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"Visualizing Librarianship in the 21st Century: Connecting Minds and Creating the Future"

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Library Roles in BLDE (Deemed to be University) Research Assessment

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Abstract: University libraries throughout the world are rethinking how they serve their individual schools' research agendas. This study is based on the different services given by the BLDE (DU) central library, the findings of which may be useful to other university libraries. Following a brief examination of significant developing trends in research support, the article analyses the survey findings, with an emphasis on support for researchers and the research agenda at their institutions. The central library provides excellent research assistance; nevertheless, e-Research assistance in general, and research data management assistance in particular, have the greatest variation across the libraries and indicate potential areas for improvement. Suggestions for follow-up, benchmarking, and development are made.

Keywords: BLDE (DU), Central Library, Research Support Services.

1. Introduction

Academic libraries may assist research by inventing and aggregating discipline-based tools, offering tailored services, and promoting user-centered services (Kroll and Forsman, 2010). The function of libraries at research universities is shifting from reader services to author services. Governments throughout the globe are faced with the task of developing research e-infrastructures that can not only handle but also make increasingly huge volumes of research data accessible and discoverable. In response, universities are under pressure to guarantee that their research plans and support services are in line with these national imperatives.

The BLDE(DU) Central Library was founded in 1986, along with the institute. It is located in contemporary facilities and provides computerised library services to its clientele, which includes about 1500 undergraduate and postgraduate students, research researchers, faculty members, and supporting personnel from the institute's many departments. This Library is housed in a separate building with a carpet area of 2400 square metres in the heart of the campus, and it can seat more than 750 students/users at any given time.

2. Objectives of the Study

The purpose of this study is to look at the present state of research support services at the BLDE (Deemed to be University) library in Vijayapura. The following

research questions form the foundation of the study:

- How has the provision of library research support services developed over the last decate as shown by the BLDE (Deemed to be University), Vijayapura, library strategic plans?
- What resources does the BLDE (Deemed to be University) library in Vijayapura dedicate to research assistance?
- What are the most important research support services for library directors?

3. Review of Literature

Research support services provided by university libraries in the context of e-research and data-intensive research cover a wide range of activities, some of which have been analized.

Reed, J. B., & Carroll, A. J. (2020), Between September 1, 2018 and March 1, 2019, researchers searched for posted position descriptions (PPDs) for academic health sciences librarians on a variety of job sites and email lists. While the scholarly literature records new responsibilities and developing capabilities for academic health sciences librarian jobs, the authors observed that PPDs do not typically represent those rising roles and skills, instead maintaining classic health sciences librarian skill sets.

Zakaria (2021). Conducted a study, on "Data visualization as a research support service in academic libraries" The researcher's goal is to shed light on the data visualisation services (DVS) offered online by world-class university academic libraries. This study included thirty library websites from the top 100 universities included in the QS World University Rankings 2021. The findings revealed that DVS could be classified into five categories: information, services, training, tools and software, and information resources. The majority of libraries (93.3%) included data visualisation tools and software such as Tableau, R, Excel, Gephi, and Plotly. The 26 libraries offered data visualisation information resources such as textbooks, data sources, external links to e-resources, and blogs. Furthermore, the 25 libraries made DVS available to the academic community via their websites.

Research data management (RDM) has become an unavoidable challenge for researchers and research institutions. Academic libraries are contributing to RDM by managing their own DMPs. Research data management is a major area of work for academic libraries. The 's Department of Education provides funding for

research data management plans. (Brown et al., 2015).

To adapt to the fast changing environment, **Lowry (2009)** calls for the "radical restructuring of research library organisations and services," as well as an increasingly diverse and competent workforce. Libraries may become a component of new hybrid organisations that arise as a result of addressing new support paradigms. Library personnel play an important role in supporting other information experts in ensuring the acceptance and use of technological advancements for research assistance **(Krafft et al. 2010)**. There are chances in this new environment to "reshape the library personnel in spectacular fashion" **(Sennyey et al. 2009)**.

A growing number of academic libraries are now participating in the development of new institutional RDM policies and services, seeing this as an important element of their future role (Cox and Pinfield, 2014). Priorities are developing, such as the provision of RDM advice and training services (Cox and Pinfield, 2014). According to a global survey, the most important RDM services include research data introduction, data management guidelines, data curation and storage, data management training, data management reference, and resource suggestion (Si et al.,2015).

4. Research Support Services by BLDE (DU)-Central Library:



The primary function of a university library is to aid the curriculum while also assisting the professors, researchers, and students. In the future, research support services will be a focus of innovation for libraries, putting significant demands

on library resources/tools and technical conditions, as well as librarian wisdom/ skills and competence. Libraries will have to deepen their communication and collaboration with subject specialists and research management personnel/ bodies, improve their intelligence analysis and think tank services, and deliver high-level, professional, and tailor-made support services based on the lifecycle of research acclaim. The BLDE (DU) Central Library's critical research support services to its faculty and researchers are mentioned and briefly explained.

• *Library Orientation*: the library facilities, resources, services, and library methods are introduced to users as the primary goal of the user orientation. The orientation programme teaches the users how to utilise the library as well as helping them become more acquainted with it. Once a year, a presentation and physical tour of the library is provided to incoming Ph.D researchers to help them get acquainted with all of the library's resources, facilities, and services. This will in turn, familiarizes the library facilities, resources, services and library techniques and saves their time while approaching their need.

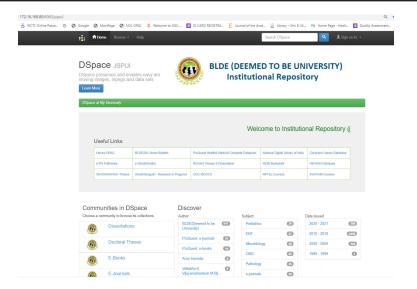


Workshops and Training Programs: The Central library of BLDE (DU) conducts various training, workshops and hands-on programmes to make aware of the multiple services and ICT facilities useful for the research scholars for their diligent research work. This will help them in their research, from selecting the research topic to the publication of the research topic in the scholarly journal. This will in turn makes the researchers show

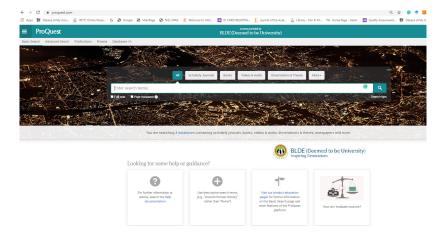
both quantity and quality performance. A few programmes are Plagiarism awareness programme-URKUND, Digital writing assistance tool-Grammarly, Literature search through ProQuest, Scopus database, Selection of the journal on the basis of its impact factor etc.



• Institutional Repository: A repository is an archive where digital copies of the work of an institution are collected, preserved, and disseminated. When you look at an institutional repository as a "collection of services" provided by a university to its community members, you are referring to it as a "institutional repository." BLDE (DU)-Central Library by using D-Space institutional repository software, archived the materials such as faculty publication like scholarly articles, book chapters, PG dissertations & Ph.D thesis submitted to the university, Previous year question papers of all the courses (Ph.D., PG, UG) and datasets, administrative documents, course notes, learning materials, or conference proceedings, digital assets created by academics. Under certain institutional repositories, depositing content is occasionally required by the institution. Other institutional digital assets, particularly unpublished or otherwise easily lost (grey) literature, may be saved via self-archiving in an open access repository.



Procedure for Award of M.Phil. / Ph.D Degree, Regulation, 2009 Amendment made on 2016) dated 5th May 2016 mandates submission of the electronic version of theses and dissertations by the researchers in universities with an aim to facilitate open access to Indian theses and dissertations to the academic community world-wide. Online availability of electronic theses through centrally-maintained digital repositories not only ensure easy access and archiving of Indian doctoral theses but will also help in raising the standard and quality of research. The severe drawback of duplicate research and subpar quality that results from the "unseen" and "unidentified" factors in research output may be addressed with this plan. INFLIBNET Centre will manage, maintain, and provide access to the electronic repository of Indian Theses and Dissertations known as "Shodhganga." In all, the BLDE (DU) entered 36 Ph.D dissertations in Shodhganga.



• Access to ProQuest-Health Research Premium Collection (Full text Database of e-books, e-journals and e-thesis & dissertations): This ProQuest collection is useful for medical librarians since its wide range of medical literature and searchable databases makes it excellent for teaching and research. Our material assists health science practitioners in connecting theory to practise with respect to a wide range of study audiences, from conducting clinical research studies to offering instructional multimedia to professors who are training future medical professionals. It covers 6753 full-text scholarly journals, 17807 e-books and 170586 e-thesis & dissertations.



- Bibliometric Study (R-Studio, Biblioshiny, and VOSViewer): Bibliometric is defined as the use of statistical methods to analyze the bibliometric publications data such as peer-reviewed journal articles, books, conference proceedings, periodicals, reviews, reports, and related documents. BLDE (DU) is using open source software like R-Studio & Biblioshiny package for analysis of bibliographic data of publications and VOSviewer software tool for constructing and visualizing bibliometric networks.
- *SPSS software:* SPSS Statistics is a software package used for interactive or batched statistical analysis. The package is purchased in 2016 and installed in 10 system of the digital library section of the central library for the benefit of researchers for the research data analysis. It provides data analysis for descriptive statistics, numeral outcome predictions, and identifying groups. This software also includes data transformation, graphing and direct marketing features to manage data smoothly.
- **Assistance for Research Proposal Writing:** Writing a research proposal is sometimes more complex than writing the paper itself. You have one massive goal with this type of paper – justify the topic of your dissertation in a way that convinces the committee that your dissertation idea is rock solid. Basically, the research proposal is a key step you must do well if you want your dissertation topic to be approved. The central library of BLDE (DU) assists the Research scholars, Faculty, PGs and UGs who are required to submit a research proposal as a condition of their candidature or who wish to write one for their own purposes. The purpose of this service is to help them develop an approach for writing a clear and focused research proposal by providing access to its vast collection of resources and experts database assistance. These are the steps that our experts undertake in order to provide the best research proposal writing help: a) Prepare the title page according to the requirements and the requested formatting style. b) Prepare the abstract c) Create the most inviting introduction with general background information about the research d) Justify the topic e) Present the problem you are planning to research f) Present the main goals of the

- study g) Explain a bit about the methodology you will use in the paper h) Diversify a wide choice of sources in the form of a literature review i) Finish off with a short, convincing conclusion.
- Remote access to digital resources (catalogue, abstract, full text, videos, statistics etc.): To increase the productivity of our researchers and to save their precious the central library adopted a mechanism by adopting the Remote access technology by procuring the services of Knimbus platform under which all the digital resources (like, bibliographical, abstract, full text and statistical tools etc.) procured by the central library made available to the library clientele by providing access to their finger-tips. At any place and any time, the users can access the entire and variant of digital resources procured by the central library with their mobile and other computer devices.
- Verification of Research Publication Published: Research has been an integral part of our Medical Education since its inception of Medical College. Research has received major thrust after being conferred the Deemed University status. We at BLDE (DU) strongly believe Teaching and Research should go hand-in-hand and complement each other. Research Publication Verification is the process of checking, confirming, making sure, and being certain. In qualitative research, verification refers to the mechanisms used during the process of research to incrementally contribute to ensuring reliability and validity and, thus, the rigour of a study. In BLDE (DU) the faculty and researchers publications (scholarly articles, book chapters etc.,) will be forwarded to the central library by the Registrar/ Principal's office for the verification, where the library will check its indexing agency, type of article, the scope of the journal (national/international), authorship pattern (first, second or corresponding), type of journal (print/online) etc., and give the remark, whether the manuscript fulfils all the NMC norms for promotion and cost reimbursement.
- **Journal Finder for Research Publication:** As a part of the research support service, the central library of BLDE (DU) guides the faculty and re-

- searchers to select the right journal (in terms of scope, impact factor, indexing database etc.) for their research manuscript by consulting various databases/Softwares/tools like- Elsevier Journal Finder, Journal/Author Name Estimator (JANE), Publish or perish open access, Springer Journal Suggester, Web of Science Master List, SCOPUS master list etc.
- VIDWAN Profile Creation: VIDWAN is the premier database of scientists/ researchers and other faculty members working at leading academic institutions and other R & D organisations involved in teaching and research in India. The database is developed and maintained by INFLIBNET (Information and Library Network Centre) with financial support from the National Mission on Education through ICT (NME-ICT). It provides essential information about the expert's background, contact address, experience, scholarly publications, skills and accomplishments, researcher identity, etc. The database developed and maintained by the database would be instrumental in the selection of panels of experts for various committees, taskforce, established by the Ministries / Govt. establishments for monitoring and evaluation purposes. BLDE (DU) Central library regularly trains and assists the faculty members of the institution in creating VIDWAN profile and integrating the profiles with IRINS database.
- IRINS database updation: IRINS is web-based Research Information Management (RIM) service developed by the Information and Library Network (INFLIBNET) Centre. The portal facilitates the academic, R&D organisations and faculty members, scientists to collect, curate, and showcase the scholarly communication activities and provide an opportunity to create the scholarly network. The IRINS is available as free software-as-service to the academic and R&D organisations in India. The ID (ORCID, Scopus, Research, Microsoft, and Google Scholar) has been linked with academic identities such as university credentials to make referencing papers from different publishers and journals easy. Research researchers, faculty, and research administrators all benefit from this initiative. The academic information relating to research interests of faculty members, the research

emphasis of the departments and schools is provided. It supports the faculty members to showcase their research contributions to the peer group; it provides more significant exposure for their research contributions to the international community and brings funding opportunities from the national and international agencies; and improves the research metadata quality and reduces the repetitive data entry for various assessment systems. It enables the administrator to build research report, performance assessments and research impact analysis; strategically analyses the research progress for better decision making on funding, faculty assessment and resource allocation; Help the Internal Quality Assurance Cell (IQAC) and National Institutional Ranking Framework Coordinator to generate the report for various research assessment. BLDE (DU) Central Library took the initiative and participated IRINS system by creating 233 faculty profiles of 23 departments of the institution, and it regularly keeps updating the faculty profiles.



• **Digital writing assistance through Grammarly software:** BLDE (DU) Central Library users have been given training and access to Grammarly writing assistance tool, which is a cross-platform Cloud-based writing assistant that reviews spelling, grammar, punctuation, clarity, engagement

- and delivery mistakes in real-time. It uses AI to identify and search for an appropriate replacement for the mistake it locates. It also allows users to customize their style, tone, and context-specific language and gives plagiarism report. This tool eases the otherwise cumbersome and slow process of writing content, allowing users to write more quickly and with confidence.
- *Plagiarism/Similarity check:* University Grants Commission, as a part of (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018 made it mandatory of assessment of academic and research work done leading to the partial fulfilment for the award of degrees at Masters and Research level, by a student or a faculty or a researcher or a staff, in the form of a thesis, dissertation and publication of research papers, chapters in books, full-fledged books and any other similar work, reflects the extent to which elements of academic integrity and originality are observed in various relevant processes adopted by Higher Educational Institutions (HEIs). Academic Integrity" is the intellectual honesty in proposing, performing and reporting any activity, which leads to the creation of intellectual property. Academic integrity (honesty), student cheating and plagiarism are concerns of the utmost importance to university faculty, administrators, writing centre and tutoring staff, librarians and academic advisors in this regard. To ensure plagiarism free documents during the final submission of a thesis, dissertation, research paper, research proposal etc. The Ministry of Education, Govt. of India has initiated a programme "ShodhShuddhi" which provides access to Plagiarism Detection Software (PDS) to all universities/Institutions in India since Sept 1, 2019. Under this initiative, **Ouriginal** (formerly **Urkund**) a Web-Based Plagiarism Detection Software system, is being provided to our BLDE (DU) and all the faculty and research scholars of BLDE (DU) have been provided Ourginal access credentials with which they can check the similarity/ plagiarism level of their manuscript before submitting to the university or scholarly journal. The research scholars, faculty and PGs are trained by the Central library about using the Ourginal software and still if

- they feel difficulty in using the software, the professional staff of the library will do the similarity check of the document on their behalf and send the similarity report, generated from the software.
- Reference Management Service through Mendeley software: Most researchers and faculty members feel it difficult to create the desired style of references/citations (e.g.NLM, Chicago, APA, MLA etc.) and bibliography list. To overcome the above difficulties of the researchers, the BLDE (DU) Central Library trains and conducts hands-on workshop for its faculty and researchers regularly about the Mendeley reference management tool for generating desired reference/citations style for their bibliography/references. Additionally, the Mendeley reference management software can be used to build bibliographies or footnotes, or reference sections in research papers automatically. Reference management software may organize personal research libraries or manage access to an outside reference source (e.g. web magazines, literature databases).
- Academic IDs Creation: Academic IDs or nothing but Author Identifiers (e.g. ORCID Publons researcher ID, Scopus ID etc.), which can uniquely identify you and link your research activity to you, increasing the visibility of your research and potential to attract citations in addition to other benefits such as reducing data entry by providing options for seamless data transfer between systems. The central library of BLDE (DU) has taken the responsibility of training and helping the research faculty and scholars in creating various author identifiers like ORCID, Google scholar ID, Scopus author ID, Publons ResearcherID (web of science), and Microsoft academic ID etc. These IDs are required for the creation of faculty profile in VIDWAN and IRINS.
- Analysis of Author/Institutional Research Productivity: Productivity
 measurement is important to accurately evaluating the efficiency of any
 manufacturing system. However, now that research productivity is defined
 as the number of publications produced by a researcher, rather the amount
 of effect the study has, this seems to be the standard in bibliometrics. The

study entails looking at the number of publications each year as well as their patterns and attributes, and also research into authorship and cooperation, along with citation analysis, H-index, and networks of scholarly communications. Research administrators and society will get more knowledge about the BLDE (DU) if the research productivity of BLDE (DU) is assessed. BLDE (DU) performs research productivity productivity analysis on-demand for authors and institutions, as well as offers seminars on understanding of various techniques.

Conclusion

The primary function of any library attached to the HEIs/ Research Centers is to actively participate in the institution's research productivity by providing various services, facilities, ICT enabled tools and techniques and training and workshops so that it can be differentiated from traditional school or college libraries. Research has been an integral part of our Medical Education since its inception of Medical College. Research has received major thrust after being conferred the Deemed University status. We at BLDE (DU) strongly believe Teaching and Research should go hand-in-hand and complement each other. The central library of BLDE (DU) supports research by providing research collections, services, data literacy training and research data management and regularly conducts various hands-on workshops on multiple tools and techniques the central library procured which will help and enhance the functioning of research and thereby increasing the research productivity of the institution.

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