

## Impact of ICT on Reading Habits of Engineering Students: A Study

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### Abstract

The developments in the Information and Communication Technologies (ICT) have changed education system or curriculum around the world rapidly. The global changes particularly the ICT has impact on reading habits of students. ICT refers to any device or product which enables the "capturing, storing, transmitting and displaying data and information electronically." This study ensures whether ICT influencing the reading habits of the engineering students. On the basis of the findings discussed impact of ICT on reading habits of students. It is evident from the study that 100% of the respondents have the reading habits. 91% of respondents agreed that the ICT has made an impact on their reading habit. It is notable that more than half of the respondents (65%) use the internet to read e-books.

**Keywords:** Engineering Students; ICT; Reading Habits; Internet; E-Journals.

### Introduction

Reading helps in all-round development of a person from his birth to death. It adds new sight to eyes and new wisdom to mind. A dumb person becomes a communicator and alone climbs mountains of knowledge through reading. Reading loads the mind with new software (Satija, 2002). Reading is a tool of acquisitive mind; it is a vehicle for obtaining ideas that cannot be transmitted verbally. Reading habit is an essential and important aspect for creating the literate society in this world.

Every new media of information and communication technology (ICT) has been a threat to student's interest in reading. The radio, television, cell phone, computer and the Internet have captured a big slice of time and reading has taken a back seat. It is visible that people have reduced their contacts with the world of books and other reading materials. The students in particular, are carried away by the

new media in their leisure time. Today computer technology is integrated into almost every aspect of learning in higher education textbooks arrive with CD-ROMs; homework is delivered and granted on the world-wide-web (www) and assignment are designed to be completed collaboration through electronic mail.

In fact "The internet becomes as important part of college students lives, not only for their studies and daily sootiness, but as a tool for getting to know other people and the rest of the world" (Chou & Ssiao) 2000 p. 66.

Computer technology had an impact on engineering students. It shapes the personality of an individual and it helps them to develop the proper thinking methods and creating new ideas.

### Literature Review

The direct link between ICT use and students' study habit and academic performance has been the focus of extensive literature during the last two decades. Therefore, the scholars from all over the world conducted researches to identify how far the new technology has succeeded in effecting/replacing the reading habits. Let us have a look on the scholarly

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articles of world personalities on this issue.

*Koskimaa (2003)* is of the opinion that reading of books might be decreasing, people are reading other types of texts instead, most notably magazines and Internet pages.

*Dykeman (2008)* observed that the World Wide Web has had a negative impact only on certain kinds of reading like, magazine and newspaper reading. However, the time spent reading books for pleasure has stayed constant, although people are managing to read fewer books per year (from 24.4 books per year in 1991 to 16.6 books per year by 2005).

*Broddason (2006)* in his 35 years of long study conducted in Iceland indicated the constant increase in the percentage of non-readers from 11% in 1968 to 33% in 2003. The demising numbers of heavy readers of books are also apparent, with the most dramatic downturn from 8% to 3% occurring from 1997 to 2003. He argued that there is not only decrease in book reading but overall print reading due to the introduction of Internet.

The findings of the relevant data provide confirmed information that the reading habits are declining parallel to advancement of new technology.

There is even speculation that students are wasting their time surfing the net for unproductive purposes (see, for example, Alhajjar, 2014; Iqbal, Noor, & Mian, 2014). The study reported here attempts to find out whether the respondents are reading online, and if so, why and what materials they view most often.

*Bobda (2011)* while investigating the reading habits of some postgraduate school student-teachers in Yaounde stated that the lack of reading in Africa and specifically in Cameroun is a phenomenon often decried in popular opinion.

*Aruna (2011)* investigated the influence of teachers on students leisure reading habits with a view to finding solution to the contentious view that Botswana do not have a reading culture.

In Nigeria, *Ibode & Isiugo-Abanihe (2011)* in their study on redressing poor reading culture among youths in Nigeria laments the phenomenon of poor reading culture, especially among youths in Nigeria. The study investigated the extent to which teachers in the secondary schools in South-West are implementing research based strategies for improving reading culture among youths. Again, five years after an initial study suggesting a substantial decline in reading in the United States, the national Endowment for the Arts (NEA) published its 2009 report, *Reading on the Rise*, focusing on literary reading for leisure. The NEA suggested that young Americans aged 18-

24 have "undergone a particularly inspiring transformation from a 20 percent decline in 2002 to a 21 percent increase in 2008 (Cull, 2011).

#### *Purpose of the Study*

Students now a days, spend the better part of their time in colleges on one information technology device or the other such as laptops, desktops, palmtops, iPods, and blackberry. On close enquiry, one usually finds out that they are networking socially with friends, reading dailies and rarely getting information in their various college courses.

This seems to have reduced interest in reading of printed materials, vocabulary development and general knowledge, broadmindedness which an individual gets from having a good reading habit. Virtually, information sought is subjected to the use of these technological media especially for pleasure, to while away time and to interrelate with friends and pen pals on face book, twitter etc. This then, is the cause for concern and the need for this study.

#### *Scope & Limitations*

The scope of the study focuses on the impact of ICT on reading habits of engineering students. The study restricted to final year engineering students of Adichunchungiri Institute of Technology of Chikmagalur Dist. Karnataka.

#### *About AIT College*

Adichunchanagiri Institute of Technology (AIT) was established in 1980 at Chikmagalur (240 km from Bangalore), with the blessings of revered Jagadguru Padmabhushana Sri Sri Sri Dr. Balangadharanatha Maha Swamiji, pontiff, of Sri Adichunchanagiri Maha Samsthana Math to provide technical and other professional education in the rural area of Chikmagalur, The land of Coffee. Chikmagalur city is 30 kms from the world-famous sculpture Belur Temple. The renowned temple of Sringeri Sharadamba and Sri Shankaracharya Mutt is just 100 kms away. Spread out over 65 acres of land with green surroundings and picturesque hillocks, the college has the conducive atmosphere for education. The motto of the college is 'Prosperity through Technology'. The institution had UG and PG courses with many more combination.

The Institute has a well equipped library housed in a spacious building which has a collection of about 46,000 volumes covering all branches of Science, Engineering and Management subjects. There are

about 120 subscribed Technical Journals and periodicals at the reference section. The library has a separate reading room providing technical and non-technical, general, magazines and newspapers to improve the general awareness among the students. Institute is a member of DELNET sponsored by AICTE and has a Computerized Library Information System. Apart from the Central library, each department has its own association library.

#### *Objective of the Study*

The objectives of the study are;

- To determine why students read and when they do.
- To determine the students what type of sources they prefer to read.
- To determine how frequently and how long students stay on internet.
- To determine for what purpose students using the Internet.
- To determine whether ICT has made impact on reading habits of engineering students.

- To compare printed books with internet access information.

#### **Methodology**

In order to collect the comprehensive and relevant data for the study, the questionnaire method is used. A structured questionnaire designed for the purpose of impact of ICT on reading habits of engineering students of AIT. List of questions was formulated keeping in view the objectives of the study. 125 Questionnaires were distributed randomly among the five departments of final year engineering students and 114 of them were received back.

#### *Data Analysis and Interpretation*

Table 1 indicates that response rate is more than 90%, among respondents 59(52%) students are belongs to rural and 55(48%) students are from urban back ground. Table also shows that 98% of students having e-mail ID's.

**Table 1:** Back ground of students and percentage of respondents

Branch	Total no. of Questionnaire distributed	Total no. of questionnaire received	Percentage	Rural Students	Urban students	Total no. of Students having e-mail Id
Civil	25	24	96	18	6	23
Computer Science	25	24	96	12	12	23
Mechanical	25	20	80	12	08	20
Environmental Engineering	25	21	84	4	17	21
Information Science	25	25	100	13	12	25
<b>Total</b>	<b>125</b>	<b>114</b>	<b>91.2 %</b>	<b>59 (52%)</b>	<b>55(48%)</b>	<b>112(98%)</b>

Table 2 indicates that 100% of the respondents having the reading habit. And the data reveals that 32 (28%) respondents use the college library weekly for their reading purpose. More than half of the

respondents (53%) & (62%) daily reads in their home and class room. It is very notable that more than half the respondents (68%) never goes or rarely visit the public library for their reading purpose.

**Table 2:** Frequency of reading and place of reading (Reading Habit):

N=114

Place	Daily	Twice in a Week	Weekly	Monthly	Occasionally
College Library	20 (18%)	19 (17%)	32 (28%)	18 (16%)	25 (22%)
Home	60 (53%)	18 (16%)	17 (15%)	05 (4%)	13 (12%)
Class Room	71 (62%)	10 (9%)	04 (4%)	01 (0.8%)	28 (24%)
Public Library	02 (2%)	05 (4%)	17 (15%)	12 (11%)	78 (68%)
Friends/Neighbour's Home	06 (5%)	12 (11%)	10 (9%)	19 (17%)	67 (59%)

It is very evident from the Table 3 that majority of the respondents (49.12%) use to read 0-2 hours in a day, 38% of the respondents uses 2-4 hrs for reading

and nearly 8% of the respondents uses 4-6 hrs in a day for their reading purpose. It is only 4% of respondents uses more than 6 hrs in a day for reading.

**Table 3:** Time spent in a day for reading:

Time spent for reading	No. of respondents	Percentage
0-2 hrs	56	49.12
2-4 hrs	44	38.60
4-6 hrs	09	07.90
More than 6 hrs	05	04.38
<b>Total</b>	<b>114</b>	<b>100</b>

**Table 4:** Sources prefer for reading:

N=114

Source	Daily	Twice in a Week	Weekly	Monthly	Occasionally
Text Books	50 (44%)	28 (25%)	18 (16%)	12 (11%)	06 (5%)
Magazines	14 (12%)	23 (20%)	38 (33%)	20 (18%)	19 (17%)
Journals	18 (16%)	14 (12%)	30 (26%)	31 (27%)	21 (19%)
Reference Books	10 (9%)	34 (30%)	29 (25%)	20 (18%)	21 (19%)
Recreational	18 (16%)	12 (11%)	15 (13%)	12 (11%)	57 (50%)

**Table 5:** Purpose of reading:

N=114

Purpose	To full Extent	To little Extent	To some Extent	Not at all
For Exam Purpose	74 (65%)	17 (15%)	18 (16%)	05 (4%)
To prepare Notes	44 (39%)	38 (33%)	24 (21%)	08 (7%)
It is my hobby	34 (30%)	28 (25%)	36 (32%)	16 (14%)
To learn new words	43 (38%)	36 (32%)	26 (23%)	09 (8%)
To get ahead in my Studies	61 (54%)	30 (26%)	22 (19%)	01 (0.9%)

**Table 6:** Frequency of using computer& place of use:

N=114

Place	Daily	Twice in a week	Weekly	Monthly	Occasionally
Home	87 (76%)	16 (14%)	03 (3%)	00	08 (7%)
College	26 (23%)	50 (44%)	16 (14%)	05 (4%)	17 (15%)
Browsing centre	11 (10%)	11 (10%)	19 (17%)	11 (10%)	62 (54%)
Friends/Neighbours home	06 (5%)	07 (6%)	08 (7%)	11 (10%)	82 (72%)

**Table 7:** Time spent in a day for using computer:

N=114

Time spent for Using Computer	No. of respondents	Percentage
0-2 hrs	64	56.14
2-4 hrs	39	34.21
4-6 hrs	08	07.02
More than 6 hrs	03	02.63
<b>Total</b>	<b>114</b>	<b>100</b>

**Table 8:** Gender wise distribution of respondents regarding use of Internet

Gender	Do you use Internet?			
	Yes	Percentage	No	Percentage
Male	66	98.50	01	1.49
Female	44	93.61	03	6.38

**Table 9:** Place of web surfing and frequency of use:N=110

Place	Daily	Twice in a week	Weekly	Monthly	Occasionally
Home	77 (70%)	15 (14%)	07 (6%)	02 (2%)	09 (8%)
College	30 (27%)	27 (25%)	15 (14%)	11 (10%)	27 (25%)
Browsing centre	07 (6%)	13 (12%)	12 (12%)	15 (14%)	63 (57%)
Friends/Neighbours home	02 (2%)	04 (4%)	11 (10%)	11 (10%)	82 (75%)
Mobile	79 (72%)	05 (4%)	10 (9%)	04 (4%)	12 (11%)

Table 4 shows that nearly half of the respondents 44% daily read the text books, 33% of the respondents read the Magazine weekly, 27% of the respondents read journals monthly and half of the respondents reads the recreational books occasionally. It is very notable that 9% of the respondents read the reference

books daily.

Table 5 clearly depicts that more than half of the respondents (65%) read for their exam purpose to full extent, 39% of the respondents read to prepare their notes for full extent. It is notable from the table that more than half of the respondents (54%) read to get

ahead in their studies to full extent.

Table 6 shows that maximum number of respondents uses the computer daily at their home (76%) and nearly half of the respondents use the computer twice in a week in their colleges.

It is very evident from the Table 7 that majority of the respondents (56.14%) uses the computer 0-2 hours in a day, 34.21% of the respondent's uses 2-4 hrs for using computers and nearly 7% of the respondents use 4-6 hrs in a day for using computers. It is only 2.63% of respondent's uses computer more than 6 hrs in a day.

From the Table 8 it is clear that 98.50% of the male respondents are familiar with the use of Internet and only 1.49% of the male students are not using the internet. Among female respondents 93.61% were

familiar with the use of internet and still 6.38% female respondents are not using the Internet.

Table 9 reveals that nearly  $\frac{3}{4}$  of the respondents (72%) & (70%) access the web daily from mobile & home itself. About one fourth of the respondents (27%) access the internet from the college and very few (6%) and (2%) access the web daily from the browsing centre and friends/neighbours home. It is notable that three fourth (75%) and half of the respondents use the internet occasionally at friends/ neighbours home and browsing centre.

It is very evident from the Table 10 that majority of the respondents (72.73%) use internet 0-2 hours in a day, 20% of the respondent's uses web between 2-4 hrs in a day and nearly 6.37% of the respondent's uses internet 4-6 hrs in a day. It is only 0.9% of respondents uses Internet more than 6 hrs in a day.

**Table 10:** Time spent in a day for using internet:

N=110

Time spent for Using Computer	No. of respondents	Percentage
0-2 hrs	80	72.73
2-4 hrs	22	20
4-6 hrs	07	06.37
More than 6 hrs	01	0.9
<b>Total</b>	<b>110</b>	<b>100</b>

**Table 11:** Purpose of using Internet:N=110

Sl. No.	Purpose	No. of Respondents	Percentage
01	To read e-books	71	65
02	To read e-journals	28	25
03	To read news papers	49	44
04	To read Magazines	22	20
05	To check e-mails	101	92
06	For chatting	62	56
07	To listen Music	44	40
08	For playing games	37	34
09	To Use face book	87	79

**Table 12:** Gender wise distribution of respondents regarding the use of ICT has made an impact on your Reading Habits?:

N=110

Gender	Use of ICT has made an impact on your Reading Habits?			
	Yes	Percentage	No	Percentage
Male	61	92.42	05	7.57
Female	40	90.90	04	9.09

If yes, Use of Internet has made

M=101

Sl. No.	Particulars	No. of respondents	Percentage
01	Easy to read e-books	55	54.45
02	I can download any books on web	71	70.29
03	I get maximum information on any subject	81	80.19
04	Hyperlinks are helpful to access information	33	32.67
05	Locating & searching is very easy	75	74.25
06	I can prepare notes more effectively	61	60.39
07	I can get information with more speed	72	71.28
08	I spend more time in reading e-books	24	23.76
09	I can't spend more time to read text on screen	65	64.35
10	I feel mentally & physically stress while using e-source	88	87.12

In Table 11 an attempt has been made to find out the purpose of using the internet for different purposes. The data reveals that (92%) respondents uses the internet to check e-mails and more than three fourth of the respondents (79%) use the internet to browse face-book. It is notable that more than half of the respondents (65%) use the internet to read e-books.

In Table 12 an attempt has been made to find out the use of ICT has made impact on reading habits of respondents. The data reveals that 92.42% of the male respondents have the opinion that the use of ICT has made the impact on their reading habits and only 7.57% of the male respondents feel there is no change in their reading habits while using ICT. Among female respondents 90.90% said that use of ICT has made impact on their reading habits and 9.09% female respondents said there was no change in their reading habits while using ICT.

The Table 12 reveals that nearly three fourth of the respondents (87.12) have the opinion that they feel

mentally and physically stress while using e-sources and 80.19% of the respondents have the opinion that they can get maximum information on any subject through internet. It is noted that nearly 75% of the respondents have the opinion that the locating the searching is very is easy during surfing.

In Table 13 an attempt has been made to find out the comparison between printed and internet access information. Table 8.13 reveals that the most of the respondents strongly agree or agree that the printed books are can't find very easily compare to internet access information and also they have the opinion that the books are costly (36%) & (45%) and required more space to store (49%). They also have the opinion that in the printed books bulk information can't get in single volume (37%) and durability is very less (39%). It is notable that the nearly half of the respondents (44%) have the opinion that they can't get updated information as much as quickly in printed books.

**Table 13:** Comparison between printed books and internet access information: N=114

Source	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
Books are Costly	41 (36%)	51 (45%)	13 (11%)	07 (6%)	02 (2%)
I can't find books very easily	17 (15%)	59 (52%)	15 (13%)	20 (17%)	03 (3%)
I can't get updated information as much as quickly	44 (39%)	50 (44%)	14 (12%)	06 (5%)	00 (0%)
Bulk information can't get in single volume	32 (28%)	42 (37%)	33 (29%)	07 (6%)	00 (0%)
Durability is less	19 (16%)	44 (39%)	25 (22%)	18 (15%)	08 (7%)
Require large space	29 (25%)	56 (49%)	14 (12%)	13 (11%)	02 (2%)
Difficult to carry	33 (29%)	48 (42%)	16 (14%)	11 (10%)	06 (5%)

**Table 14:** Do you think in future ICT will have impact on the following?: N=114

Source	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
Printed Books will disappear	19 (16%)	26 (23%)	32 (28%)	28 (24%)	09 (8%)
In future people will not read printed books	12 (10%)	36 (32%)	36 (32%)	17 (15%)	13 (11%)
More dependent on digital libraries	23 (20%)	63 (55%)	18 (16%)	08 (7%)	02 (2%)
Traditional libraries can replaced by digital library	23 (20%)	33 (29%)	38 (33%)	17 (14%)	03 (3%)
Internet has negative impact on reading habits	19 (17%)	25 (22%)	34 (30%)	26 (23%)	10 (9%)
In future Literacy becoming more technological oriented	29 (25%)	61 (53%)	20 (17%)	02 (2%)	02 (2%)
User require additional skills & strategies for successful use	30 (26%)	71 (62%)	09 (8%)	04 (3%)	00 (0%)
Impact on the student's performance & achievements	28 (24%)	61 (53%)	23 (20%)	00 (0%)	02 (2%)
ICT makes learning easier	28 (24%)	74 (65%)	10 (9%)	02 (2%)	00 (0%)
Played major role to spread knowledge & updating information	47 (41%)	55 (48%)	12 (11%)	04 (3%)	00 (0%)

The Table 14 depicts that 71(62%) of the respondents have the opinion that the user requires additional skills and strategies for successful use of the internet and 63 respondents (55%) have the opinion that in future people more dependent on digital library. More than half of the respondents 53% said that in future literacy becomes

more technological oriented and it impacts on the student's performance and achievements. It is notable that 65% of the respondents said that ICT makes learning easier. It is notable that 32% of the respondents have the doubt in mind about in future people will not read printed books.

## Discussion

The main purpose of this study is to investigate the impact of ICT on reading habits of engineering students. The research seeks to find out if engineering students use ICT's will effect on their reading habits.

From the first part of the research question which seeks to find out the reading habits, the result reveals that 100% of the respondents having the reading habits and maximum of them use to read in their classroom and at home daily. 32% of the respondents spent 0-2 hrs for reading in a day and they prefer textbooks to read. Maximum respondents read for the exam purpose to full extent.

On the second research question which seeks to find out the impact of ICT on reading habits, the result shows that the students use of ICT's can positively impact on their reading habits.

Firstly, 76% of students use computers daily in their home. Maximum of the respondents spend 0-2hrs in using the computers daily. Secondly Male respondents (98.50%) use internet more than female respondents (93.61%), it reveals that nearly more than 95% of the respondents use the internet to check e-mails and to use face-book, while 65% go to the internet to read e-books/journals and 56% go to the internet to chat with family and friends. Finally 92% of the respondents have the opinion that the using ICT's will have the impact on their reading habits and use of internet has made the downloading of books very easy and they can get maximum information on any subject. They also have the opinion that they can't spend more time to read text books on screen and they feel mentally & physically stress while using e-source.

On the next part of the research question which seeks to find out the comparison of printed books with internet access information, the result reveals that most of the respondents strongly agree or agree that the printed books are can't find very easily compare to internet access information and also they have the opinion that the books are costly (36%) & (45%) and required more space to store (49%). They also have the opinion that in the printed books bulk information can't get in single volume (37%) and durability is very less (39%).

Secondly, 71(62%) of the respondents have the opinion that the user requires additional skills and strategies for successful use of the internet and 63 respondents (55%) have the opinion that in future

people more dependent on digital library. More than half of the respondents 53% said that in future literacy becomes more technological oriented and it impacts on the student's performance and achievements. It is notable that 65% of the respondents said that ICT makes learning easier.

## Conclusion

Reading is the foundation on which the academic skills of individuals are built. The study has been able to reveal that engineering students engage in reading of electronic resources using different ICT tools. All most all students (respondents) of AIT College are aware of ICT tools in using for their studies particularly for reading. Most of the students express that ICT has contributed to increase in their reading habits. There now technologies not only influence students learning and studying in the classroom but also affect their reading behaviours at home. The findings of the study revealed that ICT has impact on the reading habits of engineering students of AIT, Chikmagalur.

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