# Cyber Safety of Students in India and China:
# A Comparative Analysis of Policies and Practices

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## Abstract:

Information and communication technology has transformed the world into a global village. Internet is in hands of almost every individual. It has given us the power of knowledge but at the same time it is the root cause of many problems that people are facing today. Generation alpha, born in the era of internet, social media, and online gaming is more involved in online activities. Yong children are given the access of internet at very tender age. It becomes the need of hour to assess and monitor the usage of internet and make people aware about the cyber safety and security measures, especially young generation. The present paper is a comparative study on the cyber safety measures for youth taken by India and China as both the countries are the most populated and the number of internet users are very high. A systematic review of recent research articles, reports and government policies has been done to understand the cyber safety and security measures opted by India and China. It propagates to study the actions taken for students' safety and security in cyber world by the government and schools of both the countries considering factors such as government policies, educational initiatives, and available resources. It was found in the study that both the countries are concern about their youth and thus they are taking concrete steps in ensuring the cyber safety of students.

**Key Words**: Cyber wellness cyber space, cyber safety, cyber security, generation z, generation alpha, Information and Communication Technology (ICT).

## Introduction:

It is a fact that generation Alpha rely on internet. We are living in the cyber world where we are connected to people we know and with those whom we don't know! The Internet has created a vast global network that has generated billions of dollars annually for the global economy (Judge et al., 2021). As the use of internet is increasing, the risk of cyber threats is also increasing in various forms like cyber bulling, cyber stalking, cyber financial frauds etc. Most of the time the youth is becoming the victim of these crimes. Cyber safety of youth is a big concern area for any nation. If we want to develop, we need to be ahead in the race of technology, but not on the risk of life of our youth.

In the present study, student is confined to the population who are school going and are in the age group of 5 years to 18 years and are most actively involved in using internet. The students find solutions to their queries like projects, presentations, and content knowledge through internet. Many assignments and projects given by the schools are online and they have to refer to internet and spend time online. Otherwise also in their leisure time, they prefer to spend time on internet and watch videos, make videos, Instagram, YouTube, play games etc. It has been seen that if students are not doing anything, then also they surf internet for hours and hours or play online games with no monitoring or restrictions. It is becoming the habit of the students and is hazardous for the mental and physical health of the students. Unfortunately, the more we try to restrict students from using internet for unnecessary activities, the more likely they will use internet without parents' consent and guidance. There is no personal life, everything is open and public in this cyberworld. From relationships, to emotions, from finance to family, this has all increased the screen time of students and is the reason for many cyber problems. Everyone, especially the younger generation like to have their private space, 'me time', where they get exposed to the world of internet unmonitored rather going out and spend time playing and doing physical activities. Raising children in the digital age isn't easy, but teaching internet safety and talking frequently about safety measures consciously to students is important to set them up for success in the modern world. Thus, ensuring the cyber safety and security of students has become a crucial concern for parents and teachers by just not ignoring the use of ICT, but by making the wise use of it. The term Information and communication Technology (ICT) is used in a more comprehensive manner where it includes spending time online for academic and non-academic purposes. There should be an emphasis on the safe use of internet and ICT. Cybersecurity is defined as a process to educate internet users to be sensitive to the various cyber threats and the vulnerability of computers and data to these threats. (Rahim, et.al.,2015). Most of the students who are cyber bullied or becoming the victim of cybercrime are in the age of 13 to 18 years (Dalla Pozza et al., 2016). The generation z and generation alpha is more affected with the cyber threats. In-fact lower the age, greater the risk of cyber threat.

## Objectives of the study:

1. To study the cyber safety measures for students in India and China
2. To compare the cyber safety measures for students in India and China

**Understanding Concept of Cyber Safety in India**

In India, cyber safety measures for students primarily revolve around educational initiatives and awareness programs. These initiatives aim to educate students about the potential risks and dangers of the internet, as well as teach them to protect themselves online. When people visit any website or go online, the user's data is stored online after one visit only and automatically transferred to the social media platform's database without the owner's knowledge and consent as mentioned by Young Researchers for Social Impact (YRSI). Furthermore, in India, government policies and initiatives such as the Information Technology Act of 2000 and the Cyber Crime Prevention Against Women and Children are working in the direction of creating awareness and reaching to the remotest place of the country.

India has become vigilant about the student's cyber safety and security. National Council for Educational Research and Training (NCERT) has also taken adequate steps in reshaping the future of students in India by making it cyber safe place to learn and excel. NCERT has issued guidelines for students, teachers and parents for safe and secure use of internet. A handbook has been issued by Ministry of Education, "India for adolescents/students on cyber security". The handbook give insight about most vulnerable cyber threats like cyber bulling, cyber grooming, online transactions fraud, email fraud, online gaming, safety of social networking profile. India recognized the importance of setting up a cyber-security framework that would guide the establishment of smart cities and deter attacks (Vasileva et al, 2018). These initiatives aim to educate students about the potential risks and dangers of the internet, as well as teach them to protect themselves online. However, there are challenges in implementing these measures effectively.

**Understanding Concept of Cyber Safety in China**

China is world's most populated country in the world and also a country with the most people using internet. According to the study of CNNIC in 2021, around 97 percent of Chinese children between the age of 6 and 18 years used the Internet. According to a survey by China Internet Network Information Centre, around 25 percent of minors had faced cyber security issues in the past six months, including internet fraud, viruses, and leaked personal information.

 The Chinese government takes a proactive role in monitoring and controlling online content to ensure the safety of students. They have implemented strict regulations and censorship measures to protect students from harmful and inappropriate content available on online platforms, social media and, other websites to prevent cyberbullying and other cyber threats. According to CNNIC survey report of August 2023, till June 2023, China had 1,079 million netizens. The number of mobile users has reached to 1,076 million. It is not a surprise that online games have also increased to 28.06 million from 550 million since December 2022, which is 51.0% of all Internet users. As per the report till June 2023, the proportions of Internet users aged 20-29, 30-39 and 40-49 were 14.5%, 20.3% and 17.7% respectively.

In China, the government is concerned about the physical and mental health of young generation. Keeping in mind the cyber safety and security, the Ministry of Justice and the CAC has issued a joint statement emphasising the significance of protecting minors in cyberspace.

It has highlighted the impact of excessive use of cyberspace on the nation's future and the happiness of families. China is also giving priority to overall health of young Internet User. The 8th Premier of China, Mr. Li Qiang has issued a revolutionary order to implement the "Cyberspace Protection Regulations for Minors." This is first of its kind regulation by the Chinese Government in providing the conducive cyber safe environment for nurturing the "physical and mental health" of young internet users.

According to an article published on 25th October 2023 by Jane Chai, China has issued new regulations for safety of minors by putting restrictions on tech firms, authorities, and schools. The new regulation focus on the physical and mental health of millions of students under the age of 18 years. Most of the students in China are addicted to internet and online gaming. The government has given instructions to schools and tech companies to intervene and protect the students from online harmful content. The rule came into effect from January 2021. The Cyberspace Administration of China (CAC) has applied 'Youth Mode' to control gaming and content for the users aged under 16. Students are barred from live streaming broadcasts and give gifts to live streamers. One more very interesting and effective step taken by implementing curfew from 10 pm to 6 am which will restrict any youth from accessing the internet.

As per the new regulation, China has restricted the online gaming for kids below the age of 18 years up to maximum 3 hours a week. Minors can play only between 8-9 pm on Saturdays, Sundays and statutory holidays. The companies are informed to set real time limit to the games. According to the regulations, internet product and service providers should be subject to supervision by the government and society. The firms are subject to a fine of up to 500,000 Yuan (US$68,400), if they will be found breaching the rules. All the stakeholders must take steps to protect youth and prohibit the production and reproduction of violent and concerning contents and games. The firms, tec-giants, and individuals are restricted from using prohibited internet content.

**Impact of use of internet on Students in India and China regarding Cyber Safety**

According to a study conducted by Singh & Patil, (2020) most of the students use the internet for 1-2 hours every day and 2-6 days a week with a smart phones. A significant association was observed between internet usage time and complications such as headache, neck pain, eye dryness, eye redness, thumb pain, backache, numbness in the finger, and disturbed sleep. A significant association was noted between the mode of internet usage and the physical pain in children. Another study was conducted by the National Commission for Protection of Child Rights (NCPCR) on the Effects (Physical, Behavioural and Psycho-social) of using Mobile Phones and other Devices with Internet Accessibility by Children (July 2021). Most of the time (62.2%) youth use their parent's phone to access the internet. As most of the parents are busy, the children use the internet unmonitored. It has also been seen that it is the fault of the parents to addict their child with the internet. Younger the child, parents give them smart phones which triggers their mind in such a way that they get exposed to the cyber world at very young age. It has been found that the child get exposure to internet as early as at the age of 6 months! This is a big concern area. At this age who will the parents blame but themselves. This gradually becomes the habit and then addiction! It is the moral duty of the parents to keep their child away from internet and they must monitor if the child is watching the online content if required.

**Comparative Analysis of Cyber Safety Measures**

Countries with the large population is more prone towards cyber-attacks. India and China both the countries are vigilant about the cyber-attacks. Youth, especially students are the soft targets for this. The students are getting aware about the cyber space in terms of entertainment and knowledge but is has its adverse effect as well. It is causing internet addiction and high risk of cyber safety and security. When comparing cyber safety measures for students in India and China, it is evident that both countries recognize the importance of protecting their younger populations from online threats. In India, the emphasis is on education and empowerment, with schools incorporating cyber safety measures into their curriculum and involving parents in teaching how to respond to cyber threats. In China, cyber safety measures for students also focus on education and awareness. The Chinese government has taken a major step by including strict regulations in their cyber laws. However, there are some key differences in the approaches taken by the Chinese Government. One of the main differences in China's approach is the government's active involvement in monitoring and censoring online content. China has put restrictions on viewing the restricted sites for young people. (Jiang, T. 2023).

India, on the other hand, focuses more on empowering students to make informed choices and recognize potential risks. India's approach to cyber safety for students focuses on education and awareness. According to an article published online on Inc42.com, India has reported 13.91 lakhs cases reported cyber security related cases in 2022, as reported by Rajeev Chandra Shekhar, Minster of state for Electronics and Information Technology, India in the parliament of India. In India, there are many cyber safety initiatives done by the government, NCERT, CIET, and other agencies to educate students about being safe online, but the problems lie in the point that most of the things are available online for which they need to surf the internet. Apart from that it is also a point to ponder that most of the students are not aware about the right sites to get the accurate information about cyber safety and security.   The National Cyber Security Policy 2013 has focused on building a secure cyberspace for Indian citizens. They have incorporated cyber safety topics into the school curriculum and encourage regular discussions and experience sharing with students. The workshops are also organized to create awareness among teachers and students in schools. They focus on training their teachers on the concepts of cyber safety and security of students. In nutshell, it can be said that every country is concern about the misuse of internet and the risks of online threats, thus they are working in every possible way to give protection to youth of their country and inculcate the human values so that they remain connected to their roots of being human.

## Findings of the study:

1. India and China, both the countries are understanding the high risk of cyber threats to their country in the form of attach on generation alpha's mental and physical health.
2. It is degrading the capacities of the young and making their mind not creative.
3. Use of cyberspace is making the students slaves of the technology.
4. The government of both the countries have become strict and vigilant of the use of internet by students. Many of the restrictions have already been imposed in country.

5. Special instructions to schools have been given to follow like adding the cyber safety and security related content in curriculum, frequent workshops.

6. It needs more rigorous training of teachers and workshops for kids. Also, the parents and teachers must involve children in physical activities or recreational activities so that they are engaged.

7. There is a great responsibility on school teachers to ensure cyber safety of students. It desires a proper training of teachers to improve their awareness and knowledge on cyber wellness to detect internet addiction in students and intervene at an early stage.

## Conclusion:

At present it can be very easily observed that the whole world is inclined towards the use of Information and communication Technology (ICT). In the walk of life people are trying to digitalize their lives. No wonder that human will work the directions of robots and computers in future! We need to control our habits and thus lives. ICT and Internet was invented to make our lives easy, but not to overtake it. Spending online time is pushing us towards the dark side of internet where we are becoming the victims of cyber threats. It is drastically affecting our physical and mental health. It is the most important reason for health degradation and cause of many diseases. People, especially the younger generation are not interested in physical activities. They spend most of the time watching anything on internet. We are loosing the emotional connections with our family and friends. After generation Alpha, we need to return to generation A and to adapt their healthy habits and lifestyle. India and China along with the other countries are focused on the physical and mental health and thus, happiness of students in their life. They are focusing on the cyber wellness of young citizens of their country.

## References:

Rahim, N.H.A., Hamid, S., Mat Kiah, M.L., Shamshirband, S. and Furnell, S. (2015), "A systematic review of approaches to assessing cybersecurity awareness", *Kybernetes*, Vol. 44 No. 4, pp. 606-622. https://doi.org/10.1108/K-12-2014-0283

Dalla Pozza, V., Di Pietro, A., Morel, S., & Psaila, E. (2016). Cyberbullying among young people. *In European Parliament Think Tank*. https://doi.org/10.2861/748350

Jiang, T. (2023). The Shift of China's Strategic Thinking on Cyberwarfare Since the 1990s. *Journal of Chinese Political Science.* 28,127–149. https://doi.org/10.1007/s11366-022-09813-3.

Judge, M. A., Manzoor, A., Maple, C., Rodrigues, J. J., & ul Islam, S. (2021). Price-based demand response for household load management with interval uncertainty. *Energy Reports*, 7, 8493-8504.

Lam, L.T. (2014). Internet gaming addiction, problematic use of the internet, and sleep problems: A Systematic Review. *Curr Psychiatry Rep* 16,444. DOI: 10.1007/s11920-014-0444-1.

Mailavelan,P. & Baskaran, M. (2018). A Study on Awareness of ICT among Secondary School Students. *International Education and Research Journal*, 4(3). Retrieved from https://ierj.in/journal/index.php/ierj/article/view/1525

Mark, Lauren & Nguyễn, Thanh. (2021). An Invitation to Internet Safety and Ethics: School and family collaboration. *Journal of Invitational Theory and Practice*. 23,62-75. DOI: 10.26522/jitp.v23i.3497.

Nawaf, A., Prakash, V. (2021). Cybersecurity Policy Framework in Saudi Arabia: Literature

Review. *Frontiers in Computer Science*. 3,736874.  DOI: 10.3389/fcomp.2021.736874

Quayyum. F, Cruzes,D.S., Jaccheri, L. (2021). Cybersecurity awareness for children: A systematic literature review, *International Journal of Child-Computer Interaction*, 30. https://doi.org/10.1016/j.ijcci.2021.100343.

Singh, B. K.& Patil M. (2020). Internet use and Physical Health Problems in School going Students. *Indian Journal of Public Health Research & Development*, 11(7),165–169. https://doi.org/10.37506/ijphrd.v11i7.10074.

Sulaiman, N.S. et al. (2022). A Review of Cyber Security Awareness (CSA) Among Young Generation: Issue and Countermeasure. *Proceedings of International Conference on Emerging Technologies and Intelligent Systems*. 322. https://doi.org/10.1007/978-3-030-85990-9_76

Tan, Y.; Chen, Y.; Lu, Y.; Li, L. (2016). Exploring Associations between Problematic Internet Use, Depressive Symptoms and Sleep Disturbance among Southern Chinese Adolescents. *Int. J. Environ. Res. Public Health*. 13,313.  https://doi.org/10.3390/ijerph13030313

Vasileva R, Rodrigues L, Hughes N, Greenhalgh C, Goulden M, Tennison J. What Smart Campuses Can Teach Us about Smart Cities: User Experiences and Open Data. *Information*. 2018; 9(10):251. https://doi.org/10.3390/info9100251

Yuchong Li, Qinghui Liu, (2021) A comprehensive review study of cyber-attacks and cyber security; *Emerging trends and recent developments,* Energy Reports, 7:8176-8186. https://doi.org/10.1016/j.egyr.2021.08.126.

Zilka, G. C. (2017). Awareness of eSafety and potential online dangers among children and teenagers. *Journal of Information Technology Education*: Research, 16, 319-338. Retrieved from http://www.informingscience.org/Publications/3864.

### Website References:

- https://www.cisa.gov/topics/cyber-threats-and-advisories/advanced-persistent-threats/china accessed on 28th Nov. 2023.
- https://www.kaspersky.com/resource-center/preemptive-safety/cyber-hygiene-habits accessed on 12 Dec. 2023.
- https://aag-it.com/the-latest-cyber-crime-statistics/ accessed on 5th Jan. 2024.
- https://ciet.ncert.gov.in/ accessed on 10th Jan. 2024.
- https://www.scmp.com/news/china/politics/article/3239155/chinas-new-cyber-safety-rules-protect-minors-putsburden-internet-and-tech-firms-authorities-and accessed on 20th Jan. 2024.
- https://www.seekteachers.com/blog/safeguarding-chinas-digital-future-new-cyber-safety-rules-for-minors/ accessed on 15th Feb. 2024.