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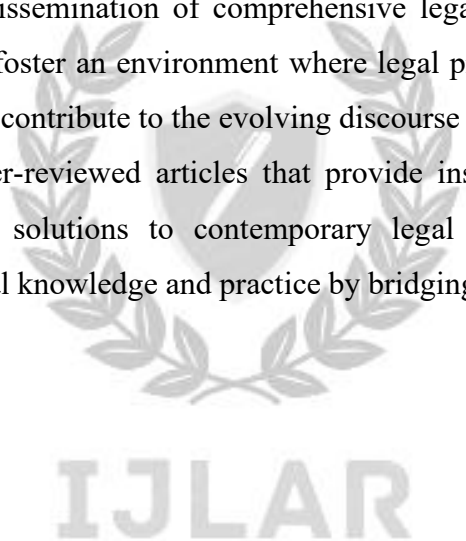
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Introduction

Welcome to the Indian Journal of Legal Affairs and Research (IJLAR), a distinguished platform dedicated to the dissemination of comprehensive legal scholarship and academic research. Our mission is to foster an environment where legal professionals, academics, and students can collaborate and contribute to the evolving discourse in the field of law. We strive to publish high-quality, peer-reviewed articles that provide insightful analysis, innovative perspectives, and practical solutions to contemporary legal challenges. The IJAR is committed to advancing legal knowledge and practice by bridging the gap between theory and practice.



Preface

The Indian Journal of Legal Affairs and Research is a testament to our unwavering commitment to excellence in legal scholarship. This volume presents a curated selection of articles that reflect the diverse and dynamic nature of legal studies today. Our contributors, ranging from esteemed legal scholars to emerging academics, bring forward a rich tapestry of insights that address critical legal issues and offer novel contributions to the field. We are grateful to our editorial board, reviewers, and authors for their dedication and hard work, which have made this publication possible. It is our hope that this journal will serve as a valuable resource for researchers, practitioners, and policymakers, and will inspire further inquiry and debate within the legal community.

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Description

The Indian Journal of Legal Affairs and Research is an academic journal that publishes peer-reviewed articles on a wide range of legal topics. Each issue is designed to provide a platform for legal scholars, practitioners, and students to share their research findings, theoretical explorations, and practical insights. Our journal covers various branches of law, including but not limited to constitutional law, international law, criminal law, commercial law, human rights, and environmental law. We are dedicated to ensuring that the articles published in our journal adhere to the highest standards of academic rigor and contribute meaningfully to the understanding and development of legal theories and practices.

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DIGITAL ADDICTION AMONG STUDENTS: A LEGAL STUDY ON CYBER-LAW AWARENESS, PARENTAL SUPERVISION, AND RESPONSIBLE DIGITAL BEHAVIOUR

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Abstract: -

The continued growth of social media, virtual worlds and other digital platforms has played a major impact on student's behavior on the Internet. This has sparked concerns about digital addiction, cyberbullying, aggressive online behavior and responsible use of digital technologies. Such developments also pose important legal issues on awareness of cyber-law, parental responsibility, digital safety and effectiveness of legal education among students. The study analyzes the behavior of digital use from the legal perspective, highlighting the link between digital addiction, parental supervision, awareness of the legal consequences of misbehaviour in cyberspace and cyber law education in schools. The study was based on responses from 118 respondents through a structured questionnaire which includes different age groups, genders and residential backgrounds. The analysis also includes indicators of problematic digital use (e.g. spending more time online than planned, losing track of time on social media) and behavioral indicators of digital misconduct. The legal dimension examines students' awareness of the legal consequences of cybercrimes and if they were taught about cyber-law in school. The role of parental supervision in regulating children's social-media use is also examined. Results show high levels of problematic digital use despite parental supervision and differences between the age and gender groups. The results also emphasize the significance of legal awareness and cyber law education in understanding the digital behavior of students. But the results of the associations show that awareness and supervision are not enough to fight problematic digital participation. Hence, this study emphasizes the importance of integrated approach of parental guidance, online literacy, education on cyber law at school, awareness on legal consequences and suitable preventive measures. From a legal perspective, raising students' awareness of cyber-law can foster more responsible digital behavior and a better understanding of the legal consequences of misbehavior in cyberspace.

Keywords: Social Media, Digital Gaming, Cyberbullying, Juvenile Behaviour, Child Protection, Cyber Law, Digital Safety, Virtual Violence, Digital Misconduct, Responsible Digital Behaviour

1. Introduction

We are living in a digital age and it is changing everyday life and social interaction. Digital platforms have made a huge impact on modern society especially on children and young adults. “The Internet has changed the way we think, the way we behave, the way we learn and the way we communicate. It has changed our relationship to the physical world around us.” The younger generations are moving away from traditional outdoor recreation to screen-based activities and are building social networks virtually rather than face to face. Digital devices provide valuable resources for education, leisure and connectivity but their unregulated and excessive use is of growing concern to parents, teachers and policymakers. The aim of this research is to analyze the impact of social media and digital gaming on the behavior of students and the legal problems that arise from it. It discusses several behavioral changes including higher levels of aggression, foul or disrespectful language from virtual environments, emotional instability, decreased respect for authority figures, and other socially maladaptive behaviors associated with prolonged online activity.

The development of online and digital gaming platforms has developed a significant influence on the leisure pursuits of contemporary youth. Additionally, young people under 18 years are particularly vulnerable to problematic gaming behaviors, as they are at critical periods of cognitive development, emotional regulation and psychosocial development. It is often associated with a decline of academic performance, increased social alienation, mood swings, sleep disruption and in extreme cases, acts of aggression beyond moderate amounts of gaming. A few disturbing episodes in India have increased public anxiety around gaming disorders. However, it is also important to recognize that digital games are not necessarily a precursor to aggressive behavior as many young people play these platforms responsibly and do not suffer any negative impact. But these addictions lead to serious public health and child welfare problems. Hence, there is a need for stringent regulations, efficient age verification systems, better parental awareness, systematic psychological support in schools, comprehensive online literacy programs and timely therapeutic interventions regarding the digital platforms. Such measures are needed to guaranty that children can enjoy the educational and recreational benefits of digital technology, while protecting their psychological health, development and

overall social well-being¹.

The digital revolution also influences how children and adolescents play, e.g., physical playgrounds are slowly being replaced by virtual ones and peer interactions are more and more taking place via digital or social media. The change has been more pronounced in India where access to cheap smartphones and low-cost internet services has enhanced digital access among children and adolescents. The COVID-19 pandemic also increased the time children spend on digital platforms as online learning became a necessity. This made the parents to accept the online platforms for educational and learning purposes. Digital platforms provide opportunities for learning, but also make children vulnerable to harmful content, cyberbullying, excessive screen time and digital dependency². The government has consistently enforced the legal and regulatory landscape shaping the digital ecosystem through legislative and policy reforms on cybersecurity, intermediary accountability, digital ethics and personal data protection³.

India has a number of laws, policies and guidelines to protect minors from the risks of social media and online gaming, as its legal framework for protecting children online has evolved⁴. The legal provisions strengthened the protection of children's digital privacy by establishing safeguards such as verifiable parental consent for processing of data and limitations on behavioural tracking and targeted profiling of minors⁵. The Bharatiya Nyaya Sanhita, 2023 has criminalised many cyber-related offences like online cheating, identity theft, cyberstalking, online harassment, sharing of obscene or sexually explicit content and other forms of technology-facilitated abuse⁶. The child protection reforms introduced in 2012 and 2015 also provide a legal framework for protecting children in protective and rehabilitative settings⁷.

Statutory protection, institutional mechanisms and educational policies of India help in prevention and awareness. The National Education Policy, 2020 emphasizes internet literacy, cyber hygiene, responsible online behavior, teacher capacity-building and parental participation to create a safer digital learning environment⁸. Children's age and emotional development often make it hard for them to use the freedom responsibly when you put digital devices in their hands. Digital platforms also have no way of knowing who is actually using

¹ (Virtual Violence: Law, Technology and Protection of Adolescents in Cyberspace, n.d.)

² (Government committed to fostering AI innovation and growth of digital platforms in responsible and secure manner, while protecting children and other vulnerable users from emerging risks, 2026)

³ (Government accords highest priority for ensuring the safety and security of children, 2025)

⁴ (Information Technology Act, 2000)

⁵ (Digital Personal Data Protection Act, 2023)

⁶ (The Bharatiya Nyaya Sanhita, 2023)

⁷ (Ministry of Women and Child Development, 2026)

⁸ (Central Institute of Educational Technology, 2026)

the device. They depend on the information, confirmation and consent given by the user, without being able to verify whether it is provided by a child or an adult⁹.

2. Problem Statement

In India, according to research, 60% of children in urban areas are spending three hours a day on social media and gaming platforms¹⁰. There have been a number of documented cases of the consequences of living in the wild west of digital exposure. It is reported that a person had allegedly extorted gold ornaments worth Rs 3.5 lakh from a 14-year-old boy addicted to online gaming in Pune¹¹. Blue Whale challenge claims first victim in India, online game that leads people to self-harm and suicide. A 20-year-old youth died by suicide in Pune, Maharashtra, while doing a task in the game¹². A 16-year-old student of the 10th standard in Pimpri-Chinchwad also took his life in a case linked to addiction to online gaming. Police have stressed “the importance of parents and guardians monitoring and controlling their children’s online presence closely”¹³. In June 2022, a 16-year-old boy was allegedly shot to death by his mother in Lucknow who had stopped him from playing PUBG several times and allegedly covered up the crime for two days¹⁴. In a shocking incident that surfaced in March 2025, a 21-year-old college student from Jagatsinghpur district in Odisha is said to have killed his parents and sister when they objected to his excessive mobile gaming habit¹⁵. In a similar incident in June 2026, an 18-year-old youth in Koppal district of Karnataka allegedly stabbed his father and sister to death and severely injured his mother, with investigators probing whether his online gaming addiction was a factor in the incident¹⁶. These cases show the potential risks associated with digital addiction.

3. Review of Literature

Previous studies show that social media platforms like YouTube, Instagram, Facebook and WhatsApp have become integrated into students’ daily lives and have educational and communication benefits, but also pose cyber threats, misinformation, cyberbullying and

⁹ (National Commission for Protection of Child Rights, 2024)

¹⁰ (Social media, OTT, online gaming usage rises: 60% urban kids spend 3 hours daily, 2023)

¹¹ (Pune rural police arrest two for extorting gold from minor, 2025)

¹² (Pune Man Killed Himself To Complete Task In Online Game: Police, 2019)

¹³ ('Gaming Addict' Pune Teen Jumps From 14th Floor, 2024)

¹⁴ (16-year-old boy shoots dead mother for stopping him from playing PUBG, 2022)

¹⁵ (Odisha youth bludgeons parents, sister to death after 'days of no sleep and heated arguments', 2025)

¹⁶ (Online gaming addiction shocker in Karnataka, teen stabs father and sister to death, 2026)

excessive exposure to screens. Research regularly documents effects of extended digital activity, including behavioural issues, such as aggression, emotional instability, anxiety, sleep problems, less family interaction and poor academic performance. Similar findings have been reported in studies of digital gaming which suggest that excessive gaming may promote social isolation, impulsive behavior and greater exposure to violent content, although the extent of these effects is shaped by individual, familial and environmental factors¹⁷.

Scholars have widely investigated the contribution of major legislative reforms and other child protection measures to safeguard minors from online harms in legal analysis. The effectiveness of these legal frameworks in combating cyber offences, online sexual exploitation, data privacy, intermediary accountability and rehabilitation and protection of children exposed to risks emanating from social media and online gaming is being evaluated in current studies¹⁸. However, most legal studies remain doctrinal and mostly deal with statutory provisions and judicial decisions. The empirical literature on the effectiveness of these legal frameworks in addressing emerging issues such as misbehaviour on cyberspace, online harassment, abusive online behaviour, and digital addiction among school and college students is sparse. Furthermore, there is little research that has included the perspectives of students, parents and teachers simultaneously, in assessing behavioural changes, legal awareness, parental monitoring and institutional reactions. Hence, the current study tries to bridge this gap by combining empirical evidence and legal analysis to assess the effectiveness of existing legal and policy interventions that regulate children's digital safety in India.

4. Research Gap

The psychological, educational and technological dimensions of social media and digital gaming have been widely studied in the existing literature but there are major gaps in understanding their legal awareness among students and their behavioural changes¹⁹. Most research focuses on cybercrime, digital addiction or mental health. There is little empirical investigation of the effect of prolonged digital exposure on legally significant behaviours, such as aggression, misbehaviour on cyberspace, online harassment, abusive language, and anti-social behaviours among school and college students²⁰. The current literature further lacks sufficient evidence on the relationship between the behavioural changes observed by parents

¹⁷ (Ajay Kumar, 2025)

¹⁸ (Kothainayagi V, 2006)

¹⁹ (Sharma, Sharma, Bakshi, & Duggal, 2022)

²⁰ (Chauhaan, 2026)

and the likelihood of juvenile delinquency or violation of cyber laws²¹.

Another major gap is the lack of integration of empirical research and doctrinal legal analysis. The existing legal scholarship predominantly deals with the statutory provisions without testing their practical efficacy by primary stakeholder evidence²².

5. Research Objectives

- To examine the pattern of social media use and digital gaming among school and college students.
- To investigate the relationship of duration of social media usage and behaviour changes among students.
- To investigate whether excessive time spent gaming digitally results in aggressive, violent or antisocial behaviour.
- To explore the extent of online harassment, abusive language, and other digital misconduct among students.
- To evaluate the awareness level on cyber laws and legal implications of students' online activities.
- To assess how effective parental supervision is at reducing harmful online behaviour.

6. Research questions

This study is guided by the following research questions:

- What are the relationships between social media usage, online gaming, digital addiction and behavioral changes in students?
- How is digital addiction related to serious digital misconduct, such as abusive language, aggressive or violent imitation, and anger associated with digital-media use?
- How parental supervision relates to problematic digital-use behaviors among students, and if this relationship varies by age and gender?
- What is the level of awareness among students about the legal consequences of misbehaviour on cyberspace, and what is the role of school based cyber-law education in the legal awareness?
- What insights do the identified trends of digital addiction, digital misconduct, parental

²¹ (Rayana Afrin, 2026)

²² (Gupta, 2025)

monitoring and awareness of cyber-law offer to improve the legal consciousness, preventive cyber-law education and policy initiatives for safer digital behavior among students?

7. Research Methodology

Research Design

The present study adopts a mixed empirical and doctrinal legal research methodology to examine digital addiction, online gaming, social-media use, behavioural changes, parental supervision, and cyber-law awareness among students. The empirical component of the study is quantitative and is based on primary data collected through a structured questionnaire. The doctrinal component examines the legal and policy framework governing online safety, cyber misconduct, and the protection of children and students in digital environments in India. The empirical analysis is used to detect trends and associations in students' digital behavior, and the doctrinal analysis is used to consider the legal implications of the findings.

Primary Data

For the purposes of this investigation, primary empirical data were sourced using a standardized questionnaire, with 118 individuals providing valid responses. The questionnaire collected information relating to the age and gender of the student, area of residence, social-media platforms used, online gaming habits, duration and type of gaming, behavioural responses associated with digital-media use, parental supervision, awareness of the legal consequences of misbehaviour on cyberspace, and exposure to school-based cyber-law education. The questionnaire primarily employed a five-point Likert scale for behavioural, supervisory, and legal-awareness statements. Multiple-response questions were used for social-media platforms and types of online games.

Secondary Data

The doctrinal component of the research relies on relevant Indian statutes, rules, government policies, judicial decisions, official reports, scholarly literature, books, journal articles, and other authoritative materials relating to cyber law, child online safety, cyberbullying, digital platforms, and protection from online harms. The secondary legal materials are used to examine whether the existing legal framework adequately responds to the types of digital risks and behavioural concerns identified through the empirical study and to develop appropriate legal

and policy recommendations.

Population and Sample

The empirical study is based on a sample of 118 respondents representing students of different age groups, gender and residential backgrounds.

The age distribution was as follows:

- 5-12 years: 46 responses
- 13-18 years: 34 responses
- Above 18 years: 38 responses

The sample consisted of 63 males and 55 females. Regarding residence 74 respondents were from cities and 44 from villages. The demographic classification makes it possible to compare digital behavior, supervision and legal awareness between age, gender and residential groups.

Research Instrument

The main instrument for primary data collection was a structured questionnaire. The questionnaire included 19 variables/items and it addressed demographic characteristics and major dimensions of students' digital behavior.

The principal areas examined were:

- Demographic characteristics;
- Social-media platform usage;
- Online gaming participation and duration;
- Excessive or uncontrolled digital use;
- Behavioural changes and digital misconduct;
- Aggressive behaviour associated with online content;
- Parental supervision;
- Awareness of the legal consequences of misbehaviour on cyberspace;
- A school-based cyber-law education.

The use of structured questions facilitated quantitative comparison between different categories of respondents.

Measurement of Major Variables

To facilitate data interpretation, individual survey items were systematically aggregated under larger conceptual dimensions relevant to the research objectives.

- Digital addiction/problematic digital use was assessed using indicators such as becoming irritated when unable to access social media, spending more time online than originally intended, and losing track of time while using social media.
- Serious digital misconduct/aggressive behaviour was examined using responses relating to the use of abusive words learned from online content, imitation of aggressive or violent behaviour displayed online, and anger when interrupted during gaming or social-media use.
- Parental supervision was measured through the statement, "I supervise children's social media use."
- Legal awareness was measured through the statement, "S/he knows that misbehaviour on cyberspace may have legal consequences."
- Cyber-law education was measured through the statement, "School has educated my kid about cyber laws."

For descriptive interpretation of Likert-scale responses, scores of 4 and 5 were treated as agreement/high presence of the relevant characteristic, while the complete Likert scores were retained where means, correlations, regression analyses, and reliability tests were required.

Data Analysis

The collected data were analysed using both descriptive and inferential statistical methods.

- Descriptive statistics included frequencies, percentages, means, and cross-tabulations. Comparisons were made according to age group, gender, and, where relevant, area of residence.
- Inferential statistical techniques were employed to examine relationships between the principal study variables. These included Pearson correlation, Spearman rank correlation, independent/group comparisons, analysis of variance (ANOVA), non-parametric tests where appropriate, and multiple linear regression.
- Regression models were used, where appropriate, to examine whether observed relationships remained after accounting for demographic variables such as age and gender. Statistical significance was generally assessed at the 5% level ($p < 0.05$).
- Internal consistency of multi-item constructs was evaluated using Cronbach's alpha.

Hypothesis Testing

The empirical component tests relationships concerning:

- Students who participate in online gaming exhibit significantly different levels of digital addiction compared with students who do not participate in online gaming.
- Higher levels of digital addiction are significantly associated with higher levels of aggressive behaviour among students.
- Higher levels of digital addiction are significantly associated with greater use of abusive language learned from online content.
- Higher levels of digital addiction are significantly associated with changes in students' social and interpersonal behaviour.
- Awareness of the legal consequences of misbehaviour on cyberspace is significantly associated with students' levels of digital addiction.
- Exposure to school-based cyber-law education is significantly associated with students' levels of digital addiction.
- Parental supervision of social-media use is significantly associated with students' problematic digital-use behaviour.

The null hypothesis for each statistical test assumes that no significant relationship exists between the variables concerned. A null hypothesis is rejected where the statistical evidence satisfies the predetermined significance criterion. Since the data are cross-sectional and observational, statistically significant relationships are interpreted primarily as associations rather than causal effects.

Doctrinal Legal Analysis

Apart from the empirical analysis, the study applies the doctrinal method of legal research to study the Indian legal framework regarding digital harms relating to the students and minors. The doctrinal analysis takes into account relevant legal provisions and regulatory mechanisms on cyber offenses, misbehaviour on cyberspace, online harassment, harmful digital content, child protection, intermediary responsibility, privacy and digital safety. The legal analysis is then set against the patterns of behavior and legal awareness which emerge from the survey. This approach is useful to identify potential gaps between the digital experiences of students, their levels of legal awareness, preventive education and the protection provided by the current legal and regulatory framework.

Integration of Empirical and Legal Analysis

The study's unique contribution is the combination of empirical findings and doctrinal legal

analysis. The survey itself does not decide the legal sufficiency of Indian cyber laws. Instead, the empirical findings describe the nature and extent of selected digital-use and behavior concerns of the respondents. These findings are the factual basis for the legal analysis that follows. The doctrinal part is then followed by an analysis of the relevant legal and regulatory responses and a discussion of the need for improvements in cyber-law education, legal awareness, parental guidance, preventive measures or policy interventions.

The methodology is therefore structured as follows:

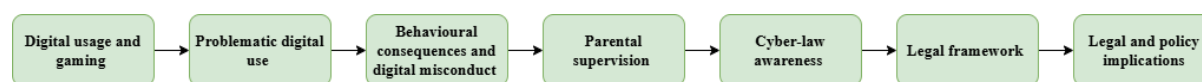


Figure 1. Research methodology sequences

8. Scope of the Research

The study examined the relationship between social media use, online gaming, digital addiction and behavioral changes among students and analyzed 118 responses to a survey. It analyzes differences in age, gender and residential background and examines behavioral indicators such as aggressive behavior, abusive language, overuse of digital media and loss of control of the time spent online. The study also examines parental supervision, knowledge of the legal consequences of misbehaviour on cyberspace and cyber-law education in schools. From a legal perspective, it considers the relevance of the Indian legal and regulatory framework in addressing digital harms and promoting responsible digital behaviour among students.

9. Conceptual Framework

The conceptual framework illustrates the relationship between digital exposure factors, digital addiction, behavioural outcomes, legal and protective factors, and legal and policy implications. The framework proposes that students' patterns of digital exposure are associated with their level of digital addiction or problematic digital use, which in turn is associated with various behavioural outcomes. At the same time, legal awareness, cyber-law education, and parental supervision are examined as protective or associated factors that may have a relationship with problematic digital behaviour. The findings arising from these relationships provide a basis for considering appropriate legal, educational, parental, and policy responses to digital harms affecting students.

Digital Exposure Variables: The independent variables of the framework are related to student exposure to social media and online gaming. Excessive social-media use is defined by

problematic behaviours such as spending more time on social media than planned, losing track of time when using social media, and getting irritated when unable to access social media. Online gaming duration is the number of hours students play games online on a daily basis. Type of social-media platform used to know the different platforms that students regularly access including YouTube, Instagram, WhatsApp, Facebook, Snapchat, X (Twitter) and others. Participation in online gaming shows whether a student plays games on the digital device. These factors are analysed for the association with digital addiction for different forms and levels of digital exposure.

Digital addiction: The term digital addiction referred to a problematic and poorly controlled use of digital media, including substance use, such as feeling irritated when unable to access social media, spending more time on social media than planned, and losing track of time while using social media. Digital addiction is the main variable linking digital exposure and behavioral outcomes. In this study, problematic digital use is indicated by irritation in not being able to access social media, spending more time online than intended, and losing track of time while using social media. These behaviors suggest difficulty in managing digital-media use, not a clinical diagnosis of addiction. The framework investigates the extent to which social media and gaming related factors are associated with higher levels of these problematic digital-use behaviors.

Behavioral Outcomes: The framework analyzes whether students demonstrate behavioral changes with increased levels of digital addiction. “Aggressive behavior” means imitating aggressive or violent behavior seen in video games or videos. “Abusive language” means the words of abuse that are learned from the content on the Internet. The changes in social and interpersonal behavior are to do with the effect social media has on the way students speak and interact with people. The study also looks at anger or irritation at being interrupted while using gaming or social-media as a sign of problematic behavioral response. These variables are then combined to investigate the behavioral implications of problematic digital engagement.

Legal Awareness: The legal dimension of the conceptual framework is the awareness of legal consequences. It is determined by students’ knowledge that misbehaviour on cyberspace can have legal consequences. The study seeks to explore whether increased awareness of such consequences among students leads to different levels of problematic digital use. Thus, legal awareness is considered as an associated or potentially protective factor instead of being assumed to directly reduce digital addiction. Cyber-law education means the school is educating the student on cyber laws. This variable relates to the legal framework’s preventive-

educational aspect. The study investigates the significant association of exposure to cyber-law education with students' digital addiction and responsible digital behavior levels. It also provides a framework to reflect on the need to emphasize legal literacy and digital responsibility in education institutions.

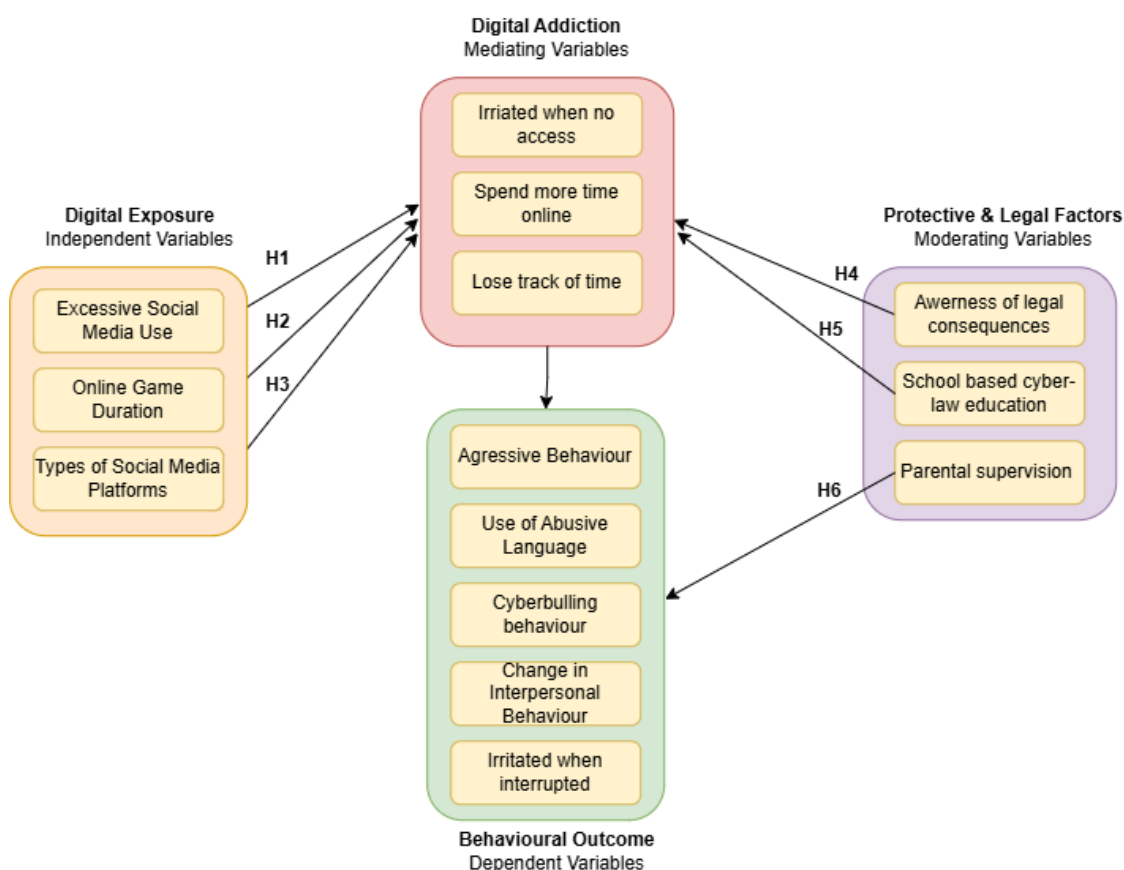


Figure 2. Conceptual Framework

Parental Supervision: Parental supervision is when the parents watch or supervise their children's social media usage. It is discussed in relation to problematic digital use indicators such as spending more time online than intended and losing track of time when using social media. The framework does not assume that supervision will automatically reduce digital addiction. Rather, it examines whether parental supervision is strongly associated with students' problematic digital-use behavior, and whether association patterns are different across age and gender groups.

Legal and Policy Implications: The last part of the framework links the findings of the empirical analysis to the higher legal goals of the research. Cyber-law awareness, school-based legal education, parental guidance, preventive measures and digital-safety policies: implications of digital addiction, aggressive behavior, abusive language, poor legal awareness and problematic online engagement. These empirical findings provide a factual basis for the

doctrinal analysis of the Indian legal framework and for the consideration of whether enhancements in legal education, preventive mechanisms, institutional responses and policy measures are needed to protect students from emerging digital harms.

In general, the conceptual framework provides a logical progression from digital exposure to problematic digital use and behavioral outcomes, while also taking into account legal awareness, cyber-law education and parental supervision as relevant protective or associated factors. This allows the empirical results of the 118-response survey to be incorporated into the legal part of the research without assuming causal relationships that cannot be proven in a cross-sectional survey.

10.Limitations of the Study

There were some methodological limitations to the study. The sample consists of 118 respondents and therefore, the findings should not be generalized to the entire student population of India. Second, the data are based on questionnaire responses and may be influenced by perception, recall and response bias. Third, the research uses a cross-sectional design, so statistical relationships cannot determine causation. However, it may be that higher parental supervision is observed because a student already exhibits problematic digital use, rather than parental supervision causing an increase or decrease in such behavior. The study does not provide a clinical diagnosis of digital addiction and does not establish causal relationships between the variables. It does not measure cyberbullying victimization, exposure to specific harmful content, parents' knowledge of specific legal remedies or reporting mechanisms or efficacy of specific Indian laws directly. Finally, some general legal questions, such as the adequacy of current Indian laws and the need for specific regulatory reforms, cannot be answered solely on the basis of the questionnaire. These are therefore answered separately by doctrinal legal analysis and interpretation of authoritative secondary sources.

11.Results and Findings

The empirical analysis is based on 118 valid questionnaires. The results are presented in terms of descriptive statistics, cross tabulations, graphical representation, correlation analysis, regression analysis and hypothesis testing. For Likert-scale questions, the responses 4 and 5 are considered Agree/Strongly Agree, descriptively. Findings are analyzed by age, gender, residence, social-media use, games played online, behavioral outcomes, parental supervision and cyber-law awareness.

Demographic Profile of Respondents

Age group	Male	Female	Total	Percentage
5-12	29	17	46	39.0%
13-18	12	22	34	28.8%
Above 18	22	16	38	32.2%
Total	63	55	118	100%

Table 1: Demographic Distribution of Respondents by Age Group and Gender

Table 1 represents sample included students from three age groups, 5-12 years, 13-18 years and above 18 years. Out of the 118 respondents, 46 (39.0%) were in the 5-12 age group, 34 (28.8%) were in the 13-18 age group and 38 (32.2%) were Above 18 years. There were 63 (53.4%) males and 55 (46.6%) females. It can be seen that the males are the larger group for the respondents aged 5-12 and Above 18 years, and the females are the larger proportion for the respondents aged 13-18 years. The demographic distribution is important as later patterns in digital usage and behavior are compared across these age-gender categories.

Social-Media Usage among Students

The respondents were asked to name the social-media platforms that the student used regularly. Multiple responses were allowed, so the percentages are not mutually exclusive.

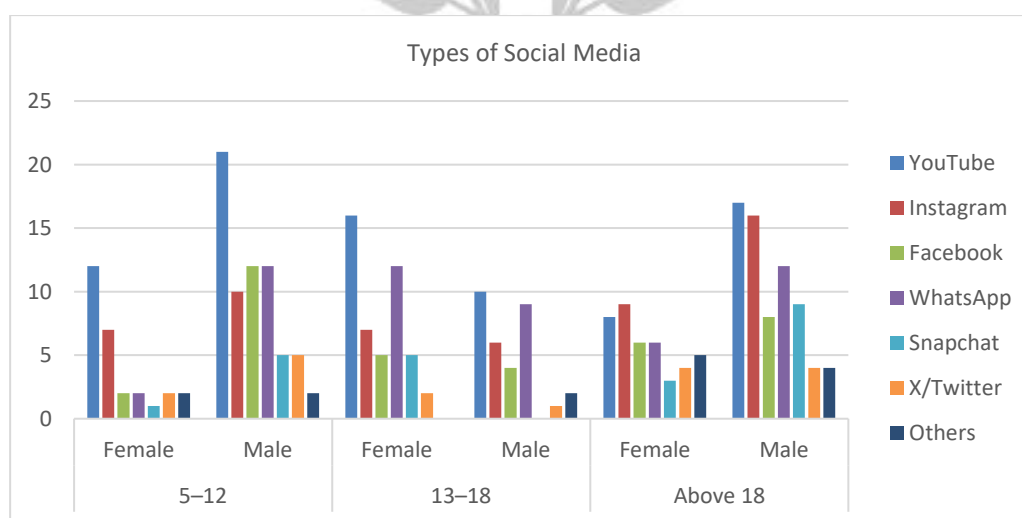


Figure 3. Types of social-media platforms used by age group and gender

The visual representation of Figure 3 establishes that YouTube maintains the highest usage rates across nearly every demographic category, irrespective of age or gender. Instagram and WhatsApp constitute the next most frequently used platforms. Above-18 males display particularly high use of YouTube and Instagram, while YouTube remains prominent even

among the younger groups. Although YouTube is the most frequently used platform, the statistical analysis did not establish that YouTube users have significantly greater digital-addiction scores than non-users. Similarly, no consistent overall significant association was observed between individual platform type and the two-item problematic digital-use score.

Problematic Social-Media Use and Loss of Time

Two important indicators of problematic social-media engagement were:

- S/he spends more time online than originally intended, and
- S/he loses track of time while using social media.

Indicator	Agree/Strongly Agree	Percentage
More time online than originally intended	60	50.8%
Loses track of time while using social media	68	57.6%

Table 2: Prevalence of Problematic Digital-Use Indicators among Respondents

Table 2 shows the total of the 118 respondents, 60 (50.8%) agreed or strongly agreed that students spend more time online than intended. Similarly, 68 (57.6%) reported losing track of time while using social media.

Variable	Mean	Median	SD
More time online than intended	3.38	4	1.01
Loses track of time	3.53	4	1.15

Table 3: Descriptive Statistics of Problematic Digital-Use Indicators

Table 3 exhibits Mean, median and standard deviation (SD) that were used to investigate the overall pattern and variability of responses. The mean for more time online than intended was 3.38, the median was 4, and the SD was 1.01. The mean for losing track of time was a little higher at 3.53 with a median of 4 and an SD of 1.15. Findings show that a large percentage of respondents reported these problematic digital-use behaviours. Both variables have a median score of 4 on the five-point Likert scale.

City-Village Differences in Losing Track of Time

The city-village comparison provides additional insight into excessive social-media engagement. Figure 4 indicates substantial differences across demographic subgroups. Particularly noticeable is the high reported time-loss behaviour among village males aged 5-12. City males aged 13-18 also demonstrate substantial loss-of-time behaviour. Village respondents therefore show a somewhat higher proportion of time-loss behaviour than city

respondents.

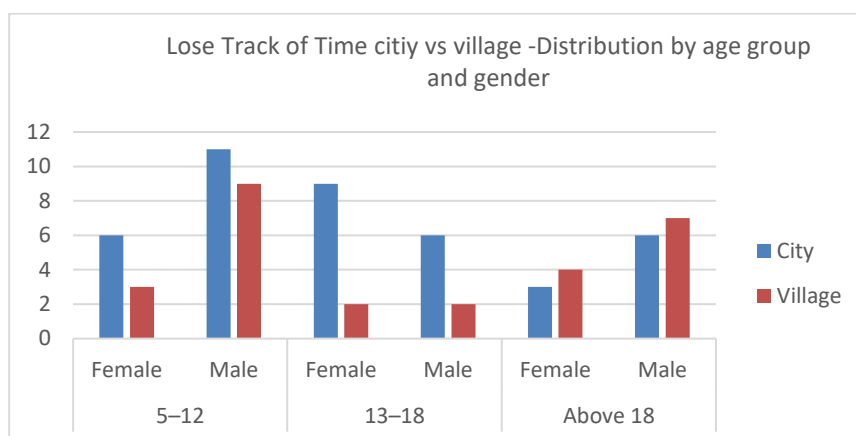


Figure 4: Loss of track of time by city/village, age group and gender

Participation in Online Gaming

Out of 118 respondents, 65 (55.1%) reported playing online games, while 53 (44.9%) did not. Gaming participation itself was associated with higher levels of digital addiction. Gamers had a mean three-item digital-addiction score of approximately 3.55, compared with approximately 3.01 among non-gamers.

The point-biserial association was: $r = .303$, $p < .001$

This suggests that students who participate in online gaming generally report higher problematic digital-use scores than those who do not.

Gaming Duration and Digital-Use Patterns

Among the 118 respondents, 65 students (55.1%) reported participating in online gaming, while 53 (44.9%) reported that they did not play online games.

Gaming duration	Number	% of gamers
Less than 1 hour	10	15.4%
1-2 hours	30	46.2%
3-4 hours	15	23.1%
More than 4 hours	10	15.4%

Table 4: Distribution of Online Gamers by Daily Gaming Duration

Table 4 shows among the 65 students who played online games, the largest proportion, 30 students (46.2%), reported playing for 1–2 hours per day. This was followed by 15 students (23.1%) who played for 3–4 hours per day, while 10 students (15.4%) each reported playing for less than one hour and more than four hours per day which is illustrated in Figure 5.

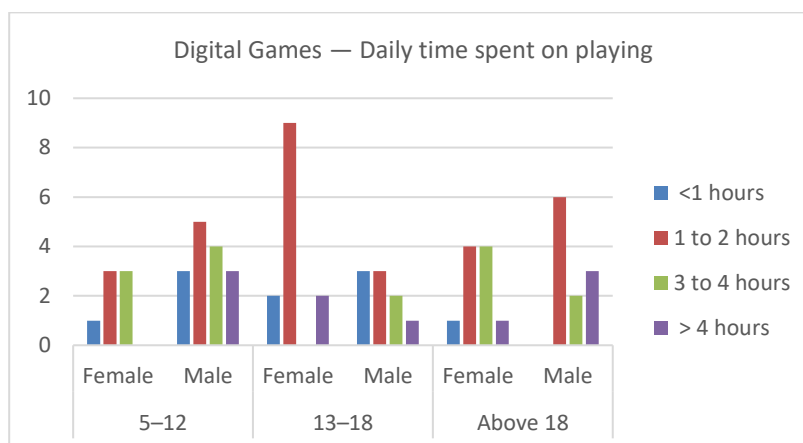


Figure 5. Daily time spent playing digital games by age group and gender

The digital-addiction scores were also examined across the four gaming-duration categories.

Gaming duration	n	Mean	Median	SD
<1 hour	10	3.75	3.88	1.03
1-2 hours	30	3.57	3.50	0.79
3-4 hours	15	3.35	3.25	0.72
>4 hours	10	3.65	3.75	0.47

Table 5: Digital-Addiction Scores According to Daily Gaming Duration

Table 5 shows students who played for less than one hour per day recorded a mean of 3.75, compared with 3.57 among those playing for 1–2 hours, 3.35 among those playing for 3–4 hours, and 3.65 among those playing for more than four hours per day. The scores therefore did not demonstrate a consistent increase in digital addiction as daily gaming duration increased.

Spearman correlation: $\rho = -0.083$, $p = 0.510$

Pearson correlation: $r = -0.069$, $p = 0.583$

ANOVA: $F = 0.603$, $p = 0.616$

Exploratory statistical analysis further indicated that gaming duration was not significantly associated with digital-addiction scores. Pearson's correlation showed a very weak negative relationship, while Spearman's rank correlation similarly showed no significant monotonic association. Comparison of the four gaming-duration groups using one-way ANOVA also produced no statistically significant difference.

The results suggest that, in the sample we examined, the time spent on gaming per day was not statistically and significantly related to the level of digital addiction. In particular, students who reported longer gaming duration did not always report higher score of digital addiction. This implies that the time spent on gaming alone may not be sufficient to explain problematic

digital-use behavior and that other aspects of a digital engagement may also be equally contributing.

Types of Digital Games Played

Respondents who played online games were also asked about game type.

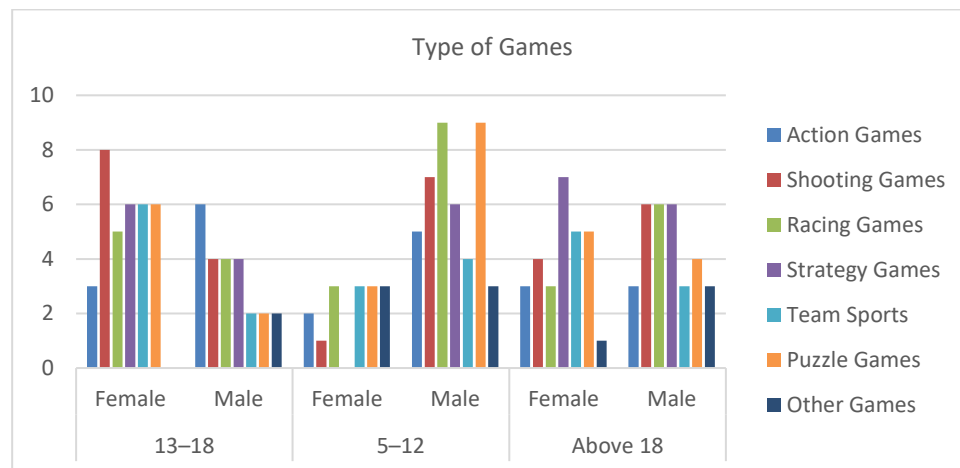


Figure 6. Types of online games played by age group and gender

Figure 6 indicates variation in game preferences according to age and gender. Action, shooting, racing, strategy, team-sports and puzzle games are all represented. Overall, the most frequently selected categories were Shooting Games and Racing Games, with Strategy and Puzzle games also showing substantial participation. It is especially useful for demonstrating that gaming activity cannot be treated as a single homogeneous behaviour; students engage with different types of games involving different patterns of competition, interaction, strategy and entertainment. However, the present study does not establish that any particular game category independently causes digital addiction or aggressive behaviour.

Behavioural Changes Associated with Digital Use

Six main behavioural indicators were examined:

- Irritation when access is unavailable;
- Imitation of characters/trends;
- Influence on way of speaking;
- Use of abusive words;
- Imitation of aggressive or violent behaviour; and
- Anger when interrupted.

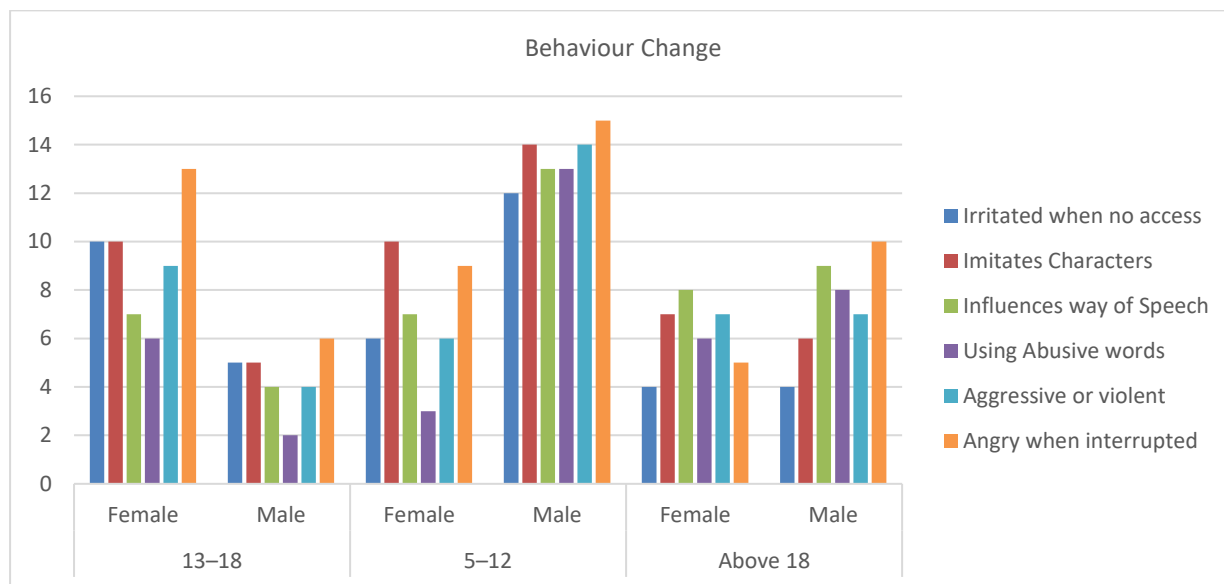


Figure 7. Behavioural changes by age group and gender

Figure 7 demonstrates that behavioural changes vary substantially according to age and gender. The 5-12 male group shows particularly high levels across several behavioural indicators, especially anger when interrupted, aggressive/violent imitation, abusive language and imitation of online characters.

The overall descriptive results are exhibited in the Table 6:

Behavioural indicator	Agree 4-5	Percentage
Irritated when unable to access	41	34.7%
Imitates online trends/challenges	52	44.1%
Social media influences speech	48	40.7%
Uses abusive words	38	32.2%
Imitates aggressive/violent behaviour	47	39.8%
Angry when interrupted	58	49.2%

Table 6: Distribution of Behavioural Changes Associated with Digital and Social-Media Use
Anger when interrupted was the most frequently reported of these behavioural outcomes.

Digital Addiction and Aggressive Behaviour

A composite digital-addiction score was developed using irritation when access was unavailable, spending more time online than intended and losing track of time. The aggressive-behaviour composite included abusive language, aggressive/violent imitation and anger when interrupted.

Construct	Mean	Median	SD	Cronbach's α
Digital addiction	3.31	3.33	0.90	0.771
Aggressive behaviour	3.08	3.00	1.01	0.766

Table 7: Digital Addiction and Aggressive Behaviour Constructs

Pearson correlation: $r = 0.528$, $p < 0.001$

Spearman correlation: $\rho = 0.488$, $p < 0.001$

Regression results: $B = 0.588$, $SE = 0.088$, $t = 6.70$, $p < 0.001$, $R^2 = 0.279$

Table 7 shows the statistical relation of digital addiction and aggressive behaviour. Digital addiction demonstrates a moderate statistically significant positive association with aggressive behaviour. Approximately 27.9% of the variance in aggressive-behaviour scores was explained by the simple linear relationship with digital addiction. The hypothesis that digital addiction is significantly associated with aggressive behaviour is therefore supported.

Digital Addiction and Abusive Language

Table 8 gives the statistical value on the use of abusive language learned from online content which was reported by 38 respondents (32.2%).

Construct	Agree/Strongly Agree	Percentage	Mean	Median	SD
Abusive Language	38	32.2%	2.96	3.00	1.15

Table 8: Descriptive Statistics of the Abusive Language Construct

Its relationship with digital addiction was:

Pearson $r = 0.437$, $p < 0.001$

Spearman $\rho = 0.433$, $p < 0.001$

Higher levels of digital addiction are significantly associated with greater use of abusive language learned from online content. Therefore, the corresponding hypothesis is supported as an association.

Knowledge of Legal Consequences and Cyber-Law Education

Table 9 shows the legal component of the study that examines whether respondents know that misbehaviour in cyberspace can have legal consequences and whether schools have educated students about cyber laws.

Legal variable	Agree 4-5	Percentage	Mean	Median	SD
Knows misbehaviour in cyberspace may have legal consequences	50	42.4%	3.22	3	1.19

Legal variable	Agree 4-5	Percentage	Mean	Median	SD
School has educated child about cyber laws	40	33.9%	2.98	3	1.21

Table 9: Cyber-Law Awareness and School-Based Cyber-Law Education Construct

These results indicate that less than half of respondents demonstrate high legal awareness, while approximately one-third report substantial school-based cyber-law education.

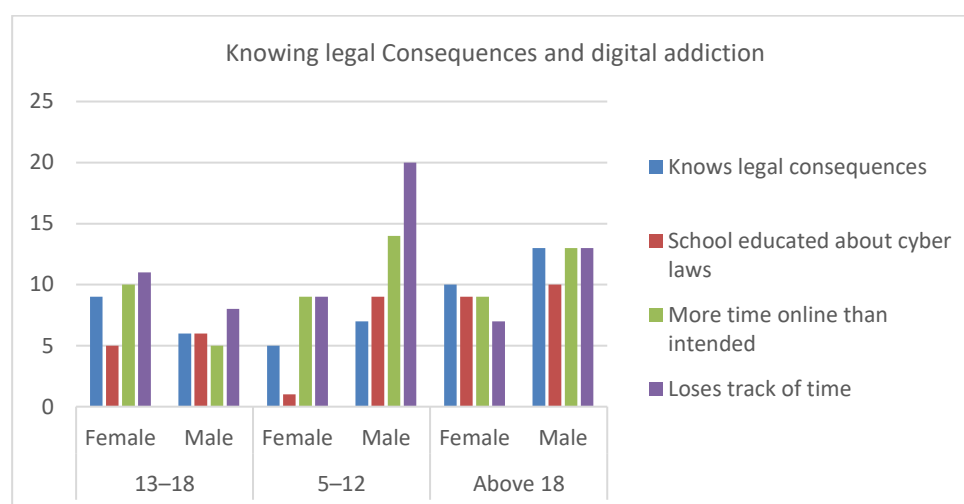


Figure 8. Behavioural changes by age group and gender

Figure 8 allows legal-awareness levels to be visually compared with the two problematic-use indicators by age and gender. The data reveal a clear age-related upward trend in legal awareness, yet the prevalence of problematic digital habits remains pronounced throughout the respondent pool.

Legal Awareness and Digital Addiction

The study investigated the question of whether there is a significant correlation between the level of digital addiction of students and the level of legal awareness. The level of legal awareness was measured through the questionnaire item “S/he is aware that misbehavior in cyberspace may have legal consequences”. Responses were scored on a 5-point Likert-type scale. Of the 118 respondents, 50 students (42.4%) agreed or strongly agreed that they knew that misbehavior in cyberspace could cause legal consequences. Mean awareness score was 3.22 (SD = 1.19) and median score was 3.00. The results show that the legal awareness of the students surveyed is at a medium level. Less than half of the students surveyed have a high level of legal awareness.

Parental Supervision and Problematic Digital Use

Parental supervision was measured through the statement:

“I supervise children's social media use.”

Mean = 3.57

Median = 4

SD = 1.11

A total of 66 respondents (55.9%) indicated high supervision.

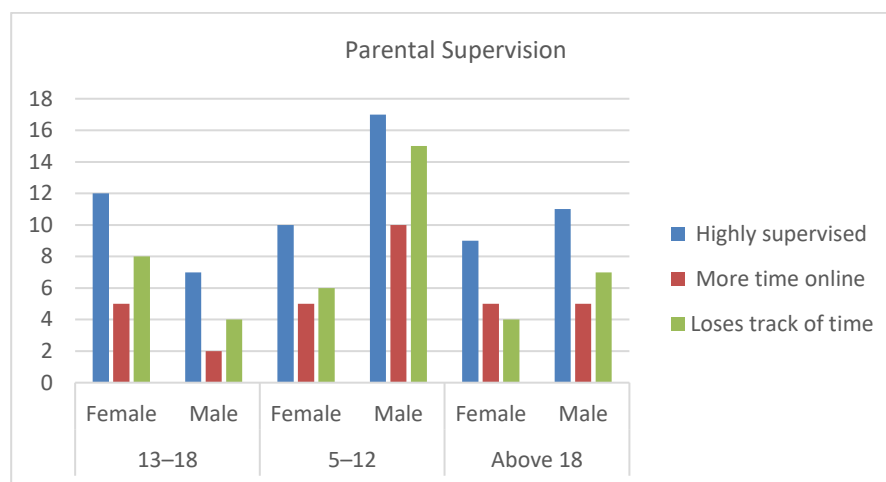


Figure 9. Behavioural changes by age group and gender

Figure 9 compares the number of highly supervised students with those who still report spending more time online than intended and losing track of time.

Among the 66 highly supervised students:

32 (48.5%) still spent more time online than intended.

44 (66.7%) still reported losing track of time.

The relationship between supervision and the problematic-use score was:

Pearson $r = 0.198$, $p = 0.032$

Spearman $\rho = 0.135$, $p = 0.146$

ANOVA: $F = 3.536$, $p = 0.032$

The high rate of time-loss behavior among highly supervised students suggests that parental supervision alone may not be adequate. An alternatively parents may increase their supervision after problematic use, which would account for the surprising positive association.

12.Current developments

The recent U.S. litigation of Meta provides a powerful example of how legal action may be used to regulate social-media design in the interest of children and teenagers. The BBC says

the settlement requires Meta to implement sweeping protections for young Facebook and Instagram users. This includes

- A default two-hour daily use limit for users under 18
- Stronger age verification
- Improved parental controls
- Restrictions on access during nighttime hours
- Limitations on notifications during school hours

The measures also aim to reduce engagement-driven features such as

- Continuous-use warning
- Controls over autoplay
- Algorithmic feeds
- Restrictions on certain appearance-related features.

The requirements reflect a regulatory stance that places the onus on children, parents and social-media companies to design platforms that will limit potentially addictive or harmful patterns of use²³. As the survey findings indicate high levels of loss of time control and excessive digital engagement among students, these developments are more relevant to this study. Such measures therefore offer a helpful comparative model in contemplating whether regulation of social-media use by children should include age-appropriate design, enforceable time limits, parental controls, restrictions on use during school and sleeping times, and enhanced platform accountability as part of digital child protection.

13. Conclusion

A significant percentage of the respondents report problematic digital engagement, as 57.6% lose track of time while using social media, and 50.8% spend more time online than they intend to. Digital addiction cannot be explained by the type of social-media platform or the amount of time spent gaming. However, online gaming is associated with substantially higher levels of problematic use. The most important empirical finding is the association between digital addiction and behavioral outcomes. Digital addiction is strongly linked to aggressive behavior, abusive language and changes in interpersonal communication. These findings suggest that digital engagement has broader behavioral ramifications beyond time spent online. The legal findings are also of significance. Awareness of the legal consequences of misbehaviour in

²³ (Shumaker Loop, 2026)

cyberspace and school-based cyberlaw education remains rather limited. Also, in this sample, greater legal awareness is not associated with lower digital addiction. In the same vein, increased parental supervision is not always linked to less problematic digital use. So, these results tell us that interventions alone are not sufficient, for example supervision or awareness. A more integrated response may be required including guidance for parents, school-based education on digital and cyber-law, behavior awareness, responsible use of platforms, preventive legal literacy and adequate policy mechanisms.

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