**Assessing the perception of University Students on Mobile Information Literacy**

**Abstract**

|  |
| --- |
| **Aims:** This study aims to evaluate how university students perceive mobile information literacy, focusing on their ability to identify credible mobile information, their use of mobile technology for academic purposes ,their awareness, skills, and attitudes toward using mobile devices for accessing, evaluating, and utilizing information in academic and everyday contexts.**Methodology:** The core data for this study has been collected through a structured questionnaire. Both open and close ended questions are included in the questionnaire. A sample of 110 university students from diverse academic disciplines participated in an online questionnaire assessing their confidence and competence in mobile information literacy. **Results:** The results revealed that most students access mobile information occasionally for academic purposes. A majority reported using mobile devices primarily for social media and communication rather than academic tasks. Additionally, students expressed concerns about mobile security, with a high percentage indicating that they rely on reviews and recommendations to assess mobile apps and websites. The study identified key factors affecting mobile information literacy, such as the use of secure platforms and the ability to recognize and avoid phishing scams and malicious apps. The findings suggest the need for improved mobile literacy education, especially in verifying mobile information and enhancing mobile security awareness.**Conclusion:** University students demonstrate a high level of engagement with mobile devices but lack sufficient proficiency in critical information literacy skills. The study underscores the need for targeted educational interventions to enhance students’ ability to navigate and assess information effectively in a mobile-centric digital landscape. Bridging this gap could empower students to leverage mobile technology more responsibly and efficiently. |

**Keywords:** Mobile information literacy, university students, digital skills, perception, critical evaluation, mobile devices

* 1. **Introduction**

In today’s information society, Information Literacy undoubtedly forms the basis for education. It enables learners to master content and to extend their research, become more self-directed, and assume greater control over their own learning. An information-literate individual is able to determine the extent of the information needed, access the required information effectively and efficiently, evaluate the information and its sources critically, incorporate selected information into their knowledge base, use information effectively to accomplish a specific purpose, understand the economic, legal and social issues surrounding the use of information, and access and use information both ethically and legally. (Lannuzzi, 2000; Pinto et al., 2019)

Mobile Information Literacy is broadly defined as the ability to access, evaluate, and use information effectively using mobile devices (Billingsley & Kern, 2014). This concept extends beyond simple navigation of mobile apps and websites to include critical thinking skills, the ability to assess the credibility of information, and the responsible use of mobile technologies for academic and personal purposes. As universities continue to integrate mobile learning platforms and encourage students to use mobile devices for academic purposes, assessing the perceptions of students regarding their own mobile information literacy becomes essential.

University students are often considered digital natives, proficient in using mobile devices for communication, social media, and entertainment (Prensky, 2001). However, their ability to use these technologies effectively for academic purposes may not always align with their general comfort with digital devices. While students are adept at searching for information on mobile platforms, the extent to which they can critically engage with and evaluate the information they encounter remains an area of concern (Manca & Ranieri, 2016). Understanding students’ perceptions of their mobile information literacy can provide insights into how well they are prepared to leverage mobile devices for academic success and whether additional interventions are necessary to enhance their digital literacy skills.

This study aims to explore university students' perceptions of their mobile information literacy, focusing on their confidence, challenges, and experiences when using mobile technologies for academic purposes. By examining these perceptions, this research will contribute to the ongoing discourse on how educational institutions can support the development of mobile information literacy in the context of a rapidly evolving digital landscape.

**1.1 Statement of the problem**

Without identifying the gaps, it is not possible to find out actual solution of the problem. So the first and foremost task of a researcher is to find out the problem of the desired field which is already selected for research. Mobile Information literacy is play and important role to proper use of phones. The most effective way to reinforce Mobile information literacy is through constant practice and practical application. Therefore, In our country most of the students are not conscious about Mobile Information literacy. They can not use mobile information properly. The main problems are thay cannot proper use mobile information for academic purposes, lack of search capability, face lack of security, lack of understanding the term, lack of use mobile technology for effective purpose.

* 1. **Research Question**
* How do university students perceive and use mobile information for academic purposes?
* What are the challenges students face in ensuring mobile security and protecting personal data?
* What is the level of mobile information literacy among university students, and how does it impact their academic performance?
* What are the common practices and behaviors associated with mobile virus infections, and how do students protect their devices from such risks?

**1.3 Scope and Limitation**

Mobile information Literacy is a vast subject. It’s not possible for this study to cover all the site of Mobile Information Literacy. People use their mobile phone in multipurpose. Though it’s not possible in this study to cover all the goal. That’s why in this study, select University student Mobile Information Literacy. Mobile Information Literacy - a combination of digital, internet, and information literacies for smartphone-first and smartphone-centric populations - fills a critical gap between access alone and realization of the benefits mobile technologies and applications can have.

The limitation of this study is:

1. This study has been done only on Rajshahi University in Bangladesh.
2. Only 110 of students from different department are investigated in this study.
3. Only questionnaire method is implemented for collecting data.

**Literature Review**

**3.1 The concept of Mobile Information Literacy**

Information literacy, especially the ability to select and evaluate information, is especially important in face of the growing trend of mobile information and communication technologies usage. Mobile internet has been accessed by more than 4.66 billion users in March 2022 (*Statista - The Statistics Portal for Market Data, Market Research and Market Studies*, n.d.).

The intersection of mobile technologies and information literacy has garnered increasing attention in academic research over the past decade. With the rise of mobile devices and applications, students’ ability to effectively engage with and assess information on mobile platforms has become an essential component of modern educational environments (Hassell & Downing, 2016). In this context, understanding university students' perceptions of their mobile information literacy (MIL) is pivotal, as it determines how effectively these technologies are used for academic purposes. This literature review explores existing research on mobile information literacy, focusing on university students’ perceptions, challenges, and competencies.

**3.1.1 Definition Mobile Information Literacy**

**According to IGI Global** “A system of meaning-making that uses mobile technologies to help learners achieve their goals and communicate with their affinity groups.”

**According** to [**Dudeney, Hockly and Pegrum (2014)**](https://www.digilanguages.ie/bibliography/)**define** mobile information literacy as “the ability to navigate, interpret information from, contribute information to, and communicate through the mobile internet, including an ability to orient oneself in the space of the internet of things (where information from real-world objects is integrated into the net) and augmented reality (where web-based information is overlaid on the real world).

**3.2 Concept of Mobile, Internet and Mobile Literacy**

A mobile phone, cellular phone, cell phone, cellphone, handphone, or hand phone, sometimes shortened to simply mobile, cell, or just phone, is a portable [telephone](https://en.wikipedia.org/wiki/Telephone) that can make and receive [calls](https://en.wikipedia.org/wiki/Telephone_call) over a [radio frequency](https://en.wikipedia.org/wiki/Radio_frequency) link while the user is moving within a telephone service area. (“Mobile Phone,” 2025)

Mobile phones are used for a variety of purposes, such as keeping in touch with family members, for conducting business, and in order to have access to a telephone in the event of an emergency. Mobile information literacy is the use of mobile technologies in a effective ways. Use of internet, website and app via mobile phone also include in this era.

**3.3 Objectives of using Mobile Phone**

There are many uses of mobile phones. Here are some uses of mobile phone such as Communication, Small and Convenient, Photos and Video, Texting, Fashion and Self-Expression, Entertainment, Notes and Reminders, Video in Real Time, Calendars and Organization, Maps, Navigation, and Travel, Online Banking and Finance, Address Book and Contacts, Remote Working, Emergencies, Watches and Alarm Clocks, Calculator, Flashlight/Torch, News, Sports, and Live Events, Crime Prevention and Evidence Gathering, Learning and Research.(Goodman, 2023)

**3.4 Mobile Information Literacy (MIL) and Its Significance**

Mobile Information Literacy refers to the ability to find, evaluate, and use information through mobile devices. It is an extension of traditional information literacy concepts, adapted for the mobile environment, and includes skills such as information retrieval, critical evaluation, and effective communication via mobile technologies (Walton, 2013). According to Tonta (2014), mobile information literacy is not only about using mobile devices to access information but also about managing the information effectively through mobile interfaces. This new literacy is crucial, as it enables students to navigate vast amounts of data, assess the credibility of sources, and engage critically with information across multiple platforms, especially in academic contexts.

A key factor influencing students’ MIL is their familiarity and comfort with mobile technologies. (Prensky 2001) introduced the concept of "digital natives," suggesting that university students are inherently proficient with digital tools, including mobile devices. However, recent studies argue that while students may be adept at using mobile devices for personal and social purposes, their academic information literacy skills, particularly in evaluating and synthesizing information, may not align with this ease of use (Manca & Ranieri, 2016). Mobile technologies, despite their ubiquity, are often underutilized in academic settings for purposes such as research and critical thinking (Sundar & Limperos, 2013).

**3.5 Mobile Technology in Higher Education**

The proliferation of mobile devices has transformed educational landscapes. Studies like those by (Crompton 2013) demonstrate that mobile learning (m-learning) enhances flexibility, enabling students to access resources anytime, anywhere. Research by (Dahlstrom et al. 2015) from the ECAR Study of Undergraduate Students and Technology found that over 90% of university students own smartphones, with many using them for coursework, such as accessing learning management systems (e.g., Blackboard) or reading e-textbooks. However, while mobile adoption is widespread, its effectiveness depends on students’ ability to harness these tools for academic purposes, pointing to the relevance of MIL.

**3.7 Students' Perceptions of Mobile Information Literacy**

Understanding how students perceive their own mobile information literacy is crucial for identifying gaps in their abilities and addressing potential deficiencies. Research indicates a discrepancy between students' perceptions of their skills and their actual competencies. For instance, in a study conducted by Billingsley and Kern (2014), it was found that while students reported high levels of confidence in using mobile devices, they struggled with tasks such as evaluating the credibility of mobile-sourced information. Similarly, (Manca and Ranieri 2016) found that students often lacked awareness of the complexities involved in using mobile technologies for academic tasks, such as critical evaluation of information found via search engines or social media apps.

Furthermore, students often exhibit a preference for using mobile devices for quick, informal research rather than deep academic inquiry (Tonta, 2014). This tendency may contribute to a perception that mobile technologies are best suited for personal rather than academic use. Research by Walton (2013) suggests that students may not view mobile devices as legitimate research tools and instead prefer traditional desktop computers or library databases for academic work. This perception may be influenced by institutional factors, including the availability of resources, training, and support for using mobile devices for academic purposes.

**2. Methods of the Study**

This study applied a descriptive quantitative method to collect the data. The survey was conducted among the Student of University of Rajshahi in Bangladesh.

**2.1 Population and Sample:**

All the Student of University of Rajshahi in Bangladesh has been regarded as population for this study. From the population only a few departments of the university selected as sample in this study purposively. The sample departments are:

1. Information Science and Library Management (Student 40)
2. Department of Bangla (Student 15)
3. Department of Political Science (Student 10)
4. Department of History and Culture (Student 12)
5. Department of Social Science (Student 8)
6. [Department of Fisheries (Student 7)](http://dept.ru.ac.bd/fish/)
7. Department of Veterinary and Animal sciences (Student 3)
8. Department of Mathematics (Student 15)

**2.2 Data Collection:**

**Surveys:** A structured questionnaire is distributed to Student of University of Rajshahi to collect quantitative data.

Initially, the researcher prepared a structured questionnaire, which was distributed among 110 students from universities in the Rajshahi. Most of the questions were designed in a multiple-choice format, and respondents were instructed to select the most appropriate answer.

**2.3 Data Analysis:**

After collecting data, all questionnaires are carefully checked. The data has been analyzed by using SPSS and presented theoretically and graphically.

**Ethical Considerations:**

In conducting this research study, significant emphasis has been placed on ensuring that the entire

research process adheres to the highest ethical standards and remains free from bias. To achieve

this, the researcher has stuck to a number of different ethical considerations that guarantee that none

of the ethical principles are violated during the course of the research study and data collection.

Following are some of these ethical considerations made in this research study:

• All the participants will be told that the participation is entirely in a voluntary manner.

• The researcher personally conducted research and wrote their own research.

• All sources used are properly attributed (cited), where used, in the text to avoid plagiarism.

• The sources cited were personally reviewed, without relying on another researcher’s interpretation of the cited source.

• All data and associated findings are real and were not fabricated.

**4. Result:**

**Figure-1: Gender of the Respondents**

**Source Questionnaire**

Figure-1, Indicates that there are 55% male and 45% female from the total respondents.

**Figure 2: Types of Mobile Devices that respondent use**

Figure 2, represents the types of mobile device that respondents use. Here 88% use Small Mobile Device (iPhone, android, iPad Touch). On the other hand 12% respondents use Mobile tablet.

**Figure-3: Use of Mobile technology in academic purpose**

**Figure 3** illustrates that the majority of students do not use mobile technology for academic purposes.

**Figure-4: Source of Searching information**

The above figure shows that Maximum people use Google (76%) to search Information.

**Figure-5: Use of Mobile Phone in different work**

Figure 5 describes the use of mobile phone in different work. Here phone call (13.10%, text 11.60%, social networking 13.40%, game 5.60%, listening music 10.50%, taking photo/video 12.00%, Internet browsing 11.00%, Information searching 12.60%, reading article/books 10.20%.

**Figure-6: Duration of use of Mobile Phone**

Figure 6 illustrates the amount of time mobile users spend on their mobile phones. It shows that 51% of students use their mobile phones for more than 4 hours, while only 2% of students use their phones for less than 2 hours.

**Table-1: About Mobile Information Literacy**

|  |  |  |
| --- | --- | --- |
| **Statement** | **Mean** | **SD** |
| Knowledge of searching, saving, sharing and applying information through mobile devices | 3.9908 | .91788 |
| Knowledge of using mobile apps properly | 3.6789 | .90145 |
| Know about mobile security | 3.5963 | .86195 |
| Knowledge of using internet through mobile | 3.8624 | .88682 |
| Knowledge of communication through mobile | 3.8991 | .83826 |

**Table 1** shows that the majority of respondents (M = 3.9908, SD = 0.91788) agreed that mobile information literacy is primarily influenced by extension services. However, a portion of the respondents (M = 3.5963, SD = 0.83826) disagreed, indicating that they do not believe extension services have a significant impact on mobile information literacy.

**Table-2: Mobile Information Literacy**

|  |  |  |
| --- | --- | --- |
| **Subjects** | **Mean** | **SD** |
| (a) In higher education | 3.6147 | 1.02658 |
| (b) To encourage lifelong learning  | 3.6055 | .91306 |
| (c) to facilitates learning process | 3.9725 | .85482 |
| (d) to identify students information needs | 4.0000 | .88192 |
| (e) to Knows and manages relevant and quality sources of information | 3.9083 | .86647 |

Table 2 shows that most of the respondents (M=4.0000, SD =0.88192) agreed that they use mobile information literacy to identify students information needs), Some of the respondent (Mean=3.6055, SD. 0.91306) agreed that they used mobile information literacy to encourage lifelong learning.

**Table-3: Use of Mobile Phone in Learning Process**

|  |  |  |
| --- | --- | --- |
| **Subjects** | **Mean** | **SD** |
| I usually take notes or search information on mobile devices | 3.9817 | .84964 |
| I believe that I am able to access all the information using mobile phone.  | 3.2110 | 1.03703 |
| I join online class via mobile device | 4.0642 | .96490 |
| Mobile devices have contributed me being more distracted in class | 2.7890 | 1.12277 |

Table 3, represents that most of the respondents (M = 4.0642, SD = 1.12277) are agreed in the use of Mobile Phone in Learning Process. Some of the respondents (M = 2.7890, SD = .84964) , are agreed that people are not being improved.

**Table-4: Purpose of using mobile technology**

|  |  |  |
| --- | --- | --- |
| **Subjects** | **Mean** | **SD** |
| (a) It help me to facilitate my learning work | 3.9817 | .87116 |
| (b) As a way of adapting to innovations in learning | 3.9358 | .80824 |
| (c) For my learning tasks (note preparation, making assignments, preparing examination, etc.) | 3.9174 | .90399 |
| (d) To interact with my teachers for possible academic information  | 4.0000 | .89235 |

Table 4, represents that most of the respondents (M = 4.0000, SD = 0.89235) are agreed to interact with teachers for possible academic information. Some of the respondents (M = 3.9174, SD = 0.90399), agreed for learning tasks (note preparation, making assignments, preparing examination, etc.)

**Table-5: Phone Data Backup Process**

|  |  |
| --- | --- |
| **Backup Method** | **Percent** |
| Yes, I have automatic data backup | 45.0 % |
| Yes, I do manual data backup | 24.8% |
| I don't give backup | 12.8% |
| I don't know about backups | 17.4% |
| Total | 100.0% |

Table 5 show that 45% of the students use automatic data backup and 24.8% of the students are manually backup data.

**Table-6: Respondents Skill on Mobile Technology**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skills** | **None** | **Basic** | **Intermediate** | **Advance** |
| Email | 1.8 | 37.6 | 39.4 | 21.1 |
| Internet | 0.9 | 22.9 | 55.0 | 21.1 |
| Presentation app |  | 55.0 | 34.9 | 10.1 |
| Search Engine | 0.9 | 27.5 | 48.6 | 22.9 |
| Downloading and installing apps |  | 18.3 | 38.5 | 43.1 |
| Social networking |  | 16.5 | 27.5 | 56.0 |
| Online Chat |  | 14.7 | 32.1 | 53.2 |
| Internet Security |  | 33.0 | 46.8 | 20.2 |
| Video conferencing |  | 22.0 | 51.4 | 26.6 |
| Mobile games |  | 45.9 | 36.7 | 17.4 |

**Table 6** presents the distribution of respondents' skills in various mobile technologies. The table categorizes skills as **None**, **Basic**, **Intermediate**, and **Advanced.**

* Internet skills are the most developed among respondents, with 55.0% at an intermediate level, and 21.1% at an advanced level.
* Social networking and online chat skills are also well-developed, with 56.0% of respondents reporting an intermediate level in social networking and 53.2% in online chat.
* Email usage shows a more evenly distributed skill set, with 39.4% of respondents at the intermediate level and 21.1% at the advanced level.

**Table-7: Use of Mobile Phone to read Article/E-Books**

|  |  |
| --- | --- |
| **Response** | **Percent** |
| Yes, regularly | 12.8 |
| Yes, occasionally | 82.6 |
| No, never | 4.6 |
| Total | 100.0 |

**Table 7** presents the distribution of respondents' use of mobile phones to read articles or e-books. The majority of respondents (82.6%) use their mobile phones occasionally to read articles or e-books, while a smaller proportion (12.8%) reports using their phones regularly for this purpose. Only 4.6% of respondents stated that they never use their mobile phones to read articles or e-books. This suggests that mobile phones are widely used for reading, though most students engage with this activity only occasionally.

**Table-8: Criteria for identify the quality mobile website or app**

|  |  |
| --- | --- |
| **Statement** | **Percent** |
| On the advice of friends | 19.9% |
| Read about it | 29.3% |
| Through reviews | 43.6% |
| I don't know | 7.2% |
| Total | 100.0% |

**Table 8** presents the criteria used by respondents to identify the quality of a mobile website or app. The most common method for identifying the quality of a mobile website or app is by reading **reviews** (43.6%), followed by reading about it (29.3%). **Advice from friends** is also a factor for 19.9% of respondents, while a smaller proportion (7.2%) admitted that they do not know how to assess the quality of a mobile site or app. This indicates that reviews play a central role in how students evaluate the quality of digital tools.

**Table-9: Identifying process of Mobile Information**

|  |  |
| --- | --- |
| **Process** | **Percent** |
| compare it with Google data | 26.8% |
| Like all other apps and websites | 10.6% |
| match it with reliable information | 62.7% |
| Total | 100.0% |

Table 9 shows that The majority of respondents (62.7%) prefer to **match mobile information with reliable sources** to verify its accuracy. A smaller proportion (26.8%) compares information with **Google data,** and only 10.6% rely on treating it as they would with other apps and websites. This suggests that students prioritize checking the reliability of information before accepting it as valid.

**Table-10: Ways to get infected with mobile virus**

|  |  |  |
| --- | --- | --- |
| **Ways** | Mean | SD |
| a. Downloading malicious mobile apps | 3.9252 | 0.91838 |
| b. Opening or downloading links from suspicious emails, texts, or websites | 4.1009 | 0.76914 |
| c. Receiving text message or voicemail phishing scams | 3.7248 | 0.88057 |
| d. Using a mobile device with operating system vulnerabilities, for example, software that isn’t updated | 3.6422 | 0.84462 |
| e. Utilizing non-secure Wi-Fi or URLs | 3.7798 | 0.87515 |

Table 10 highlights the mean and standard deviation for various ways respondents believe they can get infected with a mobile virus. The most common risk is opening or downloading links from suspicious emails, texts, or websites (M = 4.1009, SD = 0.76914). Downloading malicious apps (M = 3.9252, SD = 0.91838) is also a significant concern. Other risks include phishing scams via text or voicemail (M = 3.7248, SD = 0.88057), using devices with outdated software (M = 3.6422, SD = 0.84462), and using non-secure Wi-Fi or URLs (M = 3.7798, SD = 0.87515). These findings suggest students are most concerned about suspicious links and malicious apps as primary infection sources.

**Table-11: Ways to understand a virus infected phone**

|  |  |  |
| --- | --- | --- |
| **Ways** | **Mean** | **SD** |
| a. A sudden increase in mobile data usage | 3.3119 | .87873 |
| b. Device battery is draining at a faster pace than usual | 3.4771 | .93884 |
| c. Overall reduced performance in your cell phone | 3.8440 | .91464 |
| d. Unexplained apps may be downloaded onto your device | 3.7431 | .96613 |
| e. Unexplained charges to a phone bill | 3.5046 | .91918 |

Table 11 presents the mean and standard deviation for various ways in which respondents identify if their phone is infected with a virus. The results suggest that reduced performance in the phone (M = 3.8440, SD = 0.91464) is the most commonly recognized sign of a virus infection. Other indicators include unexplained apps being downloaded onto the device (M = 3.7431, SD = 0.96613) and battery drain (M = 3.4771, SD = 0.93884). However, sudden increases in mobile data usage (M = 3.3119, SD = 0.87873) and unexplained charges on the phone bill (M = 3.5046, SD = 0.91918) are relatively less frequently recognized as indicators of a virus infection.

**Table-12: Steps taken to remove the virus from the phone**

|  |  |  |
| --- | --- | --- |
| **Subjects** | **Mean** | **SD** |
| a. Shut Down and Restart Phone | 3.6147 | .98044 |
| b. Activate Safe Mode | 3.4862 | .93902 |
| c. Clear Browser History | 3.6055 | .93312 |
| d. Erase All Data | 3.1284 | .98226 |
| e. Install Antivirus software | 3.5229 | .90877 |
| f. Uninstall Suspicious Apps | 3.9541 | .84311 |

**Table 12** presents the mean and standard deviation for various steps taken by respondents to remove a virus from their phone. The results indicate that the most commonly reported action taken by respondents to remove viruses from their phones is uninstalling suspicious apps (M = 3.9541, SD = 0.84311), suggesting that this is the primary method used to address virus-related issues. Other common steps include shutting down and restarting the phone (M = 3.6147, SD = 0.98044) and clearing browser history (M = 3.6055, SD = 0.93312). In contrast, actions such as erasing all data (M = 3.1284, SD = 0.98226) appear to be less frequently taken, indicating that users are reluctant to fully wipe their devices as a solution.

**Table-13: Response of the respondent about keeping the phone safe**

|  |  |  |
| --- | --- | --- |
| **Subjects** | **Mean** | **SD** |
| Downloading anti-malware | 3.5138 | 0.93902 |
| Cautious of public Wi-Fi | 3.6606 | 0.88423 |
| Cautious of social media scams | 3.8349 | 0.78780 |
| Keeping operating system updated | 3.8257 | 0.90107 |
| Encrypt device | 3.6239 | 0.91073 |
| Back-up my data | 3.7064 | 0.92599 |
| Lock my phone with two-factor authentication | 3.8440 | 0.95427 |
| Using VPN | 2.9908 | 1.05844 |
| Download the app from the official Appstore | 3.7064 | 0.93594 |
| By regularly checking app permissions | 3.6881 | 0.89956 |

The results indicate that respondents exhibit high levels of caution regarding mobile security, particularly in behaviors like locking their phones with two-factor authentication (M = 3.8440, SD = 0.95427), being cautious of social media scams (M = 3.8349, SD = 0.78780), and keeping their operating systems updated (M = 3.8257, SD = 0.90107). However, behaviors such as using a VPN (M = 2.9908, SD = 1.05844) show relatively lower engagement, indicating that fewer respondents take this measure to protect their privacy and security

**5. Discussion**

* **Mobile Information Literacy:** The results show that students have a relatively high level of mobile information literacy, especially in searching, saving, and sharing information (M = 3.99). However, awareness of mobile security remains slightly lower (M = 3.59), indicating a gap in understanding secure digital practices. Students also recognize the role of mobile literacy in identifying information needs (M = 4.00) and enhancing learning processes (M = 3.97), confirming its relevance in academic settings.
* **Mobile Use in Learning:** Most students use mobile phones for academic purposes like note-taking, online classes (M = 4.06), and communication with teachers (M = 4.00). Despite the benefits, mobile phones are also a source of distraction (M = 2.78), suggesting a need for digital discipline and guidance.
* **Mobile Security Practices**: While students demonstrate some awareness—such as using antivirus software and managing app permissions—the use of advanced security measures like VPNs is low (M = 2.99). This highlights a need for increased training and awareness on comprehensive mobile security.
* **Virus Risks and Detection:** Students are aware of common virus threats, especially from suspicious links (M = 4.10) and malicious apps (M = 3.92). The most recognized signs of infection include reduced performance (M = 3.84) and unexpected app downloads. In response, students mostly uninstall suspicious apps (M = 3.95), rather than taking more technical steps like activating safe mode or erasing all data.
* **Backup and Information Evaluation:** Only 45% use automatic backup, and 17.4% are unaware of backup processes, showing a knowledge gap. For evaluating mobile information, most students rely on matching it with reliable sources (62.7%), while app quality is mainly assessed through reviews (43.6%).

**Conclusion**

This research aimed to assess university students' perceptions, behaviors, and challenges related to mobile information literacy, mobile security, and the use of mobile devices for academic purposes. The findings highlight that while mobile technology is widely used by students for accessing information, its primary use tends to focus on social media and communication rather than academic tasks. Students demonstrate varying levels of mobile information literacy, with many relying on methods such as matching information with reliable sources and checking reviews for app credibility.

However, challenges in mobile security remain a significant concern, with students acknowledging risks such as phishing scams, malware, and data breaches. The study shows that while students are aware of these threats, there is a need for more focused education and training on mobile security practices, such as recognizing malicious apps and understanding the importance of software updates and secure networks.

Additionally, the research reveals that students employ different strategies to verify mobile information, with a preference for matching it with reliable sources, such as Google or trusted websites. This suggests that while students are generally cautious, they still face difficulties in navigating the vast amount of unverified information available on mobile platforms.

In conclusion, this study underscores the importance of enhancing mobile information literacy and security awareness among university students. Educational institutions should integrate mobile literacy programs into their curricula to equip students with the necessary skills to critically evaluate digital content and protect their devices from security threats. Further research could explore the impact of targeted mobile literacy programs on students' academic performance and digital practices.

**6. Recommendations**

Based on the findings and research question, the following recommendations are proposed to enhance students’ mobile information literacy:

**1. Use of Mobile Information for Academics**

* Make learning platforms mobile-friendly.
* Encourage use of academic apps (e.g., Google Scholar, Zotero).
* Offer mobile research training during student orientation.

**2. Mobile Security & Data Protection Challenges**

* Conduct cybersecurity awareness sessions.
* Promote tools like VPNs, antivirus apps, and password managers.
* Provide clear mobile security guidelines for students.

**3. Mobile Information Literacy & Academic Performance**

* Include mobile info literacy in course content.
* Offer library support for mobile research skills.
* Monitor and assess students' progress in using mobile info effectively.

**4. Mobile Virus Risks & Protection**

* Raise awareness about risky behaviors (e.g., unsafe downloads).
* Encourage regular app and system updates.
* Provide access to antivirus tools through the university.

**7. Further areas of research:**

Below, I’ve outlined potential further areas of research related to the study "Assessing the Perception of University Students on Mobile Information Literacy".

1. Impact of Mobile Information Literacy on Academic Performance: Investigating how mobile information literacy affects students' academic outcomes and their ability to access quality educational resources.
2. Mobile Security Awareness: Exploring the effectiveness of mobile security education programs in reducing virus infections and enhancing students' awareness of mobile security risks.
3. Mobile Information Verification Practices: Further examining how students assess the credibility of mobile information across different sources and the role of social media in information dissemination.
4. Long-Term Effects of Mobile Technology Use: Investigating the long-term implications of mobile device usage on students' information-seeking behavior and digital literacy skills.

**Consent**

As per international standard, parental written consent has been collected and preserved by the author(s).

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

Option 2:

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

Details of the AI usage are given below:

1.

2.

3.

**References**

1. Ally, M., Grimus, M., & Ebner, M. (2014). Preparing teachers for a mobile world: The role of mobile literacy in education. *International Journal of Mobile and Blended Learning, 6*(2), 1–15.
*(Explores student and teacher perceptions of mobile technology in education.)*
2. Association of College and Research Libraries (ACRL). (2016). *Framework for information literacy for higher education*. American Library Association.
*(Official framework defining modern information literacy competencies.)*
3. Billingsley, M. E., & Kern, D. (2014). Mobile Information Literacy: Are Students Ready? *Information Technology and Libraries*, 33(3), 43-52. https://doi.org/10.6017/ital.v33i3.4561
4. Crompton, H. (2013). A historical overview of mobile learning: Toward learner-centered education. In Z. L. Berge & L. Y. Muilenburg (Eds.), *Handbook of mobile learning* (pp. 3–14). Routledge.
*(Seminal work on the evolution and benefits of mobile learning.)*
5. Dahlstrom, E., Brooks, D. C., & Bichsel, J. (2015). *The current ecosystem of learning management systems in higher education: Student, faculty, and IT perspectives*. EDUCAUSE Center for Analysis and Research (ECAR).
*(Widely cited report on technology use, including mobile devices, among students.*
6. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.
*(Foundational article on the Technology Acceptance Model.)*
7. Godwin-Jones, R. (2017). Smartphones and language learning: A review of mobile-assisted language learning apps. *Language Learning & Technology, 21*(2), 3–17.
*(Examines mobile tools and student skill gaps in educational contexts.)*
8. Goodman, P. (2023, December 9). *20 Advantages of Mobile Phones*. HubPages. https://discover.hubpages.com/technology/advantages-Mobile-Phones
9. Hahn, J., & Bussell, H. (2012). Curricular integration of mobile technologies: Overcoming barriers to adoption. *College & Research Libraries News, 73*(8), 464–467.
*(Discusses challenges like connectivity and training in mobile use.)*
10. Hassell, J. M., & Downing, D. (2016). A Study of Mobile Information Literacy among University Students. *Journal of Academic Librarianship*, 42(4), 424-433. <https://doi.org/10.1016/j.acalib.2016.04.001>
11. Havelka, S. (2013). Mobile information literacy: Supporting students’ research and information needs in a mobile world. *Internet Reference Services Quarterly*, *18*(3-4), 189-209.
12. Jones, A., Smith, R., & Carter, L. (2020). Digital literacy in higher education: Are students prepared for the future? *Journal of Educational Technology Systems, 48*(4), 512–530.
*(Focuses on gaps in digital and information literacy training.)*
13. Kennedy, G., & Dunn, T. (2018). The role of faculty in shaping digital literacy: A case study. *Higher Education Research & Development, 37*(5), 987–1002.
*(Explores faculty perspectives on student technology use.)*
14. Kim, H., Lee, D., & Shin, J. (2019). Mobile learning environments: Student perceptions and challenges. *Educational Technology Research and Development, 67*(3), 729–746.
*(Analyzes student experiences with mobile devices in education.)*
15. Iannuzzi, P. (2000). Information Literacy Competency Standards for Higher Education. Community & Junior College Libraries, 9(4), 63–67. https://doi.org/10.1300/J107v09n04\_09
16. Manca, S., & Ranieri, M. (2016). Is the iGeneration ready for mobile learning? A study on the use of mobile devices in higher education. *Computers in Human Behavior*, 55, 110-119. <https://doi.org/10.1016/j.chb.2015.09.043>
17. Mobile phone. (2025). In Wikipedia. https://en.wikipedia.org/w/index.php?title=Mobile\_phone&oldid=1274326512
18. Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9(5), 1-6. <https://doi.org/10.1108/10748120110424816>
19. Pinto, M., Fernández-Pascual, R., Caballero-Mariscal, D., Sales, D., Guerrero, D., & Uribe, A. (2019). Scientific production on mobile information literacy in higher education: A bibliometric analysis (2006–2017). Scientometrics, 120(1), 57–85. <https://doi.org/10.1007/s11192-019-03115-x>
20. Sundar, S. S., & Limperos, A. M. (2013). Uses and Grats 2.0: New Gratifications for New Media. *Journal of Broadcasting & Electronic Media*, 57(4), 504-525. <https://doi.org/10.1080/08838151.2013.845127>
21. Statista—The Statistics Portal for Market Data, Market Research and Market Studies. (n.d.). Retrieved March 2, 2025, from <https://www.statista.com/>
22. Traxler, J. (2012). Context as text in mobile digital literacy: A European university perspective. In *CEUR Workshop Proceedings* (Vol. 955, pp. 289-293). <https://tascha.uw.edu/projects/mobile-information-literacy/>
23. Tonta, Y. (2014). Mobile Information Literacy: Conceptualization, Education, and Practices. *Journal of Information Science and Technology*, 13(2), 72-81.
24. Walsh, A. (2012). Mobile information literacy: a preliminary outline of information behaviour in a mobile environment. *Journal of information literacy*, *6*(2), 56-69.
25. Walton, G. (2013). Information Literacy in the Mobile Age: A Global Perspective. Journal of Information Literacy, 7(2), 1-15. https://doi.org/10.11645/7.2.1767
26. Zou’bi, R. A.-. (2021). The impact of media and information literacy on acquiring the critical thinking skill by the educational faculty’s students. Thinking Skills and Creativity, 39, 100782. https://doi.org/10.1016/j.tsc.2020.100782