

# Comparison of Electronic Resources with their Usage Statistics in Dr.N.G.P. Institute of Technology: A Study

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**Abstract** - Technological advancements have made great amounts of information readily available in a digital format, thereby enabling faculty members to easily and remotely access information beyond the books and journals. Therefore, faculty members have reduced their visits to the library and employing information-searching and retrieval processes through the external sources. The service providers focused on journals and databases for variables such as full-text articles, searches and sessions. These usage statistics are important for the preferences of library users. This survey is helpful to learn about the level of effort involved with usage reports, how the data are used and which data are most useful to librarians in managing electronic resources. Two year data (2016 & 2017) of IEEE and Elsevier Science Direct access was downloaded from the publisher website and analyze the data of total number of logins and journal articles download. The study analyzed that the Elsevier Science Direct access is the mostly used online database compared with IEEE and also the number of articles downloaded from the Elsevier Science Direct is the highest one. **Keywords:** Usage Statistics, Electronic Resources, IEEE, Elsevier Science Direct

## I. INTRODUCTION

To support student and faculty research, libraries purchase or license access to scholarly information resources in many formats. Increasingly, these proprietary resources are available electronically, making them accessible to the students and faculty at any time and from any location. Most scholarly books, journals and databases are not available freely on the internet but are available by subscription only. Resource sharing and consortia purchasing among the state's higher education institutions make possible the accessibility of a wide range of materials that are otherwise not freely available. The Virtual Campus licenses the use of a core set of databases for the state's public college and universities. Additionally, individual institutions subscribe to or purchase other resources to meet the particular needs of their constituencies. Books not available in one institution often can be borrowed from another college or university, through the interlibrary loan used by the public colleges and universities to borrow materials. As stewards of intellectual content, many academic libraries are digitizing rare and unique manuscripts, books, and other valuable documents in order to make them available to a wider audience and to preserve them for future generations.

## II. REVIEW OF LITERATURE

M.H. Deniz and S.K. Geyik [1] aimed to state a general profile of the students reflecting their practices towards internet usage. At the same time, this study reveals that using information technologies make students not just to consume technology but also lead them to produce it. Shortly, spending long hours during online might be helpful for young to make some contributions to their knowledge about information technologies and unlike some people's prejudices, surfing internet is not totally waste of time for students but more or less a productive facility.

Zhang [2] aimed to investigate about the provision of the research academic services by academic health sciences libraries. However, most of the by academic health sciences libraries did not include research assessment services until recently when such services become demanded. The findings will help librarians develop effective research assessment services to meet the needs of the researchers.

Gayle Baker [3] reveal that a survey was sent to research libraries in the united states and Canada to learn about the level of effort involved in working with vendors usage reports, how the data are used and which data are most useful to librarians in managing electronic resources. The result showed that more time was spent acquiring, reformatting and manipulating the data than on actually analyzing them. The number of full-text downloads was specified as the most useful statistic for accessing the use of electronic resources.

James A. Stemper [4] stated that Vendor supplied e-resource statistics are often unavailable, unreliable, or not comparable across vendors. This study compared locally generated usage statistics to those supplied by four major publishers, and analyzed the resulting patterns of use. The additional information provided by vendor statistics was assessed to see how it might be utilized selectively to provide a better understanding of the importance of individual titles. The local statistics for all titles provided by the four publishers were then compared. A strong similarity between the two datasets was found, supporting the position that local statistics are a viable alternative to vendor statistics.

Carol Tenopir [5] aims to describe two methods – critical incident and return on investment – that can be used to measure and demonstrate explicit and derived value of academic libraries. Results from several studies that use these methods are described in the context of the Lib- Value project, funded by the US Institute of Museum and Library Services. A series of surveys using the critical incident of the last article reading by faculty are used to gather information on the purpose, outcomes, and the value of scholarly article readings and access to collections through the library. The findings of the study states that over half of scholarly article readings by faculty are for research purposes and readings for research purposes were more likely to be obtained from the library's electronic collections and are valued more highly than readings for other purposes or from other sources.

### III. OVERVIEW OF ELECTRONIC RESOURCES IN Dr. NGP INSTITUTE OF TECHNOLOGY

Dr. N.G.P. Institute of Technology library working hour is 8:00 AM to 8:00 PM for all working days. The library subscribes the e-journal packages of IEEE, Elsevier Science Direct, and DELNET. The electronic journals are IP based access. The users can use the resources anywhere in the campus.

### IV. OBJECTIVES

This present study fulfills the following objectives:

1. To analyze the number of logins and number of files downloaded.
2. To suggest the funding for additional e-resources from the management of the institution.
3. To calculate the “Cost per Use” of the article
4. To impart some additional trainings about the electronics resources for betterment of usage.

### V. METHODOLOGY

A quantitative data was collected through the publisher’s website and analyze which electronic resource is used highly for user login and the number of articles downloads. The data’s are collected from two service providers IEEE and Elsevier Science Direct.

### VI. DATA ANALYSIS

This chapter deals with analysis and interpretation of usage statistics of electronic resources in Dr.N.G.P. Institutions – A study. It includes information details like frequency of logins, article downloads and cost per article download for the period of two years.

Table I show that the number of login users used the online resources for the past two years. In this data reveals that the total login count of Elsevier Science Direct is the highest

count of 10235 compared with IEEE. 28 users using Elsevier Science Direct on daily basis.

TABLE I USAGE STATISTICS OF USER LOGIN

Resource	Time Period	Total Login Count	Login Count / Day
IEEE ASPP	2016-2017	5649	16
Elsevier Science Direct	2016-2017	10235	28

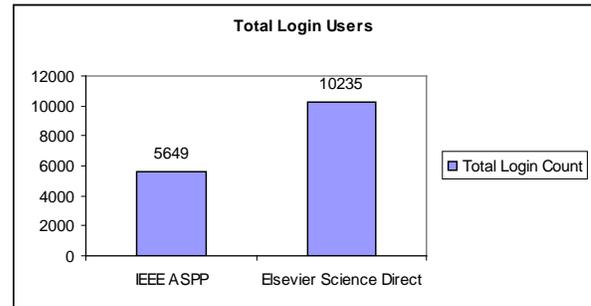


Fig. 1 Usage Statistics of Login Users

TABLE II USAGE STATISTICS OF ARTICLES DOWNLOAD

Resource	Time Period	Total Article Downloads	Download Count / Day
IEEE ASPP	2016-2017	17738	49
Elsevier Science Direct	2016-2017	38422	107

Table II show that the number of articles downloaded by the users for the past two years. In this data stated that the total numbers of 38422 articles are downloaded from Elsevier Science Direct which is very high compared with IEEE. 107 articles are downloaded on daily basis.

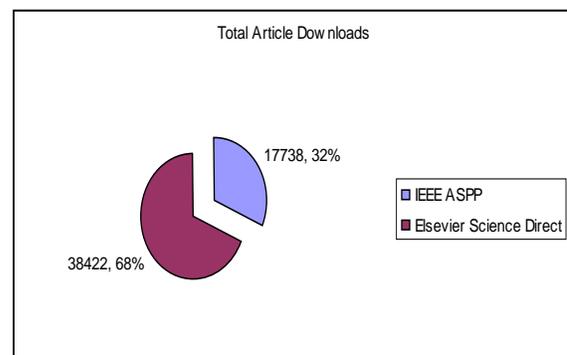


Fig. 2 Usage Statistics in Number of Articles Download

TABLE III COST PER USE OF ARTICLES

Resource	Time Period	Total Subscription Cost	Total Article Downloads	Cost per Article
IEEE ASPP	2016-2017	11,74,720.00	17738	66.22
Elsevier Science Direct	2016-2017	12,27,026.00	38422	31.94

Table III show that the subscription cost and number of articles downloaded by the users for the past two years. In this data stated that the IEEE cost per article is Rs. 66.22 because of the low downloading articles. The Elsevier Science Direct article cost is Rs. 31.94 because of the high usage.

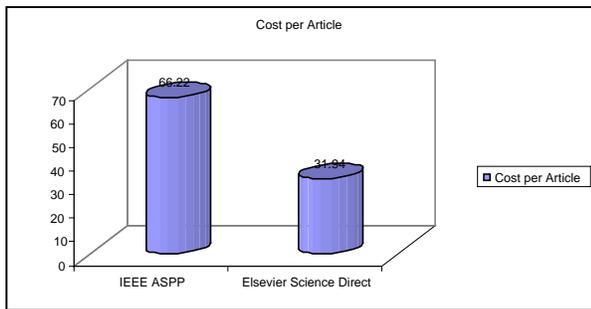


Fig. 3 Cost per use of Articles

### VII. CONCLUSION

Study shows that majority of users are depending upon the e-resources to get the needed information for their projects. The compared data of IEEE and Elsevier Science Direct shows that the Elsevier Science Direct access is mostly used by the users. But practical use of e-resources is not the

worth in comparison to investments made by the management. The collected usage data are much low with the comparison of users in the institutions. To improve the more number of usages of these resources the infrastructure also improved continuously and the training programs should be conducted as per requirements. It is observed that the availability of e-resources on the campus is almost sufficient but the librarians and the service providers take much more effects to motivate the usage of electronic resources.

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