# Awareness of Young Internet Users Towards Cyber Security And Cyber Crimes

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**Abstract:**

*The use of the internet is increasing in every sphere of life like internet banking, online shopping, payment of utility bills online, online classes and many other services after the eruption of COVID-19. The objective of the present study is to study the Awareness level among young Internet users towards cyber security and cybercrime. The scope of present study is restricted to the state of Himachal Pradesh. Further, only students are taken as a sampling unit. For accomplishing the objectives of the study, both primary and secondary data are utilized. The sample size of present study is 600 students. To select the sample for the present study convenience and purposive sampling was used. The study reveals that majority of respondents never change their passwords on frequent basis and most of the respondents are not aware of Two step verification. Further, it is also clear from the study that majority of respondents provide no care for their browser security. Further, as far results related to awareness of antivirus, awareness of anti-spam practice, secure password practice, back up practice, firewall use practice verification of website security are concerned it have been found that majority of the respondents do not provide due consideration safeguards and are vulnerable to cyber-crimes. It is also clear from the results of the study majority of internet users have low level of awareness about cyber terrorism, opening of unknown attachments, clicking on unsolicited pop-up and confirmation of personal details among the respondents. On the basis of findings of the present study it is recommended that policy measures are required to increase the awareness level of internet users towards cyber security and cyber crimes.*

**Keywords:** Cyber Security, Cyber Crime, Internet Awareness, Secure Password.

## Introduction:

With the increase in network connectivity and the invention of new technologies in the field of data communication, there has been a rapid increase in cyber crimes in India. As per the reports released recently, in India the number of Internet users is increasing day by day and has crossed

the 650 million mark by December 2021 which comprises nearly 47 per cent of the country's population. The use of the internet is increasing in every sphere of life like internet banking, online shopping, payment of utility bills online, online classes and many other services after the eruption of COVID-19. According to the Internet and Mobile Association of India (IAMAI), nearly 346 million citizens are involved in online transactions which include e-commerce, digital payments etc. which is more than the population of the US engaged in online transactions. It further highlights that India has witnessed a record increase of 51% in online transactions during the last two years. In such a situation where ther number of internet users is ever increasing, the need of awareness towards the cyber crimes and cyber security has also drawn attention.

**Research Methodology:**

The present study is conducted to determine the Awareness level among young Internet users towards cyber security and cybercrime considering various demographic variables such as education, age and gender. The work is confined mainly to the state of Himachal Pradesh. The scope of the present study is restricted only to one year as the primary data was collected through a questionnaire during the year 2021. Further, only students are taken as a sampling unit. For accomplishing the objectives of the study, both primary and secondary data are utilized. Primary data in the form of the response of users which is of immense importance and the backbone of the study is obtained from students of HP University Shimla and its affiliated colleges with the help of a questionnaire. In the present study, the Likert scale was developed and a five-point rating scale is applied using numerical scores ranging from 1 to 5 for questions. To select the sample for the present study convenience and purposive sampling was used.

**Data Analysis and Interpretation:**

Table number 1 shows that out of the total respondents under study 66.70% were male and 33.30% were females. As far as age is concerned 309 out of the total respondents belongs to the age category 20-25 years. Further out of the total respondents 55.50% belong to the UG class and 44.50% belong to the PG class.

**Table 1: Demographic Profile of Users**

| Variables | Categories | Frequency | Per cent |
|---|---|---|---|
| **Gender** | **Male** | 400 | 66.7 |
| | **Female** | 200 | 33.3 |
| | **Total** | 600 | 100.0 |
| **Age** | **Below 20 years** | 89 | 14.8 |

| | | | |
|---|---|---|---|
| | **20-25 years** | 309 | 51.5 |
| | **Above 25 years** | 202 | 33.7 |
| **Education** | **Total** | 600 | 100.0 |
| | **UG** | 333 | 55.5 |
| | **PG** | 267 | 44.5 |
| | **Total** | 600 | 100.0 |

Table 2 reveals the password changing pattern of the respondents. It is clear from the table that majority of respondents never change their passwords on frequent basis. The table also provide details regarding adoption of two step verification process and it can be concluded from the analysis that that most of the respondents are not aware of this smart feature. Further, it is also clear from the table that out of the total respondents only 175 (29.2%) care for their browser security whereas 425 (70.80%) not care for such safeguards. Further, as far results related to awareness of antivirus, awareness of anti-spam practice, secure password practice, back up practice, firewall use practice verification of website security is concerned it have been found that majority of the respondents do not provide due consideration safeguards and these people are vulnerable to cyber-crimes.

**Table 2: Perception and Awareness of Internet Users about Cyber Security**

| Response | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| **Periodicity of Change in Password** | | | | |
| **Daily Basis** | 1 | .2 | .2 | 0.2 |
| **Weekly Basis** | 26 | 4.3 | 4.3 | 4.5 |
| **Monthly Basis** | 61 | 10.2 | 10.2 | 14.7 |
| **Annually Basis** | 125 | 20.8 | 20.8 | 35.5 |
| **When forced** | 188 | 31.3 | 31.3 | 66.8 |
| **Never Change** | 199 | 33.2 | 33.2 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Adoption of Two step Verification Process** | | | | |
| **No** | 362 | 60.3 | 60.3 | 60.3 |
| **Yes** | 238 | 39.7 | 39.7 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Care for Browser Safety** | | | | |

| | | | | |
|---|---|---|---|---|
| **yes** | 175 | 29.2 | 29.2 | 29.2 |
| **No** | 425 | 70.8 | 70.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Awareness of Antivirus** | | | | |
| **Very Low** | 143 | 23.8 | 23.8 | 23.8 |
| **Low** | 94 | 15.7 | 15.7 | 39.5 |
| **Average** | 277 | 46.2 | 46.2 | 85.7 |
| **High** | 57 | 9.5 | 9.5 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Awareness of Anti-Spam Practice** | | | | |
| **Very Low** | 234 | 39.0 | 39.0 | 39.0 |
| **Low** | 94 | 15.7 | 15.7 | 54.7 |
| **Average** | 215 | 35.8 | 35.8 | 90.5 |
| **High** | 28 | 4.7 | 4.7 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Secure Password Practice** | | | | |
| **Very Low** | 148 | 24.7 | 24.7 | 24.7 |
| **Low** | 124 | 20.7 | 20.7 | 45.3 |
| **Average** | 177 | 29.5 | 29.5 | 74.8 |
| **High** | 93 | 15.5 | 15.5 | 90.3 |
| **Very High** | 58 | 9.7 | 9.7 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Back Up Practice** | | | | |
| **Very Low** | 175 | 29.2 | 29.2 | 29.2 |
| **Low** | 157 | 26.2 | 26.2 | 55.3 |
| **Average** | 205 | 34.2 | 34.2 | 89.5 |
| **High** | 34 | 5.7 | 5.7 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Firewall Use Practice** | | | | |
| **Very Low** | 238 | 39.7 | 39.7 | 39.7 |
| **Low** | 157 | 26.2 | 26.2 | 65.8 |
| **Average** | 144 | 24.0 | 24.0 | 89.8 |
| **High** | 32 | 5.3 | 5.3 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Total** | 600 | 100.0 | 100.0 | |

| | | | | |
|---|---|---|---|---|
| **Very High** | 57 | 9.5 | 9.5 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Verification of Website Security** | | | | |
| **Very Low** | 179 | 29.8 | 29.8 | 29.8 |
| **Low** | 185 | 30.8 | 30.8 | 60.7 |
| **Average** | 116 | 19.3 | 19.3 | 80.0 |
| **High** | 87 | 14.5 | 14.5 | 94.5 |
| **Very High** | 33 | 5.5 | 5.5 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |

Table 3 provides results of data analysis of perception and awareness of internet users about various cybercrimes taking place in the present World. It is clear from the table 3 that 545 (90.8%) internet users have never been the victim of cybercrime. Further, it is also clear from the table that there is low level of awareness about cyber terrorism, opening of unknown attachments, clicking on unsolicited pop-up and confirmation of personal details among the respondents.

**Table 3: Perception and Awareness of Internet Users about Cyber Crimes**

| Response | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| **Crime Victimization** | | | | |
| **Yes** | 55 | 9.2 | 9.2 | 9.2 |
| **No** | 545 | 90.8 | 90.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Awareness about Cyber Terrorism** | | | | |
| **Very Low** | 242 | 40.3 | 40.3 | 40.3 |
| **Low** | 210 | 35.0 | 35.0 | 75.3 |
| **Average** | 62 | 10.3 | 10.3 | 85.7 |
| **High** | 29 | 4.8 | 4.8 | 90.5 |
| **Very High** | 57 | 9.5 | 9.5 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Opening of Unknown attachments** | | | | |
| **Very Low** | 84 | 14.0 | 14.0 | 14.0 |
| **Low** | 217 | 36.2 | 36.2 | 50.2 |
| **Average** | 153 | 25.5 | 25.5 | 75.7 |
| **High** | 117 | 19.5 | 19.5 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Click on unsolicited pop-up** | | | | |

| | | | | |
|---|---|---|---|---|
| **Very Low** | 85 | 14.2 | 14.2 | 14.2 |
| **Low** | 217 | 36.2 | 36.2 | 50.3 |
| **Average** | 210 | 35.0 | 35.0 | 85.3 |
| **High** | 60 | 10.0 | 10.0 | 95.3 |
| **Very High** | 28 | 4.7 | 4.7 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |
| **Confirmation of personal details** | | | | |
| **Very Low** | 179 | 29.8 | 29.8 | 29.8 |
| **Low** | 217 | 36.2 | 36.2 | 66.0 |
| **Average** | 116 | 19.3 | 19.3 | 85.3 |
| **High** | 59 | 9.8 | 9.8 | 95.2 |
| **Very High** | 29 | 4.8 | 4.8 | 100.0 |
| **Total** | 600 | 100.0 | 100.0 | |

## Conclusion and Suggestions:

Due to advancement in Information Technology, there has been a rapid increase in cyber crimes in India. The present study has made an attempt to study the Awareness level among young Internet users towards cyber security and cybercrime considering various demographic variables such as education, age and gender. The present research work is restricted to the state of Himachal Pradesh. Further, only students are taken as a sampling unit. For accomplishing the objectives of the study, both primary and secondary data are utilized. The sample size of present study is 600 students. To select the sample for the present study convenience and purposive sampling was used. The study reveals that majority of respondents never change their passwords on frequent basis and most of the respondents are not aware of two factor authentication. Further, it is also clear from the results of study that very few respondents care for their browser security. Further, as far results related to awareness of antivirus, awareness of anti-spam practice, secure password practice, back up practice, firewall use practice verification of website security are concerned it have been found that majority of the respondents do not provide due consideration safeguards and are vulnerable to cyber-crimes. It is also clear from the results of the study majority of internet users have low level of awareness about cyber terrorism, opening of unknown attachments, clicking on unsolicited pop-up and confirmation of personal details among the respondents. Hence, it is suggested that policy measures are required to increase the awareness level of internet users towards cyber security and cyber crimes. These measures should include campaign to educate students and internet users regarding various cyber security measures and crimes. Further, Internet users are suggested to make it their habit to change the password frequently. All the organizations having websites are recommended to strengthen the security level by using steps such two factor authentication to identify the genuinenity of the users.

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