USAGE OF INTERNET SERVICES BY ENGINEERING STUDENTS IN TIRUPATI: A STUDY

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ABSTRACT

The internet has emerged as the most powerful medium for storage and retrieval of information. This paper deals with the use of internet by the students of the engineering College students in and around of Tirupati, Andhra Pradesh, India. This paper examines the frequency of Internet use, purpose of using the internet, use of different internet services and impact of internet on engineering education. Questionnaire method was used for collection of data from the engineering students. The main findings of the study are 81.42% of the colleges are providing sufficient computer systems in their labs, 78.28% were browsing Internet for the purpose of E-mail, 31.42 were browsing Internet through Mozilla Fire Fox, 37.85% of them are using Internet to update their knowledge, and 82.14% of them are using Google Search engine and also 65% of them are using Gmail service for mailing purpose and the main problem faced by the students is accessing Internet is low speed of Internet.

Keywords: Internet, Search Engines, User Studies, Engineering education, ICT,

1. INTRODUCTION

The internet was become as powerful instrument in the field of education with advent of ICT in technical education especially internet become most powerful tool in updating technological knowledge by the engineering students. Know a days engineering colleges playing a important role in any nation by providing technical skills to its students through internet. The study has been under taken to examine the availability and use of internet by the engineering students. The main aim of the study is to know the impact of internet among engineering students and the problems faced by the engineering students.

2. REVIEW OF LITERATURE

A review of the literature reveals that there is a large amount of literature available on the use of the internet, but no in-depth study has been doe on the use of the internet in the engineering colleges under study. The present status of internet use in the engineering colleges of in and around of the Tirupati Town.

Panda and sahu[1] (2003) described the state of internet connectivity with myriad internet services provided in the Engineering colleges of Orissa. They analyses the system details types of

browsers and search engines used and purpose of internet connectivity availed. Also indicates user's demand to access internet, and suggestions for the improvement of internet use/services in the Engineering Colleges. Kumar and Kaur[2] (2005) was conducted a case study on Internet and its use in the Engineering Colleges of Punjab, India: among teachers and students used questionnaire method. The response rate was 84.2%. The study demonstrates and elaborates the various aspects of Internet use such as, frequency of Internet use, most frequently used place for Internet use, problems faced by the users and satisfaction level of users with the Internet facilities provided in the colleges. The result of the survey also provided information about the benefits of the Internet over conventional documents. It was found that the Internet had become a vital instrument for teaching research and learning process of these respondes. Devendra and Suresh[3] (2007) conducted a survey, to examine the potentialities of internet services to meet user needs in accessing, communicating and disseminating information and emphasize the modes of internet optimization in library and information center. Jaya Prakash and Koteswara Rao[4] (2007) have discussed the importance of the internet in the internet in the library functions and services provided by library and information centre and the Role of Internet and Web Technology in Library and Information Services in Digital Environment. A case study conducted by Gururaj., Kumbar and Siddu[5] (2007) discussed the use of internet by the members of Social Science Faculty of Karnataka University in Dharwad, India. Kaur and Manhas[6] (2008) conducted a study on use of internet services and resources in the Engineering Colleges of Punjab and Haryana (India): A Study. Data were collected by questionnaire and follow up interviews with internet users. Result showed that Google and Yahoo search engines are found to be more widely used than other search engines. More then 70% of the respondents feel that the internet is useful informative, easy to use, inexpensive and time saving. A study was conducted by Velmurugan and Kannan[7] (2010) they investigated the awareness on Internet and its resources by the members' of the students of International school of Class VIII, IX and X and was limited to Chennai city only. The analysis of the data was carried out with SPSS(Statistical Package for Social Science)package and the result were obtained using simple percentile analysis and chi-square test and to arrive at meaningful conclusions. Sharma U.C., Raman Chawla and Priya Madaan[8] (2011) found in their study that the majority of the users 84.2% were faculty members and Students. The most used internet services were E-mail and WWW, Chatting, Search Engines, Remote login, FTP, FAQ. They use internet through Google search engine (85%) retrieving required information (50%) uses to improve professional Competency.

4. OBJECTIVES

The objectives of the study are

1. To highlight the importance of Internet and its services over the Engineering students;

2. To know the purpose of using the Internet;

3. To study the impact of Internet on Engineering education;

4. To find out the problems faced by the students in using the Internet; and

5. To make suggestion to improve internet facilities in engineering college libraries.

5. METHODOLOGY

In this study, a structured questionnaire was prepared covering the relevant aspects of the study. It was distributed to students studying B. Tech in engineering colleges located in and around the Tirupati town, Chittoor District during the 1st Jan 2012 to 31st March 2012. In total 180 questionnaires were distributed to the students who are studying B. Tech course in 12 Engineering colleges located in Tirupati. 15 questionnaires were distributed in each Engineering college including all branches at random.

6. SCOPE OF THE STUDY

This study includes only B. Tech students pursuing their degree during the year 2011. The students include 1st Year B. Tech to Final Year B. Tech. students in Engineering College in and around of Tirupati Town.

7. ANALYSIS AND INTERPRETATION OF DATA

The data collected from the students has been prepared in the following paragraphs in the form of Tables and Graphs.

7.1 Familiarity in Using Computers

Computers are playing an important role in the present society without computers we can not imagine the present society. The respondents were asked a question to know their computer knowledge. The replies given by them are shown in Table-1.

Table – 1
Familiarity in Using Computers

S. No.	Familiarity	Number	Percentage (%)
1.	Yes	137	97.85
2.	No	3	2.14
	Total	**140**	**99.99**

It is evident from Table-1that the majority of the respondents (97.85%) have knowledge in Computers and 2.14% of them are do not have knowledge in computers.

It can be concluded that 97.85% of the respondents have experienced in the computer operations.

7.2 Experiences in Using Computers

Again they were asked a question to know their experience in years in computer operations. The replies given by them are shown in Table-2

Table – 2
Experience in Using Computers

S. No.	Experience	Number	Percentage (%)
1.	1 Year	9	6.42
2.	2 years	28	20
3.	3 years	27	19.30
4.	4 years	76	54.28
	Total	**140**	**100**

It is evident from Table-2 that half of the respondents (54.28%) have experience in using computers more than four years followed by two years (20%), three years (19.30%) and one year experience (6.42%).

It can be concluded that half of the respondents have experience in using computers more than 4 years.

7.3 Usage of Internet

A Question has been asked the respondents to know their familiarity in using internet. The replies given by them are shown in Table-3

Table – 3
Usage of Internet

| S. No.	Years	Response	Percentage (%)
1.	0 – 1	23	16.42
2.	1 – 2	35	25
3.	2 – 3	32	22.87
4.	More than 4 years	50	35.71
	Total	**140**	**100**

It is evident from the Table-3 that a highest percentage of the respondents (35.71%) are using internet more than 4 years followed by 1-2 years (25%), 2-3 years (22.87%) and 0-1 year (16.42%).

It can be concluded that highest percentage of the students (35.71%) have experience in using internet more that four years.

7.4 Frequency of Internet Use

The respondents were asked to mention their frequency of use Internet. The replies given by them are shown in the Figure-1

Figure – 1
Frequency of Internet Use
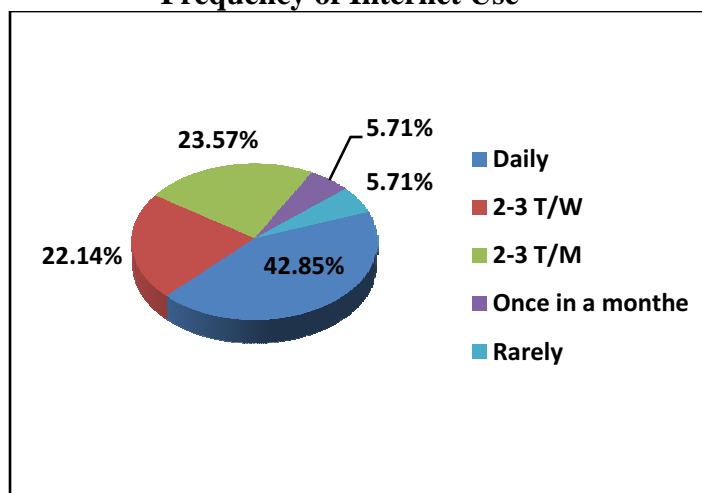
It is evident from Figure-1 that a highest percentage of the respondents (42.85%) are using internet daily followed by 23.57% of them using internet 2-3 times in a month, 22.14% of them using internet 2-3 times in a week, 5.71% of them using once in a month and 5.71% of them access internet occasionally.

It can be concluded that a highest percentage of the respondents (42.85%) are use internet daily.

7.5 Adequacy of Computers

A question has been put to the respondents to know whether their college provides adequacy of the computers in computers labs of their respective colleges. It is revealed from the study that majority of the colleges (81.42%) are providing sufficient computer systems in their computer labs and libraries and remaining of them (18.57%) replied negatively in this regard.

7.6 Time spent in using Internet

A question has been put to the respondents to know how much time they spent on using internet per week. The replies given by them are shown in Table-4

Table – 4
Time spent in using Internet

| S. No.	Time	Number	Percentage
1.	0-1 hour	28	20.00
2.	1-4 hours	46	32.85
3.	4-10 hours	52	37.15
4.	More than 10 hours	14	10.00
Z	**Total**	**140**	**100.00**

It is evident from Table-4 that 37.15% of the respondents are spending their time in using internet between 4-10 hours per week followed by 1-4 hours (32.85%), less than hour (20%) and more than 10 hours (10%).

It can be concluded that majority of the respondents are spending 4-10 hours in using internet.

7.7 Place of Accessing Internet

The respondents were asked a question to know the place where they could access internet. The replies given by them are shown in Graph-1

Graph – 1
Place of accessing internet
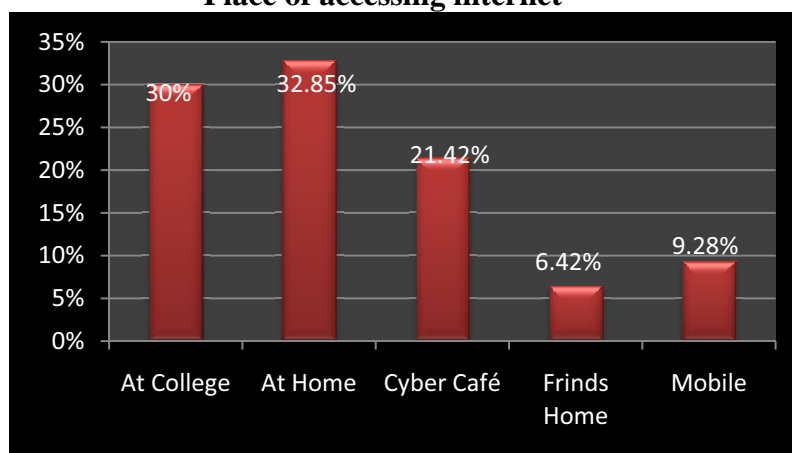
It is evident from Graph.-1 that a highest percentage of the respondent (32.85%) are accessing internet at their home followed by at College (30%), at browsing centre (21.42%), through mobile (9.28%), friend's house (6.42%).

It can be concluded that a highest percentage of the respondents are accessing internet at their home. It is also noticed that 9.28% of the respondents are accessing internet through mobile phones.

7.8 Purpose of using Internet

The respondents were asked a question to know the purpose for which they use internet. The replies given by them are shown in Table-5.

Table – 5
Purpose for Using Internet

S. No.	Purpose	Number	Percentage (%)
1.	Education	93	66.42
2.	Entertainment	75	53.57
3.	E-mail	111	78.28
4.	Job purpose	29	20.71
5.	Chatting	89	63.57

(Respondents were permitted to tick more than one answer)

It is clear from Table-5 that majority of the respondents (78.28%) were browsing internet for the purpose of E-mail Purpose, followed by Education (66.42%), Entertainment (53.57%), chatting (63.57%) and for job searching (20.71%).

It can be concluded that most of the students were searching internet for the purpose of Entertainment. .

7.9 Frequently used browsers

The respondents were asked a question to know the browsers which they use frequently. The replies given by them are shown in Table-6

Table – 6
Frequently used Browsers

S. No.	Browsers	Number	Percentage (%)
1.	Internet Explorer	42	30
2.	Mozilla Fire Fox	44	31.42
3.	Opera	12	8.58
4.	Google Chrome	42	30
	Total	**140**	**100%**

It is clear from Table-6 that a highest percentage of the respondents are browsing Internet from Mozilla Fire Fox (31.42%), followed by Internet Explorer (30%), from Google Chrome (30%) and from Opera (8.58%).

It can be concluded that a highest percentage of the respondents (31.42) are browsing internet from the Mozilla Fire Fox.

7.10 Motivating Factor to Use Internet

A question has been posed to the respondents to know the factors which motivate them to use internet. The replies given by them are shown in Table-7

Table – 7
Motivating factor to use internet

| S. No.	Motivating Factor	Response	Percentage (%)
1.	Faster communication	34	25
2.	To update the knowledge	53	37.85
3.	To get Quick Information	50	35.71
4.	To save Time	12	8.5

(Respondents are permitted to tick more than one answer)

It is obvious from the Table-7 that a highest percentage of the respondents (37.85%) are replied that getting of update knowledge is the main motivating factor for using internet followed by to get quick information (35.71%), faster communication (25%), and to save time (8.5%).

7.11 Preferred Internet Service

A question has been put to the respondents to know which Internet service they prefer to use. The replies given by them are shown in Figure-2.

Figure – 2
Preferred Internet Service
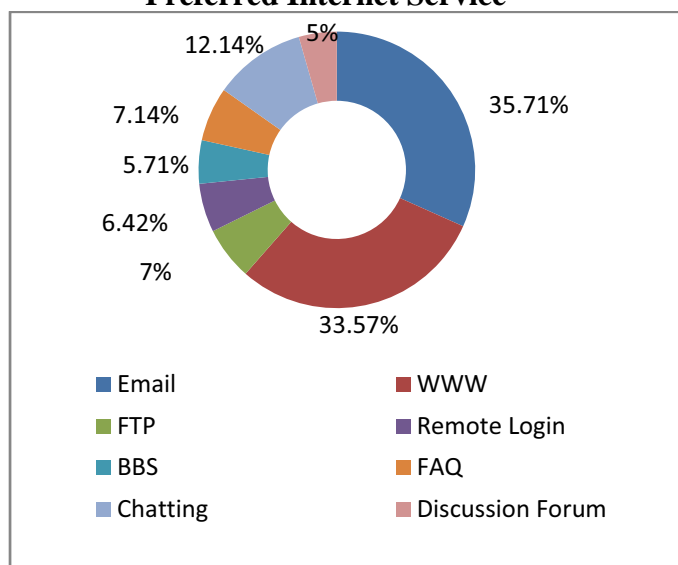
It is clear from Figure-2 that a highest percentage of the respondents (35.71%) preferred to use e-mail service followed by WWW (33.57%), Chatting (12.14%), FAQ (7.14%), Remote login (6.42%), BBS (5.71%) and Discussion Forum (5%).

It can be concluded that a highest percentage of the respondents (35.71) are prefer to use internet for E-mail purpose.

7.12 Use of Search Engines

A question has been posed to the respondents to know which search engines they use most. The replies given by them are shown in Table-8.

Table – 8
Most used search Engines

S. No.	Search Engines	Response	Percentage)
1.	Google	115	82.14
2.	Yahoo	31	22.14
3.	MSN	6	4.28
4.	Alta-vista	1	0.71
5.	Sify	2	1.42
6.	Indian Times	1	0.71
7.	Bing	6	4.28

(Respondents are permitted to tick more than one answer)

It is clear from Table-8 that most of the respondents. (82.14%) use Google search engine followed by Yahoo Search Engine (22.14%), MSN search Engine and Bing (4.28%), Sify Search Engine (1.42%), Alta-Vista and Indian Times Search Engines (0.71%).

It can be concluded that most of the respondents (82.14%) are using Google search engine.

7.13 Type of Mail Service

The respondents were asked to know which mail service thy use most. The replies given by them are shown in Table-9.

Table – 9
Type of Mail Service

S. No.	Mail Services	Number	Percentage
1.	Yahoo	32	22.85
2.	Gmail	91	65.00
3.	Rediff	5	3.57
4.	Hotmail	9	6.42
5.	Orkut	28	20.00

(Respondents are permitted to tick more than one answer)

It is clear from Table-9 that majority of the respondents (65%) use Gmail service followed by Yahoo (22.85%), Orkut (20%), Hotmail (6.42%), and Rediff (3.57%).

It was concluded the majority of the respondents (65%) are using Gmail services.

7.14 Browsing Method

Generally the users can search Internet for required items in different methods. Some people use search engines and some people use direct websites when they are aware. In this regard, a question has been put to the respondents to know the methods which they use for search internet for required information. The replies given by them are shown in Table-10

Table – 10
Browsing Method

S. No.	Browsing Method	Number	Percentage
1.	Through web address directly	53	37.85
2.	Through search engines	87	62.15
	Total	**140**	**100.00**

It is know from the Table-10 that the majority of the respondents (62.15%) searching internet by using search engines and remaining of them (37.85%) through web address.

It can be concluded that majority of the respondents are searching inter through search engines.

7.15 Reasons for Using Internet than Print Sources

The respondents were again asked to mention the reasons for using electronic sources than prints sources. The replies given by them are shown in Table-11

Table - 11
Reasons for using electronic Sources

S. No.	Reason	Number	Percentage
1.	Time saving	50	35.71
2.	More Information available	51	36.42
3.	Less Expensive	21	15.00
4.	More Accurate	22	15.71
5.	Multiple Documents can be retrieved at a Time	28	20.00
6.	Most updated information available	12	8.57

(Respondents were permitted to tick more than one answer)

It is found from the Table-11 that a highest percentage of the respondents (36.42%) were using internet to get more information than print sources followed by to save the Time (35.71%), multiple documents can be retrieved at a time (22.14%), more accurate (15.71%), less expensive (15%) and most updated information available (8.57%).

It can be concluded that a highest percentage of the respondents (36.42%) are using internet to get more information in the electronic form then print form.

7.16 Problems in using Internet

Even today majority of the students are facing many problems in using Internet like low speed of internet, lack of computer knowledge, network failures and other problems in order to know the problems faced by the respondents in using internet, a question has been put to them. The replies given by them are shown in Table-12

Table – 12
Problems in using Internet

S. No.	Problems	Number	Percentage
1.	Slow Access	78	55.71
2.	Lack of sufficient Computer Systems	34	24.29
3.	Power Fluctuations	28	20.00
	Total	**140**	**100.00**

It is clear from the Table-12 that the half of the respondents (55.71%) expressed that the speed of the internet is very slow followed by lack of sufficient Computer Systems (24.28%), and Power Fluctuations (19.99%).

The main problem is the low speed of the Internet faced by the half of the respondents.

7.17 Level of Satisfaction

The respondents were asked a question regarding to their level of satisfaction on the availability of Internet facilities in their colleges. The replies given by them are shown in the Table-13

Table – 13
Level of Satisfaction

Sl. No.	Level of Satisfaction	Response	Percentage
1.	Fully	23	16.42
2.	Partially	26	18.57
3.	Neither Satisfied nor dissatisfied	74	52.85
4.	Not Satisfied	17	12.14
	Total	**140**	**100.00**

It is clear from the Table-13 that the half of respondents (52.85%) were neither satisfied or nor dissatisfied, 18.57% of the respondents were satisfied partially, 16.42% of the respondents were satisfied fully and 12.14% of them have not satisfied.

It is concluded that the half of the respondents (52.85%) are neither satisfied nor dissatisfied on the available of computer facilities.

7.18 Influence of Internet on Education

A question has been posed to the respondents to know the influence of Internet on educational activities. The replies given by them are shown in the Table-14

Table - 14
**Influence of Internet on Education**

Sl. No.	Impact of Internet	Response	Percentage
1.	Use of conventional documents has decreased	9	6.42
2.	Dependency on the Internet	52	37.15
3.	Expedited the research process	28	20.00
4.	Improve professional Competence	51	36.43
	Total	**140**	**100.00**

It is obvious from the Table-14 that a highest percentage of the respondents (37.15%) replied that they depend on internet for their academic purpose followed by to improve professional competence (36.43%), expedited the research process (20%) and use of conventional documents has decreased (6. 42%).

It is concluded that a highest percentage of the respondents (37.15%) have depend on internet for their academic purpose.

7.19 Impact of Internet on Library Services

The respondents were asked a question to know whether the Internet can replace the traditional library services. The replies given by them are shown in Graph-2.

Graph – 2
Impact of internet on library services
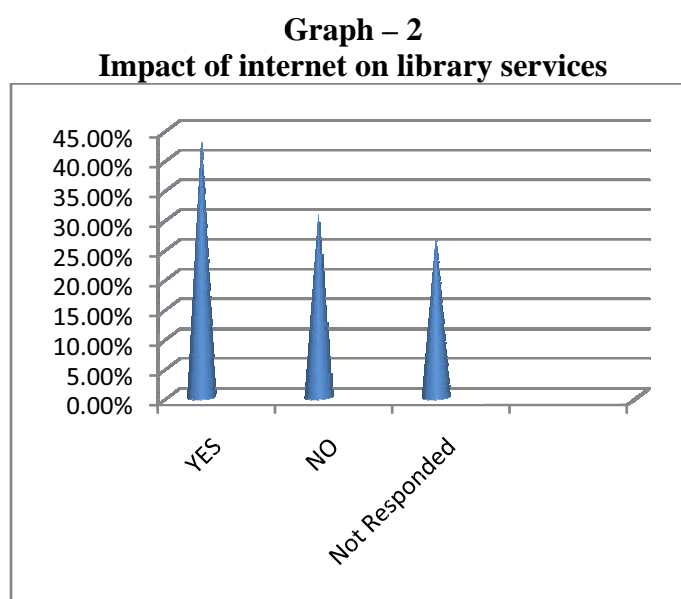
It is clear from the Graph.2 that the a highest percentage of the respondents (42.85%) have agreed that the Internet could replace the library services by providing its different services in the libraries, 30.71% of the respondents disagree and 26.42% of them did not respond in this regard.

It can be concluded that a highest percentage of them respondents (42.85%) agree that internet could replace the traditional library services.

8. FINDINGS OF THE STUDY:

- Majority of the respondents 97.85% of the respondents have familiar in computer operations.

- A half of respondents (54.28%) are using Internet more than 4 years.

- Majority of the colleges (81.42%) are providing sufficient computer systems in their labs and more number of the respondent (32.85%) are accessing Internet at their home then college, cyber café and mobile. It is also found from the study that 9.28% of the respondents are accessing Internet through their mobiles.

- .Majority of the respondents (78.28%) were browsing Internet for the purpose of E-mail Purpose, followed by Education (66.42%), Entertainment (53.57%), chatting (63.57%) and for job searching (20.71%).

- A highest percentage of the respondents are browsing Internet from Mozilla Fire Fox (31.42%).

- The main motivating factor for using Internet by the respondents (37.85%) is updating of knowledge.

- Majority of the respondents (82.14%) use Google search engine and also 65% of respondents use Gmail service for mailing purpose.

- A highest percentage of the respondents (36.42%) opined that Internet is providing more information with latest figures than print sources.

- Low speed of internet is main problem in accessing Internet expressed by the Half of the respondents (55.71%).

- Half of respondents (52.85%) are neither satisfied nor dissatisfied on the available of computer facilities.

- A highest percentage of the respondents (37.15%) replied that they depend on internet for their academic purpose.

- A highest percentage of the respondents (42.85%) have agreed that the Internet could replace the library services by providing its different services in the libraries.

9. SUGGESTIONS:

Based on the findings of the study, the following suggestions are made to improve the use of internet among engineering students.

- 78.28% of the respondents use internet for mail purpose. An awareness should be created among the students to use internet for academic purpose.

- Internet bandwidth should be enhanced to overcome the low access of the internet. And also suggested to have more than one internet providers to reduce the network failures.

- Majority of the respondents neutrally satisfied on the availability of internet facilities in their colleges. Hence, more computer systems, skilled man power, comfortable computer labs with good infrastructure should be provided to satisfy the users.

- Orientation programs should be conducted periodically by the engineering colleges to make the students for efficiency use of internet.

- Entertainment websites should be blocked to avoid long sitting of the students before computers to facilitate inter facility to other users.

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9. CONCLUSION:

Internet facilitates students to enhance their knowledge with latest updates not only in their subjects but also their all-round development. Libraries are also playing an important role for providing information by using ICT facilities. The above study reveals that the internet facilities are not satisfactory in serving the information needs of the engineering students. It is in the this context the college authorities should take necessary steps for providing better internet facilities in their colleges and to take measures to utilize internet by the students to compete with the developed countries.

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