CHAPTER 2

LITERATURE REVIEW

Review of literature is one of the major and important aspects of research. Literature study helps to know what is done by other researchers in the specific subject and its related areas. It aims apart from others to have general understanding on specific subject and to grasp the essence of the work done by others.

Investigator has made an attempt in this chapter to present some of the important studies made with in India and outside regarding academic scholar's attitudes towards deposit in Institutional Repositories.

The literature search on the topic and its related areas revealed about 300 references. Although all these references were not directly related to the topic of research, the researcher found them significant from different aspects. Since the available literature is huge, the researcher had to choose some studies to form out this vast amount of literature to reduce the size. Hence, the studies presented in this chapter can't be construed total and comprehensive. The researcher within the limitations has made an attempt to present selected study here. Investigator has presented the studies carried on Open access, self-archiving, scholarly publishing and Institutional Repositories. He has attempted to arrange them subject grouping for the simple fact that it would enable us to know the gradual developments of Institutional Repositories.

2.1 STUDIES ON OPEN ACCESS PUBLISHING

Harnard (1994) expressing his subversive proposal. In brief statement, he claimed that the authors of esoteric articles, for which no payment received, only want to publish their work not sell it. He recommends a two step process to make access to such literature.

Crawford and Gorman (1995) say that since libraries paying more price than the actual price for subscription of journals leads to stagnate the library budget.

Odlyzko (1995) proposes a continuum of peer reviewwhich would allow a preprint to be made available online immediately. Comments and responses could be added to paper, and then an official peer review process would begin, taking into account any comments already made. Such a system would be more suitable to electronic publishing it is argued, as it could increase the speed of dissemination, improve the discursive elements of academia, and still retain an official, organized and trusted system of refereeing articles. The only condition required is that a reader is made aware of what stage of the continuum each article is at.

Keller (2000) reports results of a Delphi survey on the future development of electronic periodicals. The international expert panel comprised 45 scientists, publishers, librarians, periodical agents and consultants. The survey covered five areas of interest regarding electronic periodicals: the future role of scholarly periodical literature; scenarios for the periodical of the future; the serials crisis and the electronic periodical; archiving of electronic periodicals; and new pricing and access models. The Delphi survey studied changes expected within the next 5 to 10 years. The results indicate that the world is moving towards a process of substitution wherein other publication and communication channels will increasingly take over functions traditionally fulfilled by periodicals. Digital equivalents of printed periodicals are considered a transitional medium and will be replaced by authentic electronic periodicals that take full advantage of the new technologies. Electronic periodicals themselves are not expected to solve the serials crisis, but features and services introduced by new technologies are expected to offer solutions in some problem areas. Archiving will most likely be done by national depositories, possibly in cooperation with international subject-specific digital archives. Experts expect to see a coexistence of different pricing and access models, with (consortia) licensing and pay-per-use systems taking an increasingly predominant position. Throughout their history lasting over 300 years, periodicals have never been faced with so many changes as they are expected to see within the next 5 to 10 years.

Brown (2001) Article included in a special issue devoted to the theme: E-books. The development of reader devices and the improvement of screen technology have made reading on screens less cumbersome. However, acts of reading are not invocable, as people read in many different ways with many different goals in mind. Reader software can provide different levels of navigation support for the manipulation of digital text, presenting capabilities for analytic reading not available in the print-on-paper reading experience and compensating for our lack of orientation and feeling of omnipotent dominance of text. The parameters of e-Text reading and the issues of access remain central to readers and researchers, whether the electronic text is designed and packaged as an 'eBook' for portable reading devices, or resides on a server for distribution to library terminals to be downloaded to desktop personal computers (PCs), laptops or tablet PCs. The power and functionality of reading software, in terms of note-taking, highlighting and indexing capabilities, robust Open searching across databases, are ultimately linked to Open access issues, including: interoperability; text standards; and digital rights management. These remain key questions for libraries, publishers and researchers.

Cockerill (2001) describes biological and medical publishing via the Internet, traces the use of Web technology by biomedical researchers. Recent history of science publishing from bibliographic databases in the late 19th century to the World Wide Web (WWW) covers bibliographic linking, online communities, online databases, markup languages and file formats, preprints and distributed archives, Open access to research and building a permanent digital archive.

Halliday (2001) study was carried out to clarify the term 'scholarly publication' and to explore the role of this activity in scholarly communication. Desk research was supplemented by responses to a questionnaire from key figures in the development of emerging scholarly communication behavior. This contributed to a working definition of scholarly publication consisting of a list of criteria, which may be used to analyse the degree to which emerging formats can be categorized as scholarly publications and to identify the means by which they may be supplemented so that their status

may be promoted to that of scholarly publication, including documents that meet all of the publication needs of scholarly communities.

Harnard (2001) takes a fundamental view criticizing the system for imposing barriers to access, whatever price. Subscription, license and pay-per-view make up the trio of barriers denounced. Most referred articles are not accessible to most authors.

Jezzard (2001) BioMed the online electronic publisher, is considering charging authors submitting articles to its Open access online periodicals The proposed 500 dollar fee is aimed at supporting BioMed Central's aim of providing free access to its peer-reviewed biological and medical research periodicals and could help to spread the cost of providing science and technology information across the whole spectrum of academia.

Lawrence (2001) demonstrates that, in computer science, articles are available freely available over internet do receive more citations. A broader audience across geographical and disciplinary boundaries will also increase the pace and variety of research, as well providing equal opportunities for researchers to keep up to date with current information. The impact-enhancing effects of OA in computer science needed to be replicated in other fields to check whether it was merely an artifact of the fact that computer science is conference based rather than journal-based, and whether the advantage really reflected OA vs. non-OA rather than just online access vs. paper access.

Rutledge (2001) Discusses the role played by collected works editions in literary scholarship as it is practiced, prompted by the announcement of a project to edit all the works of Carl Hauptman, brother of the more famous Hauptman. Although conventional wisdom says that collected works editions are the building blocks of literary historical research and that libraries should strive to get the collected works of major and minor writers, suggests that a new collected works edition of a minor author will do little or nothing towards promoting research on that author. Believes that decisions by scholars and publishers to produce collected works editions are not always entirely rational, and recommends that librarians

exercise caution in the selection of large editing projects. Speculates on whether the availability of electronic collected works editions of the German (classical) writers will have an effect on scholarly publication, but so far has found no evidence for this.

Cobb (2002) states improving access to materials should be one of the goals for all librarians. Generally speaking there is little disagreement related to this goal and many collection development policies refer to Open access and, in the USA, official US government depository libraries are required to provide access to government documents and to provide public access to those collections. However, there are limits to access and map collections are no exceptions. It is the larger collections that may have more restrictions for it is often their sheer size that creates limits. While many people believe that the new digital age and the concept of the shrinking world will Open access to all materials, digital access is actually increasing limits to access as well. Outlines these limits, the most important of which include library hours, where many map collections are often one person operations and sometimes only part-time; and the fragile nature of maps, a much more serious limitation.

Dodd (2002) states that BioMed Central has responded to the Open letter from the Public Library of Science calling for Open access to research by pioneering a business model which charges scientists for publishing their work rather than charging users for accessing it. Authors are allowed to retain copyright of their work. Many leading scientists are believed to have endorsed the scheme.

Information World Review (2002) BioMed Central's launch of its Open access title, The Journal of Biology, is set to challenge publishers such as Nature and Science, by offering free access initially to the research articles. The costs of the journal will be covered by advertising. The company believes that there will be no difficulty attracting good contributors as academics increasingly regard Open access titles to be as important as traditional periodicals.

Jacso (2002) discusses cross-searching electronic journal archives. Covers: Open access scholarly and professional electronic journals in computer, library and

information science and technology (CLIST); current awareness services; professional online services; and customizable Meta search engines.

Johnson (2002) states that The Association of College and Research Libraries (ACRL) and the Scholarly Publishing and Academic Resources Coalition (SPARC) in the USA have worked closely together to achieve the goal of reforming the scholarly communication process. Describes what SPARC has achieved and ways in which it expects to develop focusing of the facilitation of library-scholar partnerships, the Open access opportunity and questions of advocacy and education.

Kling (2002) The Internet is widely viewed as a potential facilitator of scholarly communication, including communication via research articles. There is considerable debate about which publishing models should organize these communications. Some often proposed candidates include: field-wide e-print Repositories, free online access to all peer-reviewed literature, peer-reviewed pure-electronic journals, hybrid paper-electronic journals, and authors posting their articles on their own web sites. Several of these models, such as authors self-posting and e-print Repositories have no direct paper precursors. Only one of these five major architectures has become dominant across a variety of scholarly fields: the hybrid paper-electronic journal, which is a conservative extension of the traditional paper journal. Examines this model, which is based on the practice of academic departments and research institutes publishing their own locally controlled series of working papers, technical reports, research memorandum, and occasional papers, and suggests another model, the Guild Publishing Model (GPM), which is based on the relatively well-understood concept of the research manuscript series sponsored by some academic departments and research institutes. Benefits of the GPM include: rapid access to new research, quality indicators through restricted guild membership, localized, easy setup, compatibility with other forms of online and journal publishing, and relatively low cost.

Lawal (2002) notes that libraries were paying three times more than the actual price for 7% fewer journal titles in 2001 than in 1986 and stagnating library budgets.

Machovec (2002) reports on the Budapest Open access Initiative (BOAI), a shared statement signed by participants at an Open Society Institute (OSI) meeting in Budapest, Hungary, in Dec 2001. The BOAI aims to make scholarly research more freely accessible over the Internet. It recommends the strategies of self archiving and alternative journals. As price is a barrier to access, these new journals will not charge subscription or access fees, and will turn to other methods for covering their expenses.

Odlyzko (2002) states that traditional periodicals, even those available electronically, are changing slowly. However, there is rapid evolution in scholarly communication. Usage is moving to electronic formats. In some areas, it appears that electronic versions of papers are being read about as often as the printed periodical versions. Although there are serious difficulties in comparing figures from different media, the growth rates in usage of electronic scholarly information are sufficiently high that if they continue for a few years, there will be no doubt that print versions will be eclipsed. Further, much of the electronic information that is accessed is outside the formal scholarly publication process. There is also vigorous growth in forms of electronic communication that take advantage of the unique capabilities of the World Wide Web and which simply do not fit into the traditional periodical publishing format. Presents some statistics on usage of print and electronic information and discusses some preliminary evidence about the changing patterns of usage. It appears that much of the online usage comes from new readers (esoteric research papers assigned in undergraduate classes) and often from places that do not have access to print periodicals. In addition, the reactions to even slight barriers to usage suggest that even high-quality scholarly papers are not irreplaceable. Readers are faced with a 'river of knowledge' that allows them to select among a multitude of sources and to find near substitutes when necessary. To stay relevant, scholars, publishers and librarians will have to make even greater efforts to make their material easily accessible.

Russell and Liberman (2002) reports a study to develop a model to describe the communication patterns for the scientific publications of researchers in different

disciplines affiliated to the National University of Mexico (UNAM). Using information on the scientific production of the different research institutes and centers published in the annual reports of the UNAM from 1997-2000 and analysing its presence in regional and international databases from 1997-1999, it was possible to establish the basis for the development of models in 5 main areas of knowledge: exact sciences; natural sciences; applied sciences; social sciences, and humanities.

Suber (2002) states that the primary body of literature for which we want Open access consists of peer reviewed research articles, implying that documents would be quality controlled before archived. Therefore the peer review process must still be conducted, presumably by the publishers, leading many to claim that OA self-archiving is complementary to journal publishing rather than in competition with it.

Willinsky (2002) examines the contradictions in how copyright works with the publishing of scholarly periodicals. These contradictions have to do with the protection of the authors' interest and have become apparent with the rise of Open access publishing as an alternative to the traditional commercial model of selling journal subscriptions. Authors may well be better served, as may the public which supports research, by Open access periodicals because of their wider readership and early indications of greater scholarly impact. Reviews the specifics of publishers' contracts with editors and authors, as well as the larger spirit of copyright law in seeking to help scholars to better understand the consequences the choices they make between commercial and Open access publishing models for the future of academic knowledge.

Harnard S (2003) suggest a strategy to get around restrictive copyright legally involving self-archiving the preprint, whilst the copyright indisputably remains with the author, then amending a copyright transfer agreement to explicitly allow the peer reviewed article to be placed in OA Repository. If this is impossible the author can still legally add corrections to the original preprint to reflect any changes that occurred during peer review.

Pinfield (2003) provides a brief overview of current activity in the development of Open archives within UK universities and similar institutions and discusses some of the issues the Open archives activity is raising. One initial issue that has arisen as the idea of self-archiving has begun to take root is the problem of ambiguous terminology. There is considerable confusion, particularly amongst practitioners who are new to the field. Whilst many proponents of the Open archives initiative (OAI) are also advocates of Open access, it should be recognized that the two do not necessarily have to go together. It is possible to use the OAI protocol in a closed-access environment and it is possible to have Open access without the OAI.

Welcome Trust (2003) claim that monopoly held by publishers in the current system does not act in the interests of academic community or public.

Antelman (2004) examined the mean citation rates as recorded in the ISI Web of Science of freely available articles with those that are not for a sample population of journals in four disciplines. She found that Open-access articles have a greater research impact than articles that are not freely available.

Espostio (2004) suspects that, due to the small readership that a technical research paper would attract, the idea of a wider audience is misleading, and that these virtually reach their full potential reader already.

Friend (2004) is expressed that the quality of articles in OA journals would be less than in traditional journals. There would be a bias towards accepting a paper for publication rather than rejection. The internet places virtually no limit to the number or size of articles published, and rejecting a paper would mean expending effort on referring it but not receiving any revenue. The desire to retain the features of the traditional system limits the efficiency of OA journals and states that the peer review system is suitable for print publishing where any alternations or mistakes would be expensive to fix, but it is not necessary for electronic publication.

Swan and Brown (2004) argued in the introduction to their survey that a global network of IRs with interoperable metadata (OAI) is preferable to IRs for

most researchers. Both surveyed 1296 academics worldwide. 811 responded to email sent to 25,000 names from the Institute for Scientific Information's Citation Indices for Science and for Arts and Humanities, 398 were gathered from Open access discussion lists, 52 were found by trawling Open access Repositories, and 35 were from the School of Electronics and Computer Sciences at Southampton University where self-archiving in an IR is mandatory. They entailed a survey of two groups of authors, those who had published in Open access journals and those who had not. It found that the prime reason authors had not submitted to Open access journals was that they were not aware of suitable titles in their field. This raises the question of the role that librarians might play in advocating and raising faculty awareness of suitable Open access channels.

Beer (2005) found very limited knowledge and experience of Open access amongst faculty in the disciplines of computer-, library- and information sciences. She also visited the websites of over 200 academic units at Stellenbosch University to detect any evidence of self-archiving or participation in Open access journals. Interestingly, she found more investment in Open access amongst humanities and social sciences than amongst the units representing the natural sciences.

Bepress (2005) reported that in the past 20 years, journal prices have increased faster than inflation. Since 1986 the average price of a journal has risen by 215%, while the number of journals purchased has fallen by only 5.1 % indicating a huge increase in subscription budgets. The numbers are even greater when restricted to science. Between 1984 and 2002, the price of science journals increased by nearly 600%.

Haider (2005) believes in the scholarly publishing scenario, India has its unique position. India does not have a high percentage of its scientific journals available online. Though it is placed at the 12th position for overall number of journals among the top 25 publishing countries, its position falls down to 18th for journals with online content.

Kaufmann (2005) detailed study of current state of affairs. 40% of Open access journals run at a loss. Many traditional journals see Open access as a threat. Peer review with Open access may be less rigorous.

Kurtz et al (2005) argue that there are several possible explanations for the higher citation rates for Open access articles. One of the reasons for higher citations is simply because the article appears sooner, so it has primacy and longer time in the public eye. This is described as the early access postulate. Obviously any advantage gained by an article being available early is mitigated as the percentage of Open access articles available moves towards 100%.

Hitchcock (2006) describes any potential audience is considerably greater if the information becomes Openly accessible. There is substantial evidence to show that articles that are made freely available online have a far greater impact than those languishing behind toll barriers.

Kingsley (2006) says considering the small size of the intended audience of a particular piece of work, it is not surprising that many scholarly papers are never cited. A core of approximately 2,000 journals now accounts for 95% of cited articles.

Suber (2006) says recently several publishers have offered alternative Open access points, such as the ability to pay for Open access publication within selected proprietary journals, and while details on the uptake levels of these options are scare, early indicators are that approximately 10% of articles are being published as Open access in these hybrid journals.

Ondari (2007) conducted an empirical study by extracting articles indexed from 1997-2007 by the Science Citation Index, the Social Sciences Citation Index and the Arts and Humanities Citation Index and compared developing countries research output with that of developed countries. From the years 1997-2007, only 235 articles from Congo and only 2747 articles from Ethiopia had been indexed. As one may expect, South Africa leads Sub-Saharan countries with 51,738 indexed. On the other hand, in the year 2006 alone, USA and UK produced 100,000 and 97,904 records of scholarly publications respectively.

Suber (2007) describes that since 2002 IRs have seen growth accelerate both in the number of Repositories and in the volume of content between 2005 and 2006 this growth was shown to be 25% and almost 60%. In addition, the types of documents deposited in IRs have diversified, in terms of purpose, target audience as well as technical formats. With this growth and diversity comes responsibility to manage the content effectively.

Canessa and Zennaro (2008) describes currently there are more than 25,000 journals and they publish 2.5 million articles per year. Most of these journals are subscription-based where the reader or his/her institution has to pay a fee to access to the contents. This model has served scientists well until the prices of journals began steeping to a level where even richer universities such as Harvard were unable to afford to subscribe all or most of these huge numbers of journals.

Norris et al. (2008) found that papers freely available over the Internet did have greater impact. These advantages are of the order of a 40 to 80 per cent increase in citations. However, found that this impact varied between disciplines. Neither study was able to identify the reasons for these differences, although author self-citation, which was observed to be higher in Open access sources, seems to account for part of this. Other studies have not shown a clear citation advantage of Open access publishing over subscription publishing, despite Open access papers reaching more readers

Soloman (2008) says the history of journal publishing goes back to 1665 when Henry Oldenburg, the secretary of the Royal Society of London, began to compile and distribute the correspondences of the members of society in a journal named “Philosophical Transactions of the Royal Society of London”. Before 1665, scholars used to communicate using hand written letters and had to make a copy of each correspondence and distribute it to other scholars.

Park (2009) argued that the success of Open access publishing is determined by three categories: attitude toward Open-access publishing, social influence on Open access publishing, and perceived control for Open-access publishing

Calver and Bradley (2010) found that Open access "had no statistically significant influence on the overall number of citations per journal paper. Journal papers were cited more frequently if the authors had published highly cited papers previously, were members of large teams of authors, or published relatively long papers, but papers were not cited more frequently if they were published in an OA source. While this might not depict complete OA failure, it shows that OA is not yet the thriving entity some proponents have chosen to illustrate.

Gric and Barbaric (2010) findings indicate that all the academic librarians in Croatia are aware of the importance of Institutional OA Repositories. The number of OA Repositories in Croatia is rather small, but the librarians are making lots of efforts towards the development of new Repositories. Croatian librarians think that the most appropriate software is Open-source software; that OA Repositories have to be Open access initiative protocol for metadata harvesting compliant; that copyright owner's consent for archiving is necessary. The biggest problems are the lack of administration support and the researchers' unawareness of the benefits of OA, especially OA Repositories.

Joung (2010) reports that the bulk of Korean journal articles are offered through commercial databases, Open access is rarely provided. Even papers written as part of research projects sponsored by public funds seldom provide Open access. Out of 19,000 published papers sampled for an analysis, 22 per cent were sponsored by public funds and most of them were distributed through commercial databases without providing Open access.

Mulligan (2010) says that approximately 30,000 authors were approached via e-mail to complete the survey. The authors were from variety of sources, they had published in journals from different publishers and across a range of disciplines. The types of scholarly journal also varied; a number of authors had published in

Open access journals. While there has been some change in the behaviour of researchers, there has been little change in their motivations for publication. Researchers want other researchers' data but are less inclined to share their own. Researcher attitudes towards Repositories are very mixed. Researchers highly value peer review. The pressure to over-publish at the expense of quality is exaggerated.

2.2 STUDIES ON SELF-ARCHIVING

Marshall and Rossman (1995) claims that the most prominent members of the community will provide the best information. As such, Pelizzari interviewed Department Directors, Deans and the Pro-Rector but interviewing academics with a broader range of positions in the hierarchy could have yielded more varied results, and perhaps a more reliable reflection of opinion.

Harnard (2000) predicts that comprehensive self-archiving is inevitable in all disciplines within a very short time but there are few disciplines so far that have achieved this.

Menne (2001) attempts to redefine knowledge as something which can only be evaluated as useful or not by the person who needs it. Storage and structuring information is not knowledge. Although search engines using key words and full text searches can help users, certain aspects of information are not verbalised and depend on the questions being asked of the material by the user. Archival working methods show how information potential can be managed for Open access to such search procedures.

Johnson (2002) argues that the traditional peer review system will become obsolete, and that the journal will be replaced by the individual paper as the unit of communication. Each paper would be ranked by quality depending on citations and comments made about it through an on-going peer review system and whole academic reward system would be revolutionized by this.

Andrew (2003) notes that his survey involved searching about half a million individual pages on the university website and such distributed collection information would be impractical for the uniformed searcher.

Gadd (2003) conducts Studies, 542 academics responded to the survey. They were based in 57 countries and represented a wide variety of subject disciplines. The main aims of the survey were to find out how academics wanted to protect their actual or potential Open-access research papers and also how they expected to use such papers. This data would inform the development of appropriate rights metadata for this purpose. Authors were also asked for their views on the copyright ownership of research papers.

In total, 61% of respondents thought that academics owned the copyright in such papers, although 32% admitted that they did not know who owned the copyright. When it came to assigning copyright, however, 90% of respondents reported having done so, which must include many of those that were not sure whether in fact they owned such rights. Fifty per cent of respondents indicated that 71-100% of their papers were multi-authored. This could leave room for disagreement amongst co-authors as to if, when, and where self-archiving took place. An unexpected finding was that 25% of respondents had previously had to clear third-party materials before publishing a paper. Again, this would affect an author's ability to self-archive as the third-party or parties would have to agree not only to publication in a peer-reviewed journal, but also to have their work made freely available on the web.

The majority of respondents (60% or more) were happy for others to display, print, save, excerpt from, and give away their research papers as long as the respondents were attributed as the authors, and that all copies were exact (verbatim) copies of the original work. Most respondents wanted to prohibit sales of their works and 55% wanted to limit usage of their works to certain purposes, e.g., educational or non-commercial. A comparison between these usage limits and those provided by UK copyright law and many electronic journal licenses showed that the academics' conditions were far more liberal.

Interestingly, the subsequent comparison between how academics-as-authors wished to protect their Open-access research papers, and how academics-as-users expected to use such research papers, showed that academics did not expect to make use of all the permissions they were prepared to grant others.

Coleman (2005) carry out a study of ISI ranked Library and Information Science (LIS) journals (n=52) is reported. The study examined the stances of publishers as expressed in the Copyright Transfer Agreements (CTAs) of the journals towards self-archiving, the practice of depositing digital copies of one's works, preferably in an OAI-compliant Open access Repository. Results show that 62 % (32) do not make their CTAs available on the Open web; 38 % (20) do. Of the 38 % that have CTAs available, two are Open access journals. Even among the 20 journal CTAs publicly available a high level of ambiguity exists. Of the 62 % that do not have a public CTA, 40 % are silent about self-archiving. Closer examination augmented by publisher policy documents on copyright, self-archiving, and author instructions, reveals that only five, 10% of the ISI-ranked LIS journals, actually prohibit self-archiving by publisher rule. Copyright transfer agreements are a moving target and publishers appear to be acknowledging that copyright and Open access can co-exist in the scholarly journal publishing arena. Given the ambivalence of journal publishers, the communities might be better off by self-archiving in Open access archives and strategically building an LIS information commons through a society-led global scholarly communication consortium. The aggregation of OAI-compliant archives and development of Disciplinary-specific library services for an LIS commons has the potential to increase the field's research impact and visibility besides ameliorating its own scholarly communication and publishing systems, and serving as a model for others.

Swan and Brown (2005) say Self-archiving does not require a lot of time once an author is familiar with the process; however, an important barrier to self-archiving is “the perceived time required and possible technical difficulties”. They surveyed 1286 authors from many disciplines including LIS, about their Open access archiving practices. They define self-archiving as an adjunct, complementary activity to scholarly journal publishing and practice, this means depositing the file,

which is usually the author's final version of the article after peer review has been completed, in an Open access archive or Repository." However, in the survey instrument they expand it to six ways in which a researcher can provide Open access to articles by self archiving.

Joki (2007) reports that "All research institution must report their research publications to the Ministry of Education and Research, and research grants from the government by registering publications in a research documentation system " FRIDA is a system for documenting research results, information and academic activities. It is made up of four modules which are Research results, Researchers' profiles, Project catalogue, and annual reporting.

Covey (2009) examined faculty self archiving in personal Web pages linked from departmental Web sites at Carnegie Mellon University, although it did not explore the motivations behind self-archiving.

Gargouri et al., (2010) conducted study on factors affecting to self-Archiving practices and found that increasing number of IRs, particularly in Europe, are adopting self-archiving mandates to raise the rate of IR contribution

2.3 STUDIES ON INSTITUTIONAL REPOSITORIES (IRs)

Chen and Dumais (2000) developed a user interface that organized web search results into hierarchical categories. This interface was compared with a typical ranked list interface of search results using the same set of tasks, search engines and search results. The experiment was within-subjects design and each subject performed the same 30 tasks.

Kling and McKim (2000) there are also several potential disadvantages of archiving research papers in a series of interoperable Institutional Repositories. The long term preservation of research may be threatened by this system, some argue, as Repositories themselves – either subject based or Institutional may not

prove to be permanent. New technologies and new publishing models should not be at the expense of preserving the research record.

Johnson (2002) says, SPARC (Scholarly Publishing and Academic Resources Coalition) has explored strategies to exploit the power of the digital networked environment in order to enhance the process of scholarly communication and address the serious economic problems that plague it. Institutional Repositories build on a growing grassroots faculty practice of posting research online, most often on personal Web sites, but also on departmental sites or in disciplinary Repositories. This demonstrates a desire for expanded exposure of, and access to, their work. In addition, digital publishing technologies, ever-expanding global networking, and enabling interoperability protocols and metadata standards are coalescing to provide practical technical solutions that can be implemented now. The convergence of these interrelated strands indicates that Institutional Repositories merit serious and immediate consideration from academic institutions and their constituent faculty, librarians, and administrators. This belief is reinforced by SPARC's recent experience in bringing together stakeholders to discuss the prospects for Institutional Repository building. Their evident energy and activity give cause for optimism that Institutional Repositories are an emerging dimension of scholarly communications.

Peters (2002) discusses the great deal of attention that Institutional digital Repositories have been received in recent years, within the academic library community, across higher education and throughout the scholarly publishing industry, with typical projects such as DSpace, at the Massachusetts Institute of Technology and the Knowledge Bank at Ohio State University. Reports on examples of Institutional digital Repositories and consortia Repositories, with arguments presented in favor of the latter. Tentatively concludes that consortia can make positive contributions to the digital Repository movement and, for the foreseeable future, such Repositories will be mixed and non-homogeneous, comprising individual, discipline-based, Institutional, consortia and national.

Sompel and Lagoze (2002) reported optimistically about the acceptance of the Open Archives Initiative-Protocol for Metadata Harvesting (OAI-PMH) as a foundation for digital library interoperability. Additionally, they highlighted the role of metadata, data providers and service providers as enabled by the OAI specification, and identified some of the services that could be built besides resource discovery: longevity and risk management, personalization, and current awareness.

Andrew (2003) analysed the web pages of the University of Edinburgh, noting in each disciplines how many staff there were and how many of them placed their work on the website, in the School of Science and Engineering, between 7% (Engineering and Electronics) and 32% (Informatics) of staff self-archived their work. In all the departments in the College of Humanities and Social Science and the College of Medicine and Veterinary Medicine less than 3.5% of staff had self-archived any work, with the exception of Philosophy, Psychology and Language Sciences in which nearly 13% had done so. In this university, self-archiving was certainly most common amongst scientific and technical academics, but less so amongst both humanities and medical staff.

Lynch (2003) insists that Institutional Repositories must reflect the needs of the community itself, and 'advance the needs of campus communities and of scholarship today,' rather than being used to address the problems faced by libraries, or to join in with a trend amongst other universities.

Pelizzari (2003**)** starts in examining users' attitudes in the social sciences, but rather than comparing this discipline with one from the Science, Technology and Medicine (STM) field, he compares attitudes and behaviors of academics in an economics department to those in a law department. He discovers little statistically significant data, hindered further by the relatively small sample size of 62. A case-study of an single Italian university may disguise broader opinions under local conditions, and could also be difficult to compare directly to the UK situation: support from government and funding bodies will be different, and even the fact that many of the academics do not publish in English will affect the outcome.

Prosser (2003) highlights the benefits of an Institutional Repository as under:

- The Institutional Repository model provides a means for universities/institutes to create archives and make available their Research output. It allows individuals scholars to self-archive their own material.

- For the academic scholars, the Institutional Repository acts as a central archive for their work, representing a CV that provides a complete list of their research over the years. Because it is Open access, it increases the dissemination and impact of their work.

- For universities it acts to preserve their knowledge. It increases their visibility and prestige, and can act as an advertisement for funding sources and industrial sponsors.

- For knowledge society it provides access to the world's research and ensures the long term preservation of research.

Rogers (2003) argues that uncertainty "implies a lack of predictability, of structure, of information." Time constraints, fear or distrust of online documents and a "loss of control" seem to be limiting faculty participation in Open access Repositories. Occurring at the university level, IR developers can allay faculty concerns by creating policies and procedures to aid faculty participation.

Shearer (2003) suggests that the success of IRs will be determined eventually by "their uptake and use by researchers". She points to the critical mass of content that led to the significant usage of disciplinary e-print Repositories. Translating this to IRs, she argues that the success of an IR should be determined by its use, and one of the measures of usefulness is contribution of content. Although potential contributors include faculty, students and staff in universities, faculty members are considered the crucial contributors of scholarly content. However, several studies note that it has been difficult to get faculty members to contribute and suggests that

the success of IRs will be determined eventually by their uptake and use by researchers. She argues that one of the measures for IR usefulness is contribution of content.

Yin (2003) pointed out that generalization of results, from either single or multiple designs, is made to theory and not to populations. Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory. Applications of case study methodology have been carried out in libraries by several researchers.

Anderson (2004) discusses some of the 'author disincentives' to making their work available via OA means. One such disincentive is the 'requirement that they give up copyright in their original work if they wish to publish that work in an Open access environment. However publishing work under the traditional journal system also requires that copyright is given up by the author, to the publisher.

Genoni (2004) reports an OCLC study from 2003 stating "there is no common view of what an Institutional Repository is what it contains and what its governance structure should be". He mentions a SPARC study suggesting that all kinds of published and unpublished materials such as preprints, theses and dissertations, research centre newsletters etc. be a part of the content profile of an IR.

Hey (2004) conducted a similar survey of Southampton University's website, and found broadly similar results.22 Engineering, science and math's disciplines had the highest proportion of papers available full text on the website, and the highest total number of articles listed.

Rowlands and Huntingdon (2004) surveyed 3787 respondents on digital Repositories. But with respect to this quickly changing issue, this survey did not distinguish between Institutional Repositories and Digital Repositories, using the term "Institutional Repository" to refer to a collection of material "managed - at an Institutional level - by a research community. This focused on who manages the Repository rather than how material in it is organized.

Swan and Brown (2004) more stringent analysis is helpful, and investigates authors' concerns about publishing in OA journals. The top four factors they discover relate to the perceived low 'impact factors' of OA journals: the chance of winning grants, the impact of the work, the chance of promotion and the careers of co-workers are all thought to be jeopardized by publishing in an OA journal. Would these perceptions also be felt about publishing in OA Repositories? By being complimentary to publishing in traditional subscription journals, these disadvantages need not exist, but authors may not realise this. The majority of the respondents in the survey were from STM disciplines, so would there have been significant differences if arts, humanities and social sciences academics had been better represented.

Ware (2004) briefly reports on a survey of 45 Institutional Repositories in the USA, excluding the archives with no documents at all, the average number of documents was around 1250. Only one-fifth was peer-reviewed, published articles. As on the Southampton and Edinburgh websites, the most popular subjects were scientific and technical, with fewer humanities and social science documents, but no medical articles at all.

Yin (2004) proposed using multiple sources of evidence, establishing a chain of evidence, and having a draft case study report reviewed by key informants to mitigate the problem. Internal validity, establishing casual relationships, is a concern only in causal cases, not descriptive or exploratory ones. Reliability is achieved in many ways in a case study. One of the most important methods is the development of the case study protocol and the consistent use of uniform procedures.

Bailey (2005) points out that the amount of support required for IRs is often underestimated and the need for librarians to provide user education, IR promotion, metadata creation and preservation is often overlooked.

Bauer (2005) points out that IRs can gather and provide access to a wide range of grey resources, i.e., material not in a journal article format, such as theses, datasets, presentations, archive documents and images.

Cliffer (2005) believes that in the United States, Institutional Repositories are being positioned decisively as general-purpose infrastructure within the context of changing scholarly practice, within e-research and cyber infrastructure and in visions of the university in the digital age. Institutional Repositories are not being deployed simply in response to concerns about the existing scholarly publishing system, the cost of journals, and the Open access movement, although they certainly are being used to support agendas related to Open access to the traditional scholarly literature.

Foster and Gibbons (2005) comment that on its own the Open Archives Initiative Protocol for Metadata Harvesting would not create sufficient usage of IRs – and that librarians will be required to teach staff and students how to access the content of IRs. He examined faculty work practices. They gathered observational data that would help them improve the growth of content in their Institutional Repository at the University of Rochester. Like subject-based or disciplinary archives, Institutional Repositories (IR) are also OAIPMH compliant but unlike subject-based Repositories, they are not cross-Institutional and not all content need be Open. Rather, they are restricted to members of the particular institution they serve. That is, only institutional member's works can be deposited in IR.

Hajjem, et al (2005) examined 10 disciplines form 1992-2003 and found when comparing Open access and non Open access articles in the same journal/year, the Open access articles had consistently more citations, the advantage varying from 25%-250% by discipline and year. These and other studies postulate that when access to articles is unrestricted authors are able to read them and cite them more easily.

Harnard (2005) comments on the practical problems of achieving OA via journals and Institutional Repositories: while either setting up an OA journal, or covering an established journal to an OA model, is extremely risky, depositing work in Institutional Repositories is virtually risk free. In addition, while there are very few options when choosing an OA journal, over 90% will allow articles to be subsequently deposited in an Institutional Repository.

James (2005) studied Interdisciplinary Differences in Attitudes towards Deposit in Institutional Repositories, found a great variety in scope and content in the 25 Institutional Repositories he examined. He notes that several are small and very less utilized, and argues that this could lead to loss of trust in the project and its reputation. Content related issues remain crucial to the success of IRs, and problems persist with regard to the nature of material to be included in his case study of the University of Oregon's Institutional Repository.

Kim (2005) examined the usability of the interfaces of two of the most commonly used Institutional Repository systems: DSpace and Eprints, she suggested implementing guidelines to improve the user's experiences when using digital Institutional Repositories. Kim again examined faculty awareness of IR and found that it was very low. Researchers mainly preferred to submit manuscripts to faculty pages or research group web sites. They feel this gives them larger readership, personal recognition and positive impact on tenure and promotion.

Lynch and Lipponcott (2005) explain that recent literature on Institutional Repositories indicates that Repositories are being implemented at a growing rate. A 2005 survey of United States institutions, for example, observed that 40% had already established Institutional Repositories, further 88% of colleges and universities that did not currently house Institutional Repositories intended to do so in the near future. Other reports indicate a surge in usage of the two main Repository platforms, Eprints and DSpace, in recent years. And also they found that out of 97 universities categorized as Carnegie "doctoral universities", 40% already operated IRs. Among non-implementers, 88% were found to be in the planning stage of IR implementation. This finding indicates that IRs is becoming a component of the technical infrastructure in doctoral research institutions. Whether they become a part of the intellectual infrastructure depends on the extent of faculty contribution.

Mack and Reichert (2005) believe that even though librarians are not necessary for an IR to function, they will be needed to educate users about how to access the material in Irs.

Swanepoel (2005) proposed the Gartner Hype Cycle, product life cycle (Sigmoid curve) and diffusion of innovation theory to IR development. A Hype Cycle is a graphic representation of the maturity, adoption and business application of specific technologies. According to his research, IR development is exiting the early adapter phase of the Gartner Hype Cycle. Using the Hype Cycle for Education Technology, which identifies IRs as E-Learning Repositories, his views IR technology as "on its way to the trough of disillusionment the slope of enlightenment reasonably soon to reach the plateau of productivity within 5-10 years. He identified 25% of faculty as providing Open access to their scholarly output, with a further 79% indicating a "willingness to self-archive" With only 201 registered Repositories and over 4,000 institutions of higher learning in the United States, examining the development and planning process of Early Adopters will identify risks for those planning to implement an IR in the future.

Fernandez (2006) evaluated the growth and development of online research Repositories in India within the broader framework of Open access. She conducted interviews with information professionals responsible for creation and maintenance of online research Repositories in India.

Jadhav and Bamane (2006) argue that many institutions prefer DSpace for it has a well documented planning and implementation stages with strong flexible technical and administrative features such as e-mail/password based authentication, persistent identifiers.

Jones and McColl (2006) suggests, in response to the concerns of academics, some being reluctant to deposit their work in discipline-based Repositories, while others were concerned about the longevity of such Repositories. An Institutional Repository, by contrast, could be deemed more credible and trustworthy.

Kim (2006) according to him the success of an IR should be determined by its use, and one of the measures for the usefulness of IR is contribution of content. Faculty members are considered as crucial contributors of scholarly content. However, several studies note that it has been difficult to get faculty members to contribute.

Lomangino (2006) according to him the use of Eprints rose from 125 to over 200 Repositories in 2004–2005. The Registry of Open access Repositories indicates that as of mid-2007, there are 227 known Repositories using Eprints, with DSpace being the preferred software platform for 234 Repositories. Lomangino also found that the number of Repositories complying with the Open Archives Initiative's interoperability standards has risen from 243 to 617 Repositories since late 2003 only 18% of the 1,900 documents were authored by academic staff.

Merrick and Wilson (2006) found that even though there had been an extensive promotion of the IR in the previous year at Curtin University, only 36% of the academic staff and students were aware of its existence. Given the importance of promoting IRs, it is surprising that no literature was found about the role of subject librarians in promoting IRs to the academic staff and students in their disciplinary areas.

Sale (2006) made a risk analysis of Institutional Open access Repositories. In the table Impact means the negative effects of an event to an institution, which is measured by 5 levels from low to high. Probability is the probability of an event occurring, which is rated on 5 levels from low to high too. The risk level is calculated by probability multiplying by impact. The more severe the impact of an event is, the higher the risk is; the more probable an event occurs, the higher the risk is. According to the analysis, the highest risk is that IRs are empty or IRs cannot attract research output created in institutions, which means it is very possible that an Institutional Repository is empty and this situation will have more negative affects to the institution which owns the Institutional Repository. So to minimize the risk, an Institutional Repository needs plenty of content which becomes an important indicator of successful Institutional Repositories.

Shipp (2006) surveyed fourteen universities currently have publicly available Repositories containing digital versions of journal articles authored by their staff. These Repositories contained over 9,000 items in January 2006. The bulk of items (7,000+) were concentrated in three Repositories where considerable author support has been provided to assist deposit. What is significant is that over 40% of the

Repositories have been implemented within the last twelve months and that more are planned. To date, only the Queensland University of Technology has mandated Open access to a range of published research outputs.

Suber (2006) says recently several publishers have offered alternative Open access points, such as the ability to pay for Open access publication within selected proprietary journals, and while details on the uptake levels of these options are scare, early indicators are that approximately 10% of articles are being published as Open access in these hybrid journals.

Zainab (2006) describes that there are basically three types of electronic archives; the preprint archives, e-print archives and Open access Institutional Repositories. Simply put a university-based Institutional Repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its members.

Cervone (2007) discusses the use of a project charter for Repository development; the focus is on the technical infrastructure needed for a Repository, not the services needed to develop Repository content. In order to provide a project framework for institutions developing IRs, this study will survey those currently working with IRs to identify key project management processes. In addition, the survey will identify various steps, issues and concerns that librarians developing IRs should be aware of prior to the project's inception.

Davis and Connolly (2007) emphasized that reward systems, traditions, and norms are different across disciplines. Xia, however, studied submission behavior as manifested in the metadata of IR contents, rather than as self-reported. At seven IRs in the UK and Australia, Xia found that submission rates per faculty member, averaged for publication productivity, did not correlate with disciplinary distinctions. Mandates, however, did affect submission rates.

McKay (2007) describes the users are particularly important as they can be the spokesperson for the IR. Satisfied users, who successfully use the IR, will value

the service and help promote it to others within the institution or his own research community. However these end-users of IR are particularly under-studied.

Among her highlights pertaining to IR research is:

- IR authors are well studied
- Information seekers and data creators/maintainers of IR system are under-studied infers (from studies on online research) that IR users will visit infrequently, download a Few articles at a time perform simple searchers and use results from the top of the hit list.
- Suggest including browsing functionality and allow interleave searching and browsing

Kim (2007) investigated the factors that motivate or impede faculty contribution to IR where he suggested the extrinsic and intrinsic benefits relating to IR contribution. Extrinsic benefits include accessibility, publicity and trustworthiness of documents in IRs, professional recognition, Institutional recognition, and academic reward. Intrinsic benefits concern altruistic intention of and self-interest in the IR contribution. Cost factors relate to copyright concerns and additional time and effort required to make the IR contribution. Kim, who opined that trust and identification are considered important factors in the IR context, also incorporated contextual factors. By surveying 31 faculty professors using an online survey, found that only 9 (29%) were aware of the IR. from 31 researchers 13 (41.9%) were found to be planning to contribute to the IR in the future. moreover, their experience were that 22 (71%) had made their research/teaching materials publicly accessible through venues other than the IR.

Markey (2007) found that user needs assessment has held only low significance in decisions by college and university libraries to initiate IRs. Such assessment was done by only 35.4% of those who implemented IRs, 23.2% among those in the planning or pilot stage of an IR, and 5.7% of those just planning one. Institutional decisions to implement IRs seem generally to be reached for other reasons, and needs assessment, when done, is generally done afterwards.

Band (2008) talks about his concern that to date there are no set of guidelines for librarians to follow to avoid breaking copyright statutes. He argues that this can hinder librarians to actively embrace OA and further promote it within the university.

Cullen and Chawner (2008) states that though academic authors are interested in wider dissemination of their scholarly work, persuading them to deposit their work in an Institutional Repository continues to be a major challenge

Kingsley (2008) pointed out researchers in the third world, practitioners such as teachers, nurses, doctors, medical and scientific lawyers and accountants who work in fields that benefit from research but are usually not in a workplace that subscribes to the relevant journals are the major benefactors of having materials available as Open access. These would fruitfully benefit from the IR resources provided with no restrictions. The birth of an IR at Makerere University was therefore in response to creating a centrally accessible digital database of the scattered research output and collectively gathering the published works of Makerere University's authors into one online location for easy access and Institutional visibility.

Reid (2008) found that six of eight New Zealand academics interviewed about their attitudes to IRs were IRs: assessing their value aware of the increased exposure that their work would gain from being accessible in an IR, and saw this as desirable because it contributed to the public good. Some of them also expressed frustration with more conventional channels of dissemination for their work, because they felt they did not reach a wide enough audience.

Singh et al., (2008) states that adoption of an interoperable standard/protocol is necessary to expose metadata associated with Repository's collection to external systems and search engines. "Open Archives Initiative" has developed such a protocol to facilitate efficient dissemination of Repository metadata. This protocol is known as Open access Initiative Protocol for Metadata Harvesting or simply – OAI-PMH. Under this model, metadata is harvested from Data Providers by Service Providers.

Suber (2008) believes that the authors control the rate of Open access growth because they decide whether to submit to OA journals; whether to deposit in OA Repository and whether to transfer rights to publisher. So the success factors rely heavily on the ability to develop, expand and build the content of the Repository on continuity.

Abrizah (2009) carried out study in Malaysia on faculty awareness and contribution to IR, revealed that as users, the academics wanted more types of material in the Repository and as authors, they were willing to deposit. Also, very little is known about the usability of IR from the users or information. The largest collection in most of the Repositories is Theses and Dissertations. Nothern University , Malaysia (UUM) and University of Malaysia, Pahang (UPM) have a majority of digital theses in its collection, 75% and 58% respectively. University of Technology Malaysia (UTM) has a more averaged out collection of theses, articles and conference papers. Islamic Science University of Malaysia (USIM) being the largest in content actually has teaching resources as 87% of its content. UM have a total of only 311 records so far, of which 89% are conference papers and 7% of journal articles. Others materials housed by these Repositories include past year exam papers, chapter of books, monographs, audio and video files

Albanese (2009) believes that despite the wide acceptance of Institutional Repositories' potential to enhance scholarship, coupled with the considerable efforts that institutions are dedicating towards developing and implementing these, there is growing certainty that most Institutional Repositories remain largely empty, ineffective, or underutilized.

Beers (2009) stated that researchers and their work habits are the greatest barriers that Open access Repository managers encounter. Even though the concept of Open access is well known among academic researchers their research and publishing practices have still not undergone a radical change.

Bjoerk and Lauri (2009) looks more closely at the amount of articles available through Open access on the total number of articles published in 2006 approximately 1,350,000 a percentage of 11.3% of usable copies can be found in subject or Institutional Repositories or, in alternative, on authors home pages.

Cullen and Chawner (2009) have been examining factors that influence academics decisions to contribute to and use IRs. Promoting IRs as an information resource, has received much less attention.

Dully (2009) conducted survey; questionnaire targeted 544 respondents selected through stratified random sampling from a population of 1088 university researchers of the six public universities in Tanzania. With a response rate of 73%, the data were analysed using the Statistical Package for Social Sciences. The study reveals that the majorities of the researchers were aware of and were positive towards open access. Findings further indicate that the majority of researchers in Tanzanian public universities used open access outlets more to access scholarly content than to disseminate their own research findings.

Harnad (2009) reports in all, findings of these studies point to a general, albeit slow, increase in the total number of institutions establishing Institutional Repositories, as well as increases in the number of participants and items stored in existing Repositories. In most cases however, faculty members have been found to rarely contribute content to existing Repositories. This is seen as critical because some scholars believe that an Institutional Repository's success should be measured by the proportion of faculty journal articles that are deposited in that Repository.

Huwe (2009) Institutional Repositories can represent a cost-effective way of managing an institution's scholarly works, such as media assets, publications, course readings completed, and ongoing research works. This also helps make these resources easily accessible through a Web interface while providing authors with an integrated and stable platform for the storage and dissemination of their academic output.

Kim (2009) asserts that the success of an IR should ultimately be measured by its use. The academic authors as the end users and contributors play a vital role to the success of an IR. Ideally, they should use an IR as a source of information to find relevant work by other researchers and they should also use it to deposit their scholarly work in order to contribute to knowledge sharing. However, the previously mentioned trends of low faculty deposits rates confirm reluctance to participation in IR by academic authors. Several studies have been carried out to investigate this problem and found several reasons for faculty participation in self-archiving.

Linde et al., (2009) carried out interviews as a follow up experiences of the researchers who participated in a pilot project of self-archiving their peer – reviewed journal articles from the last 5 years. The participants were from seven institutes of higher education in Sweden. In their findings, the majority of participants expressed the advantages of increased dissemination and the availability of their articles to everyone. Several participants also raised a concern about self-archiving author versions of their articles because they feared that they might spread erroneous formulations, and that the page references were not the same with the ones in the publisher version, therefore the citation would be difficult.

Smith (2009) conducted investigation of links to IRs from other online resources, such as the Yahoo Site Explorer indexes, which had the potential to increase their likely discoverability as information sources, showed few formal citations to documents in IRs. A much higher proportion of links were from blogs, Wikipedia and other less formal sources (15%). He suggests that a study of Google Scholar, which indexes the research web, might produce a higher number of formal citations to IR documents. Noting that "IRs often contain documents that have been published elsewhere, and it seems that citations are often made to the conventionally published version, rather than the version in the IR, even if the document was originally sourced from the IR", Smith also speculates "that as IRs mature, there will be more conventional citations to them, and this will be reflected in the Scopus and ISI citation databases"

Suber (2009) according to him “OA journals and Repositories proliferated faster in 2008 than in any previous year”. The number of OA Repositories grew by 72 or 8% in Scientific Commons, 129 or 14% in OAIster, 271 or 28% in the Registry of Open access Repositories (ROAR), and by 281 or 28% in the Directory of Open access Repositories .Worldwide, more than five new Repositories were launched every week during 2008.

Abrizah (2010) reported that a small number of research universities in Malaysia have established, or are partway to implementing institutional repository services to increase the visibility and the influence of the research generated within the university. The development of the institutional repository services is related to the Open access movement in Malaysia, which seeks to make valued research outputs openly available by encouraging academics to place their publications into repositories, enhancing their availability and visibility to the global academic community and increase the chances for use and exchange of ideas among scholars within similar disciplines.

Cullen (2010) reported the responses of the library managers suggest that they are 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.

Ezema (2010) argues that African institutions engage in a number of researches through their academic staff who require them for promotion and retention of tenure ship and the students who must submit thesis or dissertations as part of the requirements for the award of degree, certificates and diplomas. Paradoxically, these research generated over the years are buried in different libraries in Africa with very few scholars and students accessing them.

Knowles (2010) describes a network of IRs in Wales, which provides a search facility across the IRs in the network. One feature that all digital libraries share is a system of organization or management.

Sawant (2010) observed that 79 per cent of the institutions had implemented the DSpace IR software package. The respondents considered the end user interface to be the top ranking IR-system feature. It was found that all IRs supported Text (HTML, Postscript, PDF, Spreadsheet etc.) file formats. Half of the respondents marked bit stream copying as a long-term preservation strategy. Almost all Institutional Repositories were OAI-PMH-compliant.

Krishnamurthy and Kemparaju (2011) conducted study on development of Institutional Repositories in India and found that in this study 25 institutes in India used DSpace software and only three institutes used e-prints. These Repositories contain research publications, conference papers, conference proceedings, theses and dissertations related to the subject scope of their organization. Majority of the Repositories studied covered collections of diverse types and most of these collections have unique content.