly hailed as the "IT capital of India" was established in July 1964 as an offshoot of the University of Mysore, primarily to include institutions of Higher learning located in the metropolitan city of Bangalore and the districts of rural Bangalore, Kolar. Initially, the two premier colleges of the city, the Central College and the University Vivesvaraya College of Engineering formed the nucleus of the Bangalore University. Started as a nucleus of Science centres of the Mysore University, it was endowed with the status of University in 1964. Though originally intended to be Federal University comprising of leading institutions of higher education in the city, it eventually emerged as an affiliating University. It grew in size and variety enormously in a short time. Even after medical and engineering college were all taken away from it to form two specialized Universities recently, the Bangalore University still commands student strength of 3, 25,000. It has as many as 473 constituent and associated colleges and over 70 post graduate departments, possibly the largest University in India. Of the four constituent colleges that the Bangalore University

administers the Central College and the University Viseswaraya College of Engineering are justly famous all over the country.

The Bangalore University was carved out of Mysore University on July 10, 1964 as a federal University. The central college established in 1858 served as its nucleus. The jurisdiction of the university extended to greater Bangalore city and to the districts of Bangalore, Tumkur and Kolar. With the aim of bringing uniform law for all the universities in the state the Karnataka State Universities Ordinance 1975 was promulgated with this the university lost its federal character and became an affiliating university. In the beginning the university had 30 affiliated colleges and 14 postgraduate departments.

The campus of the University "Jnana Bharathi" is located at South-west Bangalore City on the Bangalore-Mysore (SH17) road covering an area of about 1,100 acres of land. The University has also retained its city campus wherein few postgraduate departments and administrative offices are housed even now. At present the University has 41 postgraduate departments, 473 affiliated colleges with total student enrolment of 3, 25,000. From 1996 all medical and related colleges and engineering colleges to Rajiv Gandhi University of Health Sciences, Bangalore (RGHS) and Visweshwariah Technological University, Belgaum (VTU) respectively. The University is offering 41 different subjects/courses at postgraduate level under the different faculty. The university is awarding M.Phil as research degree, Ph.D. as doctoral degree.

The University has as well established wings of distance education. A number of leading Universities from USA, Germany, Japan, Britain, France, Egypt, Nepal and other SAARC countries have signed MOU's with the Bangalore University with a view to nurture and strengthen academic co-operation in relevant areas in Science and Technology.

Facilities

- Prasaranga is a publication unit of the University and is located at Campus.
- Health Care Centre
- Gymnasium with facilities for indoor games
- The University Science Instrumentation looks after the maintenance and servicing of the instruments of the user departments in the University. USIC also conducts refresher courses for college teachers and training for interested students.
- Seven hostels on the J.B. Campus and three on the City campus.
- The Bio-Park is a novel idea proposed on the 600 acres of land in the J.B.Campus.
- Robotics and cyber centre,

4.4.2.1 Bangalore University Library

The Bangalore University library is as old as the Central College (1865) and its library, both of which now form the nucleus of the new University. At the time establishment of the University in the year 1964 the Central College library had a total 54,000 volumes and was subscribing to 329 journals.

The Library was reorganised and procedures were streamlined following the recommendations of the committee of experts headed by Sr. B.S. Keshavan, Director of INSDOC, and New Delhi. The new University library building with a carpet area of 80,000 sq.ft With provision to accommodate 5 lakh books and a seating capacity for 500 students at a time was built at new campus Jnanabharathi costing ` 35, 00,000 was declared Open by the Dr. D.C.Pavate, former Governor of Punjab state. Part of the library collection was shifted to the new building in the new campus.

The different wings of the six-winged stat shaped library building houses the following divisions;

- Department of Library and Information Science
- Reading Room
- Current Periodicals hall
- Stack and Reading room
- Browsing hall
- Office

The library has collection of 3, 50,000 volumes of books, it subscribes to 450 periodicals, 36 popular magazines. It has 50,000 back volumes of journals; more than 2000 theses and dissertations; and 100 CD-ROM's.

4.4.2.2Institutional Repository of Bangalore University.

The recommendation of National Knowledge Commission (NKC) for providing "free" high speed internet connect to all Universities and colleges in the country, and its implementation already in progress under 11th plan funding is a clear pointer to the fact that campuses from now on will function in a networked digital environment. This new digital eco-system is a great bonus and solution to many of the past print-age problems of our libraries. Our higher education system in the State will now need a new library design and architecture which will function as a digital library cooperative.

Bangalore University has signed an MOU with Digital Library of India (DLI) for digitization of rare books available in Bangalore University Library. Already a mega Scanning Centre has been established in the University Library with eight scanners. Now the DLI has agreed to enter in to MOU with UNILINK to support the Rare Book Digitization of the University Libraries in the State of Karnataka. DLI has agreed to supply High End Scanners at free of cost on loan basis. Only the manual labor cost at the minimum has to be borne by the UNILINK. This will enable the UNILINK to develop an Open access portal of rare books of all the Universities and Colleges for the benefit of public at large.

Development of a Knowledge Portal Application

The Knowledge Portal (KP) Application is envisaged as a configurable application which can be used by a university library to configure various types of web resources (e.g., free and paid bibliographic databases, Open access and other e-journals, search services for full text, learning objects, course ware. In addition the KP will provide social networking capabilities to enable students and faculty to exchange knowledge and experience. An important element of the KP application is the appointment of a Knowledge Grid Administrator who will facilitate the development of specialized applications and also ensure that participating institutions provide the needed support to develop resources and also ensure that expertise available in these institutions is properly leveraged for mutual benefit.

Knowledge portal will also include Common Institutional Repository (IR), this IR will provide services to faculty, researchers, students and administrators who want to archive research, historical and creative materials. Unlink plans to generate funding for these activities in a later phase through membership revenue.

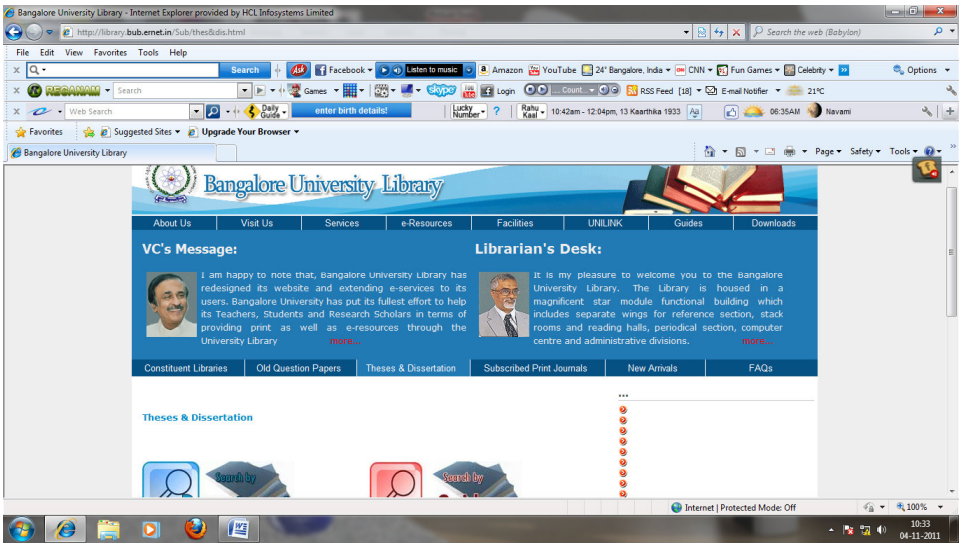

Figure 4.2 Screenshot of Bangalore University Repository

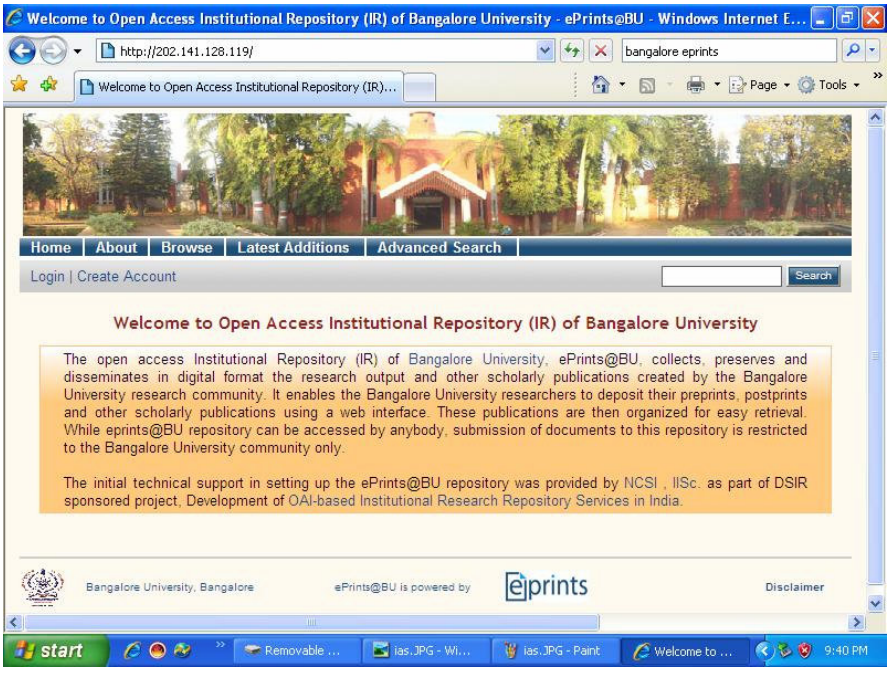

Figure 4.3 Screenshot of redesigned Bangalore University Repository

4.4.3 Kuvempu University

Kuvempu University, came into existence on June 29, 1987, vide Karnataka University Act No.25 of 1987. Before the establishment of the University, it served as the postgraduate centre of the Mysore University at the same was upgraded and transformed into an independent university. The territorial jurisdiction of the university extends to the area comprising four districts of shimoga, Chitradurga, Davnagere and Chikkamagalore. The University is named after the national Jnanapith awardee Poet 'Kuvmepu'. It is located at "Jnana Sahyadri" Campus, a pleasing location enjoying the bounties of nature, scenic beauty providing an ideal atmosphere of higher learning. The campus is located on the upper hill of 'Bhadra Reservoir Project'(popularly called B.R. Project) on the bank of Bhadra river in Shimoga district surrounded by the Western Ghats with forestry is 28 kilometers from shimoga city, 18 kilometers from industrial town Bhadravathi. The university has 124 affiliated colleges, and 4 constituent colleges administrated by the university. There are 45 postgraduate departments of teaching and research.

4.4.3.1 Kuvempu University Library

The Kuvempu University Library was established along with the postgraduate centre, B.R. Project in 1973. The Library building is designed to suit the modern requirements. Its special feature is an independent unit of e-resources of information. The library acts as a centre of academic excellence and research pursuits catering to the needs of teaching faculty, research scholars and students of all the postgraduate departments.

In the beginning, the collection of the library was 15,000 the collection has been grown enormously. At present the library has 70,000 books, 4124 back volumes of journals, 470 theses and dissertations, the library subscribers to 273 journals, 31 magazines and 21 leading news papers. The library has 30 professional staff and 9 other supporting staff.

4.4.3.1.1 Special services offered by Kuvempu University Library

The Kuvempu University Library provides the following special services:

a) Campus Wide Network Management:

Digital Library Section of the library controlling and monitoring the entire campus Internet connectivity through BB VSAT 256 kbps speed. Around 200 nodes have been connected throughout the campus in different blocks.

b) Digital Library:

University Digital Library has been established on May 27, 2005. This was inaugurated by Prof. Nigavekar, Chairman, UGC, and New Delhi. University library providing the facility to access e-journals, e-databases, abstracts & indexes under UGC-Infonet E-Consortia Programme.

c) Network Operation Centre (NOC):

University Library has taken and successfully implemented UGC-Infonet Project by establishing Campus Wide Network in the main Campus. Campus Wide Network has been maintained & controlled through Network Operation Centre. This Network Operation Centre has been established in the Digital Library of the University Library and maintained by University Library.

d) On-Line Public access Catalogue (OPAC):

Web Online Public access Catalogue (Web-OPAC) facility has been provided for the benefit of the users to access databases of books, thesis, dissertations and serials of university collection.

e) Electronic Learning Resource Centre (ELRC):

ELRC has been setup in the library with 24 computers and well furnished spacious seating arrangements for using internet facility

f) WEB & E-Mail Services:

The University Library is actively involved in designing, developing, hosting and maintaining the university website since 2000. Presently, the University is maintaining its own Web Server for hosting University Website in the digital library of the University Library.

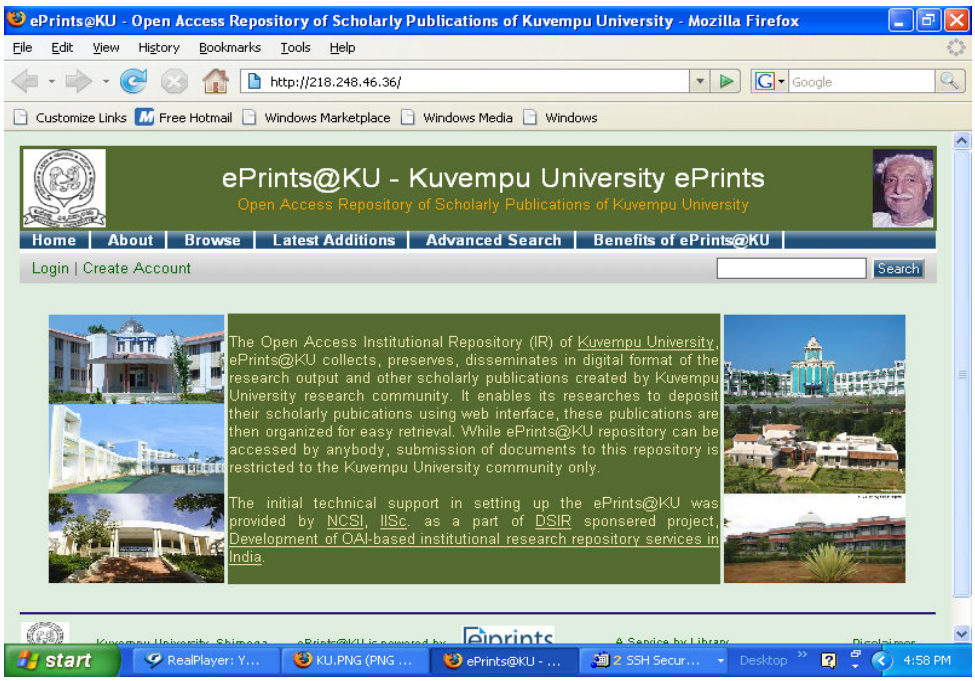

Figure 4.4 Screenshot of proposed Kuvempu University Repository

4.4.4 Mangalore University, Mangalore

The Mangalore University campus, called “Mangala Gangotri” is situated in Mangalore at a distance of 18 kilometres. The campus, spread over an area of about 350 acres, is on a high elevation overlooking the Arabian Sea on one side and the Western Ghats on the other.

The jurisdiction of the university includes Dakshina Kannada, Udupi and Kodagu districts. The university has 187 affiliated colleges and 25 postgraduate departments on the campus. It has two university constituent colleges. The university began as a postgraduate centre with just three departments, viz Kannada, Physics and Mathematics. Now the university has 25 departments coming under the three faculties of Arts, Commerce and Science. It is offering 31 different postgraduate courses under the different faculty. The University is awarding M.Phil as research degree and PhD as doctoral degree. It is also offering few PG Diploma and certificate courses.

4.4.4.1 Mangalore University Library

The University Library came into existence in 1980. It was housed temporarily in the present Auditorium Hall. Till then it was functioning as postgraduate centre library under the control of the Mysore University and the resources were distributed between different places as postgraduate courses were run in various colleges. In the year 1983, the library moved to the present building to find adequate space and a portion of the collection was moved to another building on the campus. Temporarily the library housed in an independent building with a carpet area of 684 square meters. Over the years, the library collection was full-grown from 44,000 to one lakh books and the temporary building meant for housing the library was found much derisory. To overcome the space problem and to house the rapid growth in collection and to provide improved services in line with changing state of affairs particularly in the area of technological advances a new independent library building with carpet area of about 9,000 square meters was built during 1992 and presently entire collection is housed in 4,250 square meters of this building.

In the beginning stage, the collection of the library was 31,000 and the collection was gradually increased and at present the library has 1,92,598 books, 23,085 back volumes of journals, 7,622 reports, 529 thesis and dissertations. It subscribes to 316 journals 36 popular magazines and 21 newspapers. The library has given emphasis on the collection in the form of electronic media by acquiring the most needed CDs.

The library has computerised the house keeping operations of its different sections. It is providing lending, reference, inter library loan, current awareness services. Some of the important publications of the library are Catalogue of current periodicals, catalogue of theses and dissertations, development and maintaining Institutional Repository and library path finder. It has access to over 4500 journals in full text in electronic from UGC-INFONET and contents pages of 45000 journals with abstract facility across the globe from inside web database of British Document Supply Centre (BLDSC), United Kingdom. A separate collection of National Board

of Higher Mathematics (NBHM) and University Science Instrumentation Centre (USIS) publications are displayed in separate corners that are at stack and periodicals room. Display boards in both the gangways furnish information on various issues details.

4.4.5 Gulbarga University, Gulbarga

A postgraduate Centre of Karnataka University was established in 1970 at Gulbarga with a view to cater to the needs of higher education in the backward regions of Karnataka. Gulbarga University was carved out of Karnataka University by upgrading the postgraduate centre. The University started functioning form September 10, 1980. It is housed in a well planned, large and vast campus with the area of 830 acres called 'Jnana Ganga' situated about five kilometers away from the Gulbarga town. It has jurisdiction over the revenue districts of Bellary, Bidar, Gubarga, Raichur and Koppal. At present the university has 305 affiliated colleges and 38 departments. In 1972 the university has started a postgraduate centre at Nandhiahalli near Sandur of Bellary District. This postgraduate centre offers Postgraduate courses in Geology, Mineral Exploration, Mathematics, M.Tech in Mineral Processing, Remote-sensing studies for mineralised zones. The university offers 43 different courses under the different faculty and awards M.Phil and Ph.D degrees. It also offers 13 one year diploma courses in different subjects and short term certificate course including women studies.

4.4.5.1Gulbarga University Library

Gulbarga University Library had been existence since 1970 as a postgraduate centre library of Karnataka University. The proposal for centrally located and full-fledged library building was started during the year 1975. The foundation stone was laid by the then Vice President of India, Sri B.D.Jatti on October 6, 1975. The present library is housed in an independent, planned building since inception of the university. The floor area of the library building covers about 80,000 square feet and the building has the provision for further expansion both horizontally and vertically.

The special feature of the library is the introduction of automation of library operations of different units and services.

The library collection includes 312565 books, subscribes to 4500 periodicals and leading national newspapers. It has more than 18,700 back volumes of various national and international journals; 4,544 reports and Government publications; 5123 theses and dissertations; 2042 microfilms, 4630 rate materials and 140 CD-ROMs. The library is extending a book bank service by providing textbooks for Scheduled Caste and scheduled Tribes students.

The library has well developed computerised laboratory with the financial assistance of the Hyderabad Karnataka Development Board (HKBK). It has computerised all the library services and housekeeping operations. The library is providing all the basic and essential services both in traditional and modern form to its user community. Some of the important library services are documentation, reference, referral queries, and electronic document delivery services. The library is computerising its holdings under the fold of Information and Library Network (INFLIBNET) and extending CD-ROM, Email, COPSAT and Electronic Theses and Dissertation (ETD) and Institutional Repository.

University library has built a strong State-of-the-Art computer facilities with 140 workstations, Main frame servers and CD NAS Server provide excellent access to CD/DVD Databases, Internet, e-Learning packages, Full Text e-Resources and indigenous databases under network environment.

The Library has been one of the active members of INFLIBNET Centre, Ahmadabad and contributing the indigenous theses of the university in digital format to Vidyanidhi Project (Funded by Ford Foundation), University of Mysore. The university has been provided with ERNET connectivity under UGC INFONET program for accessing about 4,500 e-Journals and databases with 1 Gbps leased line connectivity under NMEICT Project. The library received Dr. Padhya Best University Library Award for 2007 instituted by Indian Library Association, New Delhi.

Learning Resource Centre (LRC)

The State-of-the-Art computer facilities supported by Infosys Foundation, Bangalore established with 100 workstations, Main frame servers and CD NAS server provide admirable access to Internet, CD-ROM Databases and e-learning packages using two MBPS leased line for the benefit of students, research scholars and faculty. Access facilities provided for learning materials of different subjects. Users can work on some of the software for data analysis and research results from the LRC and Academic Commons. Assistance provided for e-resources search and downloading and Network Digital printing facility available on a nominal fee. Three units of Workstations in LRC with pleasant interior and air condition provide ideal learning opportunities for students, research scholars and faculty. The LRC has transformed the students learning experience and each student at the VLRC is now at the centre of a learning word can access information by just push of a button.

Institutional Repository of Gulbarga University

Publications of the University and Faculty are being digitized using hi-end scanner including Thesis and Dissertations, Rare materials and Archival materials. Mirror images of the CD/DVDs Databases and Instructional materials on various subjects have been created on NAS Server in LRC and accessible under network within library.

4.4.6 Karnataka University, Dharwad

The Bombay legislature of the previous Bombay Presidency established the Karnataka University through the Karnataka University Act 1949. It became a statutory University on March 1, 1950. The jurisdiction of the University covers Bagalkot, Belgaum, Bijapur, Dharwad, Gadag, Haveri and Uttar Kannada districts. The University in its formative years had the leadership of Dr. D.C. Pavate as the Vice-Chancellor.

There are 43 PG Departments, 222 teachers and 5000 students. There are 5 constituent colleges, offering UG courses in science, arts, commerce, fine arts, law and education. Karnataka Arts and Karnataka Science Colleges also offer P.G. Courses. There are 23 hostels in all, including a working women's hostel and ladies' hostels. These provide residential accommodation to 2600 students of UG and PG courses. Over the last 59 years the number of affiliated colleges has increased from a sheer 34 to more than 528.

The University provides wide options and choices – 43 PG courses, 4 advanced diplomas and 28 diplomas, 11 certificate courses, 26 M.Phil and 42 Ph.D. programmes. Most of the Departments, on priority basis, incorporate interdisciplinary components in designing their curricula keeping in view the emerging thrust areas. During the last five years new state of the art technical courses have been introduced to compensate the loss of medical and engineering faculties and the consequent loss of revenue to the University.

Karnataka University has undertaken a number of maiden collaborative research institutes in India and abroad. The faculty members have established ties with researches in countries such as America, Germany, France, United Kingdom etc. the University is fortunate enough in having received to distinguished statesmen, scientists including Nobel Laureate.

4.4.6.1 Karnataka University Library

The Karnataka University Library was established in 1950 along with the university. The library building has a carpet area of 4030 sq. meters. It accommodates about 4 lakhs books in its four stack rooms and around 300 students at a time to read in the reading halls of the library. The University Library is named after Prof.S.S.Basavanal, a well known Litterateur of Karnataka. When the first installment of 10,000 books and back volumes of periodicals costing ` 1, 00,000 were purchased and housed together with 2,514 books which were received as gift from the Chief of Mudhol.

The present library building has a total floor area of 3,399 square meters band a stack room area of 1680 square meters. The reading room has 455 square meters; it provides accommodation for 300 readers at a time. The library is fully equipped with suitable furniture.

The library has five supporting libraries on the campus and in its constituent colleges, Gandhi Bhavan, Kannada Research Institute Library, Institute of Kannada Studies Library, University College of Education Library, and University College Library. Over the years, Karnataka University Library has developed considerable collections in various forms. Presently 2, 31,196 subject books collection of the library. 45,851 back volumes of journals; 31, 984 U.N. documents and Government publications and 7,784 theses and dissertations, Library subscribes more than 5000 electronic journals in different disciplines through UGC-INFONET Electronic Journals consortium. User can access full text of all the journals.

4.5 DATA ANALYSIS AND INTERPRETATION

The observed responses from six state university librarians/ Repository administrators of higher education who are said to be Repository service provides have been well documented and analysed. Interpretation of the observed responses on various issues of the development and implementation of Institutional Repository is provided here.

4.5.1 Design and Maintenance of Institutional Repository

In the survey, data regarding development and maintenance of Institutional Repository of university in Karnataka were ascertained. Majority of the Universities (50%) are planned and pilot tested and their Institutional Repositories will be available public, but 16% of universities still planning to establish Institutional Repositories in respective universities and 17% (N=1) university is already developed and available for public community.

A survey was conducted using on-line questionnaires to understand the extent of adoption of Open source digital library software packages in various universities in Karnataka. At present Mysore University Library has developed and made available for Public use.

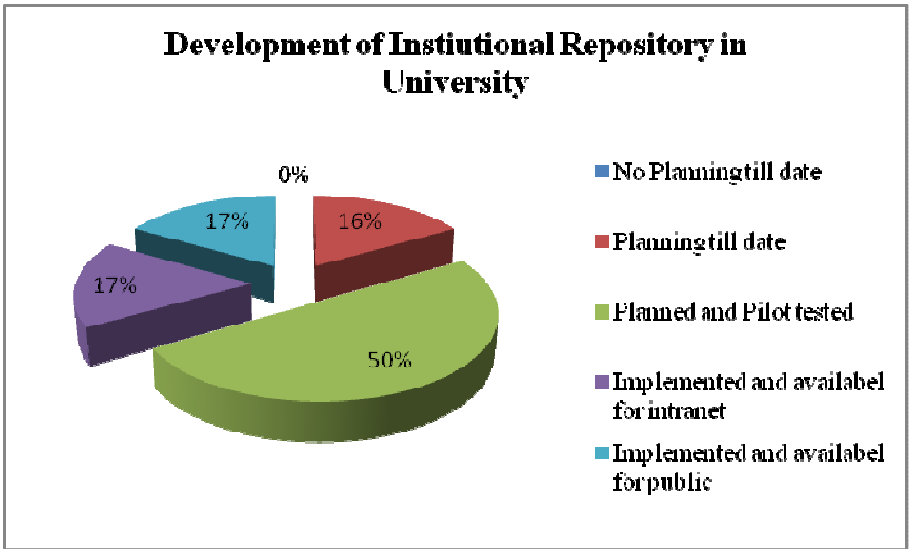

Figure: 4.5 Design and maintenance of Institutional Repository

4.5.2 Software used for Institutional Repository

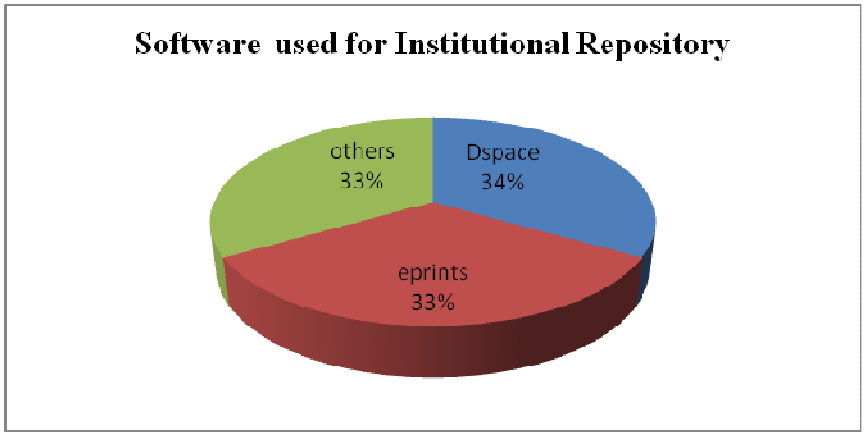

Figure 4.6 Software used for Institutional Repository.

Among the total 50 software installations included in the survey, DSpace and eprints with 2 installations seems to be the most popular choice among the digital library software packages. Other Open source software has 33% share among six state universities in Karnataka.

4.5.3 Type of Research Material Available or would like add in University's Institutional Repository

In the survey, data regarding what types of work that librarian/ Repository administrators would like to add or deposit were ascertained.

Table 4.3 Type of research material available or would like add in University's Institutional Repository

Type of Material	Available or would like add in Institutional Repository (Values are in %)
Thesis (Full text)	83.33
Thesis (Bibliographic details/Abstract)	100
Dissertations	83.33
Research articles	100
Conference papers	100
Technical Reports	66.67
Books/Book Chapters	83.33
Soft wares	16.67
Audio/Video Files	83.33
Images	83.33
Others	66.67

Research articles, Thesis (Abstract) were found to be the most frequently depositing materials in the IR. Respondents would also like to make Conference papers and research articles publicly accessible. This result indicates that there are various types of resources that respondents would like add or deposit in IR; they may not only deposit published articles, but also other types of research work.

4.5.4 Motivation for the Academic Library to Implement an Institutional Repository

Librarians/ Repository administrators were asked on the motivation of university to develop an Institutional Repository. Responses were provided in a "check all that apply" format.

Table 4.4 Motivation for the academic library to implement an Institutional Repository

Motivation for implement Institutional Repository	Mean
To enhance the visibility of the University research output	4.67
To provide free access to the university research output	4.50
To preserve the university research output	4.17
To help evaluate researchers and departments	2.33

Table 4.4 presents the motivation in the provision of Institutional Repository as perceived by the respondents in ranked order. From the ranked responses, increasing the visibility of the institution's research output indicated as the main motivator reason to implement an Institutional Repository. It is followed by preserving the institution's research output and providing free access to it whereas evaluates researchers and various departments in their university is known as the lowest rank.