

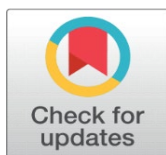
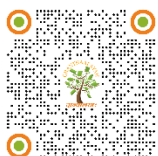


TECHNOLOGICAL LITERACY AMONGST STUDENTS FROM PROFESSIONAL EDUCATIONS IN OSMANABAD CITY

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Received 17 May 2022
Accepted 27 June 2022
Published 09 July 2022

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DOI
[10.29121/granthaalayah.v10.i6.2022.4673](https://doi.org/10.29121/granthaalayah.v10.i6.2022.4673)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

In the world's history, we have seen the changes of resources from generation to generation. People can gain access to developed resources. Science and technology have given various platforms to improve the quality of human life. The 21st century is about science and technology. The human capital of a particular nation is the backbone of that nation's development. Citizens' knowledge and capacity can help that country develop in accordance with the needs of the situation. In this study, researchers are finding technological literacy among students who are taking professional education in Osmanabad City.

The definition of literacy changes as and when new instruments are introduced. Reading and writing were the primary intentions of educational literacy, but afterwards it changed to using education for living life. Similarly, different levels of literacy are required of a country's citizens. As we say, the 21st century is about science and technology. It is very much necessary to know the status of technological literacy and that of students because students are those who are getting maximum resources for learning, and they are young enough to take on the challenges of learning new tools. Students have access to a variety of technological tools such as smartphones, computers, tablets, and so on, but do they use these tools to analyze and evaluate the information they receive before drawing conclusions? Do they use technical tools for their work? Are they comfortable handling technical tools? Are they using the technical tools responsibly? Is there a role for technological tools in their daily lives? The researcher is trying to get the answers to these sub-questions from the study.

Keywords: Technology, Literacy, Students, Computers and Resources

1. INTRODUCTION

Technology literacy is the ability to use, understand, manage, and assess technology effectively, safely, and responsibly. This includes evaluating, creating, and integrating information via technology. When we elaborate Technology, it is like any device, method or system created to solve a problem or assist with a task. But technology literacy isn't limited to just computers and the Internet; it can be applied to any technological device. The definition of technology is any device, system, or

methodology created to solve a problem or help carry out a task. [Simplilearn \(2022\)](#) and [Martin \(2008\)](#)

Collectively putting Technology literacy then it can be said Technology literacy is relevant to all forms of technology, including computers, smartphones, and tablets. Technological literacy is the ability to use, manage, comprehend, and evaluate technology. Technological literacy is related to digital literacy in that when a person is proficient in using computers and other digital devices to access the Internet, they have the ability to use the Internet to discover, review, evaluate, create, and use information via various digital platforms, such as web browsers, databases, online journals, magazines, newspapers, blogs, and social media sites. [FutureLearn \(2021\)](#) Government of India also initiated steps for Digital literacy by PMGDISHA schemes.

2. OBJECTIVES

- To study the knowledge of using technological tools.
- To find the use of technological tools in daily life
- To give suggestions regarding the improvement of technological literacy

3. METHODOLOGY

The study of finding digital literacy among professional students from Osmanabad City is descriptive research. A survey method was used to collect the data. A questionnaire was framed to collect the responses from respondents. Primary and secondary sources are used to supplement the study. Discussion has also been done with respondents. The questionnaire was distributed among 120 students, out of whom 100 students have given errorless feedback. Hence, 100 respondents were used for the analysis of the study. The studies are related to Osmanabad City and only students who are pursuing professional education like MBA, MCA, engineering, etc. Research area is Osmanabad city which is a district place from Maharashtra. A review of literature is also done to find out the results of various studies. Analysis of data has been done with percentage and interpretation given.

4. LITERATURE REVIEW

[Ezziane \(2007\)](#) concluded that the IT-literate individuals, who possess a set of IT skills, comprehend the fundamental concepts upon which IT is built, and have engaged in higher-level thinking embodied in intellectual capabilities should use IT with confidence. They should arrive at work prepared to quickly learn and apply new business systems, as well as to apply IT to personally relevant problems. They should be able to adapt to the inevitable change that will occur as technology evolves during their lifetime.

[Judson \(2010\)](#) found that lend some support to the hypothesis that improved technology literacy and academic achievement in language arts are linked. Although the gains in language arts were greatest for the groups with the highest Tech Literacy gains, these gains in language arts appear to be small. This is especially true for the eighth-grade high Tech Literacy gain group, which experienced only a 0.5 NCE gain in language arts from 2006 to 2007 as seventh graders.

[Haneefa and Shukkoor \(2010\)](#) reached on conclusion that professionals claim to use various ICT-based resources and services; the frequency with which these

resources and services were used was very low. The levels of ICT literacy among professionals were heavily influenced by the levels of ICT use in their libraries. The University should provide cutting-edge ICT infrastructure, including hardware, software, and resources, as well as full Internet access. More formal training opportunities should be made available to library professionals in order to introduce all possible ICT-based resources and services that can improve their ICT literacy.

Mohanty and Pandua (2012) said it is possible with the assistance of some additional training programmes and the use of ICT software and hardware not only at school but also at home. Educational planners should consider improving ICT literacy among teachers and students so that they can benefit from it. According to the study, teachers in colleges are not ICT literate; therefore, teachers from both streams need to be provided with computer and internet knowledge in order to develop a positive awareness by increasing teaching learning hours, providing modern infrastructure, facilities, and training staff to the educational institution.

Nagarajan (2012) analysed that Library professionals are unable to meet the changing demands of users in the information society satisfactorily. Finally, library professionals must be trained in the most recent developments in order to stay current and to provide better and improved services to their users.

5. TECHNOLOGY LITERACY HELPS TO BUILD AN APPROACH OF

Table 1

Table 1	
Evaluation	Adaption
Comprehension	Communication

Source (Available in References)

6. DATA ANALYSIS

6.1. DO YOU KNOW THE CONCEPT OF TECHNOLOGICAL LITERACY?

Table 2

Table 2			
Yes	Percentage	No	Percentage2
62	62	38	38

Source (Survey)

6.2. WHICH TYPE OF TECHNOLOGICAL DEVICE DO YOU USE MOST?

Table 3

Table 3		
Technological device	Respondents	Percentage
Smart phone	45	45
Laptop/computer/Tablet	3	3
Smart phone and Laptop/computer/Tablet	52	52
Other	0	0

Source (Survey)

6.3. USE OF TECHNOLOGICAL DEVICES BY STUDENTS IN TEACHING AND LEARNING

Table 4

Questions	Rarely 25%	Sometime 50%	Frequently 75%	Always 100%
Do you use technological devices for study purposes?	0	10	18	72
Do you use a storage device for study material?	0	0	6	94
Do you fill your online application form like scholarship, exam, etc. on your own?	15	29	43	13
Do you use any app or software for daily work-related activities?	0	0	4	96
Do you take photos of any important information whenever seen?	0	0	2	98
Do you maintain your technological device on your own?	78	14	5	3

Source (Survey)

Interpretation

This survey was related to knowing the technological literacy among students in professional education, in which it was found that 62 percent of respondents knew the concept of technological literacy. Students are using technological tools, but they are not aware that it is actually called technological literacy. As a result, work is expected to be completed with an understanding of what technological literacy means to the respondents. More than half of the respondents polled own both a smartphone and a computer. A smartphone is carried by 97 percent of respondents. It is a good sign with regard to technological literacy.

Further questions were asked related to the use of technological tools for their actual work. The work of students is teaching, and learning is assumed. Seventy-two percent of respondents always use technological tools for study purposes, and 18% use them frequently. In terms of storage, 94 percent of respondents said they use storage devices to keep study-related materials. According to the survey, students prefer to fill out online forms such as exams and scholarships at internet cafes rather than do it themselves. The smartphone was used by 96 percent of respondents for daily work purposes such as social media, communication, alarms, calculators, reminders, notes, photo editing, and so on. The Smartphone has become a source for data collection in the form of taking snaps whenever it is required. Respondents are using smartphones for the purpose of taking photos of information. As per the maintenance of digital tools, respondents prefer to go with professionals instead of learning by themselves about maintenance. The above survey shows that there is a chance to work more on technological literacy in students from professional education. Colleges can help to reduce the gap. Also, NGOs and the government can organise literacy camps.

6.4. CAPABILITY OF USING TECHNOLOGICAL DEVICES BY STUDENTS FROM PROFESSIONAL STUDIES

Table 5

Questions	Yes	Percentage	No	Percentage
I can search websites and data on internet	99	99	1	1
I can evaluate and analyze the information	72	72	28	28
I use technological media to put my words	96	96	4	4
I can secure the information required in digital form	88	88	12	12
I can authenticate the source of information	64	64	36	36
I can use technology to create new work	92	92	8	8
I can Use a computer	98	98	2	2
I do use social media	97	97	3	3
I do online chatting	88	88	12	12
I can use email for communication	61	61	39	39
I can store the data by using a storage device	79	79	21	21
I do attend the online meeting	99	99	1	1
I can share the information online	84	84	16	16
I am afraid of technological use	4	4	96	96
I am using technology for entertainment purpose only	43	43	57	57
I am serious about the health effects of technology	32	32	68	68

Source (Survey)

Interpretation

Actual use of technological tools is an additional skill for the students. Knowing how to use technological tools, as well as actually using them, is critical in literacy. In this session, it was tried to find out from the respondents' what their capability was of using technological tools. In this questionnaire, various activities are done on the technological tools that are asked. The internet is used by 99 percent of respondents to find the information they require. 72 percent of respondents can evaluate and analyse the collected data with the help of technological tools. Despite being a professional student, 28 percent of respondents are unable to analyse and evaluate the collected data. This is a work area in the literacy task. Previously, expressing oneself through social media or digital media was a big deal, but nowadays, people do express themselves through digital media. 96 percent of respondents can express themselves through digital media. Keeping data secure is the most important thing in technological handling. 88 percent of respondents said they could secure data with the help of technological tools.

The data and information that we receive on digital media must be authenticated by confirming the resource. Only 64 percent of respondents could authenticate the information they received. It is also an area of work. The source must be credentialed before it can be used or communicated to the next process. for developing new work, such as projects and other teaching and learning-related tasks. 92 percent of those polled use technological tools for the same purpose. This is a very positive response from the respondents. According to the survey, more than 98 percent of students use computers, and more than 97% use social media. Online chat has also increased, as it reached 88 percent of respondents. Only 61%

of respondents use email as a mode of communication. It has been observed that respondents know the functions of email but avoid using it as it seems to be a formal communication method. 39 percent of respondents avoid using email as a communication medium. 79 percent of respondents use data storage devices. During the lockdown, the teaching was conducted online, and 99 percent of students attended online meetings for formal or informal reasons. It is a good number to be virtually present for the activity. 84 percent of respondents said they could transfer the information digitally. 96 percent of the respondents do not have fear of using technological tools, which is a very good sign in technological literacy terms. A survey has found the use of technological tools for work and entertainment purposes. 57 percent of the respondents used the tools for work purposes only, and 43 percent of the respondents used the tools for entertainment purposes. Using technological tools for a long time and being addicted to the same can cause health issues after some time. About 32 percent of the respondents are serious about the effects of technological tools on health. It means short-term points of view are considered by the users. Future health-related issues resulting from excessive use of technological tools, as well as their harmful effects on health, must be made public.

In short, to summarise this response from the respondent, it can be said that the technological literacy awareness trend is increasing, but at the same time, maximum utilisation of the resources has not been done by the professional students.

6.5. RESPONSIBILITY RELATED APPROACH OF STUDENTS

Table 6

Questions	Yes	Percentage	No	Percentage
I can assess technology effectively	74	74	26	26
I can use technology safely	79	79	21	21
I am responsibly using technology	81	81	19	19
I do use technology for Work purpose	74	74	26	26
Technology has contributed in my skill development	81	81	19	19

Source (Survey)

6.6. HOW DO YOU LEARN TO USE TECHNOLOGICAL DEVICE?

Table 7

Questions	Respondents	Percentage
Self	52	52
Formal Training	12	12
From Friends and relatives	5	5
Online	29	29
College/Class	2	2
	100	100

Source (Survey)

Interpretation

Self-understanding of the subject is more important than anything else. Qualitative questions were asked in the survey. This question can give us an idea

about the actual understanding of the respondent regarding the technological literacy subject. 74 percent of the respondents said that they use technological tools effectively, and 26 percent of the respondents said they do not. It shows that the use of every tool is not known to the many respondents. Technology can also cause problems for users, such as cyber-attacks, leakage of private information, and misuse of personal information. Hence, security is important during use. 79 percent of survey respondents felt that they used technological tools very safely. Still, 21 percent of respondents feel that they are not using technological tools safely. Awareness about various acts and netizens' rights needs to be shared with the students. 81 percent of respondents said that they use technological tools very responsibly, which means they do not harm others with their online activity, or their technological tools are not harmful to others. They spread natural and original information whenever required. Digital tools have various options, which can be used for work as well as entertainment. 74 percent of the respondents use technological tools for work purposes. In which research student work is considered as teaching learning work. 81 percent of the respondents say that the use of technological tools helps them to improve their skills and that it is useful for improving productivity.

The introduction of technology into student life is a significant activity for them, and the reason for which the first time a student requests a technological tool is critical. The use of technological tools has become important. 52 percent of respondents learn to use technological devices independently, while 23 percent learn to use technological devices online. Only twelve respondents reported having received formal training using technological tools.

From the above response, it can be said that technological tools are playing a vital role in day-to-day life. It mostly depends on the user and how they want to use it. It is one type of power that can be used for creation or destruction. Both these things must be known to the students as they are going to use them for lifetime purposes. Various factors related to technology are also expected to be shared with the students. The approach and reason of the students to using technology has become important as they are going to get an instrument that can be played anyway.

7. SIGNIFICANCE OF TECHNOLOGICAL LITERACY TO STUDENTS

7.1. IMPROVE PERFORMANCE

Every student is expected to perform his or her best performance in the learning stage. Professional education students are expected to provide hands-on learning experiences. Students' major task is to learn many things during their learning tenure. The performance of the same is demonstrated in the form of a mark sheet and personality development. Changes took place in behaviour, which is the actual result of performance in learning. Technological literacy gives students the tools to improve their performance. Campaign like Digital India also helping students for improvement. [Midha \(2016\)](#)

7.2. CREATING NETWORKS OF LEARNERS

A human is a social animal. A human like to be with other humans during their lifespan. The network of people helps each other to exchange thoughts, behaviour, languages, work, and approaches. Being in networks is always additional support for growth. Technological literacy uses students' hand of communication through

various digital media and social media. It also gives them an opportunity to be connected with each other in a stressful situation. The input taken by the network is useful for the students in many cases. Hence, technological literacy helps in creating networks for the learner.

7.3. JOB OPPORTUNITIES

This world is known as the digital world. Selling yourself has become a new skill nowadays. Your profile must be shown on the digital platform, and it must be accessible to the various employers. Looking at your skills and profile, an employer can offer you a job or you can be an option for those who require the skills that you have. Professional entrepreneurs are expected to use technological media to reach out to customers. Syllabus on Technological literacy can be started. [Allah and Ghulam \(2010\)](#) Various job portals and consultancy communicate with students via digital media, and companies also display vacancies on digital media with no restrictions on location or application, so you can increase your chances of getting a job by using digital literacy. [Hassan and Mirza \(2021\)](#)

7.4. STUDENT'S ENGAGEMENT

Most of the students do use tools for entertainment purpose. [Thanuskodi \(2019\)](#) the expectations of learning have changed from time to time, and these days, teachers are working as facilitators for the students. Resources for learning are available in good numbers, but making students engage in the resources to get extra learning has become a challenge in the teaching learning process. Technological resources help teaching and learning to keep students engaged. It also gives results that are useful for the student's productivity. The improvement in technological literacy is always helping to keep students engaged in productive and learning activities. [Team \(2022\)](#)

7.5. DYNAMICS OF THOUGHT

During our learning period, we set our personal thinking approach towards the subject, society, and work. When you started our work, we felt that there must be a more dynamic working approach required. When you are in touch with technological tools, you get a chance to be in interaction with a variety of people. Hence, you change your conservative thinking to dynamic thinking from a learning stage only. This helps students in their personal and professional lives as well. These are the advantages of being technologically literate in the twenty-first century. We must know the use of technological literacy for the purpose of the work they do. Learning is a prime activity for students at this age, and technological literacy plays a vital role in the development of student life.

8. CONCLUSION

- In the conclusion part of the study, researchers would like to present some findings from the study that show students from professional education are using technological tools, but they are not fully aware of the maximum utilisation of available facilities with technological tools.
- Different acts related to technological and cyber laws need to be aware of. In this case, colleges, non-governmental organizations, and the

government can take the initiative to improve students' technological literacy.

- Schools and colleges can arrange various activities which can share the knowledge of utilising the maximum of available technical resources.
- A model for using technological tools for students can be framed by colleges, which will improve productivity and help students develop the teaching-learning process.
- The technologically literate student must get some additional or motivational credits for his performance
- Reporting of projects and necessary documentation related activities must be started with the help of email. Etiquettes and manners of the digital world can become programmes for the academic world.
- Digital behaviour and its merit parameters can be set during the learning period of a student.
- Students' online behaviour must be monitored by the academic world as they are giving the image of their own and college to society.
- The thought process of the student towards technological devices and their pros and cons should always be part of the discussion in classes.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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