

Electronic Theses & Dissertations in Indian University Libraries and National Level Repository: Positions and Challenges.

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ABSTRACT

Indian universities play a vital role in generation and dissemination of knowledge by conducting research works and producing theses & dissertations that are a unique source of information & knowledge. Every year, about 8,000-10,000 PhDs are being awarded in India. The purpose of these theses and dissertations are to provide an experience to students, researchers, scholars, which will be of enduring value in understanding how new knowledge is acquired and communicated within the required field. Those works contain valuable literature reviews and details on research, which are not generally made available elsewhere. The Indian theses and dissertations are faced with many problems like lack of systematic acquisition, lack of access, uncertain publication practice, enormous growth in the number of theses etc. In western countries, these problems were addressed already and serious attempts have been made to solve them. In North America, less than 5% of all accepted dissertations and masters' theses are initially conceived of and executed as electronic documents. In India, modern information and communication technology (ICT) acts as an effective intervening role in shifting from closed access theses and dissertations to open access electronic theses & dissertations (ETD). The University Grant Commission of India has an important role in facilitating electronic forms of theses & dissertations time to time by their regulations such as the UGC (Submission of metadata and full-text of doctoral theses in electronic format) Regulations, 2005 and UGC (Minimum standards and procedure for award of M.Phil./Ph.D. Degree) Regulation, 2009. This

paper will highlight the current status of electronic version of theses & dissertations in Indian University libraries as well as a national level ETD Repository called the SHODHGANGA. The open access systems of electronic theses & dissertations will make it easy to collect required information and knowledge with saving valuable time, increase the rate of research with high quality, all academic communities will get their benefits as well as acts as commodity sources which will generate revenue for Government of India by its dissemination.

Keywords: Indian universities, Indian universities contributed in ETD, Role of UGC, SHODHGANGA (National Level Repository of ETD in India), Copyright and IPR Issues.

1. INTRODUCTION

It is pertinent to note that Universities have an important role in generation of academicians and intellectual persons; they have intellectual knowledge and quality to lead the society. Presently India has 45 Central Universities¹, 326 State Universities², 130 Deemed Universities³ and

¹The list of total number of Central Universities in India. Available at http://www.ugc.ac.in/central_university.aspx. Accessed on 15/04/2015.

²The list of total number of state Universities in India. Available at http://www.ugc.ac.in/state_university.aspx. Accessed on 15/04/2015.

³The list of total number of deemed Universities in India. Available at http://www.ugc.ac.in/deemed_university.aspx. Accessed on 15/04/2015.

206 Private Universities⁴. Theses and dissertations are the unique and primary source of information for students and future researchers. The theses and dissertations in Indian universities are very difficult to access. Only those students and research scholar visit and access the theses and dissertations who are members of that library and University. It means that all Indian Universities have closed processes of access to theses and dissertations, which are not justice with academicians and research scholars.

In 1999, first time in India the Indian Institute of Technology, Bombay started an individual repository of electronic version of theses and dissertations⁵. Gradually other educational organizations started individual repository of electronic theses and dissertations such as the National Institute of Oceanography, the Indian Institute of Science, the Indian Institute of Technology, the Central Marine Fisheries Research Institute and the Indian Institute of Astrophysics. VIDYANIDHI is a project of the Mysore University, which is responsible for digitization of theses and dissertations at national level. The project has been supported by Ford Foundation, Microsoft India and two government organizations such as National Information System for Science and Technology (NISSAT) and Department of

Scientific and Industrial Research (DSIR). The project not achieves their objectives of digitations of theses and dissertations because submission of electronic theses and dissertations are not mandatory.

On 01 June, 2009 the University Grant Commission (UGC) notified that mandatory submission of electronic version of theses and dissertations for all Indian Universities as well as other academic institutions. The main aim of UGC (INFLIBNET/SHODHGANGA) is to facilitate open access of theses and dissertations for all academic communities in India as well as abroad also. UGC (Minimum Standard and Procedure for Award of M. Phil/ Ph. D degree) Regulation, 2009 make a compulsory submission of electronic version of theses and dissertations in their Universities by the researchers and the concern University submit these electronic versions of theses and dissertations to information and library networking (INFLIBNET) within 30 days. Only 208 universities of India contributed in submission of 34000 + theses to *Shodhganga* as on dated 15/04/2015.⁶ This is a real and mandate repository of electronic version of theses and dissertations at national level.

2. Indian Universities

As per list of the University Grant Commission all Universities of India are classified into four groups⁷. These are as –

- Central University
- State University
- Deemed University and
- Private University

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⁴The list of total number of private Universities in India. Available at http://www.ugc.ac.in/private_university.aspx. Accessed on 15/04/2015.

⁵ There is some variation between countries in the use of terminology e.g. some universities refer to doctoral theses and some to doctoral dissertations. The term ETD accommodates these differences and is becoming used internationally. It may be an electronic version of a printed thesis where the old document that has been scanned and converted into PDF. Alternatively it could be a recently completed piece of work produced and archived in Word or produced in Word and converted into PDF in order to be made available on the Web. ETDs allow more adventurous students to express their research results in creative and flexible ways that would not be possible if they were limited to paper based output. 'Born digital' theses may include audio and visual material and may not even be in a traditional linear format. Vijayakumar, J.K, Murthy, T.A.V and prof. Khan, M.T.M "Indian Academia on Copyright and IPR Issues of Electronic Theses and Dissertations", Conference paper of international CALIBER – 2005, Kochi, 2 – 4 February 2005. Ahmedabad: INFLIBNET centre, 2005, pp 697 – 704.

⁶ Total no. of ETD contributed Universities in shodhganga, Available at www.shodhganga.inflibnet.ac.in, accessed on 15/04/2015.

⁷The list of universities in India, Available at <http://www.ugc.ac.in/#> Accessed on 15/04/2015.

Table 1. List of Central Universities

| Sl. No. | State/Union Territories | No. of University /Universities | No. of ETD submitted Universities | No. of ETD in Shodhganga | Remarks |
|---------|-------------------------|---------------------------------|-----------------------------------|--------------------------|-------------------|
| 01 | Andhra Pradesh | 00 | 00 | 00 | Nil |
| 02 | Arunachal Pradesh | 01 | 00 | 00 | |
| 03 | Assam | 02 | 01 | 163 | |
| 04 | Bihar | 02 | 00 | 00 | |
| 05 | Chandigarh | 00 | 00 | 00 | Nil |
| 06 | Chhattisgarh | 01 | 01 | 79 | |
| 07 | Delhi | 05 | 03 | 5,105 | 1 st |
| 08 | Goa | 00 | 00 | 00 | Nil |
| 09 | Gujarat | 01 | 00 | 00 | |
| 10 | Haryana | 01 | 00 | 00 | |
| 11 | Himachal Pradesh | 01 | 00 | 00 | |
| 12 | Jammu & Kashmir | 02 | 00 | 00 | |
| 13 | Jharkhand | 01 | 00 | 00 | |
| 14 | Karnataka | 01 | 00 | 00 | |
| 15 | Kerala | 01 | 00 | 00 | |
| 16 | Madhya Pradesh | 02 | 01 | 955 | 1 st |
| 17 | Maharashtra | 01 | 01 | 22 | |
| 18 | Manipur | 02 | 01 | 58 | |
| 19 | Meghalaya | 01 | 01 | 41 | |
| 20 | Mizoram | 01 | 01 | 20 | |
| 21 | Nagaland | 01 | 00 | 00 | |
| 22 | Orissa | 01 | 00 | 00 | |
| 23 | Pondicherry | 01 | 01 | 782 | 2 nd * |
| 24 | Punjab | 01 | 00 | 00 | |
| 25 | Rajasthan | 01 | 00 | 00 | |
| 26 | Sikkim | 01 | 00 | 00 | |
| 27 | Tamil Nadu | 02 | 00 | 00 | |
| 28 | Telangana | 03 | 01 | 744 | 2 nd |
| 29 | Tripura | 01 | 01 | 16 | |
| 30 | Uttar Pradesh | 05 | 02 | 540 | |
| 31 | Uttarakhand | 01 | 01 | 106 | |
| 32 | West Bengal | 01 | 01 | 71 | |
| | Total | 45 | 17 | 8,702 | |

*Union Territories of India

Source: 1. See, http://www.ugc.ac.in/central_university.aspx, accessed on 15/04/2015

2. See.

<http://www.shodhganga.inflibnet.ac.in>, accessed on 15/04/2015

Please use numbers of Central Universities in India are 45, On the basis of the above table no 1; total out of them only 17 (37.77%) Central Universities have contributed in submission of electronic version of theses and dissertations at national level ETD repository. The total no of electronic theses and dissertations are 8,702 (24.77%), which have submitted by Central Universities in national level ETD repository of India. Madhya Pradesh is in 1st position and Telangana is in 2nd position in contribution of submission of ETD. Delhi and Pondicherry are in 1st and 2nd position in contribution of submission of ETD. Andhra Pradesh and Goa as well as 5 Union Territories other than Delhi and Pondicherry have no Central Universities on dated 15/04/2015.

Table 2. Lists of State Universities

| Sl. No. | State/Union Territories | No. of University /Universities | No. of ETD submitted Universities | No. of ETD in Shodhganga | Remarks |
|---------|-------------------------|---------------------------------|-----------------------------------|--------------------------|-------------------|
| 01 | Andhra Pradesh | 20 | 08 | 1451 | |
| 02 | Arunachal Pradesh | 00 | 00 | 00 | Nil |
| 03 | Assam | 12 | 02 | 280 | |
| 04 | Bihar | 15 | 04 | 10 | |
| 05 | Chandigarh | 01 | 01 | 11 | 1 st * |
| 06 | Chhattisgarh | 13 | 01 | 903 | |
| 07 | Delhi | 05 | 01 | 03 | 2 nd * |
| 08 | Goa | 01 | 01 | 516 | |

| | | | | | |
|----|------------------|------------|-----------|---------------|-----------------|
| 09 | Gujarat | 23 | 08 | 2101 | |
| 10 | Haryana | 13 | 02 | 614 | |
| 11 | Himachal Pradesh | 04 | 02 | 146 | |
| 12 | Jammu & Kashmir | 06 | 02 | 25 | |
| 13 | Jharkhand | 07 | 00 | 00 | |
| 14 | Karnataka | 23 | 07 | 610 | |
| 15 | Kerala | 12 | 04 | 4068 | 2 nd |
| 16 | Madhya Pradesh | 18 | 03 | 196 | |
| 17 | Maharashtra | 20 | 07 | 868 | |
| 18 | Manipur | 00 | 00 | 00 | Nil |
| 19 | Meghalaya | 00 | 00 | 00 | Nil |
| 20 | Mizoram | 00 | 00 | 00 | Nil |
| 21 | Nagaland | 00 | 00 | 00 | Nil |
| 22 | Orissa | 13 | 01 | 02 | |
| 23 | Pondicherry | 00 | 00 | 00 | Nil |
| 24 | Punjab | 08 | 04 | 1027 | |
| 25 | Rajasthan | 19 | 02 | 04 | |
| 26 | Sikkim | 00 | 00 | 00 | Nil |
| 27 | Tamil Nadu | 22 | 10 | 5429 | 1 st |
| 28 | Telengana | 15 | 01 | 185 | |
| 29 | Tripura | 00 | 00 | 00 | Nil |
| 30 | Uttar Pradesh | 24 | 04 | 3536 | |
| 31 | Uttarakhand | 10 | 02 | 490 | |
| 32 | West Bengal | 22 | 04 | 12 | |
| | Total | 326 | 81 | 22,487 | |

*Union Territories of India

Source: 1. See, http://www.ugc.ac.in/central_university.aspx, accessed on 15/04/2015

2. See, <http://www.shodhganga.inflibnet.ac.in>, accessed on 15/04/2015

On the basis of the above table no 2; total numbers of state Universities in India are 326 out of them only 81 (24.86%) state Universities have contributed in submission of electronic version of theses and dissertations at national level of repository. The total no of electronic theses and dissertations are 22,487 (64.01%), which have submitted by different state Universities at national level ETD repository of India. The states of India such as Tamil Nadu and Kerala respectively 1st and 2nd position as well as the Union Territories such as Chandigarh 1st and Delhi 2nd position in contribution of submission of ETD. Only 7 states and 5 Union Territories of India have no state University as on dated 15/04/2015.

Table 3. List of Deemed Universities

| Sl. No. | State/Union Territories | No. of University /Universities | No. of ETD submitted Universities | No. of ETD in Shodhganga | Remarks |
|---------|-------------------------|---------------------------------|-----------------------------------|--------------------------|-------------------|
| 01 | Andhra Pradesh | 05 | 01 | 07 | |
| 02 | Arunachal Pradesh | 01 | 01 | 02 | |
| 03 | Assam | 00 | 00 | 00 | Nil |
| 04 | Bihar | 02 | 00 | 00 | |
| 05 | Chandigarh | 01 | 00 | 00 | |
| 06 | Chhattisgarh | 00 | 00 | 00 | Nil |
| 07 | Delhi | 11 | 03 | 338 | 1 st * |
| 08 | Goa | 00 | 00 | 00 | Nil |
| 09 | Gujarat | 02 | 02 | 31 | |
| 10 | Haryana | 06 | 03 | 230 | |
| 11 | Himachal Pradesh | 00 | 00 | 00 | Nil |
| 12 | Jammu & Kashmir | 00 | 00 | 00 | Nil |
| 13 | Jharkhand | 02 | 01 | 45 | |
| 14 | Karnataka | 15 | 03 | 32 | |

| | | | | | |
|----|----------------|------------|-----------|--------------|-----------------|
| 15 | Kerala | 02 | 00 | 00 | |
| 16 | Madhya Pradesh | 03 | 02 | 103 | |
| 17 | Maharashtra | 21 | 09 | 883 | 1 st |
| 18 | Manipur | 00 | 00 | 00 | Nil |
| 19 | Meghalaya | 00 | 00 | 00 | Nil |
| 20 | Mizoram | 00 | 00 | 00 | Nil |
| 21 | Nagaland | 00 | 00 | 00 | Nil |
| 22 | Orissa | 02 | 01 | 06 | |
| 23 | Pondicherry | 01 | 00 | 00 | |
| 24 | Punjab | 02 | 01 | 20 | |
| 25 | Rajasthan | 08 | 03 | 135 | |
| 26 | Sikkim | 00 | 00 | 00 | Nil |
| 27 | Tamil Nadu | 29 | 11 | 642 | 2 nd |
| 28 | Telangana | 02 | 01 | 23 | |
| 29 | Tripura | 00 | 00 | 00 | Nil |
| 30 | Uttar Pradesh | 10 | 03 | 419 | |
| 31 | Uttarakhand | 04 | 03 | 144 | |
| 32 | West Bengal | 01 | 00 | 00 | |
| | Total | 130 | 48 | 3,060 | |

*Union Territories of India

Source: 1. See, http://www.ugc.ac.in/central_university.aspx, accessed on 15/04/2015

2. See, <http://www.shodhganga.inflibnet.ac.in>, accessed on 15/04/2015

On the basis of the above table no 3; total numbers of Deemed Universities in India are 130, out of them only 48 (36.92%) Deemed Universities have contributed in submission of electronic version of theses and dissertations at national level of

repository. The total no of electronic theses and dissertations are about 3,060 (08.71%), which has submitted by different Deemed Universities at national level ETD repository of India. Maharashtra and Tamil Nadu state respectively 1st and 2nd position and only one Union Territories i.e. Delhi contributed in submission of ETD. The 9 States and 6 Union Territories of India have no Deemed University as on dated 15/04/2015.

Table 4. List of Private Universities

| Sl. No. | State/Union Territories | No. of University /Universities | No. of ETD submitted Universities | No. of ETD in Shodhganga | Remarks |
|---------|-------------------------|---------------------------------|-----------------------------------|--------------------------|-----------------|
| 01 | Andhra Pradesh | 00 | 00 | 00 | Nil |
| 02 | Arunachal Pradesh | 07 | 00 | 00 | |
| 03 | Assam | 04 | 00 | 00 | |
| 04 | Bihar | 00 | 00 | 00 | Nil |
| 05 | Chandigarh | 00 | 00 | 00 | Nil |
| 06 | Chhattisgarh | 08 | 02 | 27 | |
| 07 | Delhi | 00 | 00 | 00 | Nil |
| 08 | Goa | 00 | 00 | 00 | Nil |
| 09 | Gujarat | 17 | 03 | 116 | |
| 10 | Haryana | 17 | 00 | 00 | |
| 11 | Himachal Pradesh | 17 | 02 | 158 | 2 nd |
| 12 | Jammu & Kashmir | 00 | 00 | 00 | Nil |
| 13 | Jharkhand | 03 | 01 | 01 | |
| 14 | Karnataka | 09 | 00 | 00 | |
| 15 | Kerala | 00 | 00 | 00 | Nil |
| 16 | Madhya Pradesh | 14 | 02 | 49 | |
| 17 | Maharashtra | 01 | 00 | 00 | |

| | | | | | |
|----|---------------|------------|-----------|------------|-----------------|
| 18 | Manipur | 00 | 00 | 00 | Nil |
| 19 | Meghalaya | 08 | 01 | 15 | |
| 20 | Mizoram | 01 | 00 | 00 | |
| 21 | Nagaland | 02 | 00 | 00 | |
| 22 | Orissa | 03 | 00 | 00 | |
| 23 | Pondicherry | 00 | 00 | 00 | Nil |
| 24 | Punjab | 11 | 00 | 00 | |
| 25 | Rajasthan | 40 | 02 | 341 | 1 st |
| 26 | Sikkim | 05 | 00 | 00 | |
| 27 | Tamil Nadu | 00 | 00 | 00 | Nil |
| 28 | Telangana | 00 | 00 | 00 | Nil |
| 29 | Tripura | 01 | 00 | 00 | |
| 30 | Uttar Pradesh | 23 | 03 | 173 | |
| 31 | Uttarakhand | 10 | 00 | 00 | |
| 32 | West Bengal | 5 | 00 | 00 | |
| | Total | 206 | 16 | 880 | |
| | | | | | |

*Union Territories of India

Source: 1. See, http://www.ugc.ac.in/central_university.aspx, accessed on 15/04/2015

2. See.

<http://www.shodhganga.inflibnet.ac.in>, accessed on 15/04/2015

On the basis of the above table no 4; total numbers of private Universities in India are 206, out of them only 16 (07.76%) private Universities have contributed in submission of electronic version of theses and dissertations at national level ETD repository. The total no of electronic theses and dissertations are 880 (02.50%), which have been submitted by different private Universities at national level repository of India. Rajasthan and Himachal Pradesh state respectively 1st and 2nd positions in contribution of submission of ETD.

Only 8 States 7 Union Territories of India have no private University as on dated 15/04/2015.

Role of University Grant Commission (UGC):

Do University Grant Commission launched a project to develop academic infrastructure and modernization of University campus in India called UGC-INFONET⁸. According to this project all Universities of India set up their own networks at individual level. This network has a lot of information regarding their university over website. The University has also responsibility for development of their database regarding e-journals, e-magazines e-newsletters, e-book, e-theses and dissertations, e-education materials etc. As well as University will also develop Wi-Fi campus for searching of Internet and to make national level communication among academic Institutions and their databases. This network of University will function as a tool to disseminate information and knowledge for academic communities and researcher of their University as well as the academic community and researcher at national and international level. The UGC (Submission of Metadata and Full-text of Doctoral Theses in Electronic Format) Regulation, 2005, mandate for all Universities of India to creation of metadata for both current and old theses, submission of electronic version of thesis to concern University and setting up of e-theses repository⁹. The central library of each University is responsible for creation of metadata of theses and verified by trained and qualified librarian. The University would assign the Indian Standard Thesis Number (ISTN) on the basis of recommendation of the University Grant Commission. The metadata created by each University will submit to Indian national theses database. The submission of electronic version of thesis to their concern University is mandate for the students and researchers. Abstract of the electronic version of

⁸ See, <http://www.inflibnet.ac.in/infonet/aims.php> "UGC-Infonet 2.0", accessed on 27/04/2015.

⁹ See, Electronic Thesis Online (India). UGC (Submission of Metadata and Full-text of Doctoral Theses in Electronic format) Regulation, 2005. Available at <http://www.wvu.edu/~Thesis/presentations/ugc.pdf>. accessed on 30/04/2015.

thesis should not more than two hundred words and their format should be in PDF as well as in MS-word, RTF, PS, HTML etc. The copyright and IPR issues and policies are also to be maintained. Each University also gets the author approval from students and researchers to archiving and disseminating of their thesis at University as well as national and international level also. All Universities of India should set-up an e-theses repository to facilitate e-submission, archiving, Maintain and access to these repositories at the University level. The e-theses repository will set-up as a wing of central library of Universities. The guidelines and policies related to electronic version of theses and dissertations at national level are prepared by the UGC (Minimum standards and procedure for the award of M.Phil. / Ph.D. degree) Regulation, 2009¹⁰. As per this regulation of UGC, it is mandatory for researchers to submit electronic version of thesis and dissertations in University. All Universities also submit the electronic version of theses and dissertations at national level ETD repository (INFLIBNET / SHODHGANGA), within 30 days from the date of award of degree. The repositories will be responsible for collecting, preserving, indexing, disseminating and make to facilitate open access for academic communities and researchers.

National Level ETD Repository in India (SHODHGANGA):

Information Library Network (INFLIBNET) set up a digital repository of ETD supported by UGC. The digital repository of ETD also called Shodhganga. Responsibility of shodhganga is to uploading, collecting, collating, archiving, preserving and indexing of electronic version of theses and dissertations to facilitate open access for academician and researchers at national and international level. India has four types of Universities, which are submitting time to time their electronic version of theses and dissertations to shodhganga. The figures and facts are clear from the following tables –

¹⁰See, <http://www.ugc.ac.in/oldpdf/regulations/philphdclarification.pdf>, accessed on 27/04/2015.

Table 5

| SL. NO | University | No. of ETD Submitted Universities | No. of ETD in Shodhganga | Remarks |
|--------|----------------------------------|-----------------------------------|--------------------------|---------|
| 01 | Central University ¹¹ | 17 (37.77 %) | 8,702 (24.77 %) | |
| 02 | State University ¹² | 81 (24.86 %) | 22,487(64.01 %) | |
| 03 | Deemed University ¹³ | 48 (36.92 %) | 3,060 (08.71 %) | |
| 04 | Private University ¹⁴ | 16 (07.76%) | 0880 (02.50 %) | |
| 05 | Total | 162 | 35,129 | |

From the table no. 5 it is clear that submission of electronic version of theses and dissertations by state universities in shodhganga has an important role. Central Universities has also second positions in submitting of electronic theses and dissertations to shodhganga as well as Deemed and private Universities have also vital role. Only 162 Universities of India submitted 35,129 electronic versions of theses and dissertations at national level

ETD repository as on dated 15/04/2015

Table 6

| SL. NO. | Years | Total no. of ETD in SHODHGANGA | Remarks |
|---------|-------|--------------------------------|---------|
| 01 | 2010 | 1171 (03.90 %) | |
| 02 | 2011 | 1522 (05.07 %) | |
| 03 | 2012 | 2299 (07.66 %) | |
| 04 | 2013 | 7,057 (23.52 %) | |

¹¹See, http://www.ugc.ac.in/central_university.aspx, accessed on 15/04/2015

¹² See, http://www.ugc.ac.in/state_university.aspx, accessed on 15/04/201

¹³ See, http://www.ugc.ac.in/deemed_university.aspx, accessed on 15/04/2015

¹⁴ See, http://www.ugc.ac.in/private_university.aspx, accessed on 15/04/2015

| | | | |
|----|-------|------------------|--|
| 05 | 2014 | 17,951 (59.83 %) | |
| 06 | Total | 30,000 | |

Source: See,

<http://www.shodhganga.inflibnet.ac.in>,
accessed on 15/04/2015

From the table no. 6, it is clear that the ratio of submission of electronic version of theses and dissertations by different Universities in shodhganga are increasing every year from the date of announcement of UGC regulation, 2009. The total number of electronic theses and dissertations are submitted by different Universities from the year 2010 - 2014 in shodhganga are about 30,000 only.

Copyright and IPR Issues Related to ETD:

Each literary work of author either in print form or in electronic form is to be protected for his intellectual property. The electronic versions of theses and dissertations are also intellectual property of authors or researchers. These electronic theses and dissertations are searching, copying and downloading from internet by variety of academicians and especially by researchers at national and international level. Meanwhile, open-access systems of electronic versions of theses and dissertations create a question that how to protect the copyright of electronic documents and how to maintain the economic, moral and legal rights of authors and publishers. There is no doubting the fact that copyright protection is essentially about preservation of moral and economic rights and benefits derivable therefrom. However, one of the major arguments of protagonists of open access is that, besides the fact that the protection of the financial interests of authors is partly disingenuous, "with copyright protection, only a tiny fraction of the world's authors earn an actual living from their works. The profits go mainly to the publishers."¹⁵ Theses and dissertations should be protected with fair use and open access either at any Universities or at national level repository of ETD by setting-up the committee. The committee will review and protect the economic and moral copyright of authors. There should be need of a policy to check

¹⁵ OPADERE, Olaolu S ; Legal and Economic Issues of Copyright in Research Institutions: The Case of Nigeria, The NUSRL Journal of Law and Policy, vol. 1 No. 1, pp 44-65, January-july 2014.

and control the issue related to plagiarism and original quality of ETD¹⁶.

Challenges:

Presently India has 45 Central Universities, 326 state Universities, 130 Deemed Universities and 206 Private Universities as on dated 15/04/2015. Out of them only 28 (62.23%) Central Universities, 245 (75.14%) state Universities, 82 (63.08%) Deemed Universities and 190 (92.24%) Private Universities are unable in submission of electronic version of theses and dissertations by researchers in Universities and also these Universities unable in submission of ETD to *Shodhganga*. The situation of electronic theses and dissertations in the North America is just opposite to India. Most of dissertations abstracts are initially arranged in electronic form with their citations. These electronic forms of dissertations abstracts are archive from 1980-till date and master's theses abstracts from 1988-till date. About one millions+ downloadable full-text dissertations and theses are archive in electronic form from 1637-till

¹⁶ In the world of scholarly publishing, authors create and intellectual output, which will be marketed or distributed by the publishers and the libraries will collect, preserve, organise and disseminate the information. The networking world really creates concerns on Copyright of digital documents, which can be easily downloaded and reused. In exceptional circumstances, where the thesis research has been particularly innovative, and there is potential for commercial exploitation, it may be desirable for the author to apply for a patent. A patent application may be successful only if the invention has never been made public in any way before the date on which an application for a patent is filed. It also must involve an inventive step and be capable of industrial application. These issues concern the ETD promoters worldwide to take the necessary steps to safeguard the copyright issues for the real scholarly works done by the research scholars. Vijayakumar, J.K, Murthy, T.A.V and prof. Khan, M.T.M "Indian Academia on Copyright and IPR Issues of Electronic Theses and Dissertations", Conference paper of international CALIBER – 2005, Kochi, 2 – 4 February 2005. Ahmedabad: INFLIBNET centre, 2005, pp 697 – 704.

date.¹⁷The UGC- Infonet project is responsible for set-up and development of WI-FI technology in each Universities campus. But few of technical and modern Universities have these facilities in the campus and rest of Universities campus has no any facilities of networks and WI-FI technology. The UGC (Submission of Metadata Full text of Doctoral Theses in Electronic Format) Regulation, 2005 is mandate for all researchers that submit their thesis in electronic format in the University, but 28 central Universities, 245 state Universities, 82 Deemed Universities and 190 Private Universities are unable in deposited the electronic version of theses by researchers in Universities. UGC (Minimum Standard and Procedure for the award of M.Phil. /Ph.D. Degree) Regulation, 2009 make to mandate for both researchers and Universities are submit their theses and dissertations to Universities and the Universities also submit to shodhganga within 30 days of the date of announcement of award of the degree, 28 Central Universities, 245 state Universities, 82 Deemed Universities and 190 private Universities are not submitted the electronic version of theses and dissertations to shodhganga. Every year in India about 8,000 – 10,000 degrees of Ph.D¹⁸ are being awarded by different Universities. But the ratio of submission of electronic version of theses and dissertations year wise in the shodhganga is very poor and slow which were 1171 in 2010, 1522 in 2011, 2299 in 2012, 7057 in 2013 and 17951 in 2014. Andhra Pradesh has no Central University whereas seven states such as Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura states have no state University. The nine states such as Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura which have no deemed University. The eight states such as Andhra Pradesh, Bihar, Delhi, Jammu and Kashmir, Kerala, Manipur, Tamil Nadu and Telangna which have no private Universities.

Conclusion

In the context of the foregoing discussion it may be concluded that the contribution of electronic theses and dissertations at the national level ETD repository by different Universities is increasing every year. The remaining universities are also trying to contribute in the submission of electronic version of theses and dissertations at national level ETD repository and time will come very shortly the Shodhganga will be a greatest ETD repository or reservoir or the database in the world. This database of India will help in two ways; one is in generation of revenues for government of India by dissemination of information and knowledge as commodity both at national and international level. Second is facilitating to open access of old and current theses and dissertations of all Universities of India with saving the time of academicians. Time taking is one of the most important factors for Indian researchers. This database will be easy to access and help in creation of new views, opinions and literary works by research exercise. These new literary works will be the intellectual property of the author, which are again collected at the national level ETD repository for open access among academicians to create again new ideas, views, opinions and literary works. This circle of open access of electronic theses and dissertations and creation of new information and knowledge will be a great achievement of our country that will help in increasing the rate of research with high quality and save the valuable time of researchers. Moreover, it is pertinent to note that copyright and intellectual property rights should also be protected with the open access of electronic theses and dissertations anywhere and in any condition.

¹⁷The current status of ETD in North America. Available at <http://www.lib.iastate.edu/info/6268> Accessed on 2/5/2015

¹⁸ See, vijaykumar, J.K, Dr. Murthy, T.A.V and Prof. Khan. M.T.M (2005). Electronic Theses and Dissertations for Indian universities: A Framework, Ahmedabad: INFLIBNET Centre, pp 65 – 70. Available at www.eprint.rclis.org/7218/1/vijayakumarjk_07.pdf.