



## MULTI-MEDIA AND AUDIO-VISUAL INSTITUTIONAL REPOSITORIES AS REGISTERED IN OPENDOAR: A DESCRIPTIVE STUDY

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### ABSTRACT

**Purpose:** The study reports the functioning of Multi-Media and Audio-Visual open institutional repositories registered in OpenDOAR. Various aspects like nature of Institutional repositories (IR), type of open access IR, content types, content language, repository software



used, subjects covered, availability of content, preservation and content policies and their growth rate were analysed.

**Methodology:** OpenDOAR website and the websites of individual institutional repositories were browsed to collect the required data.

**Findings:** 694 open access

institutional repositories which have Multi-Media and Audio-Visual Materials and registered in OpenDOAR North America has the maximum number of 255 IRs (37%) followed by Europe with 238 IRs(34 %).620 repository organisations run 694 IRs having MM-AVM. Europe has 216 repository organisations (35%) running 238 IRs. North America has 212 (34%) repository organisations administering 255 IRs. States tops with 225 IRs (32%) followed by United Kingdom with 61 IRs (9%). United States leads with 188 (30%) repository organisations followed by UK with 55 (9%) and Germany with 35 (6%).95 % (657) of the open access IRs are operational. 546 (79%) open access IRs belong to institutional repository type. 100 of them (14%) are the discipline-oriented repositories. 389 IRs (56 %) are multi-disciplinary in nature viz they have MM-AVM on many subjects. 530 (76 %) institutional repositories have contents in English language. 13 % (91) of IRs have contents in Spanish and 56 (8%) of

them have contents in German. 256 IRs (37 %) use Dspace software. While 65 IRs (9%) use Eprints, 42 IRs have used CONTENTdm. only 36 institutional repositories have defined their preservation policies. Only 112 IRs (18%) possessing MM-AVM have defined their content policies. Wikimedia Commons, USA tops with 25410652 records, followed by Internet Archive of

**Future implications:** The study can be further extended to research the individual IRs or a comparison of related IRs country-wise, continent-wise.

Paper Type: Survey cum Research

**KEYWORDS** :Institutional repositories, openDOAR, content types, repository software, preservation policy, growth rate, multi-media, audio-visual.

### **INSTITUTIONAL REPOSITORY (IR)**

An IR may be defined as an on-line locus for collecting and preserving – in digital form the intellectual output of an institution, particularly a research institution (Wikipedia). According to Lynch (2003), an 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 community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long term preservation where appropriate, as well as organization and access or distribution.”

Crow (2002a) and Ware (2004) characterized an institutional repository as open, interoperable, cumulative, perpetual, contributes to the process of scholarly communication in collecting, storing and disseminating the scholarly content. The Scholarly Publishing and Academic Resources Coalition (SPARC) position paper declared that "Institutional repositories are digital collections capturing and preserving the intellectual output of a single or multi-university community, providing a critical component in reforming the system of scholarly communication a component that expands access to research, reasserts control over scholarship by the academy, increases competition and reduces the monopoly power of journals, and brings economic relief and heightened relevance to the institutions and libraries that support them" (Crow 2002b).

According to Heery & Anderson (2005) Institutional repositories: Contain content, deposited by owner, creator, or third party; Repository architecture manages content as well as metadata ; Repository offers a minimum set of basic services, e.g. put, get, search, access control ; Repository must be sustainable and trusted, well-supported and well-managed ; If an Open Access repository, it must also: Provide open access to its content (notwithstanding legal constraints); Provide open access to its metadata for harvesting.

### **OBJECTIVES OF AN IR**

#### **Main objectives for having an IR are:**

- to create global visibility for an institution’s scholarly research;
- to collect content in a single location;
- to provide access to institutional research output by self-archiving it;
- to store and preserve other institutional digital assets, including unpublished or otherwise easily lost (“grey”) literature (e.g., theses or technical reports).

## LITERATURE REVIEW

adma and Ramasamy (2015) reported the functioning of institutional repositories in African continent. Ramasamy and Padma (2015) reported the functioning of institutional repositories in Japan. Musa, Musa and Aliyu (2014) explored the historical development, current practices and the challenges affecting the institutional digital repositories in Nigeria. Padma and Ramasamy (2014) reported the functioning of institutional repositories in Malaysia. Ramasamy and Padma (2014) carried out a study on the functioning of institutional repositories in India. Ezema (2011) explored the potential of open access institutional repositories (IR) in enhancing the global visibility and impact of Nigerian scholarly publication. Nazim and Mukherjee (2011) identified the present status of IRs in the countries of Asia. Collen and Chawner (2010) investigated the development of institutional repositories in New Zealand, exploring factors affecting the adoption and success of institutional repositories with the help of Data from a series of interviews with library managers and the findings from a randomized national survey of academics. Khan and Das (2008) highlighted the present status of Institutional Repository (IR) in India by its collection type, subject coverage and total number of digital repository collections available to academic community as open sources. Lynch and Lippincott (2005) surveyed academic institutions to examine the current state of IRs in the United States.

Padma and Ramasamy (2016) carried out a study on the status of institutional repositories as registered in OpenDOAR as on 4th December 2015 in terms of their origin, continent and country-wise distribution, types of IRs, softwares used, subjects and languages of contents and the top 20 repositories. Dhanavandan and Tamzilchelvan (2015) discussed about the trends and development of Institutional Repository (IR) in south Asian countries in terms of name of the repositories, size, type, content and languages and various software. Padma and Ramasamy (2014) undertook a study to understand the functioning of open institutional repositories on Education worldwide. Ramasamy and Padma (2014) carried out a study on the functioning of institutional repositories as registered in OpenDOAR. Abrizah, Noorhidawat and Kiran (2010) highlighted the current state of open access repositories of Asian universities. Lone, Rather and Shah (n.d) evaluated the initiatives taken by India to make her intellectual output accessible for all by publishing them in Open Access resources like Open Access journals and archiving them in Open Access archives or repositories.

## OBJECTIVES OF THE STUDY

The objectives of the present study are to study the open access IRs on multi Multi-Media and Audio-Visual Materials (MM-AVM) as registered in OpenDOAR as on 20/1/2016 in terms of

- o Continent-wise proportion of IRs
- o Continent-wise proportion of repository organisations
- o Country-wise proportion of IRs.
- o Country-wise proportion of repository organisations
- o Operational status
- o Type of open access repositories
- o Repository software used
- o Content types
- o Subjects
- o Most frequently used languages
- o Availability of preservation and content policy
- o Growth rate and
- o Top 20 Contributors

### METHODOLOGY

The modus operandi of our study underwent the following phases.

1. First of all, the OpenDOAR directory was browsed with the relevant narrowed down search terms to find out the IRs holding Multi-Media and Audio-Visual Materials (MM-AVM).
2. Institutional repository statistics was done to get required data to answer the objectives of the study.
3. Then, the URLs of the selected IRs were browsed for cross checking and verification
4. Diagrams were utilized to present the inferences of the study.

### Findings

#### 1. Proportion of Repositories by Continent

**Diagram 1: Continent-wise IRs**

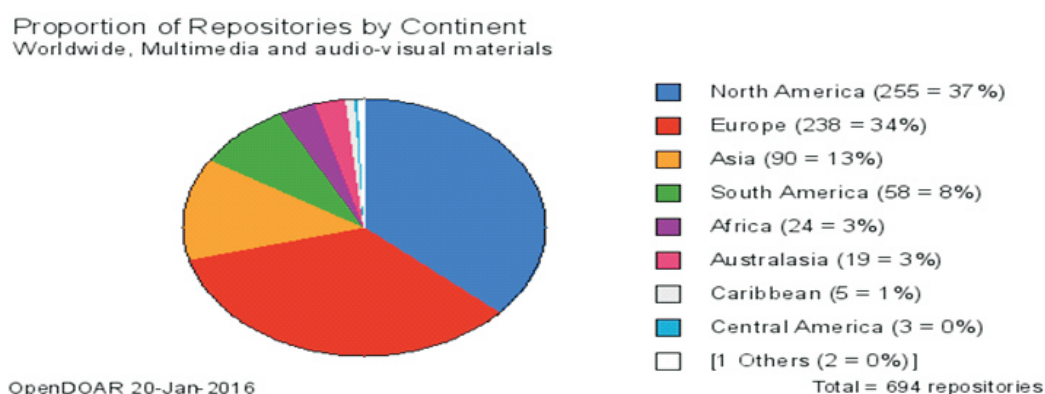


Diagram 1 depicts that out of 694 open access institutional repositories which have Multi-Media and Audio-Visual Materials and registered in OpenDOAR North America has the maximum number of 255 IRs (37%) followed by Europe with 238 IRs(34 %). Asian continent has 90 IRs (13%) and South America has 58 IRs (8%). Africa and Australasia has 24 and 19 IRs respectively. Thus, north America and Europe have 71 % of total IRs having MM-AVM.

#### 2. Proportion of Repository organisations by continent

**Diagram 2 : Proportion of Repository organisations by continent**

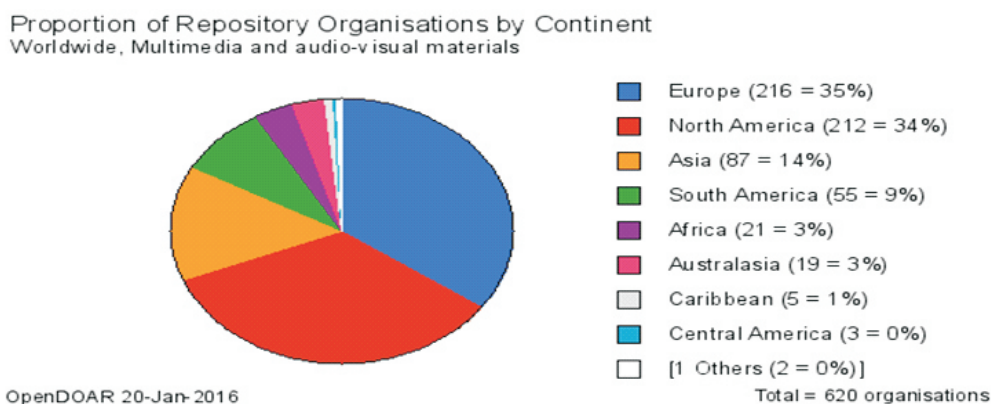




Diagram 2 depicts that 620 repository organisations run 694 IRs having MM-AVM. Europe has 216 repository organisations (35%) running 238 IRs. North America has 212 (34%) repository organisations administering 255 IRs. While 87 (14%) organisations in Asia run 90 IRs , 55(9%) organisations in South America manage 58 IRs. Europe and North America jointly have 69 % of total repository organisations running 71 % of total repositories having MM-AVM.

### 3. Proportion of Repositories by country

**Diagram 3: Country-wise distribution of IRs**

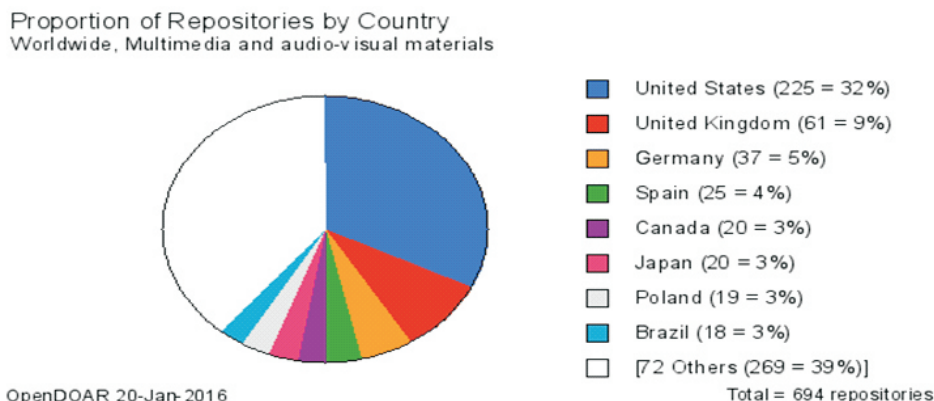


Diagram 3 reveals that United States tops with 225 IRs (32%) followed by United Kingdom with 61 IRs (9%). While 37 IRs (5%) are found in Germany, Spain has 25 IRs(4%). Canada and Japan each have 20 IRs (3%). 72 other countries host 269 IRs (39%). Just four countries have 50 % of the IRs having MM-AVM.

### 4. Proportion of repository organisations by country

**Diagram 4 : Distribution of country-wise distribution of repository organisations**

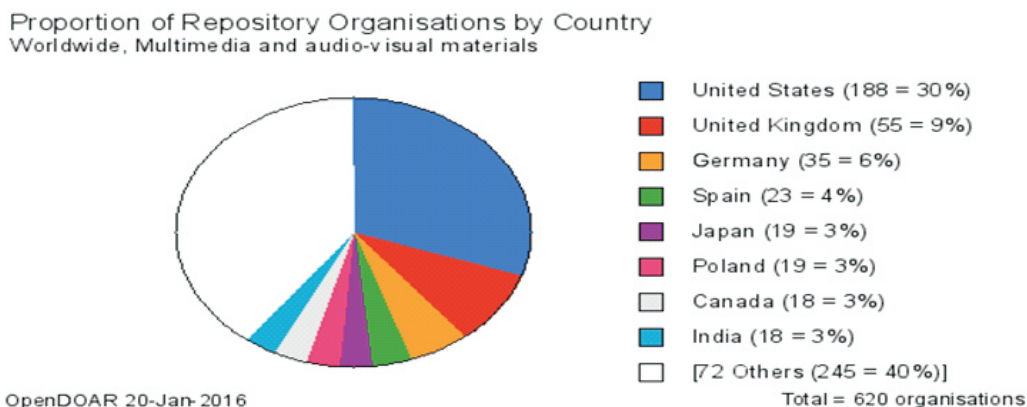
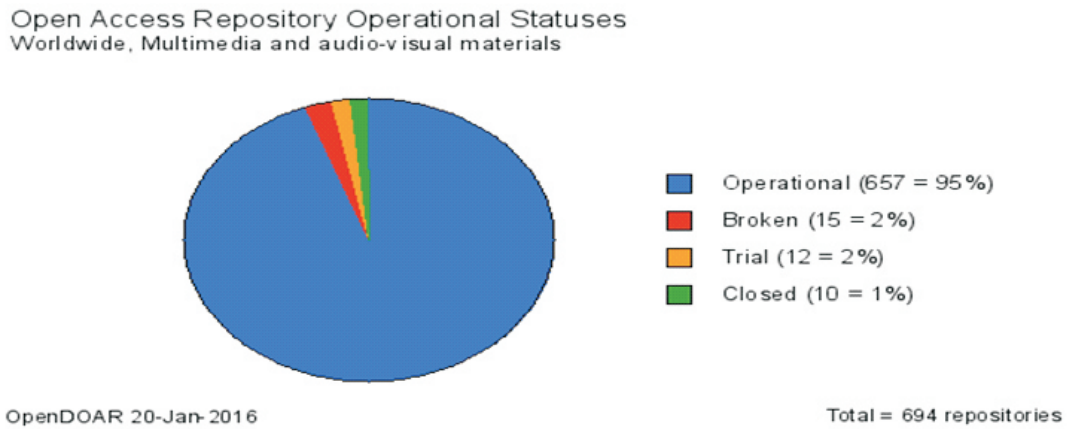


Diagram 4 portrays that there are 8 countries constituting 60 % of the total repository organisations holding contents on MM-AVM (620 ). United States leads with 188 (30%) repository organisations followed by UK with 55 (9%) and Germany with 35 (6%). While Spain has 23 (4%)

repository organisations, Japan and Poland have 19 each. India has 18 repository organisations (3%) possessing MM-AVM.

### 5. Operational Status

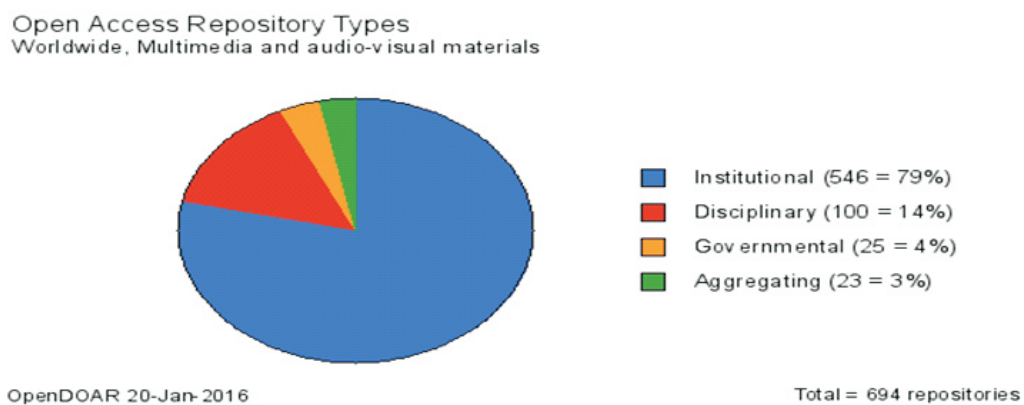
**Diagram 5: Operational Status**



There are 694 institutional repositories registered in OpenDOAR having MM-AVM. Diagram 5 shows that 95 % (657 ) of the open access IRs are operational. While 15 (2%) Open Access IRs are technically malfunctioning, 12 of them (2%) are the trial repositories and 10 were closed.

### 6. Types of Institutional repositories

**Diagram 6: Open access IR Type**



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Diagram 6: Open access IR Type

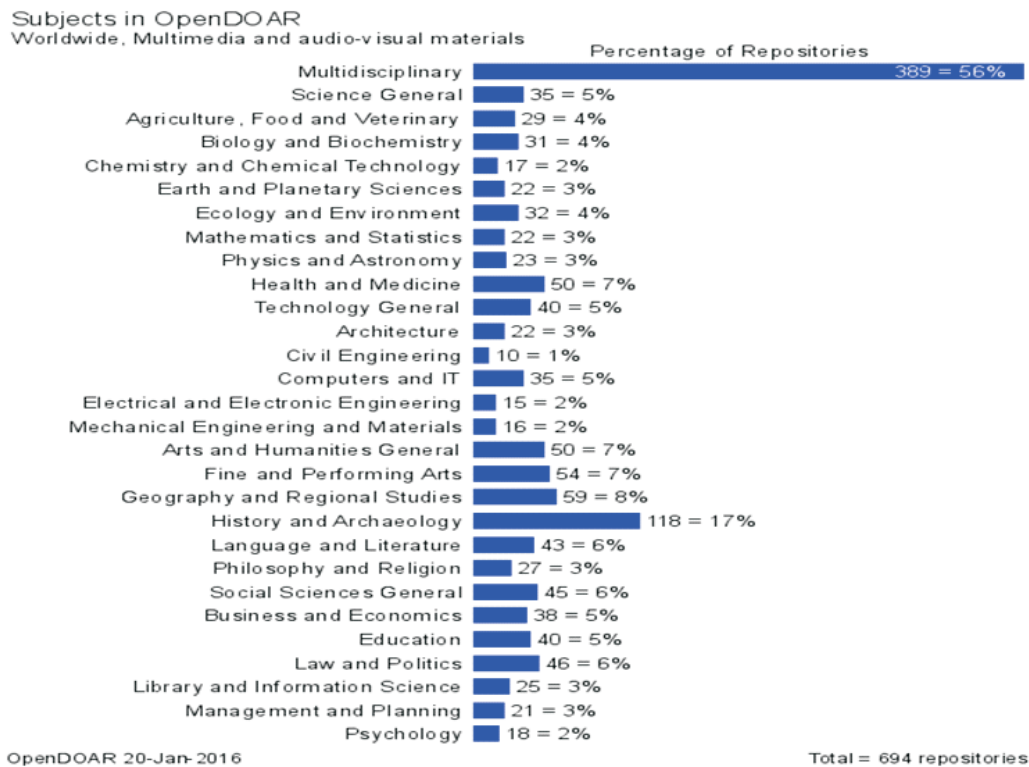


Diagram 7 shows that 389 IRs (56 %) are multi-disciplinary in nature viz they have MM-AVM on many subjects. 118 IRs have MM-AVM on history and archaeology, 59 IRs on geography and regional studies, 54 IRs on fine and performing arts and 50 IRs on health and medicine, arts and humanities. While 46 IRs have MM-AVM on law and politics, 45 IRs hold MM-AVM on general social sciences, 43 IRs on language and literature and 40 IRs on general technology. MM-AVM are not more on subjects like chemistry, civil, mechanical and electrical engineering and psychology.

## 8. Language content

Diagram 8: Language of the contents

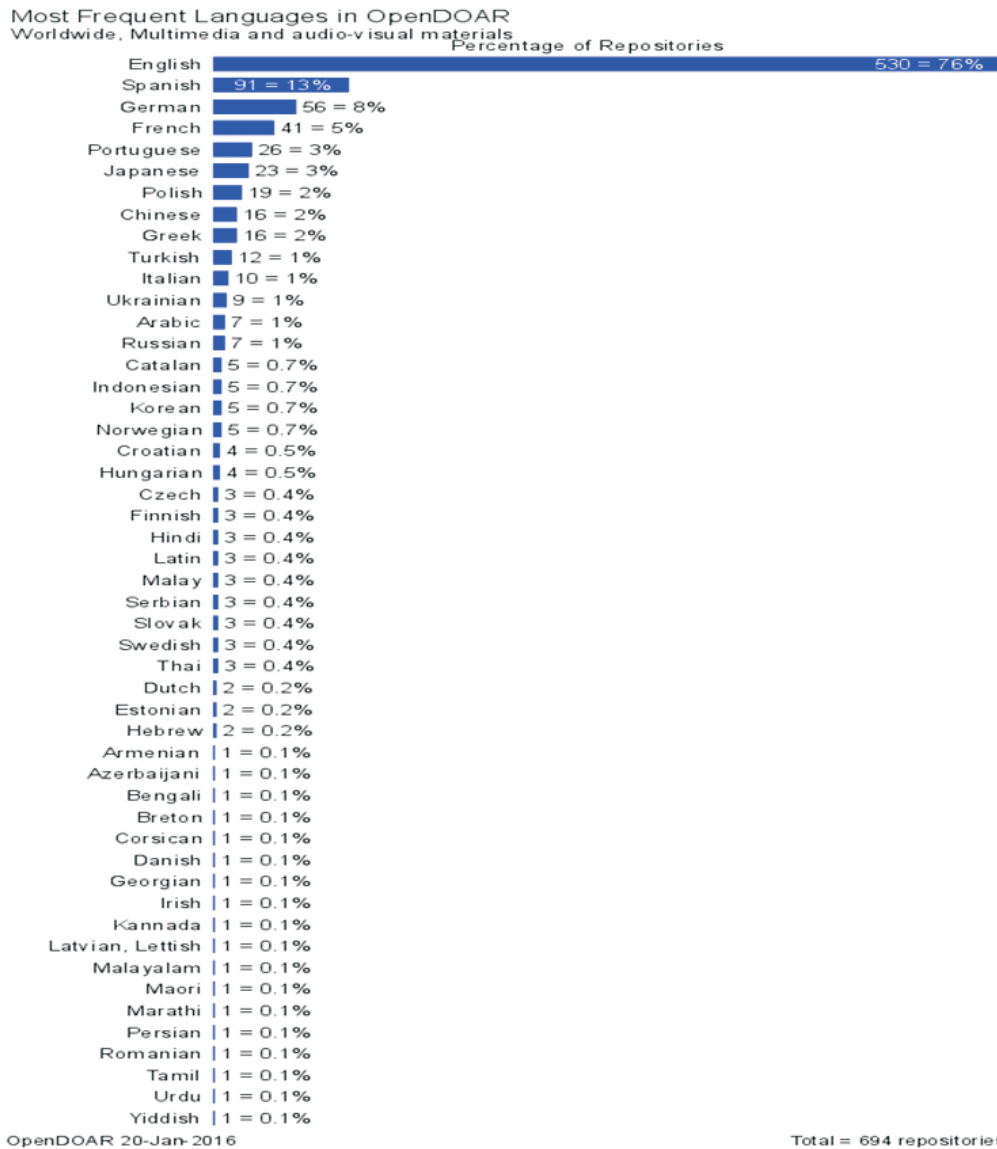


Diagram 8 shows that Out of 694 IRs possessing MM-AVM, 530 (76 %) institutional repositories have contents in English language. 13 % (91) of IRs have contents in Spanish and 56 (8%) of them have contents in German. While French and Portuguese language contents are found in 41 and 26 IRs respectively, three IRs from India too have MM-AVM . Other language MM-AVM are available at bare minimum in OpenDOAR.

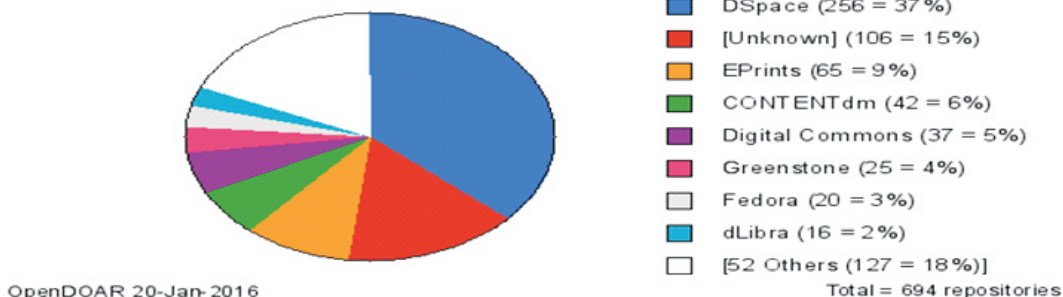
## 9. REPOSITORY SOFTWARE

Diagram 9 depicts that Dspace software has emerged as the most used IR software in these IRs. 256 IRs (37 %) use Dspace software. While 65 IRs (9%) use Eprints, 42 IRs have used CONTENTdm. 37 IRs (5%) have used Digital commons and 25 IRs have used Greenstone. Fedora and DLibra are some other softwares used by the IRs possessing MM-AVM .



**Diagram 9: Use of Repository Software**

Usage of Open Access Repository Software  
Worldwide, Multimedia and audio-v isual materials



**10. Recorded Preservation policies**

**Diagram 10: Availability of preservation policies**

Recorded Preservation Policies  
Worldwide, Multimedia and audio-v isual materials

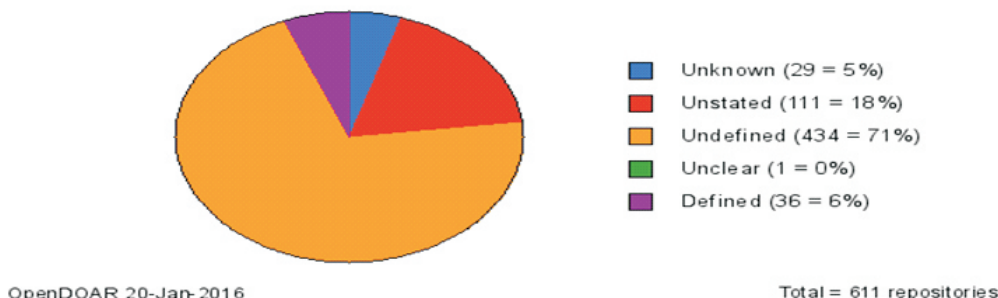


Diagram 10 shows that only 36 institutional repositories have defined their preservation policies and made it available in their IR portal. 434 ( 71 %) of them have not defined their preservation policies.

**11. Recorded Content Policies**

**Diagram 11: Availability of content policies**

Recorded Content Policies  
Worldwide, Multimedia and audio-v isual materials

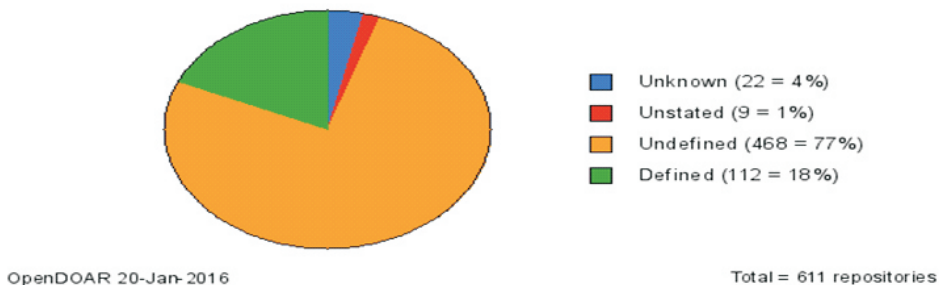


Diagram 11 shows that a majority of 468 IRs (77 %) have not explicitly defined their full data item re-use policies. Only 112 IRs (18%) possessing MM-AVM have defined their content policies.

### 12. Growth of Open Access IRs on Education

**Diagram 12: Growth of the OpenDOAR Database on Education**

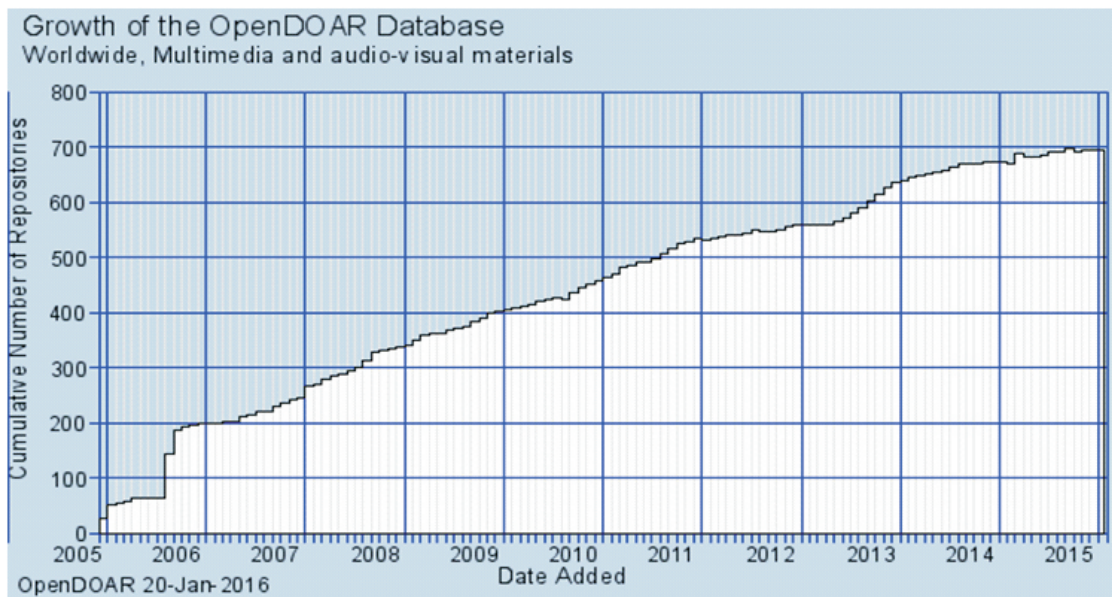


Diagram 12 shows the growth of open access IRs having MM-AVM . The birth of IRs took place just before 2005. There were 200 IRs by the end of 2006 and the number reached 400 by 2009 in a span of 3 years. It was at the end of 2012 the number of IRs reached 600. We could see a steady growth of MM-AVM IRs from 2008 onwards in OpenDOAR.

### 13. Top Contributors

**Table 1 : IRs with highest number of records**

S.No	Repository name	Country	No. of Records
01	Wikimedia Commons	United States	25410652
02	Internet Archive	United States	12048074
03	English Heritage ViewFinder	United Kingdom	8000000
04	Geograph British Isles	United Kingdom	4695621
05	University of Michigan Library Repository	United States	3241895
06	Gallica, Bibliotheque Numerique	France	2347730
07	Cross Collection Discovery	United States	1774677

08	CERN Document Server	Switzerland	1455828
09	Archaeology Data Service	United Kingdom	1351724
10	Biblioteca Virtual de Prensa Histórica (Virtual Library of Historical Newspapers)	Spain	1157983
11	Bayerische Staatsbibliothek - Münchener Digitalisierungszentrum	Germany	1126741
12	NASA Technical Reports Server	United States	1007430
13	kydl OAI Archive	United States	961099
14	Office of Scientific & Technical Information	United States	875798
15	Imperial War Museum Collections and Research	United Kingdom	779277
16	european film gateway	Netherlands	648602
17	Portal to Texas History	United States	618457
18	University of Cincinnati Digital Resource	United States	592411
19	Commons European Cultural Heritage Online	Germany	575000
20	Archive of Popular American Music	United States	512500

Table 1 shows that Wikimedia Commons, USA tops with 25410652 records, followed by Internet Archive of USA with 12048074 records. There are two IRs -English Heritage ViewFinder and Geograph British Isles from UK holding III and IV positions. There are 10 IRs from USA in the top 20 list followed by UK with 4 IRs. France, Switzerland, Spain and Netherlands have one IR each in the top 20 list.

## CONCLUSION

Institutional repositories are being recognized as essential vehicle for scholarship in the digital world. This is evident based on the continuous growth of IRs around the world. Manpower requirements, quality and quantity of contents, metadata standards, technical specifications, copyrights barrier, and policy issues are major concerns that need to be addressed for developing IRs as component of open access knowledge movement. IRs have become a compelling and useful tool for collecting, organizing and disseminating intellectual output of an institute. Let more and more institutions / universities come forward to make their indigenous intellectual e-resources available on the open access publishing platforms like OpenDOAR and ROAR to ensure maximum utilization of resources sharing and caring.

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