
Computer Literacy Skills among P.G.S students of Karnatak University, Dharwad: A Study

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Abstract

We are living in a society where we rely on computers for performing most of our routine works, computer technology and electronic networks have slowly infiltrating in everyday human life at home and workplace etc. Computer Literacy is an important entitlement for all in an increasingly digital culture which enables people with the skills that will help in making use of the computer technology in all spheres of life. The field of education is not an exception to this as most of the information resources are available online which students must be able to make use effectively. Keeping this trend in view, this study is conducted to know the computer literacy competencies among P.G students of Karnatak University, Dharwad..

Keywords

Computer Literacy; Digital Literacy; Use of Computer; Use of Internet application; , Internet skills

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INTRODUCTION

In the past five to ten years the ability to use computer competently has become part of the necessary skills and knowledge for all the citizens. In order to negotiate with the technological environment effectively in everyday life and academic pursuits everyone needs to be a computer literate. Computer provides flexibility, speed, accuracy and enhances effectiveness and efficiency in all spheres of life. Stressing the importance of computing technology in the present knowledge society Mazid and Abazova (1999) say that “computers have become so strongly integrated into social infrastructures of these societies that an individual without adequate computing skills would feel an alien in that society”⁽¹⁾. Computer literate is one who will be having skills, knowledge and understanding that enable critical, creative, discerning and safe practices with computer technologies.

It is also about knowing when information technologies are appropriate and helpful to the task at hand, and when they are not. In fact these technological developments have given new way for information creation, duplication, storage, access, distribution and presentation of information. The information sources being published in electronic form is at marvelous pace. These electronic information sources can't be accessed in the same way as printed sources were used to be. Hence, adequate basic knowledge about computing technology is essential to retrieve and make use of e-resources. Computer literacy in the academic pursuits can enhance their ability to access, necessary information and assist in benefitting from this huge volume of digital information. Computer literacy helps for academic excellence, saving resources and equity, with an objective to provide various benefits to the academic and research community which include access to large national resources of information, exhaustive searches, retrieval and speeder dissemination of information.

MEANING AND DEFINITIONS

Business Dictionary describes Computer Literacy as “Level of familiarity with the basic hardware and software (and now Internet) concepts that allows one to use personal computers for data entry, wordprocessing, spreadsheets, and electronic communications”⁽²⁾. Techopedia defines “Computer literate is a term used to describe individuals who have the knowledge and skills to use a computer and other related technology. This term is usually used to

describe the most basic knowledge and skills needed to operate software products such as an operating system, a software application, or an automated Web design tool”⁽³⁾. According to Webopedia Computer Literacy is “the level of expertise and familiarity someone has with computers. Computer literacy generally refers to the ability to use applications rather than to program. Individuals who are very computer literate are sometimes called power users”⁽⁴⁾. Wikepedia defines “Computer literacy is the ability to use computers and related technology efficiently, with a range of skills covering levels from elementary use to programming and advanced problem solving. Computer literacy can also refer to the comfort level someone has with using computer programs and other applications that are associated with computers. Another valuable component is understanding how computers work and operate. Computer literacy may be distinguished from computer programming which is design and coding of computer programs rather than familiarity and skill in their use”⁽⁵⁾.

NEED FOR THE STUDY

Digital objects such as laptops, Smartphone’s, iPods, Desktops, e-readers, Notepads, etc. are motivating and intriguing the young minds in this modern world and become embedded inextricably in the life of mankind. This trend has also changed the way of library operations, services, storage, retrieval and dissemination of information. Today's students are using these digital objects for communicating, accessing the internet, social networking, entertainment etc. but they are lagging behind to find and search information sources, videos, podcasts and presentations related to anything that helps in their academic pursuits and learning. At this point of time computer literacy skills play a key role. Hence the study is taken up to know the computer literacy competencies among the P.G. Students of Karnatak University, Dharwad.

OBJECTIVES OF THE STUDY

1. To find out how far the P.G. students are competent enough to make use the computer and its applications.
2. To know the use pattern of computer and digital devices by respondents
3. To determine the level of computer literacy among PG students.

4. To elicit the respondents opinion about importance of computer literacy in their study.
5. To find out awareness of software applications, search strategies among the respondents.

METHODOLOGY

To collect the required data for the study a survey has been carried out. A structured questionnaire was prepared consisting a set of questions which deal with the ability to make use of computer and other related devices. The study population consists only PG (Post-Graduate) students of Karnatak University, Dharwad. Around 100 questionnaires were distributed among the PG students, out of which 85 duly filled questionnaires were returned with response rate of 85%. The same has been systematically analyzed and presented in the following sections.

SCOPE AND LIMITATION OF STUDY

The scope of the present study is limited to P.G. students of Karnatak University, Dharwad.

DATA ANALYSIS AND INTERPRETATION

Table 1: Gender wise distribution of respondents

| Gender | Number of respondents | Percentage |
|--------|-----------------------|------------|
| Male | 59 | 69.41% |
| Female | 26 | 30.59% |
| Total | 85 | 100% |

Table- 1 indicates gender wise distribution of respondents. Of the 85 respondents surveyed, 59(69.41%) are male and about 26(30.59%) respondents are female.

Table 2: ICT Tools possessed by the respondents

| ICT Tools | Number of respondents | Percentage |
|------------|-----------------------|------------|
| Laptop | 51 | 60% |
| Desktop | 33 | 38.82% |
| Notepad | 4 | 4.70% |
| Smartphone | 58 | 68.23% |
| I-pad | 02 | 2.35% |

Table -2 depicts that the possession of different ICT tools by the respondents. It can be observed that majority of the students i.e. 51(60%) own laptop while 58 (68.23%) of them are having smart phone followed by 33(38.82%) of the respondents are having desktop, 04(4.70%) of them possess notepad and only 02 (2.35%) respondents own I-pod.

Table 3: Frequency of use of computer

| Frequency | Number of respondents | Percentage |
|----------------------|-----------------------|------------|
| Daily | 45 | 52.94% |
| Once in a two days | 11 | 12.945 |
| As and when required | 18 | 21.17% |
| Once in a week | 4 | 4.70% |
| Rarely | 5 | 5.88% |
| None of the above | 2 | 2.355 |

Table- 3 depicts the frequency of use of computer. Out of 85 respondents, 45 (52.94%) use computer everyday followed by 18(21.17%) students use computer as and when required, 11(12.95%) students use computer once in two days and 4(4.70%) students use computer once in a week, 5(5.88%) respondents use computer rarely.

Table 4: Location of computer use

| Location | Number of respondents | Percentages |
|-----------------------|-----------------------|-------------|
| Home | 33 | 38.82% |
| Internet café | 32 | 31.64% |
| Department/university | 37 | 43.52% |
| Hostel | 23 | 27.05% |

Table-4 depicts the place where the students make use of computer. 37 (43.52%) respondents make use of computer in department/university, followed by 33(38.82%) students use computer at home, 32 (31.64%) respondents use computer at internet cafe and 23(27.05%) students use computer at hostel.

Table 5: Purpose of Using Computer

| Purpose | Number of respondents | Percentages |
|--------------------|-----------------------|-------------|
| Social Networking | 47 | 55.29% |
| Leisure activities | 16 | 18.82% |
| Education | 64 | 75.29% |

| | | |
|--------------------|----|--------|
| E-mails | 34 | 40% |
| Communication | 29 | 34.11% |
| News paper reading | 13 | 15.29% |

Table-6 reflects the purpose of using computer by the respondents. From the above table it can be observed that majority of the respondents i.e. 64 (75.29%) use computer for education purpose while 47(55.29%) students use computer for social networking, 34(40%) of them use computer for E-mail purpose, followed by 29 (34.11%) of them use for communication and 16(18.82%) of the respondents use computer as a leisure activity.

Table 6: Frequency of use of internet

| Frequency | Number of respondents | Percentages |
|--------------------|-----------------------|-------------|
| Daily | 53 | 62.35% |
| Once in a two days | 10 | 11.76% |
| 3-4 times a week | 12 | 14.11% |
| Once in a week | 6 | 7.05% |
| Not sure | 4 | 4.70% |
| Total | 85 | 100% |

Table 6 indicates that the frequency with which the respondents make use of internet. Majority of the respondents i.e. 53 (62.35%) use internet daily, while 10 (11.76%) of them access internet once in two days, followed by a few students i.e. 12(14.11%) access internet 3-4 times in a week and only 06 (7.05%) of them use internet once in a week.

Table 7: Purpose of Using Internet

| Purpose | No of respondents | Percentage |
|---|-------------------|------------|
| Social Networking | 57 | 67.05% |
| Communication | 36 | 42.35% |
| For academic purpose | 44 | 51.76% |
| To access database and online resources | 18 | 21.17% |
| For entertainment | 29 | 34.11% |
| As an additional source of information | 21 | 24.70% |

Table 7 reflects the purpose of using internet by the respondents. From the table it can be observed that majority of the respondents i.e. 57(67.05%) use internet for social networking purpose while 44 (51.76%) students make use of internet for academic purpose, 36 (42.53%) of them use internet for communication purpose, followed by 29 (34.11%) of

them use for entertainment, 21 (24.70%) respondents use internet as an additional source of information and less number of respondents i.e. 18 (21.17%) use internet for accessing databases and other online resources.

Table 8: Familiarity with Application software

| Software | No of respondents | Percentage |
|--------------------------|-------------------|------------|
| Word Processing Software | 53 | 62.35% |
| Spread Sheet software | 49 | 57.64% |
| Power Point Presentation | 59 | 69.41% |
| Audio File Format | 24 | 28.23% |
| Video File Format | 29 | 34.11% |
| Image File Format | 29 | 34.11% |

Table -8 shows the familiarity of the respondents with different application software's which are helpful in day to day academic works. It can be found that majority of the respondents i.e. 59 (69.41%) are familiar with power point presentation software while 53(62.35%) of them are aware of word processing. Further 49 (57.64%) of the respondents are familiar with spread sheet software followed by 29(34.11%) of them aware of image file formats and very less number of students i.e. 29 (34.11%) and 24(28.23%) of the respondents are familiar with video file formats and audio file formats respectively.

Table 9: Awareness about internet sources

| Internet sources | No of respondents | Percentage |
|----------------------------|-------------------|------------|
| Search engines | 66 | 77.64% |
| Subject Gateways | 20 | 23.52% |
| Digital libraries/archives | 13 | 15.29% |
| Open access resources | 11 | 12.94% |
| Institutional repositories | 17 | 20% |
| Wikipedia | 50 | 58.82% |
| Databases | 21 | 24.70% |

Table-9 presents the awareness of internet sources among the respondents. From the table it can be noted that majority of the students i.e. 66 (77.64%) respondents are aware of search engines while 50 (58.82%) of them are aware of Wikipedia followed by 21 (24.70%) respondents aware of databases,

20(23.52%) of them know subject gateways, 17 (20%) are aware of intuitional repositories and very less number of students i.e. 13 (15.29%) and 11(12.94%) are aware of digital libraries archives, and open access resources respectively.

Table 10: Familiarity with Search engines

| Search engines | No of respondents | Percentage |
|----------------|-------------------|------------|
| Google | 78 | 91.76% |
| Yahoo | 42 | 49.41% |
| Rediff | 12 | 14.11% |
| Alta vista | 07 | 8.23% |
| Hot Bot | 11 | 12.94% |
| Lycos | 05 | 5.88% |
| Bing | 15 | 17.64% |

The above Table -10 presents that the familiarity of the respondents with search engines, most of the respondents i.e. 78 (91.76%) are aware of Google while 42 (49.41%) of them are familiar with yahoo followed by Bing 15 (17.64%), and Rediff 12 (14.11%) further very less number of students i.e. 11 (12.94%) , 07(8.23%) , 05 and (5.88%) are aware of hot bot, Alta vista , and Lycos respectively.

Table 11: Familiarity with Audio-Video Sharing Websites

| Websites | No of respondents | Percentage |
|-------------|-------------------|------------|
| You tube | 77 | 90.58% |
| Slide share | 08 | 9.41% |
| My space | 07 | 8.23% |
| My video | 14 | 16.47% |
| Skype | 12 | 14.11% |
| Rediff | 06 | 7.05% |
| Yohoo video | 25 | 29.41% |
| Flicker | 04 | 4.70% |

The above Table -11 presents that the familiarity of the respondents with Audio- video sharing websites, most of the respondents i.e. 77 (90.58%) are aware of YouTube while 25 (29.41%) of them are familiar with yahoo video followed by my video 14 (16.47%) , Skype 12 (14.11%) further very less number of students i.e. 08 (9.41%) , 07 (8.69%) , 06 (8.23%) and 04 (4.34) are aware of Slide share , My space, Rediff and Flicker respectively.

Table 12: Use And Familiarity Of Social Networking Sites

| Social Networks | No of respondents | Percentage |
|-----------------|-------------------|------------|
| Facebook | 72 | 84.70% |

| | | |
|------------|----|--------|
| Twitter | 18 | 21.17% |
| Google + | 47 | 55.29% |
| Web blocks | 02 | 2.35% |
| Linked In | 04 | 4.70% |
| Skype | 11 | 12.94% |
| WhatsApp | 47 | 55.29% |

Table- 12 reveals that the familiarity of respondents with social networking sites, majority of the respondents i.e. 72 (84.70%) use Face book followed by 47(55.29%) of them use Google + and 47 (55.29%) of the students use WhatsApp. Further it can be observed that 18 (21.17%) of the respondents are using Twitter while 11 (12.94%), 04 (04.70%) and very less number of students i.e. 02 (02.35%) are using Skype, Linked In and Web Blogs respectively.

Table 13: Awareness of Search Strategies

| Search Strategies | No of respondents | Percentage |
|----------------------------|-------------------|------------|
| Boolean operators | 51 | 60% |
| Truncation and wildcards | 07 | 8.23% |
| Case sensitivity | 13 | 15.29% |
| Proximity searching | 06 | 7.05% |
| Natural language searching | 25 | 29.41% |
| Concept searching | 31 | 36.47% |
| Phrase searching | 12 | 14.11% |

Table-13 indicates the respondent's awareness about different search strategies, it can be observed that most of the students i.e. 51(60%) are aware of Boolean operators and 31 (41.39%) of them are familiar with Concept searching while 25 (29.41%) of the respondents are aware of natural language searching followed by equal number of students i.e. 13 (15.29%) are aware of case sensitivity and rest of them i.e. 12 (14.11%), 07(8.23%), 06(07.05%) are aware of Phrase searching, truncation and wild cards and Proximity searching respectively.

Table 14: Familiarity with the use of Digital Objects

| Digital Objects | No of respondents | Percentage |
|-----------------|-------------------|------------|
| CD/DVD | 37 | 43.52% |
| Pen drive | 66 | 77.64% |
| Hard disk | 27 | 31.76% |
| Printers | 22 | 25.88% |
| Scanners | 11 | 12.94% |

Table-14 reflects the use of digital objects by the respondents, majority of the respondents i.e. 66(77.64%) use pen drive as the expected, while 37 (43.52%) of the respondents are familiar with the use of CD/DVD followed by hard disks 27 (31.76%), printer 22(25.88%), and very less number of users i.e. 11 (12.94%) are familiar with the use of scanners.

Table 15: Awareness of Databases

| Databases | No of respondents | Percentage |
|----------------|-------------------|------------|
| Scopus | 19 | 22.35% |
| Web of science | 30 | 35.29% |
| DOAJ | 16 | 18.82% |
| UGC-INFONET | 47 | 55.29% |
| Intute | 10 | 11.76% |
| N-LIST | 16 | 18.82% |

A question was asked to know the awareness about databases among respondents. Table- 15 shows that majority of the respondents i.e. 47(55.29%) are aware of UGC-INFONET database while 30 (35.29%) of the respondents know Web of science, followed by the remaining databases such as SCOPUS 19 (22.35%), DOAJ 16(18.82%), N-LIST 16 (18.82%) and Intute 10(11.76) are very less known databases among the respondent.

Table 16: Impact of computer on learning

| Impact | Respondents | Percentage |
|-----------|-------------|------------|
| Yes | 81 | 95.29% |
| No | 01 | 01.17% |
| Note sure | 03 | 3.52% |

Table 16 shows that whether the use of computer has a positive impact on the respondents learning, the majority of the respondents i.e. 81 (95.29%) are affirmative that the use of computer has made positive impact while only 01 (01.17%) of them feels that there is no positive impact on the learning and 03(3.52%) of them expressed no opinion.

Table 17: Problems in using computer

| Problems | Respondents | Percentage |
|----------------------------------|-------------|------------|
| Common trouble shooting | 42 | 49.41% |
| Lack of knowledge about software | 27 | 31.76% |
| Typing | 28 | 32.94% |
| Lack of knowledge | 17 | 20% |

| | | |
|--------------------|----|--------|
| about computer | | |
| Virus | 43 | 50.58% |
| Technical problems | 36 | 42.35% |

There are problems faced by the students while using computer. Table-17 reveals that out of 85 respondents 43 (50.58%) are facing virus problems,

followed by 42(49.41%) of them facing Common trouble shooting, 36 (42.35%) of the students are facing Technical problems. Further it can be observed that 28 (32.94%) of the respondents are facing Typing problems.

Table18: Respondents opinion towards ICT tools

| Statements | Strongly agree | Agree | Disagree | Strongly disagree | Don't know |
|---|----------------|--------------|-------------|-------------------|--------------|
| I enjoy using computer and internet | 42 49.41% | 41 48.23% | 02 2.35% | 00 00% | 00 00% |
| ICT tools help in my studies | 18 21.17% | 62 72.94% | 02 2.35% | 00 00% | 02 2.35% |
| Internet helps to keep up to date with latest developments | 23 27.05% | 58 68.23% | 02 2.35% | 00 00% | 01 1.17% |
| I can identify and evaluate potential sources of information on internet | 18 21.17% | 55 64.70% | 04 4.70% | 04 4.70% | 04 4.70% |
| I can select and retrieve information from internet myself | 10 11.76% | 48 56.47% | 04 4.70% | 04 4.70% | 18 21.17% |
| I am aware of plagiarism and piracy | 05 5.88% | 23 27.05% | 06 7.05% | 05 5.88% | 44 51.76% |
| I am aware of digital copy right and IPR | 08 9.41% | 34 40% | 08 9.41% | 00 00% | 31 36.47% |
| I am aware of quality reliability, credibility, authenticity etc. about the information available on internet | 05 5.88% | 59 69.41% | 03 3.51% | 01 1.17% | 11 12.94% |

Table-18 shows the respondents opinion towards the use of ICT tools. Majority of the students i.e. 42 (49.41%) and 41(48.23%) strongly agree and agree that they are using computer and internet. To a question whether ICT tools help in their studies most of the students i.e. 62(72.94%) agree while 18 (21.17%) strongly agreed. 58(68.23%) respondents agreed that internet helps to keep up to date with latest development while 23(27.05%) students strongly agreed for the same the majority of the respondents i.e. 55 (64.70%) agreed that they can identify and evaluate potential sources information on internet and 18 (21.17%) strongly agreed. 48(56.47%) respondents feel that they can select and retrieve information on their own but 18(21.17%) students expressed no opinion. It is matter of concern that 44(51.76%) respondents expressed no opinion about digital plagiarism and piracy and only 23(27.05%) of the respondents agreed that they are aware of the same. More number of students i.e. 34(40%) agreed that they are aware of digital copy right and IPR while 31 (36.47%) expressed that they are unaware. Further majority of the respondents i.e.

59(69.41%) agreed that they are aware of quality, reliability credibility, authenticity etc about the information available on the internet where as 11(12.94%) expressed no opinion.

FINDINGS

1. It is found from the study that majority of the respondents i.e., 58 (68.23%) posses and use Smart phone and about 51(60%) respondents have laptop.
2. The study found that, majority of the respondents i.e., 37 (43.52%) use computer in department/university, followed by 33(38.82%) of the students use computer at home and 32 (31.64%) respondents use computer in internet café.
3. The majority of the respondents i.e. 64 (75.29%) use computer for education purpose while 47(55.29%) use computer for social networking,
4. The study shows that the majority of the respondents i.e. 57(67.05%) use internet for social networking purpose while i.e. 44 (51.76%) use internet for academic purpose.

5. It is observed from the study that majority of the respondent i.e. 59 (69.41%) are familiar with power point presentation software while 53(62.35%) of them are aware of word processing. Further 49 (57.64%) of the respondents are familiar with spread sheet software.
6. The study found that majority of the students 66 (77.64%) opine that they are aware of search engines while 50 (58.82%) of them are aware Wikipedia.
7. With reference to the use and familiarity of respondents with search engines, majority of the respondents i.e. 78 (91.76%) are aware of Google while 42 (49.41%) of them are familiar with yahoo.
8. With regard to the respondents familiarity with Audio- video sharing websites, most of the respondents i.e. 77 (90.58%) are aware of YouTube while 25 (29.41%) of them are familiar with yahoo video.
9. With reference to the use and familiarity of respondents with social networking sites, majority of the respondents i.e. 72 (84.70%) use Facebook followed by 47(55.29%) of them use Google +.
10. The study found that 51(60%) respondents are aware of Boolean operators and 31 (41.39%) of them are familiar with Concept searching.
11. Majority of the respondents i.e. 66(77.64%) use pen drive while 37 (43.52%) of them are familiar with use of CD/DVD.
12. Majority of the respondents i.e. 47(55.29%) are aware of UGC-INFONET database while 30 (35.29%) of the respondents know Web of science.
13. Majority of the respondents i.e. 81 (95.29%) are affirmative that the use of computer has made positive impact while only 03(3.52%) of them feel that there is no positive impact on their learning.
14. It can be observed that 43 (50.58%) respondents encounter virus problems, followed by 42(49.41%) of them face common trouble shooting, 36 (42.35%) of the students face technical problems..

SUGGESTIONS

On the basis of analysis of the data and the opinion given by the respondents, some of the important suggestions have been made.

1. Orientation and training programs should be organised for creating awareness and better

usage of different software applications and allied technology which enable students to make use of computers in their academic pursuits more effectively.

2. Computer literacy plays an important role in the near future as the focus of collection development policy of academic libraries is to improve the electronic information resources; computer literacy has direct impact on the use of e-resources in the library. It is observed from the study that, eventhough study found that the computer literacy among PG students of Karnatak University, Dharwad is satisfactory, it is responsibility of the library authorities to make users be updated with the changing technology which helps in their academic endeavour and enhancing their competencies.
3. The study reveals that awareness of digital plagiarism, piracy, copyright and other Intellectual Property Rights among the respondents is very less, therefore, it is obligation on the part of library authorities to overcome this challenge by organising workshops, training programmes, information and digital literacy programmes.
4. The respondents have indicated that their familiarity about several search strategies like the use of Boolean operators, truncation and wildcards, case sensitivity, proximity searching, natural language searching, concept searching, phrase searching is not satisfactory since these search strategies are very important to make use digital resources available over the internet as well as in the library. Hence, library authorities must ensure that the training programmes and literacy programmes focus more on improving search skills.
5. Though there are number of databases in the different subject fields, the respondents are aware of only UGC-INFONET and web of science, but they are found to be not aware of other databases like Scopus, DOAJ, Intute, N-LIST, etc. Therefore, it is suggested that library authorities must create awareness about these databases and promote their use.

CONCLUSION

During the past few years lot of information is being made available in a variety of forms like CD-ROM, online databases. E- Journals,

institutional repositories, subject gateways, portals, consortia's etc. To enable and make use of these e-resources effectively users need to be equipped with computing abilities. The present study reveals that the level of computer literacy among PG students of Karnatak University is satisfactory in some of the areas, however awareness about digital plagiarism, piracy, copyright, Intellectual Property Rights, search strategies, databases is found to be very poor. Hence, Library and Information professionals must play a key role in creating awareness about digital copyright issues among the students and try to enhance their computer literacy skills by exposing them to several databases and advanced search strategies. The future of libraries depends upon the collection of e-resources, number of terminals to access e-resources and other digital tools and equipments. With these developments the LIS professionals need to fine tune the computing abilities of its users in the rapid changing technological environment and advancements. Computer literacy is one of the critical skills essential for the individuals, more specifically for the students in the 21st century. Digital technology is sweeping across all spheres of the society, therefore computer/digital literacy continues to be a vital skill in everyday living and it is essential that the students should be well equipped with the necessary digital skills to withstand the challenges ahead in the upcoming digital revolution.

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