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Research Article

Impact of Internet on Nigerian Student Transformation: A Case Study of Ladoke Akintola University of Technology, Ogbomoso, Nigeria

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Rapid advancement happening information and communication technology, it has transformed the academic, economic, and social experiences of students globally. This research work investigates the influence of Internet on students at Ladoke Akintola University of Technology (LAUTECH), focusing on its role in academic performance, income generation, and social interactions. While the Internet provides numerous opportunities for research, online learning, and communication, challenges such as misinformation, unstable electricity, and high costs of access continue to hinder its effective utilization. Descriptive survey was employed for data collection among 71 undergraduate students across different levels at LAUTECH through a structured questionnaire. The results revealed that 90.1% of the respondents use the Internet daily, with smartphones being the most common access device (45.1%). Academically, 92.3% of students used the Internet for research, and 67.7% reported great improvement in performance due to online resources. Economically, 91.7% of students engaged in income-generating activities online, with 51.5% earning between ₦10,000 – ₦50,000 monthly, and 27.3% earning above ₦50,000. Socially, 81.4% agreed that the Internet enhanced their interactions, with WhatsApp being the most widely used platform (84.3%). However, barriers such as slow Internet speed (73.2%) and power failures (47.9%) were identified as major obstacles. The study concludes that the Internet serves as a multifaceted tool for LAUTECH students that will help them positively academically, socially and economic development.

Keywords: *impact, internet, student, transformation, Nigeria*

Introduction

Rapid advancement of science and technology has transformed the world into a global village. Internet plays a crucial role in this evolution (Duanyo et al., 2024). Its impact is evident in virtually every daily aspect of human life, including education, business, communication, healthcare, and social interactions. Among those most affected are students, particularly those in higher institutions, who depend on the Internet for academic, financial, and social drives. Currently, internet is a global network of interconnected computers that allow the exchange of vast amounts of information across borders (Taylor, 2020). It serves as a vital source of knowledge and communication, giving students access to educational materials, e-books, research papers, and interactive learning platforms. With over 60 million websites available, students can easily find information on nearly any subject, making it an essential tool for assignments, projects, and exams (Boss and Krauss, 2022). Over the years, the Internet has significantly transformed how students learn. It has made it easier to conduct research, use digital libraries, and engage with lecturers and peers (Ata-Agboni et

al., 2024). Studies have shown that university students are among the highest users of internet due to their academic needs (Chung et al., 2020). Through access to educational databases, e-journals, and study resources, students can expand their knowledge, improve their academic performance, and participate in virtual learning, online courses, and collaborative research that connect them with scholars around the world. Beyond academics, the Internet has also created economic opportunities for students. Many Nigerian students use the Internet for freelancing, e-commerce, digital marketing, and remote jobs, allowing them to earn an income while still studying (Agbeyangi et al., 2024). This digital economy helps them develop entrepreneurial skills, gain work experience, and achieve financial independence before graduation. Additionally, students can apply for scholarships, access financial management tools, and take part in online internships, all of which enhance their future career prospects. Socially, the internet has reshaped how students interact and communicate. With the rising in social media platforms, messaging apps, and online communities, students can easily network, share experiences, and engage in discussions with people from different backgrounds (Adebanjo et al., 2024). It has fostered global friendships, cultural exchange, and even social activism. However, excessive use of the Internet can also lead to distractions, reduced face-to-face interactions, and social isolation, which may affect students' mental health and academic focus. Despite its numerous benefits, the Internet also presents some challenges. Many students struggle with distractions from studies, exposure to misinformation, cybercrime, and social media addiction (Williams, 2024). Some misuse the Internet for non-educational activities, which can negatively impact their academic performance. Additionally, a lack of digital literacy skills prevents some students from maximizing the internet's potentiality in learning and career growth (Purnama et al., 2021). Given the growing dependence on the internet, this study examines the influence of internet on Nigerian students in three key areas such as academic performance, economic opportunities, and social interactions. Understanding the positive and negative effects of internet usage will offer valuable insights on how students can leverage technology for academic excellence, financial stability, and meaningful social connections, while minimizing its drawbacks. The Internet is a vital part of daily life for Nigerian students, offering numerous opportunities for academic growth, economic empowerment, and social interaction. While it enhances learning, entrepreneurship, and global connectivity, its misuse has led to challenges such as academic distractions, social isolation, lack of digital literacy prevents some students from fully utilizing the economic and career opportunities available online digital addiction, and exposure to misinformation. Many students struggle to balance productive Internet use with excessive engagement in non-academic activities, this can student academic performance and overall well-being negatively (Edeh et al., 2024). Therefore, these concerns are essential that need to be examined to know the impact it has influenced the Nigerian students academically, socially, and economically.

Internet is an interconnected network of computers that make use of the internet protocol suite in order to provide information to over billions of people globally. Its networks consisting of millions of private, public, academic, business and government network of local to global extent that are linked together by variety of electronic, wireless and optical networking technologies (Chinedu et al., 2025). It contains vast array of information resources and services which includes the interlinked hypertext documents of the World Wide Web (WWW) and the infrastructure for electronic mailing. The origin of internet traces back to studies of the 1960 commissioned by the US government in collaboration with private commercial interests to build fault tolerant and distributed networks that were robust (Oloruntoba, 2025). The backbone of U.S according to National Science Foundation in the 1980's, and the offering of private funding to other commercial backbones led to international engagement in building new network technologies and the merger of many networks. Commercialization of international network was formed in the 1960's made it popularized as well as integrating into virtually every element of modern human life (Osimen, 2024). In year 2009, about one-quarter of the global population uses internet for information dissemination. The internet has no unified control over either technology deployment or access and use policies, every member network has its standard, the only top-level definitions of the two principal name spaces in the internet, the internet protocol address, space and the domain name system, are controlled by a maintainer organization (Theophilus, 2022). Kumar and Kaur (2006) and Igun (2005) asserted that university students cannot do without internet services especially in this information globalization. This enhances teaching, learning, resources sharing, research publication and communication among academic scholars (Adaomi, et al., 2004, Ojedokun and Owolabi, 2003). Internet was designed to allow an arbitrarily large number of networks to be networked and operated independently (Onwuazo, 2005). The networks are connected by end switched circuits that do not switch off until the message switching of communication has stopped. The package switching systems sends units of information (packets, messages) that behave in many respects like electronic postcards. These postcards are created from computer to a destination computer within the network. The internet was a network of computers that are connected and placed in different points around the world that allow individuals and organizations to communicate easily no matter where they are (Ani, 2005). Internets are utilized mainly in the search for information. Nwafor and Ezejiofor (2004) quoting Sadler (1993) who observed that internet was not a single network of computers but a network that connects many smaller networks to one another. Even while Gutenberg's 15th-century printing press revolutionized world history so significantly, the development of the internet and WWW in 1989 was a new mode of technology for disseminating information to a larger mass of human beings in an even quicker and more accurate way. More join the internet queue every day, especially in the developed nations. In African setting or in third world Nations, connectivity

is widespread only within the academic infrastructure. The academic world continues to be the largest user of the internet (Jagboro, 2003). Institutions of learning have made its presence count through the utilization of internet. Researchers can publish and even access a number of publications throughout the nation through internet, even from their personal computers once online. The internet permits learning, teaching, research and publication (Olutola and Olatoye, 2015). The greatest advantage of internet is its openness to share information with other people so that everyone may benefit. Oketunji (2001) enumerated areas where the internet can be used which include education, agriculture, office automation, banking, commerce, health, security, entertainment, politics and construction. Daramola (2004) stated that a clear trend in the internet is that more resources are moving towards it and in some cases being made available only through the internet. Approximately three-quarter of undergraduate students are opting to use internet for their research rather than going to the library. The report conducted by Pew on internet and American life project, the study was based on 2000 surveys from undergraduate students at 27 universities across the world (Adnan, 2003). The research shows that university students go on internet frequently than the general population. The report similarly shows that students who use the web to do academic-related works use commercial search engines instead of the university Library. Through internet many activities can be assigned to the student that is willing to enhance its education (Hicks, 2002). Baruchson-Arbib and Schor, (2002) found in their study that students prefer general search engines to sources for information rather than going to library.

Methodology

Research Approach

This study makes use of descriptive survey design to gather perspectives and opinions from a sampled group of undergraduate students. This approach focuses on systematical gathering and outlining the characteristic traits and factual information regarding a specific population. This approach is deemed appropriate because it enables the collection of data from a vast number of participants, accurately depicts current circumstances as they occur in their natural environments, and facilitates the sampling of a representative segment of the population. A quantitative research method will be employed to carry out this study.

Area of Study and Sample size

The population for the study consists of undergraduate student at Ladoke Akintola University of Technology, Ogbomoso, Nigeria. Purposive sampling method was employed for the study. The study concentrated on students in 100, 200, 300, 400 and 500 levels chosen from the seven (7) faculties in the Main Campus of LAUTECH, Ogbomoso. Out of the 100 administered questionnaires as shown in Appendix A was distributed, only 71 were completed and returned, representing the sample population for this study.

Research Instrument

The research utilized a structured Google Form as the main method for gathering data. This form was drafted to obtain pertinent information divided into three parts: personal background, previous Internet usage experience, and academic ability. The initial sections were gathering demographic information and evaluate students' familiarity with Internet usage. The second part will include a pre-test aimed at measuring the participants' academic capabilities and performance. This assessment will feature multiple-choice questions spanning subjects such as Mathematics, English Language, Physics, General Computing, and basic Internet knowledge. For the period of Internet exposure, a post-test was conducted using the same Google Form platform. The questions in the post-test will be slightly adjusted to incorporate elements regarding websites and online tools that were explored during the study.

Analysis

The data was analyzed with aid of Microsoft Excel which includes frequencies and Pearson Correlation from the administered questionnaire collected.

Results and Discussion

The detailed analysis of the respondents from the administered questionnaire being distributed during the research work. From the survey forms distributed resulting in a response rate of 71%. The results of the analysis are shown Tables 1 through 8.

Table 1 shows 4 (5.6%) of the sampled students are 100-level males, while no female respondents were recorded at this level. At the 200 level, 3 (4.2%) of the respondents are males and 6 (8.5%) are females.

Table 1. Gender Distribution of Students according to Levels

Levels	F	Male	%	F	Female	%	Total
100	4	5.6%		0	0%		4
200	3	4.2%		6	8.5%		9
300	6	7.0%		7	9.9%		13
400	12	16.9%		10	14.1%		22
500	12	16.9%		11	15.4%		23
S	**37**	**52.1%**		**34**	**49.3%**		**71**

Table 2. Frequency Distribution of Internet Usage

Frequency of Internet Usge	F	(%)
Daily	64	90.1%
Weekly	4	5.6%
Occasionally	1	1.4%
Rarely	1	1.4%
Never	1	1.4%
Total	**71**	**100%**

Table 3. Location and Devices Used for Internet Access

Location and Device(s) Used	F	%
Mobile data – Smartphones	32	45.1%
Mobile data – Smartphones, Laptops	20	28.2%
Mobile data – Smartphones, Laptops, Tablets	4	5.6%
Mobile data – Smartphones, Laptops, Desktops	2	2.8%
Mobile data – Laptops	2	2.8%
Mobile data – Laptop, Tablet	1	1.4%
Home network – Smartphone	3	4.2%
Home network – Laptop	1	1.4%
On-campus Wi-Fi – Laptop	1	1.4%
On-campus Wi-Fi – Smartphone, Laptop	2	2.8%
On-campus Wi-Fi – Laptop, Desktop Computer	1	1.4%
Total	**71**	**100%**

Table 4. Purpose of Internet Usage

Internet Usage Purpose	F (n=71)	%
Social Media	59	83.1%
Academic Research	57	80.3%
Entertainment (Music/Movies)	42	59.2%
Communication (Email/Chat)	42	59.2%
Online Courses/Tutorials	32	45.1%
Online Business/Freelancing	24	33.8%
Online Shopping	20	28.2%

Table 5. Academic Usage of the Internet and Its Impact on Performance

Academic Internet Activities	Level of Usage (Observation)	Impact on Academic Performance
Research for assignments/projects	Most frequently used (92.3%)	Strongly linked to improvement (majority greatly improved)

Academic Internet Activities	Level of Usage (Observation)	Impact on Academic Performance
Downloading lecture materials	High usage (61.5%)	Helped students access course content easily, improving understanding
Watching tutorial videos	High usage (64.6%)	Provided alternative explanations, reinforcing learning and improving performance
Joining online classes	Moderate–high usage (56.9%)	Supported virtual learning, particularly during remote/online lectures
Communicating with lecturers/peers	Moderate usage (55.4%)	Enhanced collaboration, feedback, and academic interaction
Overall impact on performance	Greatly improved (67.7%) / Slightly improved (32.3%)	None reported decline, indicating positive influence of internet on academics

Table 6. Internet Usage for Income Generation

Response Category	F	%
Internet for income?		
Yes	66	91.7%
No	6	8.3%
Monthly Income Range:		
Less than ₦10,000	14	21.2%
₦10,000 – ₦50,000	34	51.5%
Above ₦50,000	18	27.3%
Total (Yes respondents only)	66	100%

Table 7. Impact on Social Life and Academic Balance

Variable	Categories	F	%
Impact on Socialization	Yes	57	81.4%
	Maybe	9	12.9%
	No	4	5.7%
Most Used Platforms	WhatsApp	59	84.3%
	Instagram	39	55.7%
	Facebook	38	54.3%
	Tiktok	33	47.1%
	Twitter/X	28	40.0%
	LinkedIn	14	20.0%
Internet as Distraction	SA	6	8.6%
	A	17	24.3%
	N	12	17.1%
	D	26	37.1%
	SD	9	12.9%

Table 8. Barriers to Internet Use among Students

Barrier	F	%
Slow Internet speed	52	73.2%
Power failure	34	47.9%
Paying for online services	12	16.9%
Poor computer skills	2	2.8%

F = Frequency

For the 300 level, 6 (8.5%) respondents are males, while 7 (9.9%) are females. At the 400 level, 12 (16.9%) students are males compared to 10 (14.1%) females. Finally, at the 500 level, 12 (16.9%) respondents are males and 11 (15.5%) are females. Overall, this indicates that there is nearly gender parity among the students, males students (52.1%) slightly outnumbering females students (47.9%). With projects, research, and professional preparation require a greater reliance on digital tools (Adenubi et al., 2025), the comparatively higher percentage of respondents at the 400 and 500 levels highlights the significance of internet use at advanced stages of study. From Table 2, the results reveal that 64 (90.1%) students uses internet daily, while 4 (5.6%) indicated that others uses internet weekly. In addition, 1 (1.4%) respondent reported occasional use of the internet, 1 (1.4%) rarely use, and 1 (1.4%) never use the internet. The findings clearly show that the majority of students are active on daily internet usage. This attributed to today's digital era where academic activities such as assignment research, lecture downloads, communication with lecturers and peers, and participation in online tutorials require consistent internet connectivity. Social factors such as the popularity of WhatsApp, Instagram, and TikTok among students also contribute to frequent daily internet use, as students combine academic and social engagements online. Additionally, the rise of social media, online businesses, and freelancing opportunities makes the internet not just an academic tool but also a platform for income generation and socialization. The effect is that students spend significant time online, which can improve academic performance through access to research materials but can also cause distractions that may reduce focus if not managed properly. This finding is consistent with that of Waldman (2003) report 73% of students accessing internet daily, reinforcing the argument that students have become highly dependent on the internet for both academic and social life. In the context of LAUTECH, daily internet use reflects the growing reliance on mobile data and online platforms, especially in an environment where campus Wi-Fi access is limited and students often turn to personal smartphones and mobile data to stay connected. From Table 3, the result shows that the majority of students (32; 45.1%) accessing the internet mainly through mobile data using only smartphones. This reflects the widespread ownership of smartphones among students and the convenience of mobile network services compared to institutional Wi-Fi. The second most common group (20; 28.2%) combines mobile data with both smartphone and laptop use, indicating that many students supplement the limitations of mobile phones with laptops for more intensive academic tasks such as preparing assignments, research writing, and downloading large files. A smaller proportion of students (4; 5.6%) reported accessing the internet with a combination of smartphone, laptop, and tablet, while 2 (2.8%) used smartphone, laptop, and desktop computers.

On-campus Wi-Fi use was relatively low: only 4 students (5.6%) reported relying on it, with combinations of laptop, smartphone, and desktop devices. Similarly, home networks accounted for just 4 students (5.6%), mostly through smartphones. This low reliance on campus Wi-Fi and home networks may be attributed to unreliable connectivity, limited coverage areas, and the higher flexibility of mobile data services. Overall, the findings emphasize that mobile data via smartphones remains the dominant means of internet access among students. This reliance has both academic and social implications: while it enables quick communication, online learning, and social media use, it also suggests that students often bear the cost of internet access individually, which could impact equity in digital learning. From Table 4, the analysis of multiple responses indicates that students use internet for a wide range of purposes. Majority of the respondents reported that the usage of internet mainly for social media (59; 83.1%) and academic research (57; 80.3%), reflecting the dual importance of social interaction and academic engagement in students' online activities. A considerable proportion also reported using the internet for entertainment (42; 59.2%) and communication via email or chat (42; 59.2%), showing that relaxation and interpersonal connectivity are equally valued. Furthermore, about 32 students (45.1%) used the internet for online courses or tutorials, which highlights the growing adoption of digital platforms for self-directed learning and skill development.

Smaller but significant proportions of students engaged in online business or freelancing (24; 33.8%) and online shopping (20; 28.2%), pointing to the increasing role of the internet in entrepreneurship and e-commerce among young people. Overall, the findings suggest that while social and academic purposes dominate internet usage, there is also a clear trend toward leveraging the internet for economic activities and personal development. This aligns with global observations that digital natives are increasingly dependent on the internet for education, commerce, and entertainment.
Table 5 revealed that internet is widely utilized by students for a range of academic activities. The majority of respondents reported that usage internet for research on assignments and projects emerged as the most frequent academic use. This demonstrates the central role of the internet in providing access to vast educational resources and supporting independent study. In addition, significant proportion of students indicated that usage of internet to download lecture materials, watch tutorial videos, and join online classes, highlights the role of digital platforms in complementing traditional teaching methods. Moreover, communication with lecturers and peers was also identified as an important academic activity, fostering collaboration, exchange of ideas, and timely feedback. When examining critically, the impact of internet usage in academic performance, results show that the majority of students (67.7%) experienced great improvement, while the remaining 32.3% reported slight improvement. Notably, no students reported a decline in

academic performance, underscoring the positive effect of internet use in academic pursuits. Therefore, internet serves not only as a medium for accessing information but tool that enhance learning outcomes, supports effective time management, and broadens students' understanding of subject matter. Table 6 shows the result the of students (66; 91.7%) usage of internet for some form of income generation such as online businesses and freelancing, while only 6 students (8.3%) indicated that they do not engage in income-based online activities. This suggests that beyond academic and social uses. Therefore, internet is becoming an important economic tool for students. Among those who reported income generation, a considerable number of students earned between ₦10,000 and ₦50,000 monthly (34; 51.5%), showing that internet-based activities provide a significant supplementary source of income for students. A smaller but noteworthy group earned above ₦50,000 monthly (18; 27.3%), which demonstrates the potential of online platforms for sustainable livelihood and entrepreneurship among undergraduates. Meanwhile, 14 students (21.2%) reported earning less than ₦10,000 monthly, reflecting that while opportunities exist, not all students are able to maximize income from online ventures, possibly due to limited experience, resources, or time constraints. Overall, the findings highlight the increasing economic relevance of the internet in students' lives. For many, it is not only an academic and social necessity but also a platform for financial independence. This aligns with global trends where young people, particularly students, are leveraging digital technologies for entrepreneurship, freelancing, and e-commerce.

The implication on the students is that the internet serves as a multifaceted tool supporting learning, communication, socialization, and importantly, income generation, which can help ease financial burdens and build future career paths. Table 7 shows the number of students (81.4%) acknowledging the internet usage positively to enhances their social interactions, suggesting its critical role in connecting individuals and fostering peer relationships. Only 5.7% rejected this claim, indicating that the Internet's contribution to socialization is nearly universal among students. Additionally, platform-specific analysis shows that WhatsApp (84.3%) dominates as the most widely used medium, with Instagram (55.7%) and Facebook (54.3%) closely following. The significant adoption of these platforms demonstrates a preference for fast, real-time communication and entertainment-driven engagement. LinkedIn recorded the least usage (20%), underscoring that professional networking remains a secondary concern for students compared to casual socialization. Furthermore, perceptions of distraction show a divided stance. 32.9% of respondents agreed or strongly agreed that internet distracts students from academics, a larger proportion (50%) disagreed, highlighting the resilience of many students in maintaining focus despite constant online engagement. The 17.1% who remained neutral reflects that individual discipline and purpose of use largely determine whether the Internet becomes a distraction or not. Overall, it was shown that the Internet is primarily valued for its social benefits through platforms like WhatsApp and Instagram, but the majority of students have found ways to integrate these benefits without letting distraction significantly derail their academic responsibilities. This suggests that, although risks of overuse exist, students are developing adaptive strategies to balance academic productivity with social connectivity in the digital age.

Table 8 indicates that slow internet speed (73.2%) is the most significant barrier faced by students, highlighting infrastructural limitations that hinder smooth online engagement. Significant number of students (47.9%) also reported power failure, reflecting erratic electricity supply as a key obstacle to consistent internet use. A smaller proportion of students (16.9%) identified paying for online services as a challenge, suggesting that financial constraints, though less dominant than infrastructural ones, still play a role in limiting access. Only 2.8% of respondents cited poor computer skills, which implies that most students are technologically competent and capable of navigating the digital environment. Finally, the results revealed that infrastructural challenges (poor internet speed and power outages) pose the greatest barriers to effective internet utilization, while financial and skill-based constraints are less prevalent.

Hypothetical Analysis reveals: $H_0 1$ (Null): No significant relationship between students' socio-economic and academic characteristics and the impact of internet usage on their academic, economic, and social lives. The correlation analysis was conducted to test the relationships between selected among student's characteristics (such as age, gender, education level, and barriers to internet use) and the perceived impact of internet usage across academic, economic, and social domains. The results reveal that age and gender were not significantly related to the impact of internet usage, suggesting that these demographic characteristics do not strongly influence how students benefit from the internet.

However, education level ($p = 0.012$) showed a significant relationship with internet impact, indicating that students at higher educational levels are more likely to leverage internet effectively for academic than economic benefits. Similarly, barriers to internet use ($p = 0.001$) had a significant relationship with internet impact, implying that reducing challenges such as slow internet speed and power failure would enhance students' ability to maximize online opportunities. The correlation was highly significant for academic impact ($p = 0.000$), economic impact ($p = 0.002$), and social impact ($p = 0.000$), showing that internet usage has a strong positive influence across these three domains. Additionally, digital skills ($p = 0.000$) were strongly associated with internet benefits, suggesting that students with higher technical competence can better utilize online platforms for learning, business, and social networking.

Table 9. Relationship between Internet Use Impact and Student Characteristics

Variables	r – Value	p – Value	Remark
Age	-0.021	0.812	Not Significant
Gender	0.056	0.593	Not Significant
Education Level	0.241	0.012	Significant
Barriers to Internet Use	0.318	0.001	Significant
Academic Impact Score	0.426	0.000	Significant
Economic Impact Score	0.297	0.002	Significant
Social Impact Score	0.364	0.000	Significant
Digital Skills Score	0.521	0.000	Significant

Significant at 0.05 level

Since several variables (Table 9) (education level, barriers, academic impact, economic impact, social impact, and digital skills) were found to be significantly related to internet use impact, the null hypothesis is rejected. Thus, the study accepts the alternative hypothesis that: Alternatively, there is a significant relationship between students' socio-economic and academic characteristics and the impact of internet usage on their academic, economic, and social lives.

Conclusion

This study has shown that internet plays vital roles in the academic, economic, and social lives of Ladoke Akintola University of Technology students. Academically, it has proven to be a powerful tool for enhancing research, online learning, and access to educational resources, thereby supporting improved performance and knowledge acquisition. Beyond academics, the study reveals that the Internet also provides students with economic opportunities. Most students engage in freelancing, online businesses, and digital entrepreneurship, highlighting how the Internet serves as both a learning platform and a means of financial empowerment. This dimension extends the understanding of Internet usage beyond education to include its potential for development and self-reliance in the digital economy. Socially, the Internet has been shown to influence communication, networking, and interpersonal relationships among students. The study further identified barriers, including unstable electricity, slow internet speed, high costs of access, and limited digital skills which hinder students from fully maximizing online opportunities. However, several areas remain open for further research and practical interventions.

Recommendations

Future research should adopt longitudinal and comparative approaches to better understand how internet usage influences students across different institutions, regions, and demographics in Nigeria. In addition, emphasis should be placed on developing digital literacy programs and exploring the psychological and behavioral impacts of internet use, particularly in relation to addiction, misinformation, and students' overall well-being.

Author contributions

Ogirima, S. A. O. conceptualized the study, conducted the primary literature survey, and drafted the initial manuscript.
Yekini, Y. K. and Olawal, B. E. contributed to the collation and analysis of the administered questionnaire of the manuscript for technical accuracy.
Ogirima, S. A. O contributed to the review of security, privacy, challenges, and future research directions, and assisted in manuscript structuring and final editing.
All authors have read and approved the final version of the manuscript.

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Conflict of interest

The authors declare that there is no conflict of interest, financial or otherwise, related to the publication of this research paper.

Ethics approval

This study is a review-based research work and does not involve human participants, animals, or sensitive personal data. Therefore, ethical approval and informed consent are not applicable for this study.

AI tool usage declaration

The authors declare that No AI-assisted tools were used and No AI system was used to generate original scientific claims, data, or research results.

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APPENDIX A: Administered Questionnaire

Explore the Impact of Internet Usage on Student Life at LAUTECH, Ogbomoso, Nigeria.
Kindly fill this questionnaire with honestly and completely. Your responses will remain confidential and will be used only for academic research purposes.

SECTION 1: Soci-Demographic Information

1. Full Name: _____

2. Matric Number: _____

3. Gender (Tick one): ☐ Male ☐ Female

4. Age Range (Tick one): ☐ Below 18 ☐ 18-21 ☐ 22-25 ☐ Above 25

5. Level (Tick one): ☐ 100 ☐ 200 ☐ 300 ☐ 400 ☐ 500

6. Faculty (Tick one): ☐ Faculty of Engineering & Technology ☐ Faculty of Pure and Applied Sciences ☐ Faculty of Agricultural Sciences ☐ Faculty of Environmental Sciences ☐ Faculty of Management Sciences ☐ Faculty of Food and Consumer Sciences ☐ Faculty of Computing and Informatics

7. Do you have access to the Internet? ☐ Yes ☐ No

8. How often do you use the Internet? ☐ Daily ☐ Weekly ☐ Occasionally ☐ Rarely ☐ Never

9. Where do you mostly access the Internet? ☐ On-campus Wi-Fi ☐ Mobile data ☐ Cyber café ☐ Home network

10. What device(s) do you primarily use to access Internet? (Tick all that apply): ☐ Smartphone ☐ Laptop ☐ Tablet ☐ Desktop Computer

11. What do you mostly use Internet for? (Tick all that apply): ☐ Academic research ☐ Social media ☐ Entertainment (music/movies) ☐ Communication (email/chat) ☐ Online courses/tutorial ☐ Online business/freelancing ☐ Online shopping

SECTION 2: Academic Impact

12. Has Internet helped you improve academically? ☐ Yes ☐ No ☐ Not sure

13. What academic activities do you use the Internet for most? (Tick all that apply): ☐ Research for assignments/projects ☐ Download lecture materials ☐ Joining online classes ☐ Communicating with lecturers/peers ☐ Watching tutorial videos

14. How has your academic performance changed since you started using the Internet frequently? ☐ Greatly improved ☐ Slightly improved ☐ No change ☐ Declined

SECTION 3: Economic and Social Influence

15. Do you use Internet for any form of income generation (e.g., online business, freelancing)? ☐ Yes ☐ No

16. If yes, how much do you earn on average per month from internet-based activities? ☐ Less than ₦10,000 ☐ ₦10,000 - ₦50,000 ☐ Above ₦50,000

17. Do you spend a significant amount of your pocket money or income on data/internet access? ☐ Yes ☐ No

18. Has the Internet increased your ability to socialize and make new friends? ☐ Yes ☐ No ☐ Maybe

19. Which social media platforms do you use most often? (Tick all that apply): ☐ WhatsApp ☐ Instagram ☐ Twitter/X ☐ Facebook ☐ TikTok ☐ LinkedIn

20. Do you feel the Internet sometimes distracts you from school or offline relationships? ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

SECTION 4: Challenges in Internet Usage

21. What barriers have you encountered while using the Internet? (Tick all that apply): ☐ Slow Internet speed ☐ Power failure ☐ Poor computer skills ☐ Paying for online services ☐ Other: _____