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3.1 Introduction

One of the first steps for undertaking a research study is to review the literature related to the topic of study. It helps in building the foundations of research. For the purpose of present study literature produced from 2003 to 2014 has been reviewed in the following paragraphs. The contributions have been arranged according to the descending chronological order.

3.2 Review of Related Studies

Rahman and Mezbah-Ul-Islam (2014) conducted a study to spot out various institutional repository (IR) initiatives taken by Bangladeshi institutions. The purpose of the study is to identify prospects, exploring strategies, and framing guidelines for building IRs in Bangladesh. The authors described the benefits of IRs, challenges and issues faced while building IR including Software, hardware, Cost, planning, etc. The study explored the existing status of practicing IRs in Bangladesh with special reference to ICDDR, B and BRAC University. The authors also identified the trends at National and Global level of IRs. The authors found with the study that DSpace is the widely used software platform followed by Eprints and Greenstone for developing IRs in Bangladesh. The authors concluded that implementation of IRs in Bangladeshi institutions is still in the preliminary stages. The government should promote the research and development-based support of initiatives on digital preservation and digital repositories, and should develop policy guidelines for the development and promotion of institutional repositories in Bangladesh.

Sahu and Arya (2013) conducted a study with the goal to analyze the awareness of open access publishing among researchers and faculty members of Indian institutions, and to evaluate the development of open access initiatives in
India through a survey that was conducted among the researchers of IITs and IIMs in July-August 2012 by using a closed ended questionnaire. The authors had chosen to conduct this study by enumerating three gaps in the literature that are (i) existing literature on open access focuses mainly on the overall growth and means of achieving it with little attention to its development and India's contribution toward the same. (ii) only a few studies have been conducted on the awareness of open access among the researchers of India. (iii) only a few researchers have focused on discipline-wise contribution to open access journals. The study would also try to identify awareness of open access among researchers of India. The results of the survey showed that the awareness level of open access literature and initiatives among the Indian research community and scientists is low but is gradually increasing. The Authors concluded that Open access publishing is gaining prominence day by day in India. There are many projects in progress with the support of government as well as private agencies. Authors are now publishing their papers in open access journals, IRs and by self-archiving. Due to increasing efforts of India, the country has reached the 4th rank in OA journals publishing in the world and ranked 7th in the world after Brazil in terms of number of IRs. The leading organizations and institutions of Medical Sciences, Science and Technology have been creating repositories and providing open access content.

Singh and Gupta (2013) explored the concept of digital libraries and open source digital library software, named DSpace. The authors have described the need and importance, functions and collection of digital libraries. The authors also highlight various features of digital libraries and DSpace open source digital library software as well. The hardware & software requirements to establish digital libraries using DSpace along with the workflow process and uploading of content is also described by the authors.

Singeh, Abrizah and Abdul Karim. (2013) evaluated the consent of Malaysian authors to self-archive in open access repositories. The authors
considered that the effectiveness of open access repositories to support knowledge-sharing is expected to be highly dependent on the readiness of authors to self-archive their research output. They adopted the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which postulates the constructs of performance expectancy, effort expectancy, social influence and facilitating conditions on using technology. A web based survey method was used for data-gathering. The subjects of the study were authors within the five research-intensive Universities in Malaysia. The findings of the study revealed that performance expectancy, effort expectancy, social influence and facilitating condition did not influence authors’ behavioral intention to self-archive. Even though academic researchers tend to agree that institutional repositories are a good way of disseminating information and use them frequently, most of them have not fully embraced self-archiving in institutional repositories. The authors concluded that Self-archiving in institutional repositories will only be totally embraced if researchers are made aware of the benefits involved in self archiving. Awareness remains a substantial factor in determining the adoption of self-archiving. Therefore is a need for open access advocacy campaigns to be carried out in universities and to institute policies that will enhance open access. These policies could be a means of improving and uplifting open access and the establishment of mandates will probably enhance self-archiving in institutional repositories. The authors suggested that as libraries have been seen as an ideal location for institutional repositories, repository administrators should come up with better ways of reconciling with publishers. This will enable them to shed light on researchers who are worried about copyright infringement rules because copyright remains a big obstacle to self-archiving in institutional repositories. The authors also concluded that the results did not provide strong support for the UTAUT model, and this conflicts with findings from most previous studies in which it was found
that a statistically significant relationship existed for performance expectancy, social influence and facilitating conditions with behavioral intention of authors.

Nyambi and Maynard (2012) in the study entitled "An investigation of institutional repositories in state universities in Zimbabwe" examined the current state of institutional repositories in Zimbabwe and the challenges and enablers for institutional growth, whilst evaluating the operational issues that might be affecting the setting up of institutional repositories. They conducted interviews with university librarians and personnel from the International Network for the Availability of Scientific Publications (INASP). The authors found that the current state of repositories has largely been influenced by the political and economic situation in Zimbabwe. INASP in collaboration with libraries support research and also setting up of the repositories. They concluded that the issue of repositories in Zimbabwe requires much attention and financial assistance from the government and universities themselves.

Kumar G.H., Srinivasa V., Reddy M. and Chandra B.T. (2012) in the study titled "India's contribution to Agricultural and Food Sciences through open access literature", have evaluated the initiatives taken by India to make its scholarly output accessible to all by publishing them in open access resources such as open access journals or repositories. The authors conducted the review of the literature on the open access movement and also accessed openDOAR and openDOAJ. The results of the study revealed that India is continuously contributing in open access literature by some of the premier institutions, particularly in the agricultural sciences. The authors also highlighted the position of India in terms of number of journals in the Directory of Open Access Journal (DOAJ) and in the Open Directory of Open Access Repositories (open DOAR) at 5th and 11th places in the world respectively.

Ezema (2011) explored the potential of open access institutional repositories (IR) in enhancing the global visibility and impact of Nigerian
The study was entitled with "Building open access institutional repositories for global visibility of Nigerian scholarly publication". The author examined the problems of open access institutional repositories in Nigeria providing pragmatic suggestions that would address the challenges of making Nigerian scholarly publications accessible internationally. The author highlighted necessary requirements for building of institutional repositories with a road map for the development of functional institutional repositories in Nigeria. The author focused on the current situations in scholarly publications in Nigeria and examined the need for building of institutional open access repositories and their influence in the dissemination of scholarly research from the country to the international scholarly community. The author proposed the building of institutional repositories 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 author concluded that open access institutional repository is the most feasible means of ensuring the global visibility and impact of Nigerian scholarship.

Mukherjee and Mohammad Nazim (2011) performed a study under the title "Open Access Institutional Archives: A Quantitative Study (2006-2010)" in which they analyzed the present trend of institutional archives worldwide. They collected the data from various Directories of Institutional Repositories. The parameters taken were: quantity of institutional archives increased during last six years, country-wise contents of institutional archives, types of materials archived, subject coverage, software used, language, host domains, and policy of institutional repositories. The results of the study revealed that (i) there is a healthy growth of institutional archives in terms of quantity, however the growth is maximum in developed countries (ii) 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 (iii) DSpace is the widely used software(iv) Most of these materials were of English language (v) The policy of content inclusion, submission and preservation in institutional repositories is yet to be well defined

Proven and Aucock (2011) undertook a study entitled “Increasing Uptake at St Andrews: Strategies for Developing the Research Repository”. They focused on the repository services which were developed at the University of Saint Andrews. It aims to maximize the full text open access repository benefits. The study elucidated the strategies for increasing the repository content, include the specific advantages of Current Research Information System (CRIS), use of library support services, and MERIT metadata. The authors concluded that the repository services give a way to maintain relationships of institution with the researchers.

Wacha and Wisner (2011) overviewed open access institutional repositories and measured their value through their study under the title “Measuring Value in Open Access Repositories.” They conducted a cross-sectional study of repositories at American Colleges and Universities across the academic spectrum, using citation indexing to recognize institution’s articles and authors of highest impact. The study concluded that although open access institutional repositories promote access to information, encourage scholarly communication, and demonstrate institutional prestige, still the deposition in open access repositories lacks quality as the faculty members still not depositing their best work.

Gohain (2011) performed a study under the title “Current trend and development of institutional repositories in India” to make an assessment of existing functional institutional repositories in the Indian Universities and R&D organizations. The study discussed present trends and development of institutional repositories in India. The author provided an overview of some of the registered
institutional repositories, their total deposits, and use of various open source software for their development. The study revealed that the growth and development of institutional repositories in India is noteworthy with the significant increase of open access and digital library initiatives.

Herring (2010 December/2011 January) discussed open access and its impact on libraries in the study entitled "Little Red Herrings- Can open access save us". It is noted that the subscription of periodicals is a large expense for libraries. The study reflected the benefits of Open Access in libraries. The study also described the attempts of Scholarly Publishing and Academic Resources Coalition (SPARC) and Confederation of Open Access Repositories (COAR) at implementing Open Access. The author also highlighted the copyright such as Creative Common Licensing and the way it allows information to be shared through Open Access.

Sánchez-Tarrag and Carlos Fernández-Molina (2010) Conducted a study under the title "The open access movement and Cuban health research work: an author survey" to assess the level of knowledge about and the attitudes of the Cuban health researchers towards the open access movement. A questionnaire was distributed among a group of Cuban researchers of several national health institutes to conduct a descriptive cross-sectional study. The results of the study revealed that (i) the best known initiatives for researchers were PubMed central, HINARI and BioMed central, (ii) The rate of publication in open access journals and deposit in open access was low, (iii) Around 85% of researchers agree to upload a copy of their papers into an open access repository if their institutions requests so. They concluded that there is a need for the promotion of the beneficial aspects of open access movement, as well as training and encouragement for researchers so that they can take full advantage of the potential of this movement.
Creaser, et al. (2010) elucidated the awareness of scholarly authors towards open access repositories and the factors that motivate their use of these repositories. The study was entitled with "Authors’ Awareness and Attitudes toward Open Access Repositories." They used mixed method to conduct their study that involved a questionnaire returned by over 3000 respondent. The study found that there is a good understanding and appreciation of the ethos of open access but the understanding of open access differs by disciplinary backgrounds of authors and their motivations for depositing articles within them.

Abrizah (2009) reported on a web-based survey carried out on academics of a research intensive university in Malaysia, investigating their use of open access repositories, advocacy undertaken, and reasons for contribution or non-contribution to Institutional Repositories (IRs). The title of the study was "The cautious faculty: their awareness and attitudes towards institutional repositories". The objectives of the study were to investigate (a) the issues in establishing a facility to provide open access to research materials, and (b) the potential of an IR and the requirements of a good digital repository in allowing faculties to contribute resources to the institutional repository. The author conducted a survey by using both closed and open questions. The study explored that science-based faculty members were overwhelmingly in favour of permitting the deposit of research work. More than 60% of the respondents were in favour of depositing theses and dissertations. The study found that, as users, the academics wanted to find many more types of material in the repository and as authors, they were willing to deposit. Complete theses, post-prints and conference papers were acceptable to be deposited in the IR. The greatest deterrents are the ownership of copyrights and plagiarism. The reasons that may impede self-archiving are the pre-print culture, publishers' policy, trust of readers and preservation. The study also found that a mandate from an institutional employer or a research funder to self-
archive would meet with very little resentment and less resistance from the respondents.

Wani, Gul and Rah (2009) undertook a study under the title "Open Access Repositories: A Global Perspective with an Emphasis on Asia". The study outlined the growth and development of open repositories registered with OpenDOAR database. The study threw light on various facets of open access repositories and tries to present a lucid picture of its overall development. The study also provides a detailed description of repositories in terms of continent, country and subject wise distribution. The study further brought to light detailed profiles of Asia.

Bhat (2009a) conducted a study in which the author evaluated nine Open Access Repositories in the field of Computer Science and IT under the title "Open Access Repositories in Computer Science and Information Technology: an evaluation." The repositories were taken from the OpenDOAR. The author sent questionnaires via e-mail to repository administrators to ascertain the background, resources, content management policies, preservation policies, rights management, promotion, advertisement, services, and feedback and access statistics of the repositories. The results of the study revealed that most of the repositories are (i) maintained by 1-2 faculty members on a part-time basis, (ii) most popular software platform is Eprints on account of its excellent support, ease of installation, transparency of interfaces, configurability, OAI compliance and active development (iii) Most of the repositories follow policies for selection of content and submission of documents (iv) Most of the repositories have provision for withdrawal of content by the authors and voluntary faculty deposit policies (v) links are provided from library or departmental websites to most of the repositories for promotion and advertisement (vi) most of the repositories have provision for feedback from users (vii) a few repositories provide access statistics. The study also found that there is no strategy so far adopted for long term
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preservation and authors are responsible for ensuring copyright compliance of their articles in most of the repositories.

**Bhat (2009b)** attempted to ascertain the success of open access repositories that are coming up in different institutions during the past decades in India by way of community engagement. The study was entitled with "Community Engagement in Indian Open Access Repositories: a Deposit Activity Profile". The author took and analyzed the deposit profiles of 18 Indian open access repositories from ROAR for a period of one year from November 2007 to October 2008. The results revealed that some small repositories like openMED@NIC has daily deposit activity as compared to some larger repositories such as eprints@IISC, that has only 2 days of deposit activity during the period of one year. The study concluded that most of the repositories in India are not active with less or no community engagement.

**Lalitha Kumari (2008)** reflected the concern for the under representation of Indian journals in the global knowledge base. The study was entitled with "Open access to Indian research: Indian STM journals online". The author outlined the international efforts with special focuses on Indian initiatives. The author stated that the problem can be solved by facilitating free access to scientific information in electronic form to users existing world-wide. The study highlighted the initiatives taken by the Indian Government for free availability of science, technology and medical journals for global audience.

**Chandel and Sumer (2008)** discussed the need for developing institutional repositories for bringing visibility to their research output in a study entitled with "Issues surrounding Institutional Repository". They proclaimed that the contributions of the institutions' faculty and researchers remain diffused and scattered in various sources and some of them are hidden to the potential consumers, as well inaccessible to the contributors of the research papers. They discussed the advantages of developing institutional repositories and also raised
certain issues such as copyright, author’s concern etc., in depositing their best work in institutional repositories. They concluded suggesting the type of contents that should fall under the purview of institutional repositories and with what priority so that institutional repositories can cope up with the copyright and other issues.

Bobay (2008) carried out a study entitled “Institutional Repositories: Why Go There?” elaborated the significance of institutional repositories to geographically distributed students and users. The author outlined the importance of IRs that provides quick and easy access to the scholarly research, which previously are hidden in file cabinets, private computers and systems and are restricted to subscribers. The author indicated that it reduces the price and permission barriers thus reducing the cost and allows authors to self-select and self archive their scholarship into an open access repositories. The author also outlined the content of institutional repositories include dissertations, datasets, journal articles etc.

Jayakanth, Mini, Usha and Sandhya (2008) carried out a study to highlight the NCSI’S experiences in using GNU e-prints software to create and maintain the open access institutional repository of IISc. entitled “ePrints@IISc. India’s first and fastest growing institutional repository”. The author found Eprints software as an excellent tool for creating and maintaining OAI-compliant repositories. The author discussed the best qualities of the software that (i) it can be set up easily even by the layman or those who have less knowledge of technology (ii) developers and the user community can give the technical support for the software (iv)New features are being introduced on a regular basis.

Markey, St. Jons, Soo Young, Yakel and Kim (2008) elucidates the planning, pilot testing and implementation experience of Institutional repositories at Masters and Baccalaureate Institutions (M &BI) in a study under the title “Institutional repositories: The experience of master’s and Baccalaureate”. They
conducted a comparative study with few operational institutional repositories (IRs) of research institutions. They carried out surveys to get the data from operational institutional repositories or IR implementation projects underway in research institutes. Their ‘MIRACLE’ study revealed that large research universities are advanced in the development of their IRS.

Doctor (2008) undertook a study under the title “Capturing intellectual capital with an institutional repository at a business school in India” in which the author overviewed pilot implementation of institutional Repository at the ICFAI business school, Ahmadabad, India. The author distributed questionnaire to determine the usage of digital resources by faculty and research staff in scholarly activities and teaching and to understand the need and use of an IR by the faculty. The study described the pilot implementation of the institutional repository by using open source software D space. The author found that faculty in Business school from different academic areas and teaching experience use digital resources for scholarly publications and teaching material. The author investigated that faculty and research staff shows a positive attitude towards the use and need of a digital institutional repository. The study discussed the limitation of implanting institutional repositories that are resulted by the pilot implementations. The author concluded that ICFAI business school is one of the few business schools in India which has created a central facility for systematic archiving of the intellectual output of faculty and research staff.

Moghaddam (2008) reviewed nine archiving initiatives of scientific journals created and supported by various organizations or institutions that include JSTOR, Portico, E-Print Repositories, and open access model, LOCKSS, OCLC Digital Archives, JISC pub med central and KBE-DEPOT under the title “Preserving scientific electronic journals: a study of archiving initiatives”. The study provided a useful overview of the serial archiving initiatives and proves a
useful starting point to those who want to know about the archiving and enable people to get quick information about the existing archiving initiative to date.

Kirsop (2008) outlined the struggle of the researchers in developing countries and looked into the problems which scholarly communication is facing in developing countries. The study was entitled with “Open access to publicly funded research information: the race is on” The author stated that open access is the only way to develop a strong and independent national science infrastructure. The author gave a detailed discussion about the progress of open access in developing countries and pointed out various parameters. The author concluded that developing countries are now recognizing the value of open and free access to published research articles which in return is fruitful to their academic communities and national economies.

Arunachalam (2008) discussed the progress of open access in India in a conceptual study entitled “Open access to scientific knowledge”. The author has described the two ways of achieving open access that are sharing knowledge and building partnerships. The author also discussed the willingness of scholars and researchers to share knowledge. The author concluded that the advances in technology enable opening up free access to information to geographically distributed users.

Swan (2008) highlighted the importance of open access and discussed its benefits to resolve the problems in bringing out the invisible Indian treasure of scholarly knowledge to the rest of the world. The study was under the title “Open access for Indian scholarship”. The author described self-archiving and other ways and methods to provide open access to scholarly communication and impediments to open access in India. The author suggested making the mandatory policies which emphasize researchers to make their work open to all which in turn brings the Indian research output to global visibility.
Pinfield (2007) undertook a critical study entitled “Can open access repositories and peer reviewed journals coexist” in which the author discussed that open access repositories and peer-reviewed journals can coexist. The author gave evidences which reveal that both open access repositories and peer-reviewed journals can coexist but after undergoing significant changes. The author has suggested some important areas where changes need to occur i.e. wider spread development of repository infrastructure, development of version identification standards, development of value added features, new business models, new approaches to quality control and adoption of digital preservation as a repository function.

Afshari and Jone (2007) highlighted the integrated approach to repository development and deployment that can be beneficial in producing a successful archive. The study was under the title “Developing an integrated institutional repository at imperial college London”. They overviewed the development of an integrated institutional repository by using D-space software at Imperial College London. They demonstrated the advantages of producing integrated system especially with regard to making research available in open access repositories in a systematic environment.

Hitchcosk, Brody and Carr (2007) carried out a study entitled “Digital preservation service provider models for institutional repositories” in which they discussed the digital preservation of the contents deposited in institutional repositories. They gave the overview of the evolution of a series of models that are distributing preservation services for Institutional repositories. In this series, they described the PROMON-DROID service and the Preserve Project for National Archives. These services are based on the standard web interface (OAI) and are using E-prints software.

Mutalik (2007) discussed the need of scholarly communication to overcome the time barrier and outlined the Budapest open access initiatives to
illustrate the importance of open access to scientific information. The study was entitled with "E-print archives: A solution for scholarly communication". The author concludes by providing future directions and goals to develop E-print repositories to make the research progressive and effective.

Walport (2006) highlighted the benefits of open access to biomedical research in a study titled "Is open access the future for scientific publishing?" The author stated that open access makes research outputs free for all and provide advance research process that will help scientists to make new discoveries and investigations which are needed to improve health. The author reported the recommendations of welcome Trust, which is working in partnership with the group of biomedical research in Great Britain, allows open access for their scientific publications through the pub med central after six months of publication.

Fernandez (2006) evaluated the open access initiatives in India entitled "Open access initiatives in India: an evaluation". The author conducted interviews of professionals responsible for online research repositories in India. The study covered open access journals, E-print archives and E-theses repositories. Key contacts were facilitated by well known local open access advocates via E-mail and sites, visited wherever possible. Semi-structured interviews were conducted to know the software selection, nature of funding, submission policies and future plans of the selected repositories. It also covered user’s feedback and institutional support. The results of the study identified the barriers to setting up institutional repositories. The author concludes by presenting special features and a list of best practices, based on participants’ feedback.

Hockx-Yu (2006) under the title "Digital preservation in the context of institutional repositories" discussed the need and importance of digital preservation in perspective of institutional repositories. The author explained institutional repositories broadly, as a means to manage and preserve effectively an institution’s knowledge base and intellectual assets. The issues and challenges
faced by repository managers in preserving digital knowledge base were also discussed. The author has in addition, elucidated some digital preservation projects and models. The author concludes describing the benefits of bringing digital assets into a managed repository framework is the promise of future proofing against technology obsolescence and wide deployment of institutional repositories also provides new opportunities for digital preservation.

Padmavathi, Lal and Mahakuteshwar (2005) discussed an initiative of GSDL using open source software to develop a digital library of Thesis and dissertations in CFTRI in a study entitled "CFTRI digital library of theses and dissertations: an initiative". The authors have given an overview of few digital library projects of electronic theses & dissertation that are functional in USA and India. The study described many aspects regarding the design and development of digital library such as selection of content, software and digitization process, work flow, searching & browsing, advantages and disadvantages of Greenstone Software (GSDL).

Benjelloun (2005) presented a study under the title "Archimede: a Canadian solution for institutional repository", that describes the main features of the institutional repository system developed by Universite Laval to address its specific needs known by the name Archimede. The author discussed the architecture, design and development of institutional repository system. This system is based on the java technology. The author described the main features of the repository system that fulfils the needs of the university such as document functionalities, dissemination mechanisms compatible with OAI PMH 2, an indexing and searching framework (LIUS) and a selective dissemination of information service. The author concludes that the development of an institutional repository system resting on open source software, frameworks and application program interfaces could lower the development cost and time and gives impressive results by addressing the specific needs.
Krishnamurthy (2005) discussed the importance of open source software and explained the implementation of DSpace at the Indian Statistical Institute to develop digital library of mathematics. The author in this study outlined the practical issues and key stages involved in digitizing, based on work undertaken as part of developing digital library with a teaching and research content and also discussed the challenges facing while implementing digital library in ISI.

Pinfield (2005) elucidated the improvements in scholarly under the title “A mandate to self archive: The role of open access institutional repositories”. The author discusses the concept of open access repositories and also deals with the issue of mandating deposition. The author also overviewed the select committee report and the UK government response in relation to institutional repositories. The type of content that should be deposited in institutional repositories has also been discussed. The author concludes analyzing the wider implications of mandating deposition in institutional repositories.

Hardway (2005) discussed the open source approach to research and publication. The author considers peer-review as one of the most important safeguard to higher quality research in a study entitled “Sharing research in the 21st century: Borrowing a page from open source software”. The author proclaimed that with this approach the communication with the writers would be easier concerning their work during its development. The author concluded that by using the proposed open source approach to research, academicians and practitioners with similar interests could more easily discover each other and have the opportunity to team up on projects. It would result in additional opportunities to research.

Jones and Andrew (2005) described the ‘Theses Alive project’ that has been conducted in Edinburgh University Library (EUL) to develop an open access e-thesis service named ‘Edinburgh Research Archive (ERA)’. The authors described the design and development of ERA (Edinburgh Research Archive) that
has been established on an open source software system i.e. ‘Tapir for D-space’. Tapir is an open source software package based on DSpace Software and it is also made available under BSD License. The developmental version of the source code for DSpace was used to develop ‘Tapir’. Tapir, therefore, has its own open access version-controlled repository but does not use the same developmental model as DSpace. Instead development is controlled by EUL, although other organizations may take the source code, change it as they see fit, and re-release it to the community. The initial objective was to create a repository containing theses, but the ERA has achieved significantly more as it is also capable of handling many other types of electronic resource (such as e-prints, conference papers/posters and technical reports). The authors concluded that specific key features were identified for dealing with e-theses at Edinburgh which included the need for identification of the type of content in the institutional repository (IR) as well as supervisor access and metadata and submission procedures.

Harwood, Sullivan, Young and Garner (2004) discussed the role played by librarians in the development of institutional repositories. They described the open archives initiative and it’s Protocol for Metadata Harvesting, which provide the technical structure to support the repositories and enable their interoperability for searching purposes. The study was under the title “OAI compliant institutional repositories and the role of library staff.” The study elucidated the benefits of these repositories to institutions and their staff and they also outlined the skills needed by library staff in developing and maintaining institutional repositories. They concluded reporting the issues and problems which can be faced by the academic staff in developing & maintaining IRS.

Medeiros (2004) reviewed the E-prints in library & Information science (E-LIS) open access archives in a study entitled with “A repository of our own: The E-LIS e-prints archive”. The author explored the qualities of E-LIS such as it uses open source applications and joins a growing number of OAI- compliant
dedicated to providing free access to scholarly information. The author proclaimed that E-LIS is an international effort to organize and disseminate scholarly papers in librarianship and related fields.

Antelman (2004) performed a study to reflect the research impact of free availability of scholarly articles entitled “Do open-access articles have a greater research impact.” The author took articles from four disciplines philosophy, political science, electrical and electronic engineering and mathematics that are freely accessible to analyze their greater impact as measured by citations in the ISI Web of Science Database when their authors make them freely available on the Internet. The author investigated that free availability of articles across all four disciplines do have a greater research impact. The author concluded that scholars in diverse disciplines are adopting open access practices and get benefited by it.

Chang (2003) overviewed a new concept of institutional repositories for collecting, managing, disseminating and preserving scholarly works created in digital form by faculty and students in individual universities and colleges. The study was under the title “Institutional repositories: The library’s new role” The author discussed the implementation of these repositories and suggests recruiting librarians who possess digital collection management and Open Archive Skills for Information System (OAIS) management. The author concluded suggesting training faculty and students to use OAIS, helping them prepare their digital products, involving them in institution-wide policy making and setting repository goals.

Tansley, Bass, Stuve, Branschofsky, Chudnov, McCallan and Smith (2003) discussed, in this paper, about DSpace open source software that acts as a repository for digital research and educational material produced by an organization or institution. The authors described that DSpace was developed during two years’ collaboration between the Hewlett-Packard Company and MIT Libraries. The authors give a brief description of the functionality and technical
architecture of the DSpace system. They also elucidated the features of DSpace that it is developed to address the long term preservation concerns of institutional or organization's output. They conclude with some remarks about the future development and operation of DSpace.

3.3 Conclusion

Open access to scholarly literature was originated in the year 2001 when first conference related to the concept held at Budapest (Budapest Open Access Initiative), has gained momentum in last few years. There are lots of studies done concerning the issues and challenges related to open access movement. Some of the studies reveal the problems in populating and maintaining the repositories, a few of them has taken the building and development of institutional repositories, some focus on the copyright issues, author's concern to self archive, author's awareness to open access, some have also taken the long term preservation issues and a few of them describe various platforms on which open access repositories are based. The results of the literature reviewed reveal that although the society in developed countries is much aware and making benefits of open access to scholarly literature but it is still in its infancy in developing countries. Some studies reveal that open access repositories are growing in India at an accelerating rate and India is maintaining position with some developed countries.
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Kumar G. H., H., Srinivasa V., H., Reddy M., B. & Chandra B. T., (2012). India’s contribution to agricultural and food sciences through open access


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