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# CYBERSECURITY AWARENESS AMONG STUDENTS IN THE ERA OF ONLINE EDUCATION

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## ABSTRACT

The digital shift in education, especially post-COVID-19, has introduced opportunities and vulnerabilities. With a significant increase in the use of online learning platforms, students have become more susceptible to cyber threats owing to limited cybersecurity awareness. This study investigates the cybersecurity practices and awareness levels among undergraduate students, with a specific focus on rural and semi-urban regions. The study revealed critical gaps in the understanding of phishing attacks, password management, and safe Internet usage. This study proposes actionable strategies for integrating cyber hygiene into educational ecosystems.

**Keywords:** Cybersecurity, Online Education, Digital Literacy, Student Awareness, Phishing, Data Privacy, EdTech Safety

## 1. INTRODUCTION

Online education, powered by platforms such as Zoom, Google Classroom and Microsoft Teams, has transformed the learning landscape. However, this transformation is accompanied by an undercurrent of cyber security risks. Students, particularly those in non-metro regions, often lack awareness of basic digital safety measures. This study aims to highlight these gaps and recommend solutions.

## 2. OBJECTIVES OF THE STUDY

- To assess the cybersecurity awareness of students engaged in online education.
- To identify common cybersecurity threats affecting student communities.
- To propose institutional solutions for promoting digital safety.

## 3. RESEARCH METHODOLOGY

- **Sample Size:** 150 undergraduate students
- **Location: Alpine Institute of Information Technology, Moga**
- **Data Collection Tool:** Structured Google Form survey

**Analysis Technique:** Descriptive statistical analysis using MS Excel
The questions focused on password habits, phishing recognition, data privacy understanding, and the use of antivirus software.

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## 4. LITERATURE REVIEW

Prior studies have indicated that cyber hygiene is not a formal part of most undergraduate curricula (Kumar & Singh, 2021). UNESCO's 2022 report also highlights how students are vulnerable targets for phishing and malware attacks because of their high digital activity and limited awareness.

## 5. DATA ANALYSIS & FINDINGS

### 5.1 Password Practices

- Moreover, 72% of students reused the same password for multiple logins.
- Only 17% of the respondents regularly used two-factor authentication.

### 5.2 Phishing Awareness

- Only 38% of the participants could correctly identify phishing links.
- Eighteen% reported having clicked on suspicious links unknowingly.

### 5.3 Device Security

- Notably, 59% of the respondents did not use any antivirus software.
- A total of 21% of the respondents regularly updated their operating systems.

### 5.4 Use of Public Wi-Fi

- 56% have used open Wi-Fi for academic access without using a VPN or encryption.

## 6. Challenges Identified

- Absence of structured cybersecurity education
- Casual online behavior and sharing of credentials
- Lack of awareness campaigns in Tier 2/3 college campuses
- Over-dependence on mobile devices for education without security layers

## 7. Recommendations

- Inclusion of **cybersecurity modules** in first-year curricula across all disciplines
- Monthly **cyber hygiene workshops** by IT faculty or external experts
- Establishment of a **college-level Cyber Helpdesk**

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- Use of **password managers**, VPNs, and two-factor authentication

- Collaboration with **CERT-IN** and **Cyber Peace Foundation** for student training

## 8. CONCLUSION

In the digital era, cybersecurity is no longer optional for students. This study, conducted at the **Alpine Institute of Information Technology, Moga,** reveals significant awareness gaps that institutions must urgently address. The implementation of structured digital safety education can drastically improve cyber resilience in young learners.

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