Chapter-2

REVIEW OF RELATED LITERATURE
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Review of related literature is the key element of any research. As much of the material are scattered in textbooks, journals, articles, case studies written by Indian as well as foreign writers. Review of literature is done so that objectives and methodologies of the study can be taken into consideration.

A review is a survey of primary literature in a specific field covering specific period. It cites and gives a brief review of related literature. It may be considered as a critical synthesis of the subject or its sub-discipline. In other words, review of literature is a critical examination of information and literature on a particular topic or subject. It is often considered the highest level of intellectual reprocessing of information. A critical or evaluative review done by a specialist often highlights gaps in the research field and suggests new avenues for research.

The review should be selected and organized in a selective manner, emphasizing on methodology and findings of the previous studies. Several articles and studies published regarding the institutional repositories, some new and relevant of them are given below:

Branin (2011)\(^1\) studied although IR is still evolving and taking on different manifestations in specific institutions, they can be defined in general as systems and service models designed to collect, organize, store, share and preserve an institution’s digital information or knowledge assets worthy of such investments. This may, of course, sound very much like a library, and in many cases an institution’s library should and is taking responsibility for developing and operating such a digital repository. But while the mission of an IR coincides with that of library, the technical infrastructure and the types of material collected in such a repository present new challenges and intended responsibilities for the traditional library.
Ezema (2011)\(^2\) states the purpose of the paper was to explore the potential of open access institutional repositories (IR) in enhancing the global visibility and impact of Nigerian scholarly publication. It was a literature-based opinion paper which examines the problem of open access IR in Nigeria providing pragmatic suggestions that would address the challenges of making Nigerian scholarly publications accessible internationally. While the paper acknowledges several problems that impede the building of open access IR, it equally highlights some necessary requirements for the building of IR with a road map for the development of functional IR in Nigeria. The proliferation of universities and other higher institutions that are in one way or the other engaged in research activities suggests that Nigeria would have generated a lot of research to facilitate speedy development. Available evidence shows that in recent years scholarly publications in Nigeria lack viable means of global dissemination, which has reduced the global visibility of many publications from the country. The paper focuses on the current situation in scholarly publications in Nigeria and examines the need for building of institutional open access repositories and its influence in the dissemination of scholarly research from the country to the international scholarly community. The originality of the paper was purely the proposal for the building of IR in Nigeria which includes creation of awareness on IR, government sponsorship of IR, development of information and communication technology infrastructure, use of effective advocacy, submission of electronic theses and dissertations, and self-archiving mandate. The paper concludes that open access IR is the most viable means of ensuring the global visibility and impact of Nigerian scholarship.

Loan (2011)\(^3\) described the main purpose of the present study is to identify open access e-book collections in selected digital archives related
to social sciences in general and greater Central Asia in particular. The selected digital archives, which were all rich in Central Asia collections, were searched using different keywords. The first 50 hits were retrieved to identify open access e-books and their bibliographical details were recorded to complete the study. The results reflect that a good collection of open access e-books is available on Central Asia, and some titles date back to the nineteenth century. The collection includes both “made digital” and “born digital” items. The results further depict that most of these e-books were published in developed countries like the USA and the UK. These books mostly deal with political science (especially international relations), sociology and economics, and are mostly published by national and international organizations like the US Strategic Research Institute (SRI), Human Rights Watch (HRW), the World Bank (WB), and the World Health Organization (WHO). The study does not explore the whole worldwide web, but only selected digital archives that have rich Central Asia collections. The study is very helpful for Central Asian academic communities, worldwide scholars conducting research on Central Asia and library and information professionals serving the academic and research communities of the region. The study is original research highlighting the role of library and information managers in information discovery and identification. The study is a corner-stone in information discovery and is very valuable for research, academic and literate communities in this region and other parts of the world conducting research.

Krishnamurthy and Kemparaju (2011) discussed the purpose of the paper was to report on a study of the institutional repositories (IRs) in use in Indian universities and research institutes. Repositories in various institutions in India were accessed and described in a standardized way. The 20 repositories studied covered collections of diverse types. Most of
these collections have unique content. The goal of the study was to study the IR software and data based on the content type, metadata and characteristics.

Jain (2011) studied the purpose of the paper was to review the recent literature about institutional repositories (IRs) including the benefits and possible obstacles of setting up an IR. It also discussed librarians' and authors' participative roles and open access. In conclusion, the paper aimed to consider the future of IRs and finally makes recommendations for their successful implementation in academic institutions. The paper was based on the recently published literature discussing current trends in IRs; although, some historical reference is also necessary to provide background to the open access movement and the early development of IRs. The paper was an account of the history and current status of IRs, a formal documented methodology is not applicable. The discussion suggests that in spite of all the obstacles to successful implementation, including associated negative perceptions, IRs have been increasingly recognized as a vital tool for scholarly communication and an important source of institutional visibility and a viable source of institutional knowledge management. The paper was an expression of opinion about current trends and future applications of IRs. It is not based on any formal methodology. The paper is useful for librarians, academic staff and academic institutions generally, especially in developing countries where IRs are still in a developmental stage. Therefore, some of the general recommendations may not be as relevant for those institutions with well-established and flourishing IRs. The paper aimed at institutions with low-use repositories. It can be used to persuade management to establish institutional policies and it can also be helpful in clarifying the role of the library. It also aimed at institutions considering initial development of an IR. The paper outlined the implications for IR practice for different
groups, namely authors, librarians and academic administrative staff. It could, therefore, be used to persuade and influence different sets of stakeholders at institutions with under-populated or embryonic IRs, about the value of open access, the importance of depositing material and the potential functionality afforded by IR packages. The paper provides a review of the status of IRs and brings together topics previously reported on in isolation.

Mukherjee and Mohammad Nazim (2011) described the open access publishing is growing in importance, and, in parallel, the role of institutional archives has come to the forefront of discussion within the library community. The study was an attempt to analyze the present trend of institutional archives worldwide. The factual data of each individual repository was collected from various Directories of Institutional Repositories by using survey method. Data was analyzed in terms of quantity of institutional archives increased during last six years, country wise contents of institutional archives, types of materials archived, subject coverage, software used, language of interface of institutional archives, host domains, and policy of institutional archives. The results of the study suggest healthy growth in terms of quantity of institutional archives' increase worldwide; however, the development is more prevalent in developed countries than developing countries. The subject analysis of the institutional archives indicates that the contributors in the field of health and medicine are more interested to submit their materials in repositories. Currently the institutional archives mostly house traditional (print-oriented) scholarly publications and grey literature, using DSpace software and most of these materials were of English language. However, the policy of content inclusion, submission and preservation is yet to be well defined in institutional archives.
Collen and Chawner (2010) opined the purpose of the paper was to investigate the development of institutional repositories in New Zealand, exploring factors affecting the adoption and success of institutional repositories from the perspective of the library managers who established them, and from the perspective of the academic community. Data from a series of interviews with library managers are compared with the findings from a randomized national survey of academics. The responses of the library managers suggest that they were positive about the value of their institutional repository, and the progress made towards recruiting content for it. Data from the survey of academics indicate that academics have been slow to embrace the concept of institutional repositories, and show little interest in using repositories for increasing the accessibility of their own work, or to access the work of others. The number of deposits remains low, mirroring patterns throughout the world, and subject or disciplinary repositories appear to have greater value to the academic community. The future long-term sustainability of institutional repositories depends on gaining a stronger commitment from the academic community, or developing different goals, against which their success might be measured. The study was the first random survey of academic staff across all disciplines, and an entire country, and the findings have a very high level of generalizability.

Ratanya (2010) studied the purpose of the paper was to give an overview of electronic theses and dissertations (ETD) as important and unique collections that facilitate open access. The paper presents a brief introduction of the importance of ETD as materials for open access. This is with emphasis on the Kenya Information Preservation Society (KIPS) project which has, since 1993, been digitizing theses from a number of participating institutions across the country. This paper relies heavily on literature derived from existing documentation, online searches and
website exploration, and the KIPS's union list of theses and dissertations CD-ROM. A number of contracted employees (scanning and input) were also interviewed in order to provide statistics about the contributing institutions. The paper finds that the necessity of showcasing the intellectual research of higher education institutions within Kenya was the enough reason to justify making the move towards creating electronic thesis services. The benefits making ETD available outweighs that of print-only thesis provision due to the potential for enormous dissemination and open access. ETD is a renowned research area for consideration. Librarians should be engaged in digitization of electronic collections that will provide desirable services to end users. Such approaches boost the knowledge economy of any country. Evidence cited from the strengths of KIPS indicates that its major objective was to compile a national comprehensive database of research on Kenya, and by Kenyans. From available statistics, theses undertaken at postgraduate university levels meet the needs of Kenya scholars. The paper attempts to give insights for emulating the ETD initiative by KIPS as a way to showcase the unique materials of open access, thereby making them relevant for the modern day library.

Bhat (2010) studied the purpose of the paper was to evaluate the interoperability of ten open access repositories in the field of computer science and IT. The repositories were identified from the OpenDOAR directory of OA repositories. Five documents from each repository were searched in ten search engines/data discovery tools (OAIster, Scirus, Google, MSN, Yahoo, All the Web, Ask, AltaVista, AOL and Gig blast) for determining the visibility of repositories. The documents from each repository were selected randomly using the function sample of IR software. None of the repositories in the study were fully interoperable (the visibility of repositories in search engines/data discovery tools range
from 4 per cent to 92 per cent). OAI-PMH compliance enhances the visibility of the repositories considerably. Google and MSN retrieved the highest number of documents from the repositories and Gig blast the least. The paper encourages the repository administrators to improve the visibility of their repositories keeping in view the indexing policies of various search engines to ensure maximum research impact.

Kamraninia and Abrizah (2010) described the primary reason for establishing an institutional repository is to increase the visibility of the institution’s research output by making it Open Access. Academic libraries were becoming very involved in managing electronic scholarly products and participating in the evolving scholarly communication process through institutional repositories. Although institutional repositories can make room for easier access to universities research output, unfortunately it was not fully developed in some academic institutions. The origin of the problem was that there were known instances where librarian in-charge of IR are unaware of their roles and are unskilled in implementing the IR. This paper describes a study conducted on the roles of librarians in the deployment and content recruitment of eight IR in Malaysian universities. This paper also discusses the process of depositing, motivation factors, roles, marketing and benefits of IR that have reference value for the librarians who desire to embark on an institutional repository.

Kaur Kiran and Chia (2009) opined that in developing countries, academic libraries were experimenting with open source software in the establishment of institutional repository systems in local libraries, using Greenstone, Fedora, Dspace and eprints. These libraries were vouching on the successful implementation in the local library setup, so that it can then be up-scaled to institution wide application through campus networks or intranet. A healthy uptake of the institution wide set up may
then open up to wider audiences with the availability of dedicated information infrastructure combined with broadband connectivity and national educational policies. In Malaysia the pioneers to open access initiatives are the academic libraries, specifically the university libraries. These libraries have initiated innovative services to their researchers by creating open access institutional repositories for wide dissemination of scholarly literature by their own community members. This study aims to investigate the extent of open access adoption; the types of initiatives taken and the efficiency of these initiatives based on user perspectives. Therefore, this study also attempted to investigate the perception of users towards the usability and efficiency of these systems to help users search and access useful resources with minimal effort.

Chantavaridou (2009) described the purpose of the paper was to present the current situation regarding open access and institutional repositories (IRs) in Greece. This paper reports on the development of IRs in Greece and discusses their content and the various access restrictions that apply to content. A questionnaire survey was used to identify current and future steps regarding open access from the IR managers' and library directors' perspective. The paper finds that Greek IRs using DSpace and CDS Invenio software have been developed by libraries of academic institutions. The Berlin Declaration on open access has been signed by two academic institutions and one research institution, while another university will bring the matter to the Senate. Metadata harvesting was one point that all respondents agreed on, although it seems that a national harvesting service will not be established in the near future. Furthermore, content availability at the moment seems to be hindered by fear of copyright infringement rather than financial charges, at least for ETDs. Further research should be conducted in order to identify the rate of deposited published peer-reviewed research in IRs. Furthermore, a
broader survey could show the thoughts and future plans of the total of Greek IRs, not just those using OAI-PMH or those with mixed content (gray literature and published research). Possible research topics could be the interoperability of IRs in order to build a national harvesting service and the access restrictions that are available for authors in each IR. The paper was addressed to those wishing to be informed of the latest developments regarding IRs and open access in Greece. It also provides a brief insight into the views of leading IR managers and library directors. Mondoux (2009)\textsuperscript{13} discussed the purpose of the paper was to examine and provide an insight into Canadian post-secondary institutional repositories (IRs) with respect to user interface features and knowledge organization systems (KOS) used. The approach is to explore all Canadian post-secondary institutions and their user interfaces to establish the type of searching and browsing features they have used and whether or not they have made use of KOS such as subject heading lists or classification schemes. A directory of 27 IRs in Canada is created. Incorporation of KOS in institutional repository is evaluated. The paper focuses on accessibility, searching, KOS use, and retrieval. Browsing and searching options are available, but user interfaces are usually not modified to enhance information retrieval. This was the first paper, examining Canadian IRs from the perspectives of searching, browsing and the use of KOS.

Christian (2009)\textsuperscript{14} discussed the study highlighted some of the issues that affect the development of institutional repository to include lack of awareness of the open access publishing in academic and research institutions in developing countries, inadequate information and communication infrastructure, lack of funding as well as poor advocacy for open access. The issue relating to copyright management was also
discussed. In the light of these observations, the following recommendations were proffered:

With regards to the issue of awareness and advocacy, it was highly recommended that the approach adopted in SALSI in South Africa be applied also in Nigeria – namely: organizing series of conferences and capacity building workshops to educate and train stakeholders in academic and research institutions in Nigeria. In this way their knowledge of open will be enriched and they will be in a better position to advocate for change in policies within their institutions and at national level. This will create a conducive environment that will nurture the development and growth of open access in Nigeria. Considering the size of the country and number of educational institutions in the country. It suffices to add through the level of resources of required here will be more than what was committed in South Africa.

The 2 major issues in ICT relates to internet bandwidth and electricity supply to power ICT infrastructure with regards to the first, the short term solution will be support initiatives aimed subsidizing the cost of internet bandwidth in academic and research institutions in Nigeria. The long-term solution in this area should take the form of increase backing for international optic fiber infrastructure as well as an open access policy to the project so as to provide equal access to all bandwidth providers. To deal with the issue of electricity supply to power ICT infrastructure, there is need to fund research into development and implementation of efficient power generating alternative to power ICT facilities used in the development of institutional repositories.

Utulu and Bolarinwa (2009) described the purpose of the paper was to examine Nigerian academics' adoption of open access initiatives as authors and readers of scholarly resources. The study was necessitated by the growing need to have the number of Nigerian scholarly publications
increased on the internet and accessible to scholars around the world through the use of open access initiatives. Academics of two first generation Nigerian universities selected using convenient sampling technique were surveyed using the questionnaire to find out the extent of their awareness and use of open access initiatives as authors and readers of scholarly works. Two hundred and fifty questionnaire copies were distributed in the two universities out of which 189 copies were returned, while 180 copies were found to be useable for the study. It was revealed that the respondents were aware of the pre-print and open access journal initiatives than the post-print initiative. In terms of the use of open access initiatives, although the study revealed insignificant use among the academics, academics in sciences showed more promise of adopting open access initiative as authors and readers of scholarly resources than their counterparts in the humanities. Unlike studies that assessed specific subject based and institutional repositories that allowed for the search and extraction of depositors' names and characteristics, this particular study relied on respondents' responses as a source of their actual use of open access repositories. The paper reveals that academic’s perception and publishing culture, and not awareness, determines the extent of their use of open access initiatives in Nigeria.

Cervone (2008)\textsuperscript{16} stated that many libraries have developed local digital repositories. The main objective was to focus on the emerging concepts of digital repositories. The author found that many libraries were focusing mainly on digitizing their collections. The paper describes the concept and issues related to local contextualization of digital repositories. Today the people will have to come out from the thinking of “one size fits all” about libraries as the expectations of the patrons have changed. IR is basically formed with the aim to make efforts of ensuring access to
These repositories emphasized thoughtful planning and implementation services that are relevant to the local environment. Mohammad Nazim and Maya Devi (2008) stated that the author's main objective is to throw light on the efforts to provide free online access to scientific and scholarly research literature, especially peer reviewed journal and its preprints. Trends in open access publishing in India are also discussed. The data for the purpose was collected from the directories of open access journals and IR and the URL of each IR was visited to collect data. Case study method was used. Data was analyzed on some parameters. As a result of the study the library and information professionals in India realized the importance of open access journals. They also found that India was not only leading in open access movement of the developing countries, but also making developed countries aware of qualitative scholarly literature originated from these countries. Mittal and Mahesh (2008) stated that the main aim of the study was to identify and evaluate the collections within digital libraries and repositories in India available in the public domain. Digital library and institutional repositories were using Dspace for the creation of digital repository. These digital libraries and repositories were identified through a study of literature in India. Digital library of India are using custom made software. It also gives a comprehensive listing of digital repositories and IR in India. The collection in IR in India was of a few hundreds. The paper highlights the state of digital libraries and repositories in India in late 2007 and it was the first paper of its kind that attempts to identify and evaluate digital libraries and repositories in India. It also gives a comprehensive listing of digital libraries and institutional repositories in India available in the public domain. Fernandez (2008) stated that the developing countries have embraced open access with a view to promote visibility of research done in these
regions. Open access initiatives described in the paper were based on
interviews with information professionals responsible for creation and
maintenance of online research repository in the country. Open access
journals, e-print archives and e-thesis repositories were covered with the
emphasis on the sciences including the physical sciences, mathematics
and the bio medical sciences. Existing repositories were identified from
the Registry of Open Access Archives. Key contacts were facilitated by
well known local open access advocates. Participants were contacted by
e-mail and sites were visited whenever possible. Universities in India are
at present lacking in infrastructure for establishing institutional
repositories, so most of the institutions visited were research institutes
and informatics centres. Semi-structured interviews were conducted to
ascertain the background of participants, institutional culture, software
selection, nature of funding, submission policies and future plans,
promotion methods, training and support of these repositories. The indent
of the paper was to create an awareness of emerging institutional
repositories in India in the context of recent developments with regard to
open access.

Jain and Shrivastava (2008)\(^\text{20}\) studied the recent development in
information and communication and web technologies has change the
landscape of information handling activities. These technologies provide
a simple, web based mechanism for researchers to deposit (‘self-archive’) and
access their research publications via digital repositories. In this
paper we describe the genesis, objective, methodology, contents,
advantages, software usages, growth and development of institutional
repositories in India. It also discusses the major institutional repositories
in India in the sense of its growth, development, content, usage etc.
Previous research shows that repository facilitates more timely and open
access to research and scholarship and they maximized the potential
research impact of achieved publications. It plays an important role in preservation and making accessible, academic digital object, datasets and analytical tools that exist outside traditional scholarly communication system. Open access to Indian research is still in its infancy. A few of India's premier institutions, particularly in the science and technology area were providing open access to their research publications. In these repositories access to retrospective material appears to be substantial both in terms of research articles and theses with less access to preprints and current publications.

Dunsire (2008)\(^1\) described the purpose of the article was to review metadata issues identified in recent research carried out in Scotland on services based on metadata aggregation via OAI-PMH, and to examine the role of collection-level description in managing ingest to harvested repositories, subsequent harvesting by secondary aggregators, and the contextualization of institutional and aggregated repositories in the wider information retrieval environment. The paper reviews the output of several projects involving institutional repositories and collection-level description in Scotland. Collection-level description is a useful tool for aggregator services, but further work is required to accommodate information about the manipulation of metadata sets. Communities need to consider how best to incorporate structured collection information within the OAI-PMH for their specific purposes. The paper shows the importance of recent developments in collection description metadata for implementers of OAI-PMH services, building on the simple placeholders for such metadata.

Kim and Kim (2008)\(^2\) discussed the purpose of the study was to provide suggestions that could be adapted to improve the usability of institutional repository systems, and to establish a usability evaluation framework, which could be used for heuristic evaluation or formal usability testing of
institutional repositories. The study seeks to establish a usability evaluation guideline based on a literature review. Using the evaluation criteria and 30 subjects, the research team administered two usability experiments, laboratory and remote usability tests, and conducted a focus group interview with four experts. Based on the usability evaluation and focus group interview results, the paper proposes ways to improve system usability by showing selected screenshots of the Collection interface. The study shows an effective provision of directions on how to register and search for documents, improving visual appearance, and clustering and displaying related materials based on the FRBR model is an important task to improve Collection's usability. The study established a usability evaluation framework for institutional repositories and evaluates the Collection with the evaluation criteria.

Xia (2007)\textsuperscript{23} stated as to why the IR in social sciences could not achieve their goals and become popular in practice like natural sciences, engineering, medical sciences etc. It was found that in social sciences there is an urgent need for rapid data exchange as natural sciences do. They could learn from successful repositories to improve their operational plans. The paper describes the concept and issues related to local contextualization of Digital repositories.

Markland (2006)\textsuperscript{24} studied and investigated the efficiency of the Google search engines at retrieving items from the 26 UK institutional repositories, coverage a wide range of subject areas. The objectives of the study was to access how efficiency a selection of items from the content of UK institutional repositories could be retrieved using a search engine. A search was carried out to see how easily the items could be retrieved from the repository by using different search strategies. As a result of this study it was found that there is the interesting possibility that search engine will provide a route to open access material to new users. Google
searches may be an introduction to the rich content to be found in the world of scholarly communication.

A study was conducted by Pickton and Mcknights (2006) discussed the potential role of research scholars in an institutional repository has been investigated. The aim of the study was to explore and access the values of Loughborough Institutional repository to a previous unconsidered stakeholder group research students. A face to face interview with 34 research students at loughborough university, was carried out to explore the students experiences and opinions of publishing, open access and the proposed loughborough university. As a result of this study it was found that the role and needs of research students has been shown to be quite similar to those of any other academic authors. The only difference that exists between the views of academic authors and research students lie mainly in the relative importance they place on different factors.

Walter (2006) in the article has stipulated that institutional repositories are proliferating as they were becoming an indispensable component for information and knowledge sharing in the scholarly world. The main objective of the article was to examine the emerging institutional repositories development and explore how IRs can help create a new infrastructure to support scholarly communication’s and digital research. Here the role of content management becomes important as they were exploring new ways to make effective links between their IRs and other university information systems that manage or capture digital intellectual output. It will make the IR a daily staple for many academicians and administrative support personnel who depend on access to campus scholarly output or related information. However, additional work was required to weave IRs into the fabric of institutions and scholarly disciplines. Various steps will have to be taken to pave the way for
engendering a broader understanding of how the library can support modern scholarly communication and help manage intellectual output. Devakos (2006) provides practical information and a model which may be useful for others implementing repository services or other emerging technologies. The objective of the study was to report on the University of Toronto's Implementation of an institutional repository. As methodology the author has used a range of quality research methods to solicit early adapter and library concerns. Findings were then used to guide implementation. In the study it was found that IRs offer us a wealth of opportunities and benefits, including the possibility of offering access to collections that are extensive and long lived. To achieve these qualitative research methods, rapid cycle analysis and useful sequences of tasks can help and do not underestimate the power of student labour.

Westell (2006) described the proposes indicators for measuring the success of institutional repositories based on their demonstrated integration with other research initiatives and provides a snapshot of the current state of selected institutional repositories in Canada through a review of their web presence and their integration with university library and research pages. Using the proposed indicators, an examination of the web sites of selected Canadian universities who are participating in the Canadian Association of Research Libraries Institutional Repository project was undertaken. Institutional repositories are growing in Canada and that the Canadian IR community is on the way to the proposed model future – integration with existing university research practices. Indicators such as those proposed in the paper can provide a basic framework for evaluating IR projects and highlight areas where the library can generate additional support for these worthwhile projects.

Hockx-Yu (2006) studied and aimed on the issues and challenges of digital preservation facing institutional repositories and to illustrate the
Joint Information Systems Committee's (JISC) view on institutional repositories and its key initiatives in helping UK institutions address these issues. A combination of published work and JISC documents (public facing or internal) were used as reference material. Digital preservation is a complex process and there are still many unsolved issues which make it a challenging task for institutional repositories. However, the wide deployment of institutional repositories also provides new opportunities for digital preservation. Much could be done to consider digital preservation from the outset, to involve the authors and to embed digital preservation into repository workflow, which will ease the later preservation tasks. A number of ongoing JISC-funded projects are briefly reported which explore different models for the provision of digital preservation services for institutional repositories. These models may be a way forward to tackle collectively the issue of long-term preservation within the setting of institutional repositories. Depending on the outcomes of the projects, further investigation and implementation could be undertaken to test the models. The paper helps the reader to gain a better understanding of the issues related to digital preservation in general and how JISC's work has helped to tackle these issues. The paper clearly states JISC's view and future plans for digital repositories. This is of value to the UK educational community as JISC works on its behalf and responds to its needs.

Sutradhar (2006) described how an institutional repository (IR) was set up, using open source software, at the Indian Institute of Technology (IIT) in Kharagpur. Members of the IIT can publish their research documents in the IR for online access as well as digital preservation. Material in this IR includes instructional materials, records, data sets, electronic theses, dissertations, annual reports, as well as published papers. This opens up the world of scholarly publishing in a way that
causes re-examination of many of the current practices of scholarly communication and publishing. Details of the hardware and software requirements are provided along with information about available open source software. The steps involved in uploading and submitting material in the IR are described. The paper provides evidence on how to set up an IR and how to create different communities and, under each community, many collections using the DSpace software. It was found that setting up an IR is very simple but its maintenance is very difficult. One person needs to have the computer knowledge, particularly in the Linux operating system environment and must be dedicated to carry out the IR administrative activities like registration, permission authenticity, submission and grant, installation of the updating version of the software, etc. Before setting up an IR, the institution should have sufficient funds to acquire computer hardware and other related software, and computer knowledgeable manpower. It can also be noted that after setting up a successful IR, the administrator must train the faculty members and research scholars regarding the proper uploading and submitting of metadata into the repository. Guidelines are provided to assist those in setting up an IR. Appropriate staff are required to administer and run the IR smoothly. An IR provides the IIT with a central and cost-effective facility for the orderly and systematic archiving of research results and other documents that is accessible worldwide. Eventually, the library hopes to build a full IR, and make the resource available to other sites using a data harvesting protocol like OAI-PMH. The paper gives an idea that setting set up interoperable IRs among the same type of institutions in a particular state or country enables data to be transferred through OAI-PMH protocol from one IR to another.

Das, Sen and Dutta (2005)\textsuperscript{31} studied the IR is a contemporary concept that captures and make available through internet and intranet the institutional
research output and other relevant documents to the users by way of
digitizing the output. The IR’s have already started emerging in India.
This study highlights the importance of IR, delineates the scope and
methodology projects the findings. Most of the repositories were using
open source information repository software like Dspace, Greenstone,
Digital library software and GNU Eprints. It was observed that generally
documents like thesis and dissertations, seminar papers, journal articles
etc, are being found more in repositories. Some of the problems of the
repositories have been highlighted and suggestions offered.
Graham (2005)\textsuperscript{32} aimed to illustrate how one medium-sized academic
library was able to use a web-based digitization and repository project to
increase and promote communication and relationships between the
library and the university community. This case study traces the history
and development of the Cornerstone Project – the Network of Alabama
Academic Library's (NAAL) state-wide digital repository project. The
paper described the steps taken by a medium-sized academic library to
participate in a state-wide institutional repository project to improve on
liaison activities, and form new relationships with departments across the
campus. Using the digital repository project to help bridge gaps between
departments that had limited or no involvement with the library and its
services, one medium-sized academic library found that its involvement
in the repository project resulted in a new and improved
interdepartmental relationship. The results have encouraged the library to
open the door for new and different relationships to be formed with other
departments. The implications and value for other libraries to become
involved in such repositories are also discussed.
Bell, Foster and Gibbons (2005)\textsuperscript{33} discussed the purpose of the paper was
to review the purpose, methods, and selected results of a study of faculty
work practices, especially as they bear on the creation, location, and use
of grey literature, design and use of institutional repositories. Based on a work-practice study of faculty members and researchers at the University of Rochester. The methodology used videotaped interviews to record and analyze how participants accomplish such tasks as using web-based research and writing tools, organizing books and papers, and staying current. Reviews six key research findings related to the understandings and attitudes faculty members hold regarding institutional repositories and the role of librarians in developing institutional repository collections. Explains why librarians have found it difficult to attract faculty participation from the perspective of user needs and work practices. The study is based on field research with a small number of participants in six departments across the sciences, social sciences, and humanities. Access to faculty participants was limited. Recommends new strategies for institutional repository design, recruitment of content, and outreach by librarians based on the six key research findings proposes an expanded role for librarians as liaisons to faculty who wish to share their work using the library's repository system. The paper presents original research that addresses a current problem in the area of institutional repositories: why faculty members have not taken full advantage of new technologies that help them share their work. It lists the practical steps that librarians can take to improve faculty participation in repository projects and to increase access to grey literature for all scholars.

Genoni (2004) discussed that libraries were facing the challenges to develop and manage an institutional repository. The paper addresses the issue of content in repositories, and suggests that librarians need to approach the task of content development by applying some of the procedures and skills associated with collection management within more traditional environments. It also addresses the types of content that might
be suitable for institutional repositories, and notes that several recent Australian reports have recommended the need for a more standardized and regulated approach to the content of institutional repositories. It is argued that this is inappropriate.

Yeates (2003) opined about the collective intellectual output of an institution recorded in a form that can be preserved and exploited. The article briefly outlines the need for repositories such as Dspace, their role, benefits and drawbacks. It concludes that repositories were the keys to the ability of institutions to respond to future needs for more dynamic cross-boundary communications services.
References


