

# Assessing Andhra University PG Students' Digital Literacy: Digital Resources' Learning Impact

Hema Sundara Rao M

G Siva Prasad

Sharath Sundar M

Himangshu Biswas

## Abstract

*This study looks at the effects of the Internet on learning environments and the usage of digital literacy skills (DLS) by post-graduate (PG) students. The study examined how the Internet impacts education and shows how postgraduate students at Andhra University use their digital literacy and general competency to enhance their academic performance. Two hundred postgraduate students were the study's target group. The respondents were selected using a non-probability sample. To gather the information, students had access to a standard online survey. Additionally, the data was examined and assessed using SPSS software. The research shows the importance of creating awareness among students by the university library staff. Also, it analyses digital literacy, which encompasses the ability to use digital tools for analysis, research, and communication, efficiently access online resources, and evaluate information critically. Nevertheless, the Internet underscores the importance of digital literacy abilities among the student community. The Internet has notably influenced the academic landscape by providing access to vast information and fostering technological skills development.*

**Keywords:** Digital literacy; Digital skills; Andhra University; Internet

## 1. Introduction

The emergence of digital technology has triggered an explosion of information in various formats, sparking concerns about its reliability and authenticity. In today's digital era, individuals must grapple with many electronic resources, emphasizing the growing importance of information literacy. This entails evaluating, comprehending, and responsibly using information, posing new challenges in a landscape where digital and technological literacy are swiftly becoming essential skills. Digital literacy, (Warlick 2005)<sup>1</sup>, encompasses the capacity to locate, understand, and generate information using digital platforms. With technology like computers and smartphones deeply ingrained in society, literacy has significantly shifted. Individuals lacking adequate digital literacy skills risk feeling disconnected from modern society (Majid & Abazova, 1999)<sup>2</sup>. In today's world, digital literacy is vital for students to navigate successfully. They must understand digital tools, communication platforms, and networks to access and manage information effectively (Lee, 2014)<sup>3</sup>.



Digital literacy also empowers students to collaborate, communicate, problem-solve, and share across various domains, including education and employment. As technology evolves, it is crucial for students to acquire the knowledge and skills needed to leverage digital resources. Educators and policymakers must integrate digital literacy into the curriculum and ensure access to necessary technology and resources (Shopova, 2014)<sup>4</sup>. By nurturing digital literacy among students, we can enhance their academic and professional abilities, preparing them to thrive in an increasingly digital world.

## **2. Objectives of the Study**

- a) To discover how PG students are familiar with digital literacy and online resources.
- b) To look at the effective sources that PG students use to research any issue and obtain information.
- c) To evaluate how the internet affects and helps PG students with their education.
- d) To determine the limitations of PG students when utilizing the Internet.

## **3. Scope of the Study**

The present study examines and analyses digital literacy skills and the impact of the Internet on postgraduate students at Andhra University. This commitment to excellence was duly acknowledged when the university received an impressive A++ grade and CGPA of 3.74 out of 4 from the National Assessment and Accreditation Council (NAAC).

## **4. Literature Review**

(Boro et al., 2024)<sup>5</sup> explored digital literacy skills among Generation Z students and the influence of the Internet on the academic sphere. Their study delved into how the Internet affected academics and demonstrated how Gen Z students at Mizoram University utilized their overall proficiency and digital literacy capabilities for their studies. The study encompassed a total of 250 Gen Z students who were selected through a non-probability sampling method. A structured online questionnaire was distributed to collect data, which was subsequently analyzed using SPSS version 26. The findings of the study indicated that digital literacy entailed the ability to employ digital technologies for analysis, research, and communication, efficiently access online resources, and critically evaluate information. Moreover, the study underscored the Internet's role in highlighting the importance of digital literacy skills among Gen Z students. The Internet has significantly influenced the academic environment by providing access to vast amounts of information and fostering the development of technological skills.

(Krishnamurthy, C. & Shettappanavar, L. 2019)<sup>6</sup> investigated the digital literacy among female postgraduate students at Karnatak University Dharwad, focusing on their usage of digital tools. It assessed their ICT proficiency, internet usage frequency, knowledge of databases, and search strategies for E-resources retrieval. The findings underscored Google as the preferred search engine, with 68.83% aware of Google Scholar. Other platforms like ResearchGate, Twitter, and Slideshare were also noted. However, less used were LinkedIn,

SciSpace, and Research ID. The study revealed a lack of awareness regarding efficient search strategies and copyright issues. Additionally, challenges such as poor network connectivity and university access restrictions hinder the effective utilization of digital resources.

(Ukwoma et al., 2016)<sup>7</sup> investigated the digital literacy proficiency of University of Nigeria Nsukka (UNN) students and their utilization of these skills in academic pursuits. A descriptive survey method was employed, targeting students utilizing the MTN digital library network. From the population, 10 percent (281) were sampled, and a structured questionnaire was used for data collection. Questionnaires were distributed randomly to users of the MTN digital library over a week, yielding 184 responses (65%). The results revealed that many students possessed digital literacy skills and employed them regularly. A majority reported that digital literacy significantly impacted their academic performance. Key challenges in acquiring digital literacy included power outages, limited internet access, inadequate ICT infrastructure, and a lack of digital literacy training programs and standards.

(Shabana Tabusum et al., 2014)<sup>8</sup> conducted a study in the Tiruvallur District of Tamil Nadu to understand the digital competency of Arts and Science students with particular reference to three colleges. Information was gathered on using digital resources and proficiency in using digital information. The questionnaires were distributed among 300 Arts and Science students selected randomly from three colleges in the Tiruvallur District, of which 224 questionnaires were selected for further statistical information.

## 5. Research Methodology

Postgraduate students at Andhra University in Visakhapatnam were given the survey questionnaire. It was decided upon by selecting a non-probabilistic sample of respondents. Two hundred students were given a structured online questionnaire (Google form) to which one hundred and seventy-seven responded. The information was gathered between March 2, 2024, and April 8, 2024. Various methods were used to contact the respondents, including direct communication, department visits, emails, and social media platforms like Facebook and WhatsApp. Using SPSS, additional review and analysis of the collected data was carried out.

The sample of 200 postgraduate students was distributed across various disciplines as follows:

- ❖ Science: 50 students
- ❖ Humanities: 40 students
- ❖ Engineering: 30 students
- ❖ Social Sciences: 30 students
- ❖ Commerce: 20 students
- ❖ Education: 20 students
- ❖ Law: 10 students

This distribution ensured a diverse representation of postgraduate students from different academic disciplines.

## 6. Analysis and Results of The Study

### 6.1 Gender-wise Respondents

Table 1 shows 148 responses were received from the respondents; the majority, 82 (55.40 %), were male, and the remaining 66 (44.59 %) were female. Here, the survey shows that male participation is higher than female participation.

**Table 1. Gender-wise respondents**

S. No.	Gender	Responses Frequency	%	Valid %
1	Male	82	55.40	55.40
2	Female	66	44.59	44.59
	<b>Total</b>	<b>148</b>	<b>100 %</b>	

### 6.2 Familiarity with the Term Digital Literacy (DL)

Table 2 shows that among all the responses, the majority of the respondents are familiar with the term 142 (95.94 %), and only 6 (4.05 %) need to be more aware.

**Table 2. Familiarity with the term DL**

S. No.	Familiarity	Responses Frequency	%	Valid %
1	Yes	142	95.94	95.94
2	No	6	4.05	4.05
	<b>Total</b>	<b>148</b>	<b>100 %</b>	

### 6.3 Familiarity with Internet Resources

Table 3 shows that the majority, 144 (28.4 %) respondents are familiar with search engines; more than half 136 (26.9 %) are familiar with E-media - newspapers, magazines, books, encyclopedias, etc., 85 (16.8 %) are familiar with electronic audio records, 52 (10.3 %) are familiar with online databases, 48 (9.5 %) are familiar with Digital library archives, 41 (8.1 %) are familiar with web OPAC.

**Table 3. Familiarity with Internet resources**

S. No.	Familiarity	Responses		% of Cases
		N	%	
1	Search engines	144	28.4	97.3
2	Online database	52	10.3	35.1
3	Web OPAC	41	8.1	27.8
4	Digital library archives	48	9.5	32.4
5	E-media - newspapers, magazines, books, encyclopedias, etc.	136	26.9	91.9
6	Electronic audio records	85	16.8	57.5
	<b>Total</b>	<b>506</b>	<b>100</b>	

#### 6.4 Resources Consulted by Students to Find Information

Table 4 reveals that 142 (26.4%) of the respondents said they looked up information through the Internet; 140 (26.1%) said they looked up information on YouTube; 139 (25.9%) said they looked up information on social media; 71 (13.3%) said they looked up information in journals; and 45 (8.3%) said they looked up information in databases.

**Table 4. Resources consulted to find information**

S. No.	Familiarity	Responses		% of Cases
		N	%	
1	Internet websites	142	26.4	95.9
2	Databases	45	8.3	30.4
3	Social media	139	25.9	93.9
4	YouTube Channels	140	26.1	94.5
5	Journals	71	13.3	47.9
<b>Total</b>		<b>537</b>	<b>100</b>	

#### 6.5 Impact of the Internet on the Academics

Table 5 shows that the majority of respondents, 142 (17.4%), said that Stays are up to date with the most recent information; 140 (17.2%) said that visual aids aid in understanding complex subjects; 140 (17.2%) said that they aid in the dissemination of information; 135 (16.6%) said that they have access to online learning resources; 132 (16.2%) said that they aid in increasing academic output, and 126 (15.5%) said that they have easy access to high-quality education.

**Table 5. Impact of the Internet**

S. No.	Impact of the Internet	Responses		% of Cases
		N	%	
1	Stays current with the most recent information	142	17.4	95.9
2	Access to resources for online learning	135	16.6	91.2
3	Easily accessible high-quality education	126	15.5	85.1
4	Information dissemination	140	17.2	94.6
5	increases academic output	132	16.2	89.1
6	Visual techniques to help comprehend complex subjects	140	17.2	94.5
<b>Total</b>		<b>815</b>	<b>100</b>	

## 6.6 Constraints Faced While Using the Internet

Table 6 shows that the majority of respondents, or 97 people, or 38.8%, said they faced privacy and safety concerns, 64 (25.6%) reported limited access to Internet resources, 57 (22.8%) reported insufficient technological knowledge, and 32 (12.8%) reported insufficient internet connectivity.

**Table 6. Constraints faced while using the Internet**

S. No.	Constraints faced while using the Internet	Responses		% of Cases
		N	%	
1	Insufficient technical expertise	57	22.8	38.5
2	Inadequate internet access	32	12.8	21.7
3	Restricted availability of Internet resources	64	25.6	43.2
4	Concerns about privacy and safety	97	38.8	65.5
	<b>Total</b>	<b>250</b>	<b>100</b>	

## 7. Major findings of the Study

- a) The study presents responses regarding familiarity with “Digital Literacy.” Out of 148 respondents, 142 indicated they were familiar with the term, representing 95.94%. Conversely, only six respondents, or 4.05%, stated they were unfamiliar with the term. Overall, most respondents demonstrated familiarity with Digital Literacy, suggesting a high level of awareness among the surveyed population.
- b) Search engines are the most familiar resources, with 144 respondents indicating familiarity, representing 97.3% of the cases. E-media, including newspapers, magazines, books, and encyclopaedias, garnered familiarity from 136 respondents, accounting for 91.9% of cases. Electronic audio records were familiar to 85 respondents, constituting 57.5% of cases. Other resources, such as online databases, web OPAC, and digital library archives, were less familiar, with percentages ranging from 27.8% to 35.1%. Overall, while search engines and e-media are widely familiar among respondents, other resources like online databases and digital library archives are less familiar to a significant portion of the surveyed population.
- c) Out of 148, 142 respondents, representing 95.9% of cases, reported consulting internet websites for information. A significant portion of respondents, 139 individuals (93.9% of cases), relied on social media for information. Similarly, 140 respondents (94.5% of cases) utilized YouTube channels as a resource for gathering information. A smaller proportion of respondents, 45 individuals (30.4% of cases), consulted databases for information. Among the resources listed, journals were consulted by 71 respondents, accounting for 47.9% of cases. Overall, internet websites, social media, and YouTube channels are students’ most frequently consulted resources, while databases and journals are consulted to a lesser extent.

- d) 142 respondents (95.9% of cases) acknowledged that the internet helps them stay updated with the latest information. A significant portion of respondents, 135 individuals (91.2% of cases), reported that the Internet provides access to resources for online learning. One hundred twenty-six respondents (85.1% of cases) expressed that the Internet facilitates easy access to high-quality education. Most respondents, 140 individuals (94.6% of cases), recognized the Internet's role in disseminating information. One hundred thirty-two respondents (89.1% of cases) stated that the Internet enhances academic output. Similarly, 140 respondents (94.5% of cases) highlighted the internet's provision of visual techniques to aid in understanding complicated subjects. Overall, respondents overwhelmingly agreed on the positive impact of the internet on academics, including staying updated, accessing learning resources, facilitating education, disseminating information, enhancing academic output, and aiding comprehension through visual techniques.
- e) 57 respondents (38.5% of cases) reported facing challenges due to inadequate technical knowledge. Thirty-two respondents (21.7% of cases) cited limited internet access as a constraint. Sixty-four respondents (43.2% of cases) highlighted issues with the limited availability of internet resources. A significant majority of respondents, 97 individuals (65.5% of cases), expressed concerns regarding privacy and safety while using the Internet. Overall, the data indicates that concerns about privacy and safety are the most prevalent constraints faced by individuals using the internet, followed by restricted availability of internet resources, insufficient technical expertise, and inadequate internet access.

## **8. Suggestions**

The following suggestions are made based on the respondents' findings and opinions.

- a) The institution has numerous databases covering various courses, but students are still unaware of these resources. As a result, library administrators should spread the word about these databases and encourage users to use them. The library must raise awareness among students through awareness-raising events.
- b) Students use databases and journals less frequently than on internet websites, social media platforms, and YouTube channels. Because we occasionally encounter false material on various social media platforms, university staff must develop awareness campaigns.

## **9. Conclusion**

In today's digital age, digital literacy has become essential for individuals of all ages, particularly students, to excel academically and navigate the vast array of electronic information sources. Proficiency in digital skills is fundamental for enhanced learning and innovative thinking, with initiatives like the National Digital Literacy Mission (NDLM) in India aiming to ensure everyone is equipped with these skills.

This study focuses on assessing the digital proficiency of postgraduate students at Andhra University, highlighting the pivotal role of universities and libraries in enhancing students' digital competencies through

---

various information search methods. In conclusion, this study sheds light on the digital literacy proficiency and internet usage patterns among postgraduate students, revealing a high level of familiarity with digital concepts.

While respondents demonstrated reliance on online platforms for information access, challenges such as inadequate technical knowledge and limited internet access underscore the need for targeted interventions to address digital literacy gaps. Overall, this research provides valuable insights into the digital landscape among postgraduate students, emphasizing the importance of digital literacy and internet proficiency in today's information-driven world.

## 10. References

1. Warlick, D. (2005). *Raw Materials for the Mind: A Teacher's Guide to Digital Literacy* Fourth edition, Raleigh, NC: The Landmark Project.
2. Majid, S., & Familievna Abazova, A. (1999). Computer literacy and use of electronic information sources by academics: A case study of International Islamic University Malaysia. *Asian Libraries*, 8(4), 100–111. <https://doi.org/10.1108/10176749910275867>.
3. Lee, S.-H. (2014). Digital Literacy Education for the Development of Digital Literacy: *International Journal of Digital Literacy and Digital Competence*, 5(3), 29–43. <https://doi.org/10.4018/ijldc.2014070103>.
4. South-West University "Neofit Rilski" Blagoevgrad, & Shopova, T. (2014). DIGITAL LITERACY OF STUDENTS AND ITS IMPROVEMENT AT THE UNIVERSITY. *Journal on Efficiency and Responsibility in Education and Science*, 7(2), 26–32. <https://doi.org/10.7160/eriesj.2014.070201>.
5. Boro, B., Laltlanzova, R., & Chanchinmawia, F. (2024). Examining Digital Literacy Skills Among Gen Z Students of Mizoram University. *DESIDOC Journal of Library & Information Technology*, 44(1), 32–36. <https://doi.org/10.14429/djlit.44.1.19291>.
6. Krishnamurthy, C. & Shettappanavar, L. (2019). Digital literacy among Female Postgraduate students of Karnatak University, Dharwad, Karnataka, India: A study.
7. Ukwoma, S. C., Iwundu, N. E., & Iwundu, I. E. (2016). Digital literacy skills possessed by students of UNN, implications for effective learning and performance: A study of the MTN Universities Connect Library. *New Library World*, 117(11/12), 702–720. <https://doi.org/10.1108/NLW-08-2016-0061>.
8. Shabana Tabusum. S.Z et al., 2014 Digital Literacy Awareness among Arts and Science College Students in Tiruvallur District: A Study. *International Journal of Managerial Studies and Research (IJMSR)* Volume 2, Issue 4, April 2014, PP 61-67.



9. Kavita Biradar & Jayarama Naik., 2017 Digital Literacy Skills and Competencies among the Research Scholars and PG Students of Deemed University Libraries, Bangalore: A Study. *Journal of Advances in Library and Information Science*.
10. Lilian, A. (2022). Motivational beliefs, an important contrivance in elevating digital literacy among university students. *Heliyon*, 8(12), e11913. <https://doi.org/10.1016/j.heliyon.2022.e11913>
11. Phuapan, P., Viriyavejakul, C., & Pimdee, P. (2016). An Analysis of Digital Literacy Skills among Thai University Seniors. *International Journal of Emerging Technologies in Learning (IJET)*, 11(03), 24. <https://doi.org/10.3991/ijet.v11i03.5301>.
12. Shariman, T. P. N. T., Razak, N. A., & Noor, N. F. Mohd. (2012). Digital Literacy Competence for Academic Needs: An Analysis of Malaysian Students in Three Universities. *Procedia - Social and Behavioral Sciences*, 69, 1489–1496. <https://doi.org/10.1016/j.sbspro.2012.12.090>.

#### **About Authors**

**Hema Sundara Rao M**, Research Scholar (UGC-JRF), Dept. of Lib. & Info. Sci., Andhra University, Visakhapatnam, Andhra Pradesh  
Email: [hemasundarmandala@gmail.com](mailto:hemasundarmandala@gmail.com)  
ORCID: <https://orcid.org/0009-0009-0726-7473>

**Prof. G Siva Prasad**, Professor, BOS Chairman, Dept. of Lib. & Info. Sci., Andhra University, Visakhapatnam, Andhra Pradesh  
Email: [gsprasad1967@gmail.com](mailto:gsprasad1967@gmail.com)  
ORCID: <https://orcid.org/0000-0001-9608-9852>

**Sharath Sundar M**, UGC Librarian & Research Scholar, Malabar Christian College, Kozhikode & Panjab University, Chandigarh  
Email: [sarath.m07@gmail.com](mailto:sarath.m07@gmail.com)  
ORCID: <https://orcid.org/0000-0002-5105-6878>

**Himangshu Biswas**, Library Trainee, IIM Bodh Gaya, Bihar  
Email: [himangshuu.org@gmail.com](mailto:himangshuu.org@gmail.com)  
ORCID: <https://orcid.org/0009-0003-2176-996X>