Functioning of 'Research' Tools in the Enrichment of Research in K. K. Handiqui Library, Gauhati University

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Abstract

This paper gives an overview of the quality of research as enhanced by the 'Research' Tools in knowledge management practices in K. K. Handiqui Library, Gauhati University. The kind of tools such as Endnote, Zotero, Mendelay, Bibexcel and Urkund etc. which are generally referred to as citation analysis, reference management, content management and anti-plagiarism software tools etc., has been referred in this paper as 'research' tools believing in their potentiality to enhance the quality of research in present times. Hence, it is quite justified to refer them as 'research' tools. The paper investigates the potentiality of digital scholarship with the help of Internet and website. In this sense the study is an attempt to analyze the significant role of 'Research' Tools like anti plagiarism software etc. in detecting plagiarism , content management practices and policies as adopted by Gauhati University. The paper identifies the strengths and opportunities of the 'research' tools in improving the quality of research in the near future.

Keywords: Anti Plagiarism Software, Turnitin, URKUND, Shodhganga, Research Tools, Gauhati University

1. Introduction

Scholarly communication in academics and research is changing dramatically and quite rapidly by the introduction of Information and Communication Technology (ICT), which are intensively used in the web-based collaboration and working environments of research work. Academic institutions, researchers, students and librarians have been facing a great amount of challenge and resistance in adjusting to technological changes due to the open access movement. Emerging global trends, new economic challenges, the rapid growth of modern ICT, and the requirement for multilingual proficiencies are some of the challenges that academic institutions are facing now a days.

The mission of higher education is to achieve quality and create a knowledge society. The future of any nation depends on knowledge being imparted to student community as well as to society. In everyday language, the term quality may be used to mean either a degree of excellence, or an attribute or better than something else. When researchers understand what continuous improvement is all about, they gain confidence on how to change and modify the research work. An approach to quality maintenance in higher education is an essential factor. It gives both tangible and intangible benefits to institutions and its stakeholders as well. Assessment of performance of the institutions also helps the institution to set standard for future performance.

2. Objectives

To find the most desirable factors out of various items which are going to have an impact on the

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research quality, researcher's intentions for using the research tools and their intention to plagiarize. The main purpose of this study is to spread information on the functioning of the 'research' tools as well as the significance of ETD and the concept of plagiarism within academic communities. This study is a user-centred evaluation of similarity / originality index report and examines the usage and how URKUND supports for research and development in Gauhati University's scholarly community.

3. Research Methodology

This paper is empirical in nature and employs quantitative methods of analyses. It is designed to evaluate the usage of URKUND's similarity report of Gauhati University by its scholarly community. In this connection, a quantitative research was conducted by the way of distributing a research questionnaire. The paper is totally based on Exploratory Research Method. It is based on Primary database from Gauhati University's Researchers (including both faculty and scholars as well). Secondary data has been used from available literature on the related content and from various other sources. A total of 200 questionnaires were given to the respondents to fill their responses for the statement using a 4 point scale in the questionnaire. Personal interview of selected faculty members was also conducted on the use and satisfaction of URKUND's software activities. Finally 153 responses were analysised.

4. Review of Literature

Relevant literatures were reviewed and it was observed that no significant research was found previously around the theme of the study.

Charles J. Greenberg (2012) in "Trends in Use of Citation Management Tools for Theses and Dissertation production" emphasized upon the use of citation management tools for the preparation of thesis and dissertation among the graduate students, faculty and librarians. He further insisted that although students/scholars/faculty members are aware of the use of citation management tools but the promotional efforts of the librarians in this regard remain unrecognized.

In the words of U.K.Sinha (Dean of Sciences) Patna University, "The new guidelines of UGC 2009 Regulation, when implemented, would certainly raise the quality of research work and help to end duplication of work."

5. Limitation

Given the scope (word limit) of the paper and the time period in which this study was undertaken we had to limit our study only to the role/functioning of 'Research' Tools within the premises of KKHL, GU.

6. About the University

Gauhati University (GU) was established in 1948. It was set up for the purpose of academics and research. The goal of the University all throughout the year till the present day has been on the acquisition of knowledge and information and its dissemination in various format in the public/society. The KKH Library, GU aims to support this academic and research programme of the University. The uniqueness of research created at GU is derived from its basic philosophy, policies and major programmes which are clearly spelt out and embodied in the University Act itself. The theses and dissertation collection has been a major component of the GU

Library and its resources. As of April 2017, the KKH Library has over 10,000 theses and dissertations from the University and its affiliated institutions in the discipline of Arts, Science, Commerce, Law, Management, and Engineering and Technologies.

It has more than 750 Ph.D Research Scholars, 1750 M.Phil students and 349 Faculty members. Every year more than 250 student are being awarded M.Phil/Ph.D degree by the university.

As of 30th April, 2017, KKH Library has over 5200 theses, 5800 dissertations, 4726 reports, 4500 manuscripts, 7593 volumes in 11 different languages in the K.K.Handiqui Collection, 150000 pages digitized Manuscripts, 852524 pages digitized theses. At the same time, the library actively organizes various programmes and training sessions to create awareness among the students/ researchers.

As per the National Institutional Ranking Framework (NIRF) - MHRD, 2017, GU occupies the **Top** position amongst the North Eastern Universities, 5th amongst the state Universities, **27th** amongst all State and Central Universities and **43rd** amongst all Institutions (State & Central Universities, All Technical Institutes, All Management Institutes etc.)

According to the UGC Regulation 2009 "Minimum standards and procedure for award of M.Phil/Ph.D degree" it has become mandatory to check the research work through turnitin/Urkund. Accordingly Gauhati University has made it compulsory for all Ph.D thesis to check the similarity index before uploading the Ph.D theses into ShodhGanga.

6.1. Plagiarism Policy of Gauhati University

Under the GU Plagiarism policy the university has mandated:

- ❖ URKUND check and certification for all theses by Ph.D. scholars to be verified by supervisors/ guides. Finally University Librarian issues a plagiarism verification certificate of similarity report for obtaining Ph. D degree.
- ❖ Regular awareness and training has been given by the librarians to the research scholars and faculty member.
- ❖ Ph.D. Scholars are allowed to take content from other sources not exceeding 20%.

6.2 Anti plagiarism software in Gauhati University

Total No. of Ph.D thesis uploaded in the anti plagiarism software in Gauhati University is 1068, out of which 239 has been uploaded through Turnitin and 829 through URKUND till April 30, 2017

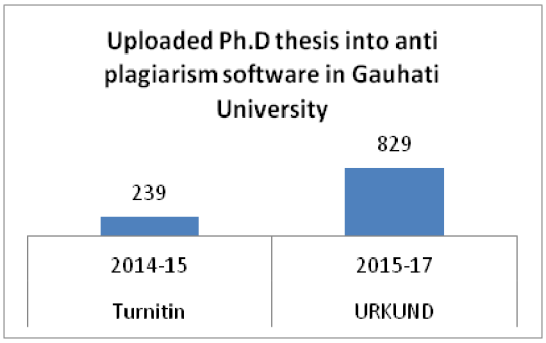

Figure: 1

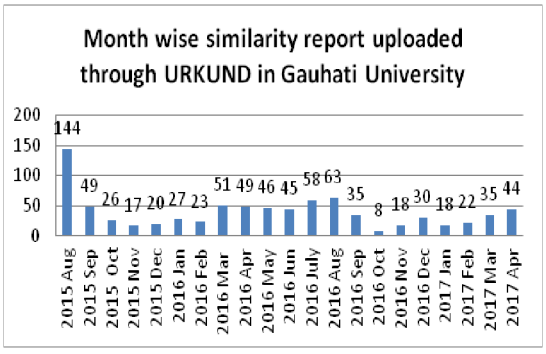

Figure:2

FIG 2. shows the number of thesis monthly uploaded/checked through Urkund.

6.2. URKUND Similarity Index Report

The figure 3 shows the number of thesis uploaded in different streams where it has been found that the highest thesis has been uploaded in the stream of Arts and Fine Arts and the lowest has been uploaded in the stream of Management

Table 1: URKUND Similarity Index Report

Disciplines	Total no. of Similarity report analyzed	Minimum similarity Report found (%)	Maximum similarity Report found (%)
Arts and Fine Arts	421	0	18
Science	329	1	19
Technology and Engineering	16	1	11
Commerce	23	0	19
Management	2	7	14
Law	24	1	14

The table shows that from the time, we started uploading/checking thesis through Urkund till the present day the highest similarity report of the thesis has been found in the discipline of Science and Commerce, whereas the lowest has been found in the discipline of Arts and Fine Arts as well as in the discipline of Commerce

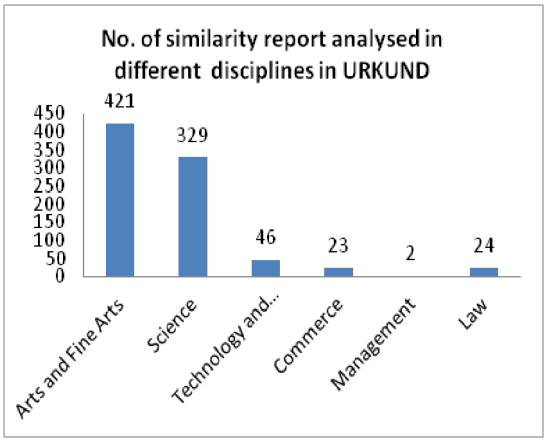

Figure:3

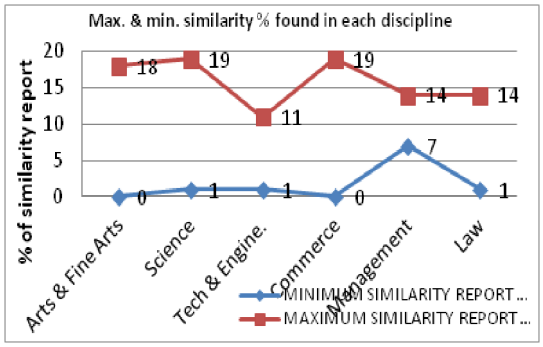

Figure: 4

The figure 4 shows the data of table no 1. where we can see that the maximum similarity belongs to both the discipline of Science and Commerce and minimum similarity to both the discipline of Arts & Fine Arts and Commerece.

7. Data Analysis of the collected questionnaire

Table 2 : Stream wise data collection

Sl. No	Stream	Response	%
1	Arts and Fine Arts	43	28.10
2	Science	52	33.98
3	Technology and Engineering	22	14.37
4	Commerce	15	9.8
5	Management	12	7.84
6	Law	9	5.88

The responses were from different streams. It consists of 28.10% from Arts and fine Arts, 33.98% from science, 14.37% from Technology and engineering, 9.8% from Commerce, 7.84 from Management and 5.88% Law.

Table 3. Use of Website/Internet Resources in Research Work

How often do you use the Internet/Websites resources to Complete your Research work	Responses	%
Very often	81	52.94
Often	36	23.52
Sometimes	36	23.52
N/R	00	0

The responses reflect that 52.94% uses them very often, 23.52% uses them often, 23.52% uses them sometimes and 0% are N/R.

Table 4 : References/Bibliography in the research work

How often do you correctly cite references to what is used in your Research work	Responses	%
Very often	81	52.94
Often	18	11.76
Sometimes	54	35.29
N/R	00	0

52.94% respondents cite the sources very often, 11.76% cite the sources often, and 35.29% cite the sources sometimes.

Table 5 : Research Work and Resources

How often do you use the Academic and Electronic Resources for your Research Work provided by KKHL, GU	Responses	%
Very often	63	41.17
Often	36	23.52
Sometimes	40	26.13
N/R	9	5.88

The table shows that 41.17% respondents have been using Electronic resources for research work very often, 23.52% of them use such sources often, 26.13% uses it sometimes and 5.88% respondents never use such sources.

Table 6. Pressure of obtaining the Ph. D degree

Do the pressures of obtaining PH.D Degree lead you to think of plagiarism ?	Responses	%
Yes	18	11.76
No	108	70.58
N/R	18	11.76

11.76%. respondents have admitted to be highly motivated in committing plagiarism and a majority of 70.58% of the respondents admit of not committing plagiarism and 11.76% opted for N/R.

Table 7. Personal Rating

How do you personally rate the KKHL initiative of providing Plagiarism software ?	Responses	%
Highly Appreciable	99	64.70
Appreciable	45	29.41
Not appreciable	9	5.88

64.70% has highly appreciated, 29.41% has appreciated and 5.88% have not appreciated the initiative of KKHL initiative in providing the anti-plagiarism software.

Table 8 : Support by Similarity Report

Does similarity report help in improving research work	Responses	%
Yes	126	82.35
No	9	5.88
N/R	18	11.76

Regarding the level of improving the research work, it is highly useful to 82.35% and not useful to 5.88% and 11.76 opted for N/R.

Table 9. Instant feedback

Does your Guides/supervisors provide instant feedback through URKUND ?	Responses	%
Yes	54	35.29
No	36	23.52
N/R	63	41.17

The above table shows that 35.29% of research guides provide feedback to research Scholars. 23.53% of guides do not provide feedback to Research scholars and 41.17% of them opted for N/R. There is a need for elaborated collaboration among librarians, faculty and researchers for this purpose.

Table 10. Reference Management and Citation Tools

Which of the citation tools and Reference Management Tools have you used	Responses	%
Mendely	18	11.76
Zotoro	18	11.76
Bibexcel	9	5.88
Endnote	63	41.17

41.17% use Endnote, 11.76% use both Mendely and Zotero and 5.88% use Bibexcel tools. These responses clearly states that the library should take extra efforts to make the research community aware of these tools.

8. Dynamic Role of the Library in supporting Anti Plagiarism attitude:

Considering the fact that the library is heart of a university, it seems that the library is a central place for conducting research in the university. Earlier the role of the libraries was confined within the library building amidst the process of issuing/returning books. Today, the scenario has changed to a great extent with the role of libraries/librarians to provide online services, in detecting the menace of plagiarism thus supporting anti-plagiarism. It makes sense that the librarians would be in dealing with the anti-plagiarism software and uploading of thesis in the ETD repository. When we first undertook the responsibility in 2014, we received 10-12 requests from faculty members to check the plagiarised content in the theses and upload the theses. In due course of time the number of request accelerated and in April 2017, we received approximately 1068 request for help in this regard. This fact, clearly highlights the point how the research community has become more aware about the menace of plagiarism. This can also be seen from the fact that the ratio of plagiarized content in the research work has decreased. Finally our role is completed with the uploading of quality theses into the Shodhganga.

8.1. Selected views from faculty members of Gauhati University

Professor and Dean, Department of Commerce

"Urkund has been found to be very user-friendly, less time consuming, fast, dynamic and effective software for academic purpose"

Professor and Head Department of ELT, GU

"The anti-plagiarism software that Gauhati University is using is a very user friendly. It should be used by all students, Research Scholars and teachers"

Professor, Department Library and Information Science:

"Regular interaction is suggested".

Professor and Head, Dept. of Physics:

"Two Ph.D. theses were checked and they had published paper. But the result showed only 1% similarity index which is very surprising. We very much need the software".

Professor, Department of Statisctis.

"The anti plagiarism software is found to be user friendly, and very useful to know the amount of work found duplicated. It is useful for the students, Research Scholars, academicians and other for improved and quality work"

9. Summary of Findings

It can be gathered that the 'Research' tools including the anti-plagiarism software have been found to be of great help by the research community. Yet, there remains a gap regarding its understanding and use, basically that of Zotero, Endnote, Bibexcel, which were found to be unheard by most of the academicians. In this sense we recommend that initiatives should be taken by the concerned Departments and UGC Academic Staff College in including awareness of the programme within the Ph.D. course work and the skill development programme respectively.

10. Outcome/Implications

The above views and discussions certainly highlight the kind of improvement in the quality of research work. It was found that respondents typically had little knowledge about content management, reference management, citation tools, ETDs, and thus a related need for awareness rising and skills development was highlighted. The detail study about the concept of 'research' tools, knowledge, software regarding plagiarism shows a mixed response from the researchers. Though it is found that library is organising various programmes and activities to explore and aware the user community about these tools, yet there is a need of bigger orientation programmes on large scale to draw attention from Researchers, Faculty members and students in order to utilize these facilities in the academic and research work.

11. Conclusion

This brief paper attempts to highlight some salient features of research and knowledge management tools. To witness tangible and intangible benefits and to overcome the challenges it is necessary to take steps to strengthen research activity. The paper shows the significance of the 'research' tools in enhancing the quality of research work thereby adding towards the development/betterment of the academic institution and the country as a whole will be surely be benefited from this activity. Moreover, using of URKUND has not only benefited GU's researchers by enhancing education and expanding research, but it has also increased the University's visibility, thereby contributing to the impact and ranking of GU. So, this type of research tools (software) is a significant contribution to the education and research community that in turn helps us to meet out the quality of research requirements of the country.

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