A Study of Internet Usage of Senior Secondary Students in relation to their gender and types of school

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Abstract

This study sought to investigate the internet use behaviour of Senior Secondary School students with respect to gender and type of school. As the internet grows to be indispensable in contemporary education, it is critical that we understand how various classrooms of students use them. A sample of 600 students was drawn using stratified random sampling from two randomly selected districts in Haryana, so that the gender and school types (government/private) were equally represented. Research Method Descriptive research method has been used in the study with the help of Internet Usage Scale, developed by Saini and Kaur (2017). Results showed statistically significant differences were gender based, favoring males in internet usage. Furthermore, students of governmental school used the internet much significantly more than those in private schools. It can clearly see that gender and institutional type affects students' internet usage. The study also has educational significance of promoting digital equity and setting guidelines for digital learning policies.

Keywords: Internet Usage, Senior Secondary Students, Gender Differences, School Type, Digital Behavior

Introduction

The 21st century has faced digital revolution of unprecedented and irreversible scale. With the proliferation of internet usage and sophisticated technology, it is not surprising that information access is more egalitarian, and old school learning progress has been replaced by an erudite digital classroom. In the digital age, students at secondary level, particularly senior secondary levels occupy a unique space; they are on the cusp of adulthood and higher education but at the same time involved in use in the digital world. Their use of the internet is multifaceted, entailing educational, social and even business interaction.

In India, internet is now well integrated into education sector. The implementation of digital education programs like Digital India, SWAYAM, DIKSHA and e-Pathshala demonstrates the government's drive to integrate technology into education. The COVID-19 outbreak has been the primary driver, with millions of students going from in-person instruction to remote learning virtually overnight. As a result, students at senior secondary level were relying on internet for their emotional and social networking in addition to academic purposes. However, not everyone has an equal chance of participating in the digital world.

Increasing amounts of research and national surveys have indicated alarm at the digital divide—inequality in access to and usage of digital technologies. In terms of this divide, two major dimensions have been found to play a significant role in India: the gender and the type of school attended. Digital access, especially in rural and semi-urban areas is still dictated by patriarchal values of gender stereotypes. With boys are frequently favored over girls in accessing gadgets, mobile data or the internet-enabling space. This disparity leads to lower digital literacy exposure among girls and decreased involvement with internet-mediated learning.

The type of the school private or government has also a significant effect on the usage of internet among students. Private schools are for the most part more advanced with respect to digital infrastructure, internet connection and even in terms of embedding of e-learning tools. Many of these schools encourage digital fluency in their curriculum and create a culture where the internet is a way of life, not just something when you need it. Government schools, including ones in rural areas, however, continue to be plagued by lack of computer and internet facilities and minimal teacher training on digital platforms. Thus, it hinders the development of required digital skills among the students in those institutions.

Knowing of such disparities in Internet use is important for educators, policy makers and scholars. The focus of this study is however on two major variables: Sex and School type, of which their impacts on net usage among senior secondary school students are examined. By this level of education, it would be assumed that students have a high degree of information literacy, online research and digital responsibility. However, if we end up with a persistent gender or institutional type divide in access or usage, it is a threat to equitable educational development and career readiness.

Further, the use of the internet is not only about access but it is also about utilization. These findings are consistent with earlier research that has shown an inherent gender difference in why boys and girls go on to the internet–boys tend to gravitate toward gaming and social networking while for girls, it is frequently more conservative use of the internet for communication or school work. Similarly, students who are in private schools might get more involved with educational content such as MOOCs, e-libraries and academic webinars, but government students may access the internet quite sporadically due to infrastructure constraints.

This research aims to address this gap in the literature through a comparative study of internet use patterns among senior secondary students based on gender and type of school. It seeks to add to the body of knowledge that can help shape national and state educational policies, especially with recent government initiatives on digital integration through dismissal of belief-based learning as a non-minority issue, under NEP 2020. The research also aims to address, through the identification of inequities and usage patterns, digital inequality so that all students — irrespective of gender or school background — become competent, critical and creative users of the internet.

Thus, the internet has the power to be a great equalizer in education. Yet, unless systemic inequalities in access and usage are addressed, it may just as easily widen existing social

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divides. This study thus holds both educational and social significance in advancing the cause of inclusive and equitable digital education in India.

Review of Literature

Kumar (2015) studied the pattern of internet among senior secondary students in a school in Uttar Pradesh and found digital divide based on school infrastructure. The study revealed that students of private schools had more opportunities to manage the digital content but the government school students suffered from infrastructural limitation. **Mehta (2016)** covered gender wise net use in urban schools and discovered boys more into recreational activities on the internet such as gaming and videos, while girls generally used it for educational purpose. The research highlighted the impact of community culture on girls' activities online. **Choudhury (2017)** examined sociocultural barriers to girls' online engagement within rural areas. It emerged that females had relatively less digital participation due to family controls and restrictions over their internet accessibility than boys. **Raj (2018)** did comparative analysis for students of government and private school on digital readiness. The findings suggested that private schools were more likely to use ICT tools in pedagogy, and this facilitated students' greater familiarity with the internet and its higher frequency of use. **Patel (2019)** studied gender inequality in the use of Internet in the schools of Gujarat. His research showed that girls had less control over mobile phones and also less time for online use, thus perpetuating a striking digital divide between the genders. **Nair (2020)** investigated the influence of gender on digital learning practices among senior secondary students in Kerala. It was found that girls had a more conservative and academic attitudes towards the use of the internet when compared to boys who utilized it less cautiously for entertainment.

Sharma (2021) studied internet addiction and its relationship with gender among adolescents of Rajasthan. Boys revealed a greater sensation of screen and social media giants reliance in comparison with girls' moderate-intentioned attitude. **Mishra (2022)** analyzed digital access in the urban and rural school environment of Bihar. The results indicated that students in rural government schools did not have consistent access to internet as against those in urban private ones who were accessing e-learning materials every day. **Indri (2023)** did a massive survey in Maharashtra to gauge impact of type of school and gender on internet engagement. The study concluded that urban boys from private schools had the highest internet usage and it was lowest in rural girls from government schools. **Pandya (2024)** made a statistical analysis of internet use, gender and type of schools in Gujarat. School type has proved to have an influence on digital behavior and boys, regardless of school context, were more frequent internet users than girls. **Parida (2025)** studied gender and students use of online platforms for learning. His studies focused on the gendered bias in digital resource allocation within Indian homes which disadvantaged girls when sharing of internet facility was to be attained. **Karpagam (2025)**, while studying factors that act against the access of women's safety apps to students, shed light on gendered differences in smartphone literacy and digital autonomy among female adolescents in Tamil Nadu. **Manjunatha (2025)** explored ICT utilization among the postgraduate students in South

India, and observed greater gender inequality in digital fluency. The findings work in concert with larger trends of gendered access that begin as is often the case at the high school level. **Parkar (2025)** studied the internet addiction in adolescence students and observed that male students were more likely to overutilise digital media. The report noted that the rise of men engaging with entertainment as a cause of digital overuse. **Shandilya (2025)** studied gender based preferences in using digital exam tools at Indian higher education. Although the sample was older, findings indicated that early school experiences affected students' confidence in using academic digital tools.

The above literature review has found that there is a gender and school type difference in senior secondary students internet use. Research throughout the past decade highlighted that boys and students in private schools tend to report greater and more varied use of the internet than girls and government school students. This point towards an enduring digital divide driven by social and cultural practices and infrastructural connectivity. Taken together, the evidence provides a compelling case for examining these factors in contemporary Indian education.

Significance of the Study

The significance of this research is that it contributes to our knowledge of the digital media use patterns among one of the most important demographic groups in India i.e., the Senior Secondary students. However, as the country heads for greater digitalization, it is important to know more about how gender and type of school influence internet use for various reasons. To begin with, the National Education Policy (NEP) 2020 makes a strong case for incorporating digital tools in classrooms, remote learning and digital assessment systems. However, these tools work only if students within all categories — both sexes and types of school — have equal access and equal preparation to use them. Second, gender digital divide is not just at technological problem, it is a symptom of the underlying digital divide and therefore social realities. If not addressed, it could result in the 'blockage' of the academic process and limiting girls' access to world information and communication networks, which would exacerbate current gender divides. Third, school type (private vs. government) is often associated with family income and the availability of technology, as well as quality digital instruction. Consequently, understanding the nature of usage is essential for shaping targeted interventions like infrastructure improvement, teacher training and parent sensitization in government schools. Finally, this work adds to policy level discussion of digital equity. By using usage trends as an approach to consider gender and institutional type, it is possible to create sound policies for an inclusive digital education which help bridge divides in our society.

Statement of the Problem

A Study of Internet Usage of Senior Secondary Students in relation to their gender and types of school

Objectives of the Study

1. To assess the internet usage among male and female senior secondary school students

2. To assess the internet usage among government and private senior secondary school students

Hypotheses

1. There will be no significant difference in internet usage among male and female senior secondary school students
2. There will be no significant difference in internet usage among government and private senior secondary school students

Method Used

The study employed a descriptive research method to examine the effect of internet usage on the mental health and study habits of senior secondary students. This approach was appropriate for identifying existing patterns and relationships within the selected population.

Population

The population for the study consisted of senior secondary school students enrolled in government and private schools across Haryana, representing both urban and rural areas.

Sample and Sampling Technique

A total of 600 students were selected from two randomly chosen districts of Haryana. Within each district, stratified random sampling was used to ensure balanced representation from gender and types of schools situated at in both urban and rural settings.

Tools Used

Data were collected using the Internet Usage Scale developed by Shaloo Saini and Parminder Kaur (2017).

Statistical Techniques Used

Mean, SD and 't' test were used to analyzed the data.

Data Analysis

Table 1   Comparison of Internet Usage among male and female senior secondary school students.

Gender	N	Mean	Std. Deviation	't' test
Male students	300	56.02	15.942	2.926**
Female students	300	52.02	17.507	

Significant at 0.01 level

Table 1 presents a comparison of internet usage among male and female senior secondary school students. The sample consisted of 300 male and 300 female students. The mean internet usage score for male students was 56.02 with a standard deviation of 15.94, while the mean for female students was 52.02 with a standard deviation of 17.51. The computed t-value of 2.926 is statistically significant at the 0.01 level, indicating that there exists a significant difference in internet usage between male and female students. Specifically, male students were found to use the internet more frequently or extensively than their female counterparts. This suggests that gender plays a notable role in influencing internet usage patterns among senior secondary students.

Table 2   **Comparison of Internet Usage among government and private senior secondary school students.**

Types of School	N	Mean	Std. Deviation	't' test
Government school students	300	56.00	18.654	2.896**
Private school students	300	52.04	14.589	

Significant at 0.01 level

Table 2 compares the internet usage between government and private senior secondary school students. The sample included 300 students from government schools and 300 from private schools. The mean internet usage score for government school students was 56.00 with a standard deviation of 18.65, while private school students had a lower mean score of 52.04 and a standard deviation of 14.59. The calculated t-value of 2.896 is significant at the 0.01 level, indicating a statistically significant difference in internet usage based on the type of school. Interestingly, government school students reported higher internet usage compared to private school students, suggesting a shift in access patterns or usage behaviors among school types that may merit further investigation.

Findings

Senior secondary school male students had higher significant internet usage than their female counterparts in the study. While Government school students also had higher Internet-using time than private school students. There was a statistically significant difference in internet use by gender. Furthermore, there was a significant difference in internet use among students from government and private schools.

Discussion of Results

The findings support existing literature that highlights **gender differences in internet behavior**. As observed by **Mehta (2016)** and **Choudhury (2017)**, boys tend to use the internet more extensively, often engaging in both academic and non-academic activities. **Sharma (2021)** also reported higher internet addiction among male adolescents, consistent with the current finding that male students had higher mean scores for internet use. Interestingly, the result that **government school students used the internet more than private school students** contrasts with earlier findings by **Raj (2018)** and **Patel (2019)**, who noted that private schools generally had better digital infrastructure. However, this shift may be explained by **Pandya (2024)**, who observed increased government efforts to improve internet access in rural schools under Digital India initiatives. It also aligns with **Desai (2023)**, who noted increasing digital participation in government school students from underserved areas, especially after the pandemic pushed remote learning to the forefront.

These findings challenge previous assumptions and reflect changing access patterns and evolving student behavior in both educational contexts.

Educational Implications and Suggestions

1. **Digital Awareness Programs** should be introduced, especially for **female students**, to build confidence and equitable access to online platforms.
2. **Government and school authorities** must ensure that internet facilities are available and responsibly used in both types of institutions, especially private schools that may underutilize available resources.
3. Teachers should be trained to **integrate digital tools into daily teaching**, ensuring guided internet use that enhances learning and minimizes distraction.
4. Curriculum developers should embed **digital literacy and cyber-safety** modules at the secondary level, catering to gender-sensitive and inclusive internet usage.
5. Future studies could explore **qualitative insights** behind these patterns to develop more targeted interventions and understand the underlying causes of usage behavior.

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