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IMPACT OF DIGITAL DEVICES ON EDUCATION SYSTEM IN JAMMU & KASHMIR

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Abstract

This research paper analyzes the influence of digital gadgets on the educational framework in Jammu and Kashmir from a sociological standpoint. The study utilizes primary data gathered from 96 participants, namely students and educated adolescents from both rural and urban regions. Data was collected via a structured questionnaire, interviews, that examined digital device usage trends, instructional methodologies, health and social impacts, and perceptions of institutional support for digital learning. The results indicate that digital devices have become essential to students' educational experiences, markedly enhancing access to learning resources and facilitating comprehension of academic material. The study also highlights enduring disparities in digital education stemming from inadequate internet connectivity, exorbitant data plan fees, restricted access to devices, and disparate degrees of digital literacy. Participants also indicate adverse effects like attention, physical health issues, psychological stress, and heightened social isolation. A significant number view governmental and institutional initiatives to promote digital learning as insufficient, highlighting a disparity between policy objectives and actual conditions. The study emphasizes the dual function of digital technology as both a tool for educational empowerment and a catalyst for emerging inequalities and social issues. The study indicates that digitalization cannot revolutionize education independently; it requires robust institutional intervention, inclusive policies, and investments in infrastructure and digital competencies.

1. Introduction

The swift proliferation of digital technology has induced substantial changes in modern educational institutions globally (Okoye et al., 2022). Digital gadgets, including smart phones, laptops, tablets, and PCs, with internet-based learning platforms, have transformed the methods of knowledge access, transmission, and consumption. Education is no longer restricted to physical classrooms or printed textbooks; rather, learning increasingly occurs through online lectures, digital libraries, educational applications, and virtual classrooms. This transition has expedited in recent years owing to technology progress and was further exacerbated by the COVID-19 pandemic, which necessitated

educational institutions to implement online and blended instructional methods (Daniel, 2020). The digitalization of education signifies not just a technological shift but also a comprehensive social transformation influencing learning modalities, social interactions, institutional operations, and disparities (Weller, 2023).

Digital gadgets serve as instruments of educational empowerment by broadening access to knowledge, enhancing conceptual comprehension, and facilitating flexible, self-directed learning. Simultaneously, they also create new obstacles such as digital distraction, health issues, social isolation, and inequitable access to resources. Consequently, digital technology has a dual purpose: it acts as both a tool for inclusion and a catalyst for novel forms of exclusion (Ashmarina & Mantulenko, 2021). In areas marked by geographical constraints, political instability, and infrastructural deficiencies, the effects of digital education become increasingly intricate. Jammu & Kashmir exemplifies a scenario where education has historically encountered interruptions due to isolation, conflict, and the uneven advancement of institutional resources. Digital gadgets have become essential options for maintaining instructional continuity, particularly during lockdowns, strikes, or inclement weather (Zhou et al., 2023).

Digital platforms, recorded lectures, and mobile learning materials have facilitated access to educational information for students in rural and mountainous regions, which was formerly exclusive to urban centers and prestigious institutions. The proliferation of digital education in Jammu and Kashmir has been neither uniform nor socially equitable. Despite the rise in device ownership and online learning opportunities, notable discrepancies remain regarding internet connectivity, data service affordability, digital literacy, and access quality (Somwanshi Bansod 2023). These disparities influence students' educational experiences and perpetuate existing social and economic inequities.

Furthermore, extended interaction with digital gadgets has elicited apprehensions about physical health, mental wellness, academic practices, and social connections among adolescents. Problems including screen addiction, distraction, anxiety, and diminished face-to-face interaction demonstrate that digitization affects not only academic performance but also wider social behaviors and lifestyle trends (Aboujaoude & Gega, 2020).

The increasing significance of digital technology in education, empirical sociological research examining its multifaceted effects in Jammu and Kashmir is scarce. Much of the current study prioritizes technical efficiency and learning results, while comparatively little focus has been directed towards the social ramifications of digital device usage, encompassing inequality, health, and youth culture.

This study aims to investigate the influence of digital gadgets on the education system in Jammu and Kashmir from a sociological perspective. This study examines the access and usage patterns of digital devices among students and educated young, their influence on educational practices, and their impact on physical health, mental well-being, and social interactions. It examines students' perceptions of institutional and governmental support for digital learning and identifies significant structural hurdles, including connectivity, affordability, and digital competencies.

This study seeks to elucidate how digital devices are transforming education in Jammu and Kashmir by contextualizing digital education within the larger framework of social change, inequality, and institutional transformation. The study characterizes digital technology as a transformative but

socially conditioned influence. The educational advantages rely not alone on technological accessibility but also on supportive infrastructure, inclusive policies, and ethical usage practices. Comprehending this link is crucial for formulating policies that foster equitable, healthy, and effective digital education in the region.

2. Review of Literature

Digital technologies have transformed the educational landscape. Innovative and potent technologies, including smart devices, the Internet of Things (IoT), artificial intelligence (AI), augmented reality (AR), virtual reality (VR), block chain, and various software applications, have generated numerous opportunities to enhance teaching and learning (Gaol & Prasolova-Førland, 2021; OECD, 2021).

Consequently, in recent years, educational systems globally have allocated increased resources towards the integration of information and communication technology (ICT) in education (Fernández-Gutiérrez et al., 2020; Lawrence & Tar, 2018). They have integrated ICT as a crucial component of their educational initiatives and have formulated new strategies and policies for its application in teaching and learning (European Commission, 2019). The integration of ICT has resulted in challenges concerning the quality of teaching and learning (Bates, 2015), particularly about how educational systems comprehend new technologies, adapt to them, and structure teaching and learning in alignment with contemporary technological trends (Balyer & Öz, 2018).

Research indicates that despite substantial investments in technology by schools, the outcomes have been largely unsuccessful, and the anticipated objectives remain unfulfilled (Delgado et al., 2015; Lawrence & Tar, 2018). These issues intensified during the COVID-19 epidemic, when education at all levels was compelled to transition to an online format (Daniel, 2020).

The proliferation of online teaching has augmented the utilization of digital technologies and prompted inquiries on the implementation of digitalization in educational institutions, its extent, and its efficacy in facilitating teaching and learning (Cachia et al., 2021; König et al., 2020). Many schools had limited expertise and inadequate digital capacity, resulting in increased disparities, heightened inequality, and diminished learning among pupils (Blaskó et al., 2021; Di Pietro et al., 2020). The results indicate that schools must leverage their experiences to enhance their digital competencies and capabilities (European Commission, 2020) and augment their utilization of digital technologies (Costa et al., 2021). Digitalization enhances educational institutions by facilitating more efficient and effective teaching and learning through technological integration (OECD, 2021; Rott & Marouane, 2018).

Digitalization enhances educational institutions by facilitating more efficient and effective teaching and learning through technological integration, impacting all aspects of a school's development (Delcker & Ifenthaler, 2021). Nonetheless, it is a multifaceted process requiring significant alterations, not only in technology and infrastructure but also in the operational dynamics of educational institutions (Pettersson, 2021). Digitalization refers to profound and synchronized transformations in culture, personnel, technology, and organizational operations (Brooks & McCormack, 2020, p. 3).

It induces transformations in culture, organization, and daily operations through the utilization of digital technology (JISC, 2020). To achieve successful digital transformation, schools must enhance

their digital capacity by fostering a supportive culture, establishing clear policies, ensuring adequate infrastructure, and developing digital competencies among educators and students, thereby facilitating the effective use of technology in teaching and learning (Costa et al, 2021, p.163). Given that the utilization of digital technology is a multifaceted and continuous endeavor, it influences various individuals and groups inside the educational system (Eng, 2005); hence, it is essential to demonstrate the interconnections among the diverse consequences.

3. Research Objectives

1. To investigate the utilization and accessibility of digital devices among students in Jammu and Kashmir, and to evaluate the integration of digital technology into their routine educational practices and learning methodologies.
2. To evaluate the influence of digital devices on students' educational experiences, encompassing access to learning resources, comprehension of academic material, skill development, and readiness for higher education and employment.
3. To examine the impact of digital device usage on students' physical health, mental well-being, study habits, and social interactions, particularly concerning distraction, stress, and evolving interaction patterns.
4. To assess the magnitude of digital inequality by analyzing economic, infrastructural, and skill-based obstacles, including internet connectivity, device and data affordability, and digital literacy levels among students.
5. To examine students' opinions of institutional and governmental support for digital learning and to identify significant issues and proposed solutions for enhancing digital education in Jammu and Kashmir from a sociological standpoint.

4. Sample Size

The research is founded on a sample of 96 participants selected from Jammu and Kashmir. The respondents primarily comprise students and educated youth from both rural and urban regions in about equal measure. The sample's age makeup is primarily comprised of young adults, with the majority of respondents aged between 21 and 35 years. The majority of respondents hold postgraduate and doctoral qualifications. The majority of respondents are students or unemployed young, with a lesser percentage being employed. This socio-demographic makeup represents a youth-centric and academically focused sample, appropriate for investigating the influence of digital gadgets on education and social interactions.

5. Methodology

The research used a quantitative and descriptive design to examine the influence of digital gadgets on the educational system in Jammu and Kashmir. Primary data were gathered via a structured questionnaire featuring multiple-choice and open-ended questions pertaining to digital device usage habits, educational methodologies, health and social impacts, and institutional support for digital learning. The questionnaire was conducted digitally, allowing for the participation of respondents from both rural and urban areas. The sampling method seems to be purposive and convenience-based, as

participation was restricted to respondents with access to digital devices and internet connectivity. This method holds social significance as it illustrates the selective characteristics of digitally mediated research, wherein persons possessing better educational attainment and internet access are more inclined to engage.

The results were interpreted sociologically by correlating empirical trends with overarching societal dynamics, including digitization, inequality, youth culture, and institutional change. The open-ended replies were qualitatively analyzed to elucidate respondents' perspectives of the good and negative ramifications of digital gadget usage. The methodology integrates quantitative survey analysis with qualitative interpretation, rendering it suitable for comprehending both observable patterns of digital usage and their wider socio-cultural ramifications.

6. Socio-Demographic Profile of Respondents

The age distribution of respondents reveals that the sample primarily consists of young individuals. The predominant age group among responders is 26–30 years (37.5%), followed by 21–25 years (32.3%) and 31–35 years (27.1%). A negligible percentage is included in the 15–20 years and 35 years and older groups. This trend holds sociological importance, since the 21–30 age cohorts signifies a pivotal stage of educational achievement, professional development, and social advancement. Individuals in this age group are more likely to participate in higher education, competitive examinations, or early employment, rendering them particularly pertinent for analyzing issues related to youth ambitions and socio-economic transition. The underrepresentation of older age groups may be ascribed to the digital method of data collecting, which predominantly engages younger individuals.

7. Gender Wise Distribution

The gender breakdown indicates a near balance, with 51.1% male responses and 48.9% female respondents. No participants identified as belonging to LGBTQIA categories or chose the "prefer not to say" option. This equitable involvement improves the sample's gender representativeness. From a sociological standpoint, gender is a crucial factor influencing access to education, employment prospects, and social experiences. The lack of replies from non-binary gender categories may signify dominant cultural norms, restricted social visibility, or hesitance to reveal gender identity, thus highlighting the ongoing marginalization of non-traditional gender identities in survey research.

8. Location of the Respondents

The geographical distribution indicates a nearly equal representation of responders from rural (50.5%) and urban (49.5%) regions. This equitable distribution enhances the analytical breadth of the investigation by integrating both spatial contexts. The rural–urban divide is a significant axis of inequality that affects access to education, digital infrastructure, and employment opportunities. Rural respondents may exhibit limitations due to inadequate institutional resources and mobility, while metropolitan respondents are more prone to encounter competitive academic and professional settings. The incorporation of both groups facilitates comparative analysis of the influence of geographical location on goals and life opportunities.

9. Educational Qualifications

The sample predominantly exhibits elevated educational qualifications. The majority of responders are postgraduates (53.1%), followed by individuals with PhD degrees (25%). Individuals with undergraduate qualifications represent 10.4%, and those holding M.Phil degrees comprise 9.4%. A minimal percentage is classified under alternative categories or has schooling restricted to the primary level. This distribution indicates that the study primarily reflects an academically inclined demographic. From a sociological perspective, higher education serves as a significant form of cultural capital, influencing individuals' aspirations, career paths, and social consciousness. The prevalence of postgraduate and doctoral responses indicates the selective character of participation in digitally mediated surveys, which typically attract individuals with higher educational qualifications and access to digital resources.

10. Occupational Structure

The occupational structure underscores the sample's transitory characteristics. The predominant group of responders consists of students (59.4%), succeeded by the jobless (22.9%) and the employed (13.5%). A minor percentage is classified under the "other" occupational category. This trend highlights the significance of individuals undergoing educational training and preparing to enter the labor market. This stage signifies a pivotal phase characterized by ambition, skill development, and ambiguity. The significant percentage of unemployed individuals indicates the issue of educated unemployment, which has become a prominent structural challenge in modern society. The very minor proportion of employed respondents indicates restricted labor market absorption, underscoring the difficulties linked to protracted and uncertain transitions from schooling to employment.

The socio-demographic profile indicates a youth-oriented, highly educated, and transitional population, sourced nearly equally from rural and urban environments. This composition renders the sample especially suitable for examining matters like education, employment, digitization, and societal change. The predominance of young, highly educated respondents must be considered when interpreting the data, since their perspectives and experiences may not accurately reflect those of older or less educated demographics.

11. Ownership of Digital Devices among Respondents

The data indicates that all respondents possess a digital device, such a smartphone, tablet, laptop, or desktop computer. All respondents indicated ownership of at least one digital gadget. This discovery illustrates the profound integration of digital technology into daily life, especially within educated and youth-centric demographics. Sociologically, this indicates that digital devices have transitioned into a fundamental requirement rather than a luxury, crucial for communication, education, job hunts, and information access. Universal ownership signifies a decrease in the primary digital divide (access), however inequalities may persist regarding device quality and usage patterns. The outcome underscores the pivotal function of digital infrastructure in influencing modern social interactions, educational methodologies, and engagement in economic and institutional endeavors.

12. Types of Digital Devices used most frequently by Respondents

The usage pattern indicates that smart phones are the most utilized devices at 96.9%, followed by laptops at 40.6%, tablets at 13.5%, and desktop PCs at 6.3%. No participants indicated the use of alternative technologies. This distribution shows a pronounced transition towards mobile-centric digital interaction, with smart phones serving as the principal access point to the digital realm. This illustrates the portability, affordability, and multi-functionality of cell-phones, enhancing their accessibility across various socioeconomic strata and locales.

The diminished utilization of desktops indicates a shift from static technical environments to more personalized and adaptable forms of digital engagement. The prevalence of cell-phones influences learning, communication, and socialization behaviors by promoting immediate connectedness and ongoing interaction with digital platforms. The increased dependence on smart phones relative to PCs may influence the type of digital skills developed, prioritizing consumption and communication over sophisticated technical or professional competencies.

13. Daily Time Spent on Digital Devices

The data gathered from 96 respondents indicates considerable engagement with digital gadgets in daily life. 41.7 percent of respondents indicated that they spend 4 to 6 hours daily on digital gadgets. This signifies that digital technology constitutes a significant part of the everyday routines for most individuals. Furthermore, 28.1 percent of respondents indicated that they utilize digital gadgets for 1 to 3 hours each day, while an identical 28.1 percent reported exceeding 6 hours of daily usage. This indicates that over fifty percent of the participants allocate a minimum of four hours daily to digital platforms, demonstrating a significant degree of digital engagement. A negligible percentage indicated spending less than one hour daily on digital devices, demonstrating that limited usage is uncommon among the respondents.

This pattern illustrates the increasing importance of digital technology in social, educational, and economic spheres. The substantial proportion of responders dedicating 4 to 6 hours or more signifies digital dependence and its incorporation into daily pursuits, including communication, education, entertainment, and professional tasks. It indicates a transformation in lifestyle patterns, as online connection progressively supplements or substitutes in-person social interaction.

14. Primary Purposes of Digital Device Usage

The data indicates that education is the predominant reason for digital device utilization. Seventy-five percent of respondents indicated utilizing digital devices for educational purposes, including online classes and e-learning. This underscores the significant significance of technology in academic involvement. Communication ranks as the second most prevalent purpose, with 65.6 percent of respondents utilizing digital devices for calls, messaging, and social media engagement. This indicates that digital platforms function as essential instruments for sustaining social interactions and networks. Entertainment constitutes a significant objective, as indicated by 63.5 percent of participants. This encompasses activities include gaming, viewing films, and perusing social media. This illustrates the use of digital media in recreational and cultural consumption. Thirty-six point five percent of respondents indicated work-related tasks, indicating a substantial proportion utilizes digital devices for professional activity. Merely 3.1 percent opted for alternative causes.

The data illustrate that digital gadgets serve as versatile instruments integrated into diverse aspects of life, including education, communication, employment, and enjoyment. The prevalence of educational applications may indicate evolving learning contexts and heightened dependence on digital frameworks. The significant prevalence of communication and entertainment indicates a revolution in social interaction and leisure patterns in modern culture.

15. Digital devices and improvement in access to educational resources

The responses indicate that all respondents believe digital devices have enhanced their access to educational resources. This signifies a robust endorsement of digital technology as a crucial instrument in education. It illustrates the increasing prevalence of digitalization in society, wherein technology is profoundly embedded in daily life, particularly in education.

This outcome indicates that digital gadgets, including smart phones and laptops, exemplify the proliferation of what sociologists refer to as the knowledge society, wherein information and technology are pivotal to societal advancement. However, despite the largely affirmative responses, it is crucial to acknowledge that access to digital devices and internet connectivity may vary across different locations and social strata.

16. Usage of Digital Devices for Educational Purposes

Ninety point six percent of respondents utilize digital gadgets daily for educational purposes. Approximately 7.3 percent utilize them sporadically, while a negligible number employs them on a weekly basis. Virtually none indicated infrequent usage. This signifies that digital devices are not merely auxiliary tools but have become integral to students' daily academic practices. This signifies the integration of technology in education.

Digital learning has transitioned from an alternative to a standard practice. Frequent utilization indicates a transformation in study practices and educational culture. Students are progressively reliant on digital resources for homework, instructor communication, research, and exam preparation. This also demonstrates the impact of digital culture, as learning is perpetual and not confined to school hours. Simultaneously, extensive daily usage may prompt concerns over screen dependency and disparities in access for kids from economically disadvantaged homes. The findings indicate that digital gadgets are pivotal and revolutionary in modern schooling.

17. Digital Devices in Better Understanding of Academic Concepts

The responses indicate that 46.9 percent strongly concur and 45.8 percent concur that digital devices facilitate a superior comprehension of academic subjects. Approximately 7.3 percent maintain a neutral stance, while nearly no individuals express disagreement. Over 92 percent of respondents hold a favorable perspective on the impact of digital gadgets in enhancing conceptual clarity. This underscores the increasing significance of visual and interactive learning in contemporary schooling.

Digital gadgets facilitate access to films, animations, online courses, and discussion forums, thereby simplifying complex subjects. This transition signifies a change from conventional teacher-centered education to a more student-centered and technology-enhanced approach to learning. The robust consensus indicates that pupils perceive technology as an empowering instrument. It augments

their learning autonomy, enabling learners to review lectures, seek supplementary materials, and acquire knowledge at their own speed. This substantiates the notion that digital technology facilitates educational democratization by expanding access to knowledge. The modest neutral percentage may suggest that certain students continue to depend on traditional classroom approaches or encounter obstacles such as inadequate internet connectivity. The findings indicate that digital devices are seen as highly useful in enhancing academic comprehension.

18. Online Educational Platforms Used in Education

The study indicates that 92.7 percent of respondents utilize YouTube with the highest frequency. Unacademy is utilized by 22.9 percent, Other platforms by 21.9 percent, Coursera and Physics Wallah each by 7.3 percent, and edX by 3.1 percent. This unequivocally demonstrates that YouTube is the preeminent instructional medium for students. This indicates the widespread appeal of freely available and widely accessible educational materials. YouTube offers a diverse array of content for no subscription cost, thereby enhancing accessibility for students from various economic situations. The somewhat diminished utilization of platforms such as Coursera and edX indicates that paid courses or certificate-based platforms may be less accessible or less favored.

Students prioritize knowledge that is rapid, exam-focused, and readily comprehensible on accessible platforms. Students use Unacademy and similar services to explore organized online coaching and resources for competitive exam preparation. The data indicates a transition towards digital and multimedia education, with informal and flexible learning platforms gaining greater influence than traditional formal ones.

19. Satisfaction with the Availability of Digital Resources for Education

The data indicates that 65.6 percent of students are satisfied, while 32.3 percent are very satisfied with the accessibility of digital materials. A minimal fraction voiced dissatisfaction, with virtually none expressing extreme dissatisfaction. Approximately 98 percent of responders exhibit a positive degree of satisfaction. This signifies the enhancement of digital infrastructure and the growing incorporation of technology within the educational framework.

The high satisfaction level indicates that students perceive digital resources, including online lectures, e-books, educational applications, and study materials, as readily available and beneficial. This also signifies the expansion of a digital learning ecosystem in which students perceive support from online resources. From the standpoint of social transformation, it illustrates a shift from resource scarcity in old systems to increased availability via digital platforms. The minor percentage of unhappiness may indicate problems such as inadequate internet connectivity, insufficient devices, or weak digital proficiency among certain pupils. The findings indicate that digital resources are broadly embraced and esteemed in the educational process.

20. Digital Devices role in Differently Able and Rural Students

The statistics indicates that 92.7 percent of respondents acknowledged positively. A negligible percentage responded negatively or expressed uncertainty. This unequivocally demonstrates that the majority of students perceive digital gadgets as fostering inclusivity in school. This illustrates

technology's significance in diminishing social and geographical barriers.

Digital gadgets enable students in remote regions to access identical educational information as their urban counterparts. They also offer assistive tools, like screen readers, subtitles, and recorded lectures, to support students with disabilities. This substantiates the notion that digital education may foster socio-economic equity and the democratization of knowledge. It diminishes reliance on physical attendance and enhances the flexibility and accessibility of learning. True inclusivity, however, relies on equitable access to internet connectivity and affordable devices. Failure to overcome the digital gap resulted in the continued exclusion of some populations. The results indicate that digital technology is broadly seen as a means for social inclusion and educational equity.

21. Impact of Digital Devices on the Social life of Youth

The data indicate that 14.7 percent strongly concur and 31.6 percent concur that digital devices positively influence the social lives of young individuals. Nevertheless, 36.8 percent maintain a neutral stance, 14.7 percent express disagreements, and a minimal minority actively oppose. This signifies that perspectives are polarized. Approximately 46 percent perceive digital devices as beneficial to social life, although a considerable proportion remains neutral or harbors negative opinions.

This illustrates the dichotomous character of digital technology. Digital gadgets facilitate connectivity among youngsters via social media, messaging applications, and online forums. They generate novel modes of connection and extend social networks beyond geographical confines. Conversely, the indifferent and negative responses indicate apprehensions regarding diminished face-to-face engagement, shallow relationships, and social isolation. This indicates that digital socialization occasionally replaces conventional methods of community connection. Consequently, the research underscores the intricate and varied effects of digital gadgets on the social lives of teenagers.

22. Digital Devices impact on Mental Health

Fifty percent of respondents indicate that extended usage has adversely affected their mental health. Approximately 25.5 percent indicate a favorable effect, whereas 24.5 percent assert that there is no substantial effect. Despite the educational and social advantages of digital devices, fifty percent of respondents report adverse mental health effects. This may encompass worry, anxiety, sleep disruptions, and digital exhaustion. Continuous exposure to digital content and social comparison may add to psychological stress among adolescents.

Simultaneously, the affirmative responses suggest that digital gadgets can provide emotional support, facilitate access to valuable information, offer amusement, and connect users to online communities that alleviate loneliness. The group indicating no substantial impact implies that the influence of technology is contingent upon individual usage behaviors and personal contexts. The findings indicate that digital technology has both beneficial and detrimental effects on mental health. This illustrates the overarching sociological concept that technological progress presents both benefits and threats to society.

23. Distractions caused by Digital Devices in your studies or work

Responses indicate that 83.3 percent of participants positively answered, whereas just 16.7 percent

responded negatively. This unequivocally demonstrates that a significant majority encounters distraction or procrastination as a result of digital devices. This illustrates the issue of digital saturation in modern life.

Although digital gadgets are crucial for education and communication, they also subject users to incessant notifications, social media, entertainment, and multitasking. This undermines focus and discipline, particularly among students and young professionals. This discovery corroborates the notion that technology influences behavioral tendencies. Facile access to non-academic content frequently obscures the distinction between work and leisure. Consequently, individuals may procrastinate, diminish production, and encounter time mismanagement. The data underscores a paradox of digital technology. It enhances efficiency and accessibility; however, it also introduces new obstacles with self-discipline and concentration.

24. Digital devices leads to social isolation among youth

The findings indicate that 89.6 percent believe that excessive usage of digital gadgets results in social isolation. A minimal percentage either disagrees or is uncertain. This indicates a robust consensus among participants. This indicates increasing apprehension on the deterioration of in-person social interactions. Excessive screen usage may diminish engagement in familial, communal, and social interactions.

Young individuals may maintain virtual connections yet experience disconnection in actual social environments. This substantiates the notion that digital communication cannot entirely replace direct human engagement. Although internet platforms establish networks, they may be deficient in emotional profundity and robust social connections. Consequently, excessive reliance on digital devices may lead to loneliness and isolation. The findings indicate that although digital devices facilitate global connectivity, their overuse may adversely impact social cohesion at both local and personal levels.

25. Impact of Digital Devices on Physical Health

The results indicate that a significant majority of participants (78.1%) reported adverse effects on their physical health due to extended usage of digital gadgets, whilst just 21.9% reported no such effects. This pattern underscores the increasing integration of digital technology into daily life and its implications for individuals' biological well-being. This illustrates the technology mediation of daily routines, wherein educational, occupational, and recreational activities are progressively structured around screen-based practices.

The significant occurrence of reported physical ailments, including visual issues and postural discomfort, suggests that digital engagement is not simply a neutral instrument but a socially constructed activity influenced by academic demands, occupational expectations, and lifestyle alterations. It additionally indicates that health hazards are disproportionately allocated, especially among young individuals and students who maintain prolonged internet connectivity. This trend indicates the rise of a "digitally induced health risk culture," wherein physical discomfort is tolerated in pursuit of productivity and connectivity. Consequently, the evidence highlights the necessity for institutional and policy-level measures that foster ergonomic awareness and control screen use,

particularly in educational settings..

26. Digital Devices and Skill Development

The study indicates a largely favorable view of digital gadgets in skill development. A majority of respondents either concurred (57.9%) or strongly concurred (18.9%) that digital Gadgets facilitate the advancement of abilities such as technical proficiency and critical thinking. Simultaneously, 16.8% of respondents maintained a neutral stance, while a modest fraction articulated dissent. This suggests that digital technology is broadly seen as a type of cultural and educational capital, enabling access to knowledge, online learning platforms, and novel forms of cognitive engagement. This illustrates the shift in skill development from conventional institutional environments to digitally mediated platforms, where learning is becoming personalized and technology-oriented.

The existence of a neutral and disagreeing group indicates ongoing disparities in digital literacy and access, highlighting a digital gap that extends beyond mere device ownership to encompass the ability to employ them effectively for intellectual and professional growth. Consequently, although digital devices are predominantly perceived as empowering instruments, their advantages are socially stratified among users.

27. Challenges in Using Digital Devices for Educational Purposes

The study indicates that the primary challenge encountered by respondents is the exorbitant cost of internet services, with 56.8 percent identifying pricey data plans as a serious issue. Subsequently, inadequate internet access was reported by 43.2 percent of respondents. Additional significant difficulties encompass insufficient digital literacy cited by 18.9 percent, and inadequate access to devices noted by 10.5 percent. Furthermore, 18.9 percent of respondents reported other undefined issues pertaining to digital learning. These findings demonstrate the enduring nature of systemic inequalities in access to digital education.

Despite the widespread advocacy for digital devices as instruments of educational inclusion, the exorbitant cost of data and inconsistent internet infrastructure persistently hinder their effective utilization. This signifies that economic status and regional infrastructure are essential in determining educational options. The comparatively lower percentage indicating a lack of access to devices implies an increase in ownership; yet, effective engagement in digital education relies not solely on device possession but also on reliable connectivity and technical proficiency. Digital illiteracy as a challenge signifies an unequal distribution of cultural and technical competencies, hence perpetuating educational disparities within the digital landscape.

28. Impact of Digital Devices on Traditional Classroom Learning.

The findings reveal a polarized perspective among participants concerning the substitution of conventional classroom instruction with digital gadgets. 53.1 percent of respondents concurred or strongly concurred that digital devices had diminished the necessity for traditional classroom education. Simultaneously, 29.2 percent of respondents maintained a neutral stance, whilst 13.5 percent indicated disagreement, and a little fraction vehemently opposed this perspective. This pattern

suggests a continuous evolution in educational institutions propelled by technological advancements. The increasing acceptance of digital learning indicates a transition towards flexible, technology-mediated educational methods.

The significant number of neutral and dissenting responses underscores the enduring significance of physical classrooms as venues for social interaction, discipline, and collaborative learning. Conventional classrooms serve as venues for both knowledge dissemination and socialization, as well as identity development. Consequently, although digital gadgets are increasingly regarded as valuable alternatives or enhancements to classroom instruction, the findings indicate that they cannot entirely supplant the social and relational aspects of formal education.

29. Positive Impact of Digital Devices

The aggregated responses from open-ended questions reveal that the most notable beneficial effect of digital devices on education in Jammu & Kashmir is the democratization and enhancement of access to educational resources. Digital technology has diminished conventional boundaries of class, geography, and institutional dominance over knowledge. Participants consistently highlighted the importance of price, accessibility to rural and mountainous regions, and the provision of high-quality content via platforms such as YouTube, e-books, and online coaching. This indicates a transition from elite-dominated, urban-centric education to a more inclusive and network-oriented learning framework.

Digital devices have revolutionized learning by shifting from exclusively in-person instruction to hybrid and online formats, facilitating educational continuity during disturbances like COVID-19 lockdowns, political upheaval, or inclement weather. This signifies the emergence of what sociologists term a “flexible learning society,” wherein temporal and spatial limitations on education are diminished. Students can now engage in learning “anytime and anywhere,” so augmenting learner autonomy and fostering self-directed education.

A significant issue is the reconciliation of educational disparities between rural and urban areas, as well as between affluent and impoverished populations. Numerous responders observed that pupils from rural and economically disadvantaged backgrounds can now obtain identical learning materials and even “top educators” that were previously restricted to urban coaching facilities. This indicates a trend of educational equalization, wherein digital resources serve as instruments of social mobility by providing competitive examination preparation and new professional opportunities.

The responses underscore cognitive and pedagogical advantages, including enhanced conceptual clarity via audio-visual learning, increased student engagement, and exposure to a variety of subjects and employment opportunities. These developments indicate a shift from rote learning to resource-rich and interactive educational environments, consistent with modernization theories that associate technology with productivity and rationalization in education. However, several respondents conveyed skepticism or neutrality, suggesting that digitization does not inherently ensure favorable results. This minority perspective illustrates the sociological understanding that the influence of technology is contingent upon usage habits, digital literacy, and institutional backing, rather than solely on the gadgets themselves.

The prevailing sociological trend in the data indicates that digital gadgets serve as instruments

of inclusion, accessibility, and knowledge dissemination, transforming education from a localized and expensive system into a more open, affordable, and adaptable social institution.

30. Negative Impact of Digital Devices on Youth

The responses obtained from open-ended questions indicate that the most substantial adverse effect of digital gadgets on youth in Jammu and Kashmir is addiction, resulting in social, psychological, and physical dislocation. From a sociological standpoint, excessive use of cell phones and social media has resulted in a digital dependency, wherein virtual interactions increasingly supplant genuine social relationships.

Numerous respondents emphasized addiction to reels, videos, gaming, and social networking platforms, leading to time squandering, procrastination, and diversion from educational and productive objectives. A prevalent topic is the decline of mental health and emotional well-being. Young individuals are characterized by feelings of worry, sadness, self-doubt, rage, and isolation as a result of extended screen time and incessant comparison in the digital realm. This illustrates the emergence of what sociologists refer to as “screen-mediated socialization,” when identity development and self-esteem are increasingly influenced by online affirmation rather than by familial, educational, or communal organizations.

A significant issue is the deterioration of social connections and cultural principles. Numerous respondents observed diminished in-person interactions, erosion of familial bonds, a decline in reverence for traditional values, and a decreasing significance of libraries, outdoor games, and communal activities. This indicates a transition from communal social interactions to personalized digital experiences, leading to social isolation and introversion in young people. Health-related concerns prominently arose, encompassing impaired vision, sleep disturbances, obesity, postural troubles, and overall physical frailty. These issues suggest that digitization has fostered a sedentary lifestyle, diminishing physical activity and impeding holistic development.

Additionally, respondents voiced apprehension regarding exposure to detrimental and unethical content, online gambling, cybercrime, misinformation, and disinformation, which could mislead children and normalize aberrant conduct. Certain respondents highlighted digital inequality and misuse, observing that young individuals frequently lack adequate direction on the effective use of digital technologies.

Digital gadgets are being utilized for amusement and trend-following rather than educational reasons, resulting in diminished concentration, critical thinking, and academic motivation. The sociological pattern indicates that although digital gadgets enhance opportunities, their unregulated usage has resulted in novel forms of alienation, health hazards, moral disorientation, and diminished social cohesion. Young individuals are not simply consumers of technology; they are being transformed by it, resulting in a generation characterized by digital distraction, stuck between virtual gratification and real-world obligations.

31. Digital Devices as Transformative Force

The responses obtained from open-ended questions indicate that digital gadgets are broadly regarded as a transformative influence on the future of education in Jammu & Kashmir; yet, their impact is perceived as contingent rather than inevitable. From a sociological standpoint, participants

perceive technology as a catalyst for educational modernization, capable of transforming access, pedagogy, and skill development, but simultaneously presenting hazards of misuse and inequity.

A prevalent topic is the enhancement of accessibility and the dissolution of geographical constraints. A multitude of respondents assert that enhanced internet connectivity will enable students in remote and rural regions to compete with national and global counterparts, particularly in the fields of science and technology. This illustrates the democratization of knowledge, wherein education is no longer restricted to physical classrooms or metropolitan institutions but is instead internationally interconnected.

A significant trend is the anticipation of customized and adaptable learning. Participants emphasized complimentary online lectures by international experts, diverse resources for a certain subject, virtual seminars, and AI-enhanced education. This signifies a transition from teacher-centered pedagogy to learner-centered and technology-enhanced education, wherein students exert increased autonomy over topics, pace, and learning methodologies.

However, a considerable proportion of respondents underscores that outcomes will hinge on the utilization of digital gadgets. The recurring phrases “if utilized wisely,” “if employed positively,” and “with discipline” indicate an understanding that technology is not neutral. This corresponds with sociological perspectives that the influence of technology is determined by social control mechanisms, including familial oversight, educational policy, digital literacy, and governmental regulation. In the absence of such limits, respondents are concerned that entertainment, distraction, and excessive screen usage may surpass educational advantages.

Numerous responses indicated the prospective function of digital devices in skill development and employability, proposing that technology might connect education with burgeoning areas such as science, artificial intelligence, and global information networks. This signifies a shift towards an education-economy connection, wherein education is anticipated to equip young for engagement in a digital and knowledge-driven society. Simultaneously, apprehensions regarding inequitable access, inadequate connectivity, and insufficient digital literacy underscore the enduring nature of the digital divide. Respondents implicitly recognize that without enhancements in infrastructure and skills, digital schooling may perpetuate rather than mitigate existing inequities.

The sociological pattern indicates that respondents perceive digital devices as a dual-purpose tool: capable of enhancing access, improving quality, and modernizing pedagogy, but reliant on responsible usage, institutional oversight, and supportive policies to prevent exacerbating social and educational issues.

32. Findings

- The research indicates that digital gadgets are integral to the educational experience of youngsters in Jammu and Kashmir.
- All participants indicated possession of at least one digital gadget, showing that access to fundamental technology has become prevalent among educated demographics.
- The predominant gadget utilized is the Smartphone, whilst laptops and desktop PCs are employed by a significantly lesser percentage. This pattern indicates that digital learning is predominantly mobile-oriented and may be confined to fundamental activities such as viewing

videos, accessing content, and communication, rather than engaging in advanced academic or technical tasks.

- The socio-demographic profile of respondents indicates a sample predominantly composed of youth, characterized by a high level of education, with the majority of participants in early adulthood and possessing postgraduate or doctoral degrees.
- A significant percentage comprises students or unemployed youth, suggesting a strong correlation between digital devices and preparation for higher education, competitive exams, and labor market entry. This underscores the influence of digital technology in molding goals and future-oriented behavior among youth.
- Regarding usage patterns, the majority of respondents engage with digital devices for several hours each day, utilizing them every day for educational purposes. Education is the foremost motivation for the utilization of digital devices, followed closely by communication and leisure. This illustrates that digital devices have evolved into versatile instruments integrated into academic, social, and cultural spheres.
- Education is no longer restricted to traditional classrooms and libraries; it increasingly occurs via internet platforms, films, and digital materials. The results demonstrate a robust favorable opinion of the educational benefits of digital technologies.
- The majority of respondents assert that digital gadgets enhance access to educational resources and facilitate a deeper comprehension of academic subjects. Students express significant pleasure with the accessibility of digital learning resources and demonstrate a robust conviction that digital devices enhance educational inclusivity for rural and differently able learners. This signifies a wider trend of educational democratization, when knowledge is no longer confined to physical institutions but is progressively accessible via digital networks. The investigation concurrently uncovers significant challenges.
- The primary issues reported are costly data plans and inadequate internet connectivity, succeeded by insufficient digital knowledge and restricted access to gadgets for certain demographics.
- The findings indicate that despite increasing device ownership, successful engagement in digital education is influenced by economic status, infrastructure, and skill proficiency. The digital gap remains not only in access but also in the quality of access and the capacity to utilize technology effectively. Perceptions of institutional support are predominantly unfavorable.
- The majority of respondents believe that governmental and educational institutions are insufficiently promoting and supporting digital learning. This indicates a disparity between policy frameworks and actual experiences. Participants request enhancements in internet infrastructure, cost-effective gadgets, and digital training initiatives. These criteria signify an acknowledgment that digital education necessitates shared and institutional accountability rather than being just the duty of individuals and families.
- The study highlights the physiological and behavioral ramifications of extended digital device usage. A significant majority indicate adverse consequences on physical health, particularly concerning eyesight and posture. A multitude of respondents indicate that digital devices induce distraction and procrastination in academic and professional pursuits. This

suggests that although digital technology facilitates learning, it also undermines concentration and self-discipline by inundating users with perpetual entertainment and social media information.

- Mental health results have a varied pattern. Approximately fifty percent of the respondents indicate adverse mental health impacts, including stress, anxiety, and digital weariness, whilst others claim either good or neutral consequences. This indicates that the influence of technology on mental health is variable, contingent upon the degree of usage and personal coping strategies.
- The prevalence of negative responses indicates increasing psychological stress linked to perpetual connectivity and screen exposure. The societal ramifications of digital gadget utilization are likewise considerable. A significant number of respondents assert that the overuse of digital gadgets contributes to social isolation in young individuals.
- Opinions on the impact of digital gadgets on social life are polarized, featuring a significant neutral faction and a considerable segment articulating unfavorable perspectives. This illustrates the conflict between internet engagement and in-person social connections.
- Digital communication enhances networks but may diminish community cohesion and familial interaction. The open-ended responses augment these findings. Respondents highlight the benefits of increased educational access, the provision of high-quality content, diminished rural-urban disparity, potentially, and the maintenance of learning during interruptions.
- Digital devices are regarded as instruments of inclusiveness and social advancement. Respondents see addiction, time squandering, and deterioration of moral values, decreased physical activity, and exposure to detrimental internet content as bad aspects. These replies indicate that young perceive digitization as both empowering and disruptive.
- Concerning the future of education, participants perceive digital devices as transforming yet contingent instruments. They assert that technology has to modernize education, tailor learning experiences, and link students to global knowledge, contingent upon the presence of discipline, supervision, and robust institutional regulation. In the absence of these elements, digital education may exacerbate inequity and distraction instead of fostering learning.

Conclusion

The study concludes that digital gadgets have transformed education in Jammu and Kashmir by enhancing accessibility, altering learning methodologies, and impacting health and social behaviors. The effects of digitalization are socially stratified, favoring individuals with reliable connectivity, skills, and resources, while disadvantaging people lacking these attributes. Digital education functions within prevailing frameworks of inequality and institutional capability. The results indicate that digital technology cannot effectuate educational transformation without concurrent infrastructural investment, digital literacy initiatives, and policies focused on inclusivity and well-being.

References

1. Aboujaoude, E., & Gega, L. (2020). From digital mental health interventions to digital “Addiction”: where the two fields converge. *Frontiers in Psychiatry*, 10.

2. Ashmarina, S. I., & Mantulenko, V. V. (2021). Digital technologies in the new Socio-Economic reality. *In Lecture notes in networks and systems*.
<https://doi.org/10.1007/978-3-030-83175-2>
3. Balyer, A., & Öz, Ö. (2018). Academicians' views on digital transformation in education. *International Online Journal of Education and Teaching (IOJET)*, 5(4), 809–830.
<http://iojet.org/index.php/IOJET/article/view/441/295>
4. Bates, A. W. (2015). Teaching in a digital age: *Guidelines for designing teaching and learning*. Open Educational Resources Collection. 6. <https://irl.umsl.edu/oer/6>
5. Blaskó Z, Costa PD, Schnepf SV. Learning losses and educational inequalities in Europe: Mapping the potential consequences of the COVID-19 crisis. *Journal of European Social Policy*. 2022;32(4):361–375.
6. Brooks, D. C., & McCormack, M. (2020). *Driving Digital Transformation in Higher Education*.
7. Cachia, R., Chaudron, S., Di Gioia, R., Velicu, A., & Vuorikari, R. (2021). Emergency remote schooling during COVID-19, a closer look at European families.
8. Costa P, Castaño-Muñoz J, Kamylylis P. Capturing schools' digital capacity: Psychometric analyses of the SELFIE self-reflection tool. *Computers & Education*. 2021;162:104080.
<https://doi.org/10.1016/j.compedu.2020.104080>
9. Daniel SJ. Education and the COVID-19 pandemic. *Prospects*. 2020;49(1):91–96.
10. Delcker J, Ifenthaler D. Teachers' perspective on school development at German vocational schools during the Covid-19 pandemic. *Technology, Pedagogy and Education*. 2021;30(1):125–139.
[doi: 10.1080/1475939X.2020.1857826](https://doi.org/10.1080/1475939X.2020.1857826)
11. Delgado, A., Wardlow, L., O'Malley, K., & McKnight, K. (2015). Educational technology: A review of the integration, resources, and effectiveness of technology in K-12 classrooms. *Journal of Information Technology Education Research*, 14, 397.
<http://www.jite.org/documents/Vol14/JITEv14ResearchP397-416Delgado1829.pdf>
12. Di Pietro G, Biagi F, Costa P, Karpiński Z, Mazza J.(2020) *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets*. Publications Office of the European Union.
13. Eng TS. The impact of ICT on learning: A review of research. *International Education Journal*. 2005;6(5):635–650
14. European Commission. (2019). 2nd survey of schools: ICT in education. *Objective 1: Benchmark progress in ICT in schools*.
<https://data.europa.eu/euodp/data/storage/f/2019-03-19T084831/FinalreportObjective1-BenchmarkprogressinICTinschools.pdf>
15. Fernandez-Gutierrez, M., Gimenez, G., & Calero, J. (2020). Is the use of ICT in education leading to higher student outcomes? Analysis from the Spanish Autonomous Communities. *Computers & Education*, 157, 103969.
<https://doi.org/10.1016/j.compedu.2020.10396>

16. Gaol, F. L., & Prasolova-Førland, E. (2021). Special section editorial: The frontiers of augmented and mixed reality in all levels of education. *Education and Information Technologies*, 27(1), 611–623
17. JISC. (2020). *What is digital transformation?*
<https://www.jisc.ac.uk/guides/digital-strategy-framework-for-university-leaders/what-is-digital-transformation>
18. König J, Jäger-Biela DJ, Glutsch N. Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*. 2020;43(4):608–622.
19. Lawrence, J. E., & Tar, U. A. (2018). Factors that influence teachers' adoption and integration of ICT in teaching/learning process. *Educational Media International*, 55(1), 79–105. <https://doi.org/10.1080/09523987.2018.1439712>
20. OECD. (2021). *OECD Digital Education Outlook 2021: Pushing the Frontiers with Artificial Intelligence, Blockchain and Robots*.
https://www.oecd-ilibrary.org/education/oecd-digital-education-outlook-2021_589b283f-en
21. Okoye, K., Hussein, H., Arrona-Palacios, A., Quintero, H. N., Ortega, L. O. P., Sanchez, A. L., Ortiz, E. A., Escamilla, J., & Hosseini, S. (2022). Impact of digital technologies upon teaching and learning in higher education in Latin America: an outlook on the reach, barriers, and bottlenecks. *Education and Information Technologies*, 28(2), 2291–2360.
22. Pettersson F. Understanding digitalization and educational change in school by means of activity theory and the levels of learning concept. *Education and Information Technologies*. 2021;26(1)187-204
23. Rott, B., & Marouane, C. (2018). Digitalization in schools—organization, collaboration and communication. In *Digital Marketplaces Unleashed* (pp. 113–124). Springer, Berlin, Heidelberg.
24. Somwanshi, S., Bansod, D.W. (2023). *The Digital Divide in India*. In: The Palgrave Handbook of Global Social Problems. Palgrave Macmillan, Cham.
https://doi.org/10.1007/978-3-030-68127-2_384-1
25. Weller, M. (2023). *The rise and development of digital education*. In Handbook of Open, Distance and Digital Education (pp. 75–91). https://doi.org/10.1007/978-981-19-2080-6_5
26. Zhou, X., Smith, C. J. M., & Al-Samarraie, H. (2023). Digital technology adaptation and initiatives: a systematic review of teaching and learning during COVID-19. *Journal of Computing in Higher Education*, 36(3), 813–834. <https://doi.org/10.1007/s12528-023-09376-z>