



# INFLIBNET NEWSLETTER

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## Article

# Altmetrics: Measuring the Broader Impact of Scientific Research

Pallab Pradhan, Scientist-B (LS)

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1. **From Director's Desk**
3. **Training Programme on SOUL 2.0, INFLIBNET Centre, Gandhinagar**
3. **User Awareness Programmes on Access to E-resources under N-LIST**

One-day User Awareness Programme on Access to E-resources under N-LIST, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, 22nd May, 2015
4. **National Workshops and Specialized Training Programme**

Two-day Workshop on Ethical Issues & Use of Anti-Plagiarism for Research Integrity, INFLIBNET Centre, Gandhinagar, 29th-30th April, 2015

Three-day Workshop on e-Learning: Content Creation and Hosting Using Moodle, INFLIBNET Centre, Gandhinagar, 6th-8th May, 2015

National Workshop on Creation and Management of Digital Collections using Dspace, INFLIBNET Centre, Gandhinagar, 11th-15th May, 2015

Attachment Training Programme, INFLIBNET Centre, Gandhinagar, 18th May- 17th June, 2015

Three-day National Workshop on Content Management System Using Joomla, INFLIBNET Centre, Gandhinagar, 20th-22nd May, 2015

Three-day National Workshop on Bibliometrics & Research Output Analysis, Cochin University of Science & Technology, Kochi, 28th-30th May, 2015

One-day Workshop on Copy Cataloguing, INFLIBNET Centre, Gandhinagar, 6th June, 2015

Advanced Training on Bibliometrics & Research Output Analysis, INFLIBNET Centre, Gandhinagar, 15th-20th June, 2015
11. **Inauguration of Recreational Club**
11. **NewGenLib Open Source Software**
14. **Article**
24. **Visitors**
25. **Users' Speak**
25. **Staff News**
27. **New Appointment**
29. **INFLIBNET in Regional News**

## From Director's Desk



The Centre has re-committed itself to the task of imparting training to librarians in educational institutions with availability of adequate physical and computing infrastructure in the new building of the Centre. Human resource development, developing and nurturing library-related ICT-skills of manpower working in the university and college libraries is one of the important objectives of the Centre and is being given due priority. The Centre had released its Training Calendar in the beginning of year wherein more than 30 training programmes were announced to be conducted during the year on different library-related ICT-skills. During the quarter under report, 11 training programmes/workshops were conducted at INFLIBNET Centre as well as in other universities and colleges of the country. The topics covered in these training programmes/ workshops included SOUL 2.0, e-Resource Awareness, Anti-Plagiarism, e-Learning and Content Creation, Creation and Management of Digital Collections, Content Management System, Bibliometrics and Research Output Analysis, Copy Cataloguing, etc. Moreover, Attachment Training Programme was also offered to 3 candidates nominated by the Ministry of Commerce & Industry, Government of India.

Connecting ourselves to the Prime Minister's "Swachchh Bharat-Swasth Bharat", the Centre started a Recreation Club and Gymnasium facility for the welfare of all its staff members and their families. The Club is located in the residential area of the Campus. Besides, housing facilities for playing indoor games, the Recreation Club is equipped with gym equipment such as Tread-Mill, Dumbbells, Home Gym, Multi-task Work Station, Exercise Bicycles, Abdomen Exercisers, Multi Gym, Punch Bags, Pro-body Fitness Bicycle, etc. The Gym also has facilities for outdoor games such as Cricket, Badminton, Tennis, etc. The Recreation Club inaugurated on 15th May, 2015, is being used extensively by the resident and non-resident staff members. A Committee has also been constituted to encourage cultural activities involving staff and their families. Annual games competition has also been planned for staff members and their families.

Under the series of open source software, NewGenLib, an open source software is described in detail in this issue along with its technical features, pre-requisites, user forum and user-support. This issue of the Newsletter carries a feature article on “Altmetrics: Measuring the Broader Impact of Scientific Research” by Mr. Pallab Pradhan, Scientist-B (LS). The article elaborates on various aspects of altmetrics, data sources for altmetrics, difference between bibliometrics and altmetrics, tools available for altmetrics, its advantage and limitations, role librarians can play in the age of altmetrics and Centre's visions for implementation of altmetrics in its repositories and other services. I am sure, you will enjoy reading this state-of-the-art article.

The INFLIBNET Centre heartily welcomes Mr. Pallab Pradhan who joined the Centre as Scientist B (LS) on 1st April, 2015. Prior to joining the Centre, Mr. Pallab was working at IIT Indore (2012 – 2015) and Tata Consultancy Services (2011-2012). He is currently involved in Indian Ranking of Universities (Bibliometric Research Group) and ICSSR Data Service: Social Science Data Repository project funded by the ICSSR.



**(Jagdish Arora)**

# Training Programme on SOUL 2.0, INFLIBNET Centre, Gandhinagar

The INFLIBNET Centre regularly conducts SOUL 2.0 Training Programmes to impart training on installation and operation of SOUL software for its users. The following two training programmes were organized at the INFLIBNET Centre, Gandhinagar during this quarter. The Programmes were coordinated by Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre. 39 participants attended these two training programmes as per the details given below:

Sl. No.	Name of the Programme	Date of the Programme	No. of Participants
1	118th Training Programme on SOUL 2.0	13th - 18th April, 2015	22
2	119th Training Programme on SOUL 2.0	1st - 6th June, 2015	17



Participants of 118th Training Programme on SOUL 2.0 with the Director and Technical Staff of the INFLIBNET Centre



Participants of 119th Training Programme on SOUL 2.0 with the Director and Technical Staff of the INFLIBNET Centre

## User Awareness Programmes on Access to E-resources under N-LIST

**One-day User Awareness Programme on Access to E-resources under N-LIST, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, 22nd May, 2015**

One-day User Awareness Programme on Access to E-resources under N-LIST Programme was organized by Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra in collaboration with INFLIBNET Centre on 22nd May 2015 at Senate Hall, SRTM University, Nanded. It was a unique User Awareness Programme that was organized for the first time in the region with an objective to encourage affiliated colleges of the University to avail the facility of e-resources through N-LIST programme, a college



Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre, Prof. D. B. Panaskar, Director, Board of College & University Development, Mr. B. B. Patil, Registrar, Dr. Ravi Sarode, Controller of Examinations and Dr. J. N. Kulkarni, University Librarian I/C, SRTM University on the dais during the User Awareness Programme on Access to E-resources under N-LIST at Swami Ramanand Teerth Marathwada University, Nanded

component of UGC-INFONET Digital Library Consortium. It was noted that 89 colleges affiliated to SRTM University are already subscribing to e-resources through N-LIST programme and making use of them for academic purpose. Dr. J. N. Kulkarni, University Librarian I/C and Co-ordinator of the programme, welcomed the Guests and participants and gave an introductory speech and pointed out objectives and benefits of the programme. Prof. D. B. Panaskar, Director, Board of College & University Development inaugurated the programme. In his inaugural speech, he discussed the need of e-resources in research. Mr. B. B. Patil, Registrar and Dr. Ravi Sarode, Controller of Examinations were Chief Guest of the programme. Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre briefly elaborated

the theme of the programme with special reference to access of e-resources for the benefits of students as well as teachers and researchers.

In valedictory session, Dr. V. N. Laturkar, Director, Internal Quality Assurance Cell (IQAC), SRTM University was the Chief Guest. She highlighted the role of librarians in increasing use of e-resources. Dr. R. D. Kale, Senior Library Assistant extended a warm vote of thanks. Mr. R. G. Dharmapurikar, Information Scientist was the Master of Ceremony. More than 80 participants including principals and librarians from affiliated colleges attended the programme. Certificates of participation were distributed to the participants at the end of the programme.

## National Workshops and Specialized Training Programme

### Two-day Workshop on Ethical Issues & Use of Anti-Plagiarism for Research Integrity, INFLIBNET Centre, Gandhinagar, 29th-30th April, 2015



Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre presented a memento to Prof. R. Nagaraj, Director, DA-IICT in presence of Dr. Jagdish Joshi, Offtg. Director, UGC-Human Resource Development Centre, Gujarat University and Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre during the Inaugural Session of National Workshop on Ethical Issues & Use of Anti-Plagiarism for Research Integrity at INFLIBNET Centre

The INFLIBNET Centre organized two-day National Workshop on Ethical Issues & Use of Anti-Plagiarism for Research Integrity from 29th to 30th April, 2015 at INFLIBNET Centre, Gandhinagar. The aim of the workshop was to articulate academic research integrity and intended to inculcate the responsible conduct of ethical research using anti-plagiarism checking and other reference tools and citation styles. Mr. Manoj Kumar K., Scientist D (CS) coordinated the programme and welcomed the guests and participants and briefed about the objectives of the programme. Prof. R. Nagaraj, Director, DA-IICT, Gandhinagar inaugurated the programme with lighting the ceremonial lamp along with Dr. Jagdish Joshi, Offtg. Director, UGC-Human Resource Development Centre, Gujarat University, Mr. Manoj Kumar K., Scientist D (CS) and Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre. In his

Inaugural address, he spoke about anti-plagiarism issues and suggested that anti-plagiarism should be part of the modern curriculum design. Dr. Jagdish Joshi elaborated step by step, relevance of qualitative academic writing and publications.

Dr. Shailesh Yagnik, Head, Library & Information Services, MICA, Ahmedabad emphasised on the importance of ethics in research. Mr. Manoj Kumar

delivered keynote address and briefly mentioned current status of Shodhganga and importance of anti-plagiarism for research integrity. 23 participants including LIS professionals and research scholars attended the programme. Ms. Suboohi Siddiqui, STO (LS), INFLIBNET Centre extended a warm vote of thanks at the end of the inaugural session. Details of lectures delivered by experts during the training programme were as follows:

Topics	Name of Experts and Institution
Qualitative Academic Writing and Publications	Dr. Jagdish Joshi, Director, Academic Staff College, Ahmedabad
Ethics in Research	Dr. Shailesh Yagnik, Head, Library & Information Services, MICA, Ahmedabad
Anti-Plagiarism Tools for Quality of Research	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Use of Reference Management Tools (Mendeley, Zotero etc.)	Mr. Mitesh Pandya, Scientist B (LS), INFLIBNET Centre
Statistical Tools for Research Data Analysis	Mr. Hitesh Solanki, Scientist B (CS), INFLIBNET Centre
Assessing and Evaluating Research Performance using Bibliometric Indicators	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre

### Three-Day Workshop on e-Learning: Content Creation and Hosting Using Moodle, INFLIBNET Centre, Gandhinagar, 6th - 8th May, 2015



Participants of E-Learning: Content Creation and Hosting using Moodle with the Director and Technical Staff of the INFLIBNET Centre

The INFLIBNET Centre organized three-day Workshop on e-Learning: Content Creation and Hosting Using Moodle from 6th to 8th May, 2015 at INFLIBNET Centre, Gandhinagar. Mr. Abhishek Kumar, Scientist C (CS) and Co-ordinator of the Workshop, welcomed the participants and gave an overview of the Workshop. Dr. Jagdish Arora, Director, INFLIBNET Centre

inaugurated the programme. The aim of the Workshop was to provide exhaustive information on e-learning, electronic content creation and hosting of electronic content using Moodle Learning Management System (LMS). Details of lectures delivered by experts of the INFLIBNET Centre during the workshop were as follows:

Topics	Name of Experts and Institution
e-Content Projects in India and Integrated e-Content Portal	Mr. Yatrik Patel, Scientist D (CS)
Tools, Technique and Standards to Create e-Content and Moodle System Administration	Mr. Kannan P., Scientist C (LS)
e-Learning (LMS & MOOCs); Moodle Installation & Basic Configuration; and Moodle Course Administration & Course Building	Mr. Abhishek Kumar, Scientist C (CS)

Mr. Abhishek Kumar, Scientist C (CS), Mr. Hitesh Solanki, Scientist B (CS), Mrs. Shweta Brahmhatt, Project Officer (CS) and Mr. Darshan Modi, Project Associate (CS) were resource persons in practical sessions of the training programme. The certificates of participation were distributed at the end of programme. 11 participants including LIS professionals and research

scholars attended the programme. Mr. H. G. Hosamani, Scientist C (LS) extended a warm vote of thanks at the end of the Workshop.

**National Workshop on Creation and Management of Digital Collections using Dspace, INFLIBNET Centre, Gandhinagar, 11th -15th May, 2015**



**Participants of National Workshop on Creation and Management of Digital Collection using Dspace with Director and Technical Staff of the INFLIBNET Centre**

The INFLIBNET Centre organized National Workshop on Creation and Management of Digital Collection using DSpace from 11th to 15th May, 2015. The Workshop was inaugurated by Dr. Jagdish Arora, Director, INFLIBNET Centre. This Workshop aimed at equipping the participants with skills for developing and managing their own digital collection and for creating awareness in new developments in the field of library and information science like managing information sources in digital environment, building institutional repositories, networking and social media, management of e-resources with theoretical lectures and hands-on training by experts. 11 library and computer professionals participated in the Workshop.

Mr. Manoj Kumar K., Scientist D (CS), Mr. Kannan P., Scientist C (LS), Mr. Swapnil Patel, Mr. Divyakant Vaghela, Mr. Gaurav Prakash & Mr. Hiteshkumar Solanki, Scientists B (CS), Mr. Miteshkumar Pandya, Scientist B (LS), Mr. Vijay Shrimali, STA

(CS) and Mr. Nirav Rana, Project Associate (CS) from INFLIBNET

Centre and Dr. T. S. Kumbhar, Librarian, IIT Gandhinagar served as resource persons for the Workshop. Dr. Jagdish Arora, Director INFLIBNET Centre presided over the valedictory function and distributed certificates to participants. Mr. Yatrik Patel, Scientist D (CS), Mr. H. G. Hosamani, Scientist C (LS) and Mr. Swapnil Patel, Scientist B (CS) coordinated the Workshop.

### **Attachment Training Programme for Practicing Library Professionals, INFLIBNET Centre, Gandhinagar, 18th May- 17th June, 2015**

The INFLIBNET Centre organized Attachment Training Programmes (ATP) from 18th May to 17th June, 2015 at INFLIBNET Centre, Gandhinagar where-in working

library professionals from university/institutions availed the training from experienced INFLIBNET staff. The objective of ATP is to train the LIS professionals on ICT applications in libraries at various levels from basic to advance. Mrs. Ashadeep Rawat, Library & Information Assistant, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, New Delhi took the benefit of ATP at all the four levels.

### **Three-Day National Workshop on Content Management System Using Joomla, INFLIBNET Centre, Gandhinagar, 20th-22nd May, 2015.**



**Participants of National Workshop on Content Management System Using Joomla with Technical Staff of the INFLIBNET Centre**

The INFLIBNET Centre organized three-day National Workshop on Content Management using Joomla from 21st to 23rd May, 2015 at INFLIBNET Centre. Mr. Miteshkumar Pandya, Scientist B (LS) welcomed the participants and gave an overview of the Workshop. The workshop was inaugurated by Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre. The aim of the Workshop was to provide extensive training on installation, configuration, creation of menus and content as well as changing the themes and creating multi-lingual websites using Joomla Content Management System. Details of lectures delivered by experts of the INFLIBNET Centre during the Workshop were as follows:

Topics	Name of Expert and Institution
Joomla Overview	Mr. Ashok Kumar Rai, Scientist D (CS)
Joomla Installation and Basic Configuration on Windows; Structure and Planning of Website Development and Introduction to Control Panel of Joomla; and Modules, Components & Menu Configuration and Content Creation, Multilingual Website Designing	Mr. Miteshkumar Pandya, Scientist B (LS)
Joomla Installation and Basic Configuration on Linux; and User Access Control, User Forum and E-mail Configuration, Template Management	Mr. Kannan P., Scientist C (LS)
Hosting, Backup and Restore	Mr. Dharmesh Shah, STA (CS)

Mr. Miteshkumar Pandya, Scientist B (LS), Mr. Kuldeep Mateida, Project Officer (LS), Mr. Sanjaykumar Pillai, Project Associate (LS) and Mr. Darshan Modi, Project Associate (CS) were resource persons in practical sessions of the Workshop. 9 participants including LIS professionals and research scholars attended the programme. Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre presided over the valedictory function and distributed certificates to participants. Mr. Miteshkumar Pandya, Scientist B (LS) and Mr. H. G. Hosamani, Scientist C (LS) coordinated the Workshop.

**Three-day National Workshop on Bibliometrics & Research Output Analysis, Cochin University of Science & Technology, Kochi, 28th-30th May, 2015.**

Three-day National Workshop on Bibliometrics and Analysis of Research Outcomes was organized by Cochin University of Science & Technology in collaboration with INFLIBNET Centre from 28th to 30th May, 2015 at University Library, CUSAT, Kochi. Prof. (Dr.) Poullose Jacob, Pro Vice-Chancellor, CUSAT inaugurated the programme. Prof. I. K. Ravichandra Rao, PES Institute of Technology, Bengaluru delivered keynote address. In his keynote address, he explained importance of statistical analysis or quantitative analysis of information storage, access and retrieval. He also highlighted the different statistical tools and methods for analysing research outcomes or the institutions productivity. Dr. David Peter, Registrar and



Participants of Training Programme on Bibliometrics and Research Output Analysis along with Dr. Inder Vir Malhan, Professor, Central University of Himachal Pradesh, Dr. Beena C., Librarian, Cochin University of Science & Technology, Dr. Jagdish Arora, Director, Ms. Kruti Trivedi, Scientist B (LS) and Mr. Hiteshkumar Solanki, Scientist B (CS), INFLIBNET Centre

Dr. Zakkaria, Member Syndicate also participated in the inaugural function. More than 55 participants attended the programme.

The technical sessions started with presentations of Prof. I. K. Ravichandra Rao on overview of bibliometrics, bibliometrics elements, laws and mathematical foundation of bibliometrics / scientometrics etc. Prof A. Vijayakumar, Department of Mathematics, CUSAT elaborated on scientometrics indicators for academic purpose. Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre discussed use of Web of Science for data extracting followed by 'hands-on' session. She also spoke about bibliometrics indicators & mapping of research using open source software. Mr. Hiteshkumar Solanki, Scientist B (CS) and Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre demonstrated BibExcel and VOS Viewer tools and techniques followed by hand-on session. Dr. Jagdish Arora, Director, INFLIBNET Centre delivered a talk on bibliometric indicators and rankings of university research performance.

The valedictory function was presided over upon Dr. Inder Vir Malhan, Professor, Central University of Himachal Pradesh. He stressed the importance of

UGC's Performance based Appraisal system (PBAS) for academic community, how it effects the ranking of an institution as well as individuals. Prof Malhan distributed the certificates to the participants.

### **One-Day Workshop on Copy Cataloguing, INFLIBNET Centre, Gandhinagar, 6th June, 2015**

The INFLIBNET Centre organized one-day Workshop on Copy Cataloguing on 6th June, 2015 at INFLIBNET Centre, Gandhinagar. The aim of the training programme was to provide extensive training on installation, configuration as well as work flow of the OCS (Online Copy Catalogue System). Mr. Miteshkumar Pandya, Scientist B (LS) demonstrated IndCat, bibliographic standards, introduction to copy cataloguing & its tools & techniques and overview of OCS: work flow and creation of records, installation and basic configuration of OCS. Mr. Subodh Bajpai, SOUL Project Assistant (LS) was resource person in practical session of the training programme. 19 Library Professionals attended the workshop.

### **Advanced Training on Bibliometrics & Research Output Analysis, INFLIBNET Centre, Gandhinagar, 15th- 20th June, 2015**



**Participants of Advanced Training Programme on Bibliometrics and Research Output Analysis with Technical Staff of the INFLIBNET Centre**

The INFLIBNET Centre organised Advanced Training Programme on Bibliometrics and Research Output Analysis from 15th to 20th June, 2015 at INFLIBNET Centre, Gandhinagar. Mr. Manoj Kumar K., Scientist D (CS) lighted the ceremonial lamp along with Mr. H. G. Hosamani, Scientist C (LS) and Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre during the inaugural

function. The aim of the training programme was to impart training on bibliometric methods, performance indicators and tools & techniques related to bibliometric analysis and mapping. Details of lectures delivered by experts during the training programme were as follows:

Topics	Name of Expert and Institution
Performance Indicators; Indicators and Mapping of Research; and Bibexcel : Tools and Techniques	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
VOS Viewer : Tools and Techniques	Ms. Kruti Trivedi, Scientist B (LS) & Mr. Hiteshkumar Solanki, Scientist B (CS), INFLIBNET Centre
Web of Science	Ms. Sujana Karri, Analyst Business Development, Thomson Reuters
Sci 2: Tools and Techniques	Mr. Hitesh Kumar, Scientist B (CS), INFLIBNET Centre
Overview of Bibliometrics and Bibliometrics Elements and Laws; Science Indicators and Growth of Literature	Prof. I K Ravichandra Rao, Professor, PES Institute of Technology
Altmetrics	Mr. Pallab Pradhan, Scientist B (LS), INFLIBNET Centre
Indicators and Mapping of Research; Histogram	Dr. P. Dastidar, Director, Ministry of Earth Sciences
Bibliometric Indicators and Rankings of University Research Performance	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre

Mr. Hiteshkumar Solanki, Scientist B (CS), Ms. Kruti Trivedi & Mr. Pallab Pradhan, Scientists B (LS), Mr. Saroja Kumar Panda & Mrs. Roma Yogesh Asnani, STA (LS) were resource persons in practical sessions of the training programme. The certificates of participation were

distributed at the end of programme. 16 participants including LIS professionals and research scholars attended the programme. Mr. H. G. Hosamani, Scientist C (LS) extended a warm vote of thanks to participants, faculty and publishers.



## Inauguration of Recreational Club



Recreational Club@INFLIBNET Centre

The INFLIBNET Centre started in-house Recreational Club & Gymnasium facility for the welfare of its staff Members and their family members. The club is situated

in the residential area of the campus and houses facilities for playing indoor games like carrom, table tennis, pool & snooker, chess and boxing. Recreational club also houses gym equipment such as treadmill, dumbbells, home gym, multi-task workstations, exercise bikes, abdominal exercisers, multi-gym, punching bags, pro-bodyline fitness bike, etc. Moreover, equipments required for outdoor games like cricket and badminton are also available for use. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the recreational club on 15th May, 2015 in the presence of the staff members of the Centre.

## NewGenLib Open Source Software

NewGenLib is an open source integrated library management system that is being used by different types of libraries specifically in the Asian subcontinents for automating their library routines. It is first free and open source integrated library automation package (ILS) emanated from India and adapted by academic, public and special libraries in Asian subcontinents. The first version was released as proprietary software in March 2005 by Verus Solutions Pvt Ltd. Later, in the year 2008, it was declared as an open source integrated library management system under GNU GPL license with limited features and functionalities. The software is being used by the libraries not only to provide search

and browsing but also for the efficient and effective processing of documents.

NewGenLib is a web based open source integrated library management system that runs on Windows and Linux operating system through a distributed computer network. The software also works on standalone machines as well as machines connected in a LAN without Internet connections, although some of the features such as copy cataloguing, Webopac will not be functional without Internet connectivity. The software is built using number of well known and widely used open source software such as Java, PostgreSQL, Apache Tomcat, Solr, etc. In September 2011, an open source version of NewGenLib 3.0 was launched / released and

from then onwards it is regularly updated with new features and functionalities through upgrades.

The software is developed in Java which is OS independent as well as very powerful for developing large enterprise management system. The software follows MARC21 standard for cataloguing and information retrieval standard Z39.50. As it is declared as an open source product, freelancers and professional organizations have started modifying the code according to their own requirements and contributing the patches for others to use. Software was originally developed in English and later it was translated into various languages such as Albanian, Arabic, Belarusian, Bulgarian, Chinese, etc. The software is used by libraries not only to provide access to their online public access catalogue (OPAC) for search and browse but also for managing house-keeping operations such as circulation (check-outs and check-ins), acquisition of library materials, cataloguing of library materials, serials management, etc. The architecture of the software is capable for handling various requirements from administrative side as well as patron side.

The design of software meets the needs of the smallest to the largest libraries. Through its staff interface, the software facilitates to manage the master database, management reporting system, cataloguing and circulation of library materials. All types of bibliographic structures and different types of digital resources as well as administrative data can be managed by NewGenLib ILMS.

The software is developed using Java Spring & Hibernate framework and PostgreSQL as backend database. The software uses Apache Solr indexing system which is one of the most powerful indexing system used by many open source software. All the house-keeping operations are logically linked with each other in a systematic way. Since it is released under GNU General Public License, one can freely download,

use, view, modify and share. It has an active development and user community as well as developing agency and freelancers who are offering migration, support, hosting and development services.

The software is browser independent and enables user to perform in-house operations as well as search and retrieval.

### Pre-requisites

NewGenLib uses a number of well supported and widely used, reliable and well-tested open source components such as PostgreSQL for database, Apache Tomcat as web server and Solr for indexing. It is platform independent and can be configured on Windows and Linux operating system. Entire software is Java-based and platform-neutral. The following software should be pre-installed on the server before installing NewGenLib:

- Java SE
- Apache Tomcat Server
- PostgreSQL
- Spring framework
- Hibernate framework
- Lucene and Solr

The staff client requires minimum: Windows (XP, Vista, Windows 7, 8), Linux operating system, 2GB RAM or greater, Dual Core CPU or greater.

### Technical Features

- ❖ Uses Java as scripting language, PostgreSQL as backend database and Apache Tomcat as web server;
- ❖ Uses MARC21 standard for bibliographic records;
- ❖ Supports Z 39.50 protocol for information retrieval;
- ❖ Export/Import of bibliographic records in ISO 2709 format;
- ❖ Supports copy cataloguing of records from different catalogues;

- ❖ Facilitates automation of day-to-day tasks such as acquisition of books, cataloguing, circulation, serials management, management reporting system (statistics), OPAC, etc.;
- ❖ Enables users to provide SDI and CAS services;
- ❖ Supports Unicode standard for multi-lingual contents;
- ❖ Enables users to generate barcode labels and spine labels;
- ❖ Provides RFID integration facility for self-service circulation;
- ❖ Facilitates attachment of table of content with specific records;
- ❖ Uses Apache Solr for indexing catalogue records;
- ❖ Facilitates building library portal as well as OPAC;
- ❖ Provides facility to extract various reports in structured textual format;
- ❖ Facilitates simple search as well as advanced search for end users;
- ❖ Displays book jackets in OPAC;
- ❖ OPAC facilitates user to put selected items on hold, reserve, add to cart, comment and tags; and
- ❖ Supports creation of shelf guide for users to browse all the books available in the library on same subject.

### User Forum and Support

The software is owned by M/S Verus Solution Pvt. Ltd. Freelancers are regularly contributing patches for further enhancement. However, the NewGenLib community is also marked by a high degree of participation from the professionals who use the software and contribute documentation as well as report bugs.

First installation of the software went live in 2005, now public, academic, special and school libraries are using NewGenLib to automate their housekeeping operations. The software is based on MARC21 standard and solutions are offered for various problems through list forum. User can register themselves at <http://www.verussolutions.biz/web/content/forum> and

raise their questions to get possible solution to their query. Community also provides real time chat facility to get instant solutions to queries from users. Commercial support for the software is also offered by M/S Verus Solution Pvt. Ltd.

<http://www.verussolutions.biz/web/content/get-commercial-support>

### Reference

- i. Negi, Dheeraj Singh. (2014). Open source software using New GEN LIB: A case study of international management institutue Bhubaneswar. *Library Hi Tech News*, 31(9), 9–10 .  
<http://doi.org/10.1108/LHTN-07-2014-0056>
- ii. Verus Solutions: Documentation - NGL Open Source. (2015). Retrieved July 13, 2015, from <http://www.verussolutions.biz/web/content/documentation>
- iii. Verus Solutions: Features - NGL Open Source. (2015). Retrieved July 13, 2015, from <http://www.verussolutions.biz/web/content/features>
- iv. NewGenLib. (2015). In Wikipedia, the free encyclopedia. Retrieved from <https://en.wikipedia.org/w/index.php?title=NewGenLib&oldid=661809014>
- v. Verus Solution: NGL Open Source - Best Open Source Integrated Library System. (2015). Retrieved July 13, 2015, from <http://www.verussolutions.biz/web/>
- vi. Giri, Rabishankar. (2012). NewGenLib 3: An integrated open source library management system that makes your library visible in web. *Library Hi Tech News*, 29(10), 4 – 12 .  
<http://doi.org/10.1108/07419051211294464>
- vii. Sanaman, M. S. A. G. (2012). Open source integrated library management systems: Comparative analysis of Koha and NewGenLib. *The Electronic Library*, 30(6), 809 – 832.  
<http://doi.org/10.1108/02640471211282127>

## Altmetrics: Measuring the Broader Impact of Scientific Research

Pallab Pradhan, Scientist-B (LS)

Measuring the impact of scientific research of individuals and institutions is a necessity and a challenging task for institutions, funding agencies and the government so as to draw a well-informed policy framework and draw pathways for future directions. While peer-review and citation-based bibliometrics indicators have become global means of measuring research output and are playing a critical role in this process. However, citations have been criticized for limiting their scope within academic and neglecting the broader societal impact of research. The Article-level-metrics (ALM) or altmetrics has emerged as an alternative metrics (alternative to bibliometrics) to fill-in the gap and setting a new trend in recent times for measuring the impact of scientific publications and their social outreach on web. Altmetrics is the new metrics for measuring research impact based on the data penetration on the web and social media platforms like Facebook, Twitter, LinkedIn, Mendeley and CiteULike, etc. This paper provides an overview on altmetrics, its definitions, its data sources and available tools, merits and demerits, difference between altmetrics and bibliometrics, etc. Lastly, the article outlines possibilities of implementing altmetrics in publications-based services offered by the INFLIBNET Centre.

### Introduction

Measuring research impact is one of the most important activity in the process of evaluating scientific research and scholarly communication. Measuring impact of research is not a simple and straightforward task for the scientific communities, funding agencies and policy makers. Qualitative assessment like peer-review analysis is being used since the beginning of auditing of science. However, the process of peer-reviewing may suffer from subjectivity on part of evaluators. Use of citations for measuring impact of research can be traced back to publication of "Genetics Citation Index" in the year 1961 by Institute of Scientific Information (ISI). Citation-based bibliometrics studies are free from subjectivity and play an important role in measuring the academic impact of research. Gradually, several other agencies came up with their own products by integrating different kinds of bibliometrics indicators based on citation counts or their derivatives for measuring research impact. Web of Science (Thomson Reuters), Scopus (Elsevier) and Google Scholar are the three most prominent players who came up with different publication-count and citation-based parameters that can be used for measuring research impact of an article, author or organization.

Bibliometrics indicators can broadly be grouped under two categories: Journal-Level-Metrics and Author-Level-Metrics. Impact Factor (IF)/Journal Impact Factor (JIF), Eigenfactor<sup>®</sup>, SCImago Journal Rank (SJR) and h5 index, etc. are prominent examples of journal-level-metrics. Indicators like h-index, i-10 index and g-index are considered and used as author-level-metrics to measure author's productivity and impact. All these bibliometric indicators have been criticized for their limitations by the academic and research communities since these indicators consider only publication-count, citations or their derivatives to measure the impact. Moreover, the citations are collected from journal articles mostly written and published by academicians, research scholars and scientists. Thus, these indicators fail to measure the broader societal impact of research.

With launch of open access movement in 21st century, the academicians and researchers world-wide are increasingly publishing their research findings and research outputs on open access platforms, i.e. open access journals and open access digital repositories, etc. The governments and funding agencies are increasingly mandating submission of research articles emanated from publicly funded research in open access repositories and open access journals. Thus, the scholarly communication process is moving away from the traditional media of printed journals and printed books to the online, web-based open access avenues such as open access journals, blogs, digital repositories, social forums and other social media, which, put together are termed as “digital scholarship”. Increasing use of digital scholarship media resulted in quantum jump in numbers of research publications which are now available in open access platforms across the world. Moreover, the citation-based bibliometrics indicators associated with Web of Science (WoS) and Scopus do not support and consider these emerging avenues of digital scholarship, thereby failing to measure the research impact of scholarly publications published in such open and online platforms.

Altmetrics, as the name suggest is “alternative metrics” that is used to overcome the above mentioned limitations. It is used to measure the societal impact of research beyond the academics.

### What are Altmetrics?

The term 'Altmetrics' was proposed by Jason Priem on 8th September 2010, a PhD student at the School of Information and Library Science at University of North Carolina, Chapel Hill through a tweet (<https://twitter.com/asnpriem/status/25844968813>). It was tweeted as “#altmetrics” for “#article level metrics”.

Altmetrics is the creation and study of new metrics based on the Social Web for analyzing, and informing scholarship (<http://altmetrics.org/about/>). It is the study of new indicators for the analysis of academic activity based on Web 2.0. Piwowar (2013) considered the altmetrics as an interesting option for assessing the societal impact of research, as they offer new ways to measure public engagement with research output. According to Liu, Adie, Bishop, and Venis (2013); “Altmetrics indicate the quantity and quality of online attention in multiple channels, including social media, blog posts and news coverage”.

Fenner (2014) elaborated that altmetrics typically looks at individual research outputs, including journal articles, presentations, datasets, softwares, etc. Besides, it also includes usage statistics and citations. Further, he stated that altmetrics and article-level-metrics (ALMs) are used interchangeably while the later is associated with “Public Library of Science (PLOS)”, a major open access publisher. Article-level-metrics are a comprehensive and multi-dimensional suite of transparent and established metrics at the article level (<http://article-level-metrics.plos.org/alm-info/>). PLOS-ALMs collect and provide article-level-metrics for each individual article published in its own publishing platform which was started as a service in 2009 by PLOS to assess its article impact, rather them aggregating them per journal Figure-1 and Figure-2 below are the two screenshots of “impact”.



Fig. 1: Altmetrics.org, 2010

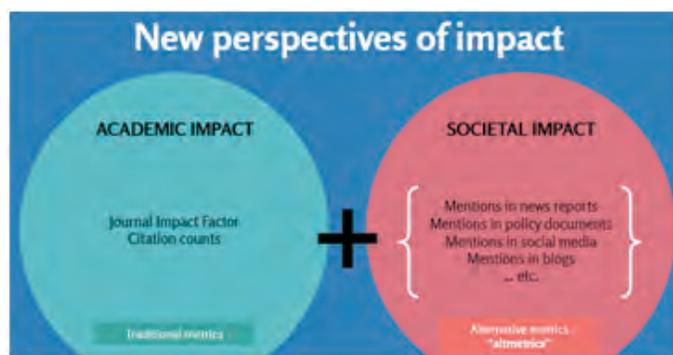


Fig. 2: Altmetric.com, 2014

Altmetrics is potentially focused on web influence rather than on only citations. It is all about measuring the impact from the various sources and platforms available on the web. According to Loria (2013), "Altmetrics measure the number of times a research output gets cited, tweeted about, liked, shared, bookmarked, viewed, downloaded, mentioned, favoured, reviewed or discussed. It harvests these numbers from a wide variety of web sources that count such instances, including open access journal platforms, scholarly citation databases, web-based research sharing services and social media. The numbers are harvested almost in real time, providing researchers with fast evidence that their research has made an impact or generated a conversation on the public forum. Altmetrics are quantitative indicators of public reach and influence. Thus, altmetrics provide a more comprehensive understanding of impact across sectors, including public impact". Shema, Barllan and Thelwall (2014) defined altmetrics as "a term to describe web-based metrics for the impact of scholarly material, with an emphasis on social media outlets as sources of data."

Open access and altmetrics goes distinctively with the same mission and both are complimentary to each other. Open access is meant for free availability of research articles through web to all, where mediums of open access like IRs, OJS, etc. are major sources for altmetrics data. Still, publishing a paper in a subscription-based high impact factor journal or in an open access journal is a personal trade-off for an author. Open access articles solely stand on its own contents but a subscription-based journal article rely on the prestige of the journal in which it is being published to some extent. Thus, a qualitative open access article would get attention and respect it deserves through altmetrics as compare to the much hyped and marketed subscription-based journal article. Altmetrics help to solely recognize the potential of an author, not of a journal as in case of citation-based bibliometrics.

Witnessing its tremendous interest among scientific community in a very short period of time, the National Information Standards Organization (NISO) is presently undertaking many initiatives to study, evaluate and examine altmetrics, and to develop uniform standards and practices for it.

### Metrics and Data Sources in Altmetrics

Altmetrics capture and assess the broad ranges of online influence of a paper or a work. It takes the data from various web sources which include:

- ☞ **Usage Data:** Altmetrics counts the number of page viewed (html & pdf) and document downloaded (pdf, postscripts, etc.) to assess its scholarly impact. Data can be counted from various databases and repositories like Dryad, Figshare, GitHub, SlideShare, etc. along with its publishing platform itself.
- ☞ **Citations:** Apart from citations tracked from the established Web of Science and Scopus platform, altmetrics takes into count the citations of a paper from other major academic social networks and sources like Google Scholar, CrossRef, PubMed, ScienceSeeker, ResearchGate, Academia.edu, getCited.org, Wikipedia, Scholarpedia, etc.
- ☞ **Captures:** Altmetrics capture social bookmarking data of a research paper from platforms like Delicious, CiteULike, Connotea, data stored in EndNote, Zotero & Mendeley, favorites in SlideShare and YouTube, followed in GitHub, and number of Mendeley readers of that specific paper which helps to figure out the impact on scholarly community.
- ☞ **Mentions:** This metrics counts the number of comments & mentions a research paper is receiving on Facebook, Twitter, LinkedIn, SlideShare, F1000, number of mentions in blog, e-news & media, on-line forums, and how many times that has been linked & mentioned in Wikipedia, etc.
- ☞ **Social Media:** Altmetrics considers the online discussions of a research article on social media like Facebook, Twitter, Google +, LinkedIn, and Reditt.com, etc.

## Tools for Altmetrics

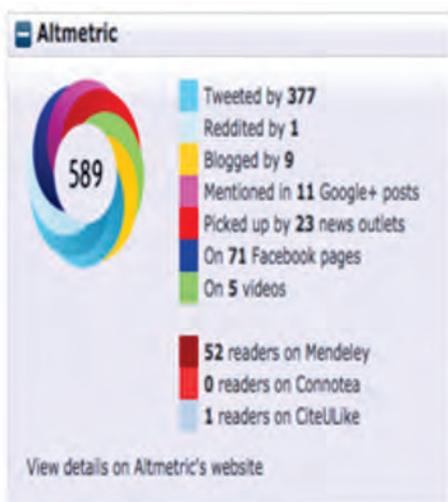
There are mainly following four major tools for altmetrics that are available in the market place.

**D) Altmetric.com:** Altmetric, a London-based start-up founded by Euan Adie in 2011 is focused on making altmetrics easy. Its mission is to track and analyse the online activity around scholarly literature. Altmetric Explorer, their first standalone version of Altmetric was released in February 2012. Altmetric is being funded by Digital Science. It collects mentions of scholarly articles from all across the web by gathering attention from newspapers, blogs, social media, and more. For non-commercial use, the Altmetric Application Programming Interface (API) is free for all. It offers its flagship app “Altmetric Explorer” for free to librarians. (<http://www.altmetric.com>). Table-1 below lists data sources of Altmetrics.

Mainstream news	New York Times, BBC News and Washington Post, etc.
Blogs	Science blogs, etc.
Social media	Twitter, FB, G + , Weibo, etc.
Reference Managers	Mendeley, CiteULike, Connotea, etc.
Peer Review Sites	PubPeer and Publons, etc.
Policy Documents	World Health Organization (WHO), Inter-governmental Panel on Climate Change (IPCC) and National Institute for Health and Care Excellence (NICE).

**Table 1: Data Sources of Altmetric**

From Altmetric.com website, a researcher can get article-level-impact mostly on individual researcher level, institution level, institutional IR level, etc. Altmetrics use different kinds of badges to display its article-level-metrics, i.e. donut, medium-donut, small badge, medium badge, large badge, small bar and medium bar, etc. as per clients' choice. Figure 3 and Figure 4 below are examples of “Altmetric Badge” and “Display of Altmetric Scores” respectively.



**Fig. 3: Altmetric Badge**



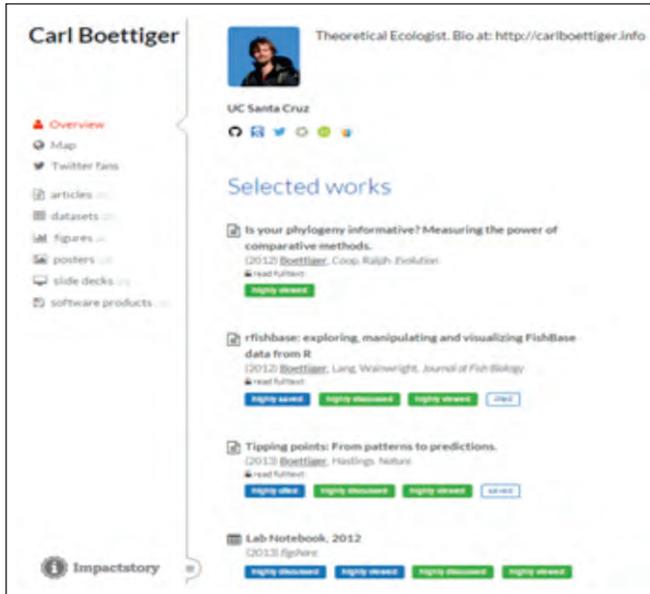
**Fig. 4: Display of Altmetric Scores**

ii) **ImpactStory:** ImpactStory is an open-source, web-based tool that helps researchers to explore and share the diverse impacts of all their research products from traditional ones like journal articles to emerging products like blog posts, datasets, and software, etc. Jason Priem and Heather Piwowar were the founder of ImpactStory. By helping researchers to narrate their data-driven stories about their impacts. ImpactStory is helping to build a new scholarly reward system that values and encourages web-native scholarship. ImpactStory was started as “Total-Impact”, a hackath on project at the 'Beyond Impact Workshop' in 2011. It is funded by the National Science Foundation (NSF) and the Alfred P. Sloan Foundation. ImpactStory is a non-profit corporation (<https://impactstory.org/about>). Table 2 below lists data sources of ImpactStory.

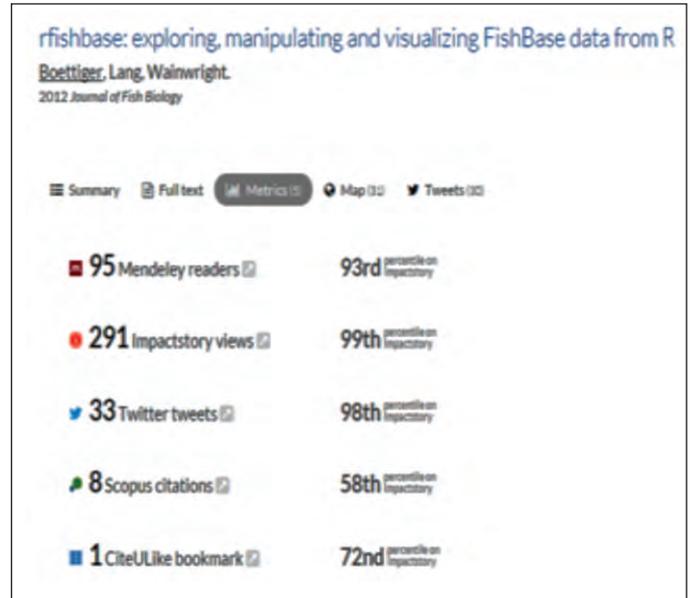
Discussed	Science blogs, journal comments, blogs, Twitter, Facebook, etc.
Recommended	Editorial Recommendations, Press Release, Faculty of 1000 (F1000)
Cited	Citations, full-text mentions, Wikipedia mentions
Saved	CiteULike, Mendeley, Delicious, Facebook
Viewed	HTML views, PDF views and downloads

**Table 2: Data Sources of ImpactStory**

ImpactStory categorizes the articles of a researcher as per the kinds of online attention an article gets, i.e. viewed, saved, cited, discussed, recommended, highly viewed, highly cited, highly discussed, etc. Figure 5 and Figure 6 below show “Researcher's Profile” and “Display of Metrics” in ImpactStory respectively.



**Fig. 5: Researcher's Profile in ImpactStory**



**Fig. 6: Display of Metrics**

iii) **Plum Analytics:** Andrea Michalek and Mike Buschman founded Plum™ Analytics in the year 2011 to figure out more accurate ways of assessing research by analyzing the different categories of metrics. Its product PlumX is the impact dashboard for measuring research output. Plum Analytics is now a part of EBSCO Information Services. It is a profit-making organization (<http://www.plumanalytics.com>). Table 3 below lists data sources of Plum Analytics.

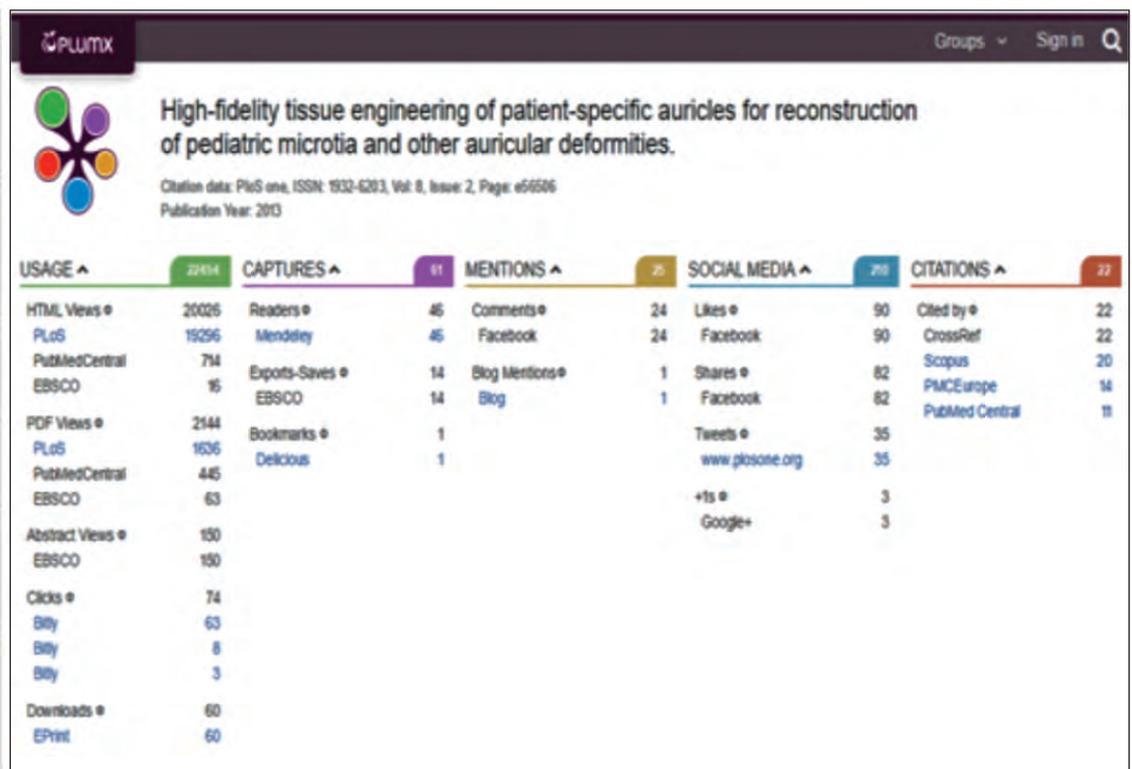
Usage	Downloads, views, book holdings, ILL, document delivery (DSpace, ePrints, PLoS, Bit.ly, Facebook, Dryad, Figshare, Slideshare, GitHub, WorldCat)
Captures	Favorites, bookmarks, saves, readers, groups, and watchers (CiteULike, Delicious, Slideshare, YouTube, Mendeley)
Mentions	Blog posts, news stories, Wikipedia articles, comments, reviews (Facebook, Reddit, Slideshare, Vimeo, GitHub, Wikipedia, Research blogging, ScienceSeeker)
Social media	Recommendations, tweets, likes, shares, ratings (SourceForge, Figshare, Reddit, Facebook, Twitter)
Citations	PubMed, Scopus, USPTO patents

**Table 3: Data Sources of Plum Analytics**

With PlumX™, a researcher can track article-level-metrics at multiple levels or groups. For example, an academic institution might track metrics at: Researcher, Lab, Department, Institution, Discipline, and Subject. PlumX™ has several types of widgets to show the article-level-metrics that a user/researcher can choose from depending upon how he/she would like to integrate into his/her site. They are Artifact Pop-Up, Artifact Summary, Artifact Details, Artifact PlumPrint, Group, Researcher and Grant. Figure 7 and Figure 8 below show “PlumX Widget” and “Display of Widgets' Scores” in PlumX.



**Fig. 7: PlumX Widget**



**Fig. 8: Display of Widgets' Scores**

iv) **PLOS Article-Level Metrics (ALMs):** Public Library of Science (PLOS), the worlds' major open access publisher has developed an altmetrics application called PLOS Article-Level Metrics (ALMs) which are available for every

article published on its own publishing platform. According to PLOS, research articles should primarily be judged on their individual merits, rather than on the basis of the journal in which they were published. Its altmetrics data on articles includes: views, citations, save, discussions and recommendation, etc. The API for ALMs is freely and publicly available since 2009. It provides a suite of established metrics that measure overall performance and reach of published research articles (<http://article-level-metrics.plos.org/>). Table 4 below lists data sources of PLOS-ALMs.

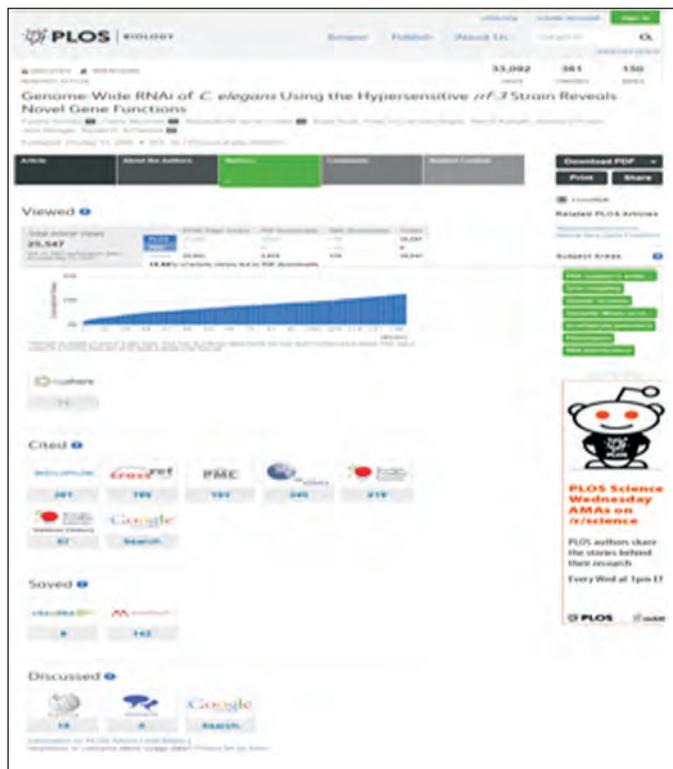
Usage	PLOS: views, PDF downloads, XML downloads; PubMed Central (PMC): views, PDF downloads
Citations	PubMed Central (PMC), CrossRef, Web of Science, Scopus
PLOS	Comments, notes, ratings
Social Networks	CiteULike, Mendeley, Twitter, Flickr
Blogs & Media	Nature Blogs, ScienceSeeker, Research Blogging, Trackbacks

**Table 4: Data Sources of PLOS-ALMs**

PLO-ALMs display its article-level-metrics in PLOS-ALM widget based on the ALM 2.0 API. It can accommodate the display of ALMs for a single or multiple articles. This widget can be used / integrated to display for one or more articles with PLOS, a lab with multiple researchers who have published one or more articles with PLOS, and university department or funding agency with many researchers and many PLOS papers. PLOS-ALM widget mostly support webpage created on WordPress platform. Figure 9 and Figure 10 below show “PLOS-ALM Widget” and “Display of Widgets' ALM Scores” in PLOS-ALM.



**Fig. 9: PLOS-ALM Widget**



**Fig. 10: Display of Widgets' ALM Scores**

Many major publishers like: Wiley, Nature Publishing Group (NPG), BioMed Central, Public Library of Sciences (PLOS), Royal Society of Chemistry, Cell Press, IEEE, Proceedings of the National Academy of Sciences of the United States of America (PNAS) and High Wire Press have already incorporated altmetrics applications into their publishing platforms to provide altmetrics data score to each individual article. Also, SCOPUS has included Altmetric badges to show altmetrics score for articles indexed in it.

### Advantages of Altmetrics

Priem, Taraborelli, Groth, and Neylon (2010) noted the limitations and slowness of peer review and citations process in their post "Altmetrics: a Manifesto" and suggested that the speed with which altmetrics data are available could potentially lead to real-time recommendation and collaborative filtering systems to assess the quality of research.

Altmetrics offer potential advantages which are broadly elaborated below:

- ☞ **Breadness:** Altmetrics has the potential for measuring the broader impact of research, that is, beyond science. It can deliver more transparent descriptions of the interest, usage and reach of scholarly products, provide more diverse and nuanced forms of impact analyses than traditional metrics. It offers access to the opinions of a wider audience, such as professionals, undergraduates, government and – as a whole – the interested general public (Bornmann, 2014).
- ☞ **Speed:** Altmetrics data collected from such web-based, open and social platforms often provide more timely data, showing the evidence of impact in days or weeks instead of years, i.e. soon after publication of a paper. The data is gathered as it is read, bookmarked, saved, annotated and discussed within academic circles and by the public.
- ☞ **Diversity:** Altmetrics data are more diverse in kinds that are sourced from diverse data sources, whereas for citation-based metrics, data source is cited references in journals. Altmetrics also allow for evaluation of a greater diversity of products, i.e. not just publications but also products, software, copyrights, algorithms, grey literature, and slides, etc. (Bornmann, 2014) from a diverse audiences.
- ☞ **Openness:** Indications of societal impact as altmetrics data are based on web-based and open access platforms.

### Limitations of Altmetrics

Despite being considered as an alternative metrics to bibliometrics in recent time, altmetrics has many flaws that include:

- ☞ It may take longer time to clearly understand the quality and applicability of a research in a broader approach.
- ☞ Social media and usage statistics are vulnerable as these can be manipulated and subject to gaming which may directly affect the altmetrics data and its result.
- ☞ There is possibility that a researcher may use various platforms extensively to promote his/her research article. Thus, altmetrics data should not necessarily refer to a greater influence or impact of research.
- ☞ Altmetrics is more interested in such things that can be measured on web like attentions, mentions, etc.
- ☞ Altmetrics has lack of presence in 'dark social' which means the social sharing of content or data that occurs outside of what can be measured by Web analytics programmes, i.e. personal emails, chats or offline sharing, etc.
- ☞ Technology is constantly changing, so is the social web platforms. The platforms, the sources that are being used for altmetrics data today may be obsolete or would not even exist in future on the web. So, there would not be accuracy in data and stability in data sources.

- ☞ There are no well-defined indicators to measure altmetrics. Different platform use different sets of altmetrics indicators.
- ☞ Social web is the base for altmetrics data which needs much more social media literacy among the scientific community. At time, researchers may not be aware of all available web sources.

### Altmetrics v/s Bibliometrics

Altmetrics and bibliometrics can be compared and differentiated on the following counts:

- ☞ **Time:** Citations took years to occur; but altmetrics data like tweets, blog posts, tags, facebook shares, comments and bookmarks tend to occur much more quickly soon after publication.
- ☞ **Impact:** Citation-based bibliometrics neglect impact outside the academic, where as altmetrics provides fast evidence of public reach and influence of a research.
- ☞ **Sources:** Citation data sources are well-recognized and universally accepted by the research community i.e. Web of Science and Scopus. Whereas, altmetrics data sources are much diverse in nature on the social web. Moreover, altmetrics parameters are not well known and used uniformly by research community and service providers.
- ☞ **Indicators:** Citation metrics have well-developed theories and methods such as Impact Factor, H-Index, JIF, etc. to measure, whereas in altmetrics, there is no well-defined and clear theories and indicators to measure the data and their sources.

### Role of Librarians in the age of Altmetrics

Altmetrics can be used as a very useful handy tool for filtering out the most fruitful and reliable research from the web. Librarians can use altmetrics to explore its use for measuring public attention to their institutional research output produced by its own faculty members and researchers. They can use altmetrics as a value-added application by integrating it with their IRs which would help them to track the use of research articles and provide article-level-metrics for all articles available in their IRs. Moreover, academic community can be informed about various hot research topics going on across the world. Figure 11 and Figure 12 below show two examples of implementation of article-level-metrics in IRs.

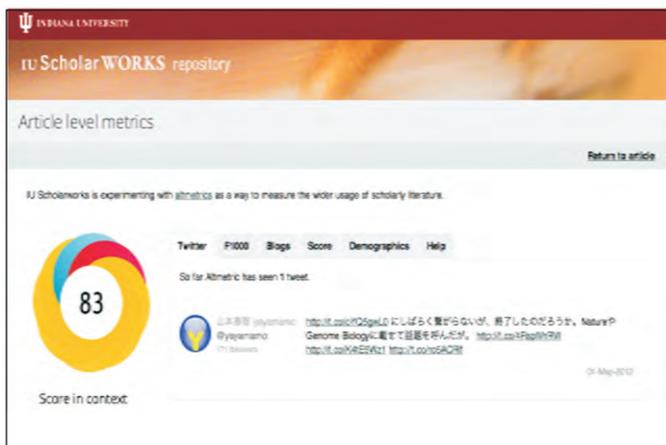


Fig. 11: IU Scholar Works Repository, Indiana University

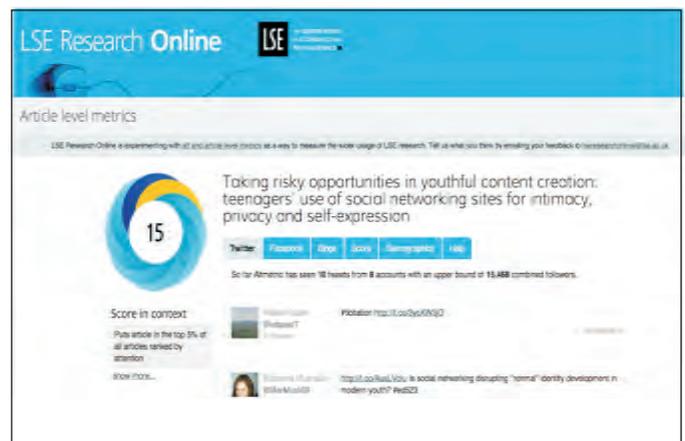


Fig. 12: LSE Research Online, LSE, UK

Altmetrics data collected from tools like Zotero and Mendeley's Institutional Edition are helping the librarians to get a quick analysis about the reading trends of its users. Mendeley is emerging as a leading source of data on how ideas

spread and which academician scientists are the most widely read and influential in their respective fields (William, 2012). Barbaro, Gentili and Rebufi (2014) suggested that with the help of altmetrics data like readership data from Mendeley, librarians can track, collect and inform emerging research conversations penetrating in the web with its research community. Recently, Scopus has started to provide article-level-metrics to all articles indexed on its platform in collaboration with Altmetric.com. Furthermore, Scopus has integrated Mendeley with its platform to provide readership statistics on individual article. Figure 13 and Figure 14 below are the screenshots of display of “Altmetric for Scopus” and “Mendeley Readership Statistics” respectively.



Fig. 13: Display of Altmetric for Scopus



Fig. 14: Display of Mendeley Readership Statistics

Librarians can support experimentation with emerging altmetrics tools to facilitate better research practices. They can engage themselves in early altmetrics education for their academic community and outreach too.

### INFLIBNET's Vision towards Altmetrics Implementation

The Information and Library Network Centre (INFLIBNET) is working on different projects to evaluate the research growth and its impact in different disciplines at the national and institutional level with the help of different bibliometrics indicators. As the concept of article-level-metrics or altmetrics is evolving around in the world, the Centre has also started exploring its possible applications and use in its services. The Centre proposes to implement altmetrics applications in its databases, Open Journal Access System (OJAS) and institutional repositories (IRs) to track the usage and to provide impact metrics at article-level to all journal articles, e-theses, dissertations and research synopses available in its repositories respectively.

### References

- 1) Loria, P. (2013). Altmetrics and open access: a measure of public interest. Retrieved from <http://aoasg.org.au/altmetrics-and-open-access-a-measure-of-public-interest/>

- ii) Barbaro, A., Gentili, D., & Rebufi, C. (2014). Altmetrics as a new indicators of scientific impact. *Journal of the European Association for Health Information and Libraries*, 10 (1), 3-6. Retrieved from [http://www.eahil.eu/journal/2014V10/N01/journal\\_2014\\_vol10\\_n1\\_barbaro.pdf](http://www.eahil.eu/journal/2014V10/N01/journal_2014_vol10_n1_barbaro.pdf)
- iii) Bornmann, Lutz (2014). Do altmetrics point to the broader impact of research? An overview of benefits and disadvantages of altmetrics. *8(4)*, 895–903, doi:10.1016/j.joi.2014.09.005
- iv) Fenner, M. (2014). Altmetrics and Other Novel Measures for Scientific Impact. Retrieved from <http://book.openingscience.org/vision/altmetrics.html>
- v) Liu, J., Adie, E., Bishop, L., & Venis, S. (2013). Poster: Using altmetrics and citation counts to assess the social and academic impact of Medecins Sans Frontieres publications. figshare. <http://dx.doi.org/10.6084/m9.figshare.684926>
- vi) Piwowar, H. (2013). Altmetrics: What, Why and Where?. *Bulletin of the American Society for Information Science and Technology*, 39(4), 8-9, Retrieved from [http://www.asis.org/Bulletin/Apr-13/AprMay13\\_Piwowar.html](http://www.asis.org/Bulletin/Apr-13/AprMay13_Piwowar.html)
- vii) Priem, J., Taraborelli, D., Groth, P. & Neylon, C. (2010). Altmetrics: A manifesto. Retrieved from <http://altmetrics.org/manifesto/>
- viii) Shema, H., Barllan, J., & Thelwall, M. (2014). Do blog citations correlate with a higher number of future citations? Research blogs as a potential source for alternative metrics, *65(5)*, 1018-1027, doi:10.1002/asi.23037
- ix) William. (2012). What flavor is your research? Take our survey on grant review and tenure decision making. Retrieved from <http://blog.mendeley.com/mendeley-use-case/what-flavor-is-your-research-take-our-survey-on-grant-review-and-tenure-decision-making/>

## Visitors

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Prof. R. Nagaraj, Director, DA-IICT, Gandhinagar

Dr. Jagdish Joshi, Offtg. Director, UGC-HRD Centre, Gujarat University

Dr. Shailesh Yagnik, Head, Library and Information Services, MICA, Ahmedabad

Prof. I. K. Ravichandra Rao, Professor, PES Institute of Technology, Bengaluru

Dr. P. Dastidar, Director, Ministry of Earth Sciences, New Delhi

## Users' Speak

### On Training Programmes

- i) "Training programme should become mandatory for all from High School to Higher Education and should become part of curriculum to encourage ethics in learning" by one of participant of two-day National Conference on Ethical Issues and Use of Anti-Plagiarism for Research Integrity from 29th April to 30th April, 2015.
- ii) "It is worth to practice & implement in professional life, motivate to write articles, wonderful experience and maximum utilized the programme" by one of participant of Advance Training Programme on Bibliometrics and Research Output Analysis during 15th June to 20th June 2015.

### On Shodhganga

"I planned to start the Idli Dosa Batter Industry hence I gone through couple of the articles pertaining to the same Industry. During my research, I found one of the thesis submitted into Shodhganga repository is useful for starting the batter i.e. ([http://shodhganga.inflibnet.ac.in:8080/jspui/bitstream/10603/5288/14/14\\_chapter%206.pdf](http://shodhganga.inflibnet.ac.in:8080/jspui/bitstream/10603/5288/14/14_chapter%206.pdf)) by Uttam Hegde from Bengaluru.

### On N-LIST

"There are insufficient e-book titles of library and information science. Please add the titles of Indian author more. Mostly titles are added in the library and information science subject those are already available on Google Books website." by Tarsem Lal from J. C. D. A. V. College, Dasuya, Punjab.

## Staff News

### Dr. Jagdish Arora, Director

Dr. Jagdish Arora delivered keynote address entitled "Ten Technologies the Librarian Should Know to Contribute and Strengthen their Institutions", during inaugural session of the 11th Annual Meet and Workshop of INDEST-AICTE Consortium held from 29th to 30th April, 2015 at IISER Mohali. He was invited to deliver a talk on "Ranking of Indian Universities" during the 89th Annual General Meet of Association of Indian Universities (AIU): National Seminar on Promotion of Excellence in Higher Education held at Lovely Professional University, Phagwara, Punjab from 23rd to 25th May, 2015.

He attended the Meeting on National Digital Library (NDL) at IIT Kharagpur held on 21st & 22nd May, 2015 along with his colleagues to discuss collaboration and contribution of INFLIBNET Centre to the NDL. As member of the Editorial Board of the DESIDOC Journal of Information Technology, he attended its Meeting held on 29th May, 2015. As member of the Standing Committee as well as its Sub-Committee (Technical) on e-Content Development (e-PG Pathshala), Dr. Arora attended a number of meetings of the Standing Committees and its Subcommittee held during April to June, 2015 at UGC Main Office, New Delhi. As a member of Anti-ragging Negotiation and Technical

Committee. Dr. Arora attended a number of its meetings during the quarter under report at UGC Main Office, New Delhi.

**Mr. Manoj Kumar K., Scientist D (CS)**

Mr. Manoj Kumar K. was invited to deliver a lecture on use of anti-plagiarism software for research integrity & ethics at Mahatma Gandhi University Library, Kottayam, Kerala on 3rd June 2015. He was invited to deliver a lecture on Anti-Plagiarism Tools for Research Integrity during PhD Coursework for Science Faculty/Students at Hemchandracharya North Gujarat University, Patan on 11th June 2015. He delivered a lecture on Shodhganga to research scholars in a Workshop organised by Gujarat Technological University, Ahmedabad on 20th June, 2015. He delivered invited lectures on research integrity and anti-plagiarism software during two weeks research orientation programme organised by Academic Development and Research Cell, Nirma University, Ahmedabad on 23rd June, 2015.

**Mr. Ashok Kumar Rai, Scientist D (CS)**

Mr. Ashok Kumar Rai attended a meeting of SFC Memorandum for Consideration of Proposal of "Consortium for Higher Education Electronic Resources (CHEERs)" at Shastri Bhawan, MHRD, New Delhi on 2nd June, 2015. He also attended a meeting of Monitoring & Negotiation Committee of Consortium of e-Resources in Agriculture (CeRA) at KAB-II, Pusa, New Delhi on 8th June, 2015.

**Mr. Yatrik Patel, Scientist D (CS)**

Mr. Yatrik Patel was invited to deliver a lecture on creating digital library using DSpace on 24th April, 2015 during two days state level workshop on DSpace: A Step Towards Digitisation of Library organised by Internal Quality Assurance Cell (IQAC) of Ashok & Rita Patel Institute of Integrated Study & Research in

Biotechnology and Allied Science (ARIBAS), Vallabh Vidyanagar from 24th to 25th April, 2015.

**Mr. Abhishek Kumar, Scientist C (CS)**

Mr. Abhishek Kumar attended meeting of Youtube for e-Acharya: Integrated e-content Portal Project on 8th April 2015 in Gurgaon. He also attended meeting of Standing Committee of e-PG Pathshala project on 20th April 2015 and subcommittee of e-PG Pathshala project on 16th April, 30th April & 1st May, 19th & 20th May, 17th June and 26th June, 2015 at University of Grants Commission, New Delhi. He also attended meeting of National Digital Library Committee on 21st and 22nd May, 2015 at IIT Kharagpur. He was invited to deliver a lecture on content management system on 23rd June, 2015 during three days Workshop on Development Designing and Implementation of Library Portals at Sardar Patel Institute of Public Administration (SPIPA), Ahmedabad from 23rd to 25th June, 2015.

**Mr. Swapnil Patel, Scientist B (CS)**

Mr. Swapnil Patel was invited for practical session of Installation of DSpace and Understanding DSpace basic Customization during two days state level workshop on DSpace: A step towards digitisation of library organised by Internal Quality Assurance Cell (IQAC) of Ashok & Rita Patel Institute of Integrated Study & Research in Biotechnology and Allied Science (ARIBAS), Vallabh Vidyanagar from 24th to 25th April, 2015.

**Ms. Kruti Trivedi, Scientist B (LS)**

Ms. Kruti Trivedi was invited to deliver a lecture on Gateway to E-resources through INFLIBNET Centre during PhD Coursework for Science Faculty/Students at Hemchandracharya North Gujarat University, Patan on 11th June 2015.

### **Mr. Miteshkumar Pandya, Scientist B (LS)**

Mr. Miteshkumar Pandya was invited to deliver lectures on Joomla CMS & installation and configuration of Joomla on 23rd June, 2015 and structure and planning of website development using Joomla and content creation and multilingual website designing on 24th June, 2015 during three days Workshop on Development Designing and Implementation of Library Portals from 23rd to 25th June, 2015 at Sardar Patel Institute of Public Administration (SPIPA), Ahmedabad.

### **Mr. Hiteshkumar Solanki, Scientist B (CS)**

Mr. Hiteshkumar Solanki was invited for practical session of Understanding DSpace and Submission Workflow and Backup-Restore and Import-Export in DSpace during two-day state-level Workshop on DSpace: A Step Towards Digitisation of Library organised by Internal Quality Assurance Cell (IQAC) of Ashok & Rita Patel Institute of Integrated Study & Research in Biotechnology and Allied Science (ARIBAS), Vallabh Vidyanagar from 24th to 25th April, 2015.

## **New Appointment**

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### **Mr. Pallab Pradhan, Scientist B (LS)**



Pallab Pradhan has joined the INFLIBNET Centre as Scientist B (LS) on 1st April, 2015. Prior to joining the Centre, he was working with Indian Institute of Technology (IIT) Indore as Manager - Library from February 2012 to March 2015. Prior to that he has also worked with JRDTML-NCSI, Indian Institute of Science (IISc) Bangalore; INFLIBNET Centre and Tata Consultancy Services respectively for varying period. He has completed his Master Degree in Library and Information Science (MLISc) from Sambalpur University, Odisha in 2008. His areas of interest are Bibliometrics Research & Analysis, Library Management &

Automation, E-Resources Management and Reference Management tools etc. Currently, he is involved in Indian Universities Ranking (Bibliometrics Research Group) and ICSSR Data Service (Social Science Data Repository) Project.



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VIDWAN is the premier database of profiles of scientists / researchers and other faculty members working at leading academic institutions and other R & D organisation involved in teaching and research in India. It provides important information about expert's background, contact address, experience, scholarly publications, skills and accomplishments, researcher identity, etc. The database developed and maintained by Information and Library Network Centre (INFLIBNET) with financial support from the National Mission on Education through ICT (NME-ICT). The database would be instrumental in selection of panels of experts for various committees, taskforce, established by the Ministries / Govt. establishments for monitoring and evaluation purposes.

Subject Category	
Agricultural Sciences	2212
Arts & Humanities	1115
Biological Sciences	879
Chemical Sciences	1402
Engineering & Technology	4555
Medical & Health Sciences	2514
Physical Sciences	2017
Social Sciences	2308
Organisation Category	

## Our Objectives

- Quickly and conveniently provide information about expert to peers, prospective collaborators, funding agencies policy makers and research scholar in the country
- Establish communication directly with the experts who possess the expertise needed by users
- Identify peer reviewers for articles and research proposal
- Discover prospective collaborators for on-going research projects
- To create information exchanges and networking opportunities among scientists



**NMEICT**  
National Mission on Education Through ICT



### Contact Us

The Director  
Information and Library Network Centre,  
Infocity, Gandhinagar  
Gujarat - 382007

Sh Kannan P  
Scientist-O (LS)  
kannan@inflibnet.ac.in

Sh Yatrik Patel  
Scientist-D (OS)  
yatrik@inflibnet.ac.in

Sh Abhishek Kumar  
Scientist-O (OS)  
sbhishek@inflibnet.ac.in

# INFLIBNET in Regional News

## GTU to join hands with Shodhganga for raising quality of research



### Ahmedabad

To raise the standards and quality of Research, Gujarat Technological University (GTU) has decided to join hands with Shodhganga, an agency of UGC from the Information and Library Network (INFLIBNET) Centre.

Dr. Akshai Aggrawal, Vice Chancellor of GTU said that an MOU in this regards will be signed up on 15th May at 3.30 pm at Chandkheda Campus of GTU. this tie-up will be really helpful to GTU's Ph.D students. Online availability of electronic theses through centrally-maintained digital repositories, not only ensure easy access and archiving of Indian doctoral theses. This would overcome serious problem of duplication of research and improve quality in research output.

Shodhganga provides a platform for research scholars to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers. The agency has anti-plagiarism software to check 'copied' research.

Shodhganga replicates academic structure of each University in terms of Departments/ Centres/ Colleges each University has to facilitate ease of navigation. This structure facilitates research scholars from universities to deposit their theses in the respective Department / Centre / College. The Centre is also developing a semantic web-based interface to facilitate subject-based browsing, navigation, search and retrieval of content available in the repository.



## **Information and Library Network Centre**

(An Autonomous Inter-University Centre of UGC)

Infocity, Gandhinagar - 382007, Gujarat, INDIA

Email: [director@inlibnet.ac.in](mailto:director@inlibnet.ac.in)

<http://www.inlibnet.ac.in>