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DIGITAL DIVIDE: PRESENT-DAY MYTH OR REALITY A STUDY OF RURAL AND URBAN COLLEGES SITUATED IN PANCHKULA DISTRICT OF HARYANA

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Abstract

Digital divide is a term that became noticeable in 1996 to describe the chasm that separates IT haves and have-nots and was believed to widen the already existent inequalities between the privileged and the underprivileged when COVID 19 struck. Fortunately, the corona wave subsided but the question left in its wake was whether the educational institutions situated in rural or urban area were equipped to meet the challenges of online teaching-learning experience. The present paper attempts to find out if the Digital Divide is a myth or reality in the present time, specifically with reference to the seven Rural and Urban Colleges situated in Panchkula district, which is one of the developed cities of Haryana and holds top place with Gurugram in the category of SDG 4 – Education, according to the Haryana SDG District Index June, 2024 Report (15). A study of students belonging to the seven Government colleges of Panchkula was carried out. Three of the colleges are situated in rural areas and the other four colleges are situated in urban areas. While carrying out the study, the economic status of students' family, the location of their residences, the broadband connectivity in their area, accessibility to IT infrastructure, both at home and the college where they are studying, was taken into account. The purpose of the paper was to find out how evident is the Digital Divide between the rural and urban colleges of Panchkula and what are the factors, other than the already existent social and economic inequalities, influencing the digital divide amongst the students studying in rural or urban colleges.

Keywords: *COVID, Digital Divide, Digital Gender Divide, Digital Literacy, Economic Disparity, Panchkula (Haryana).*

INTRODUCTION

Digital technology in education finds its first reference in the **Incheon Declaration and Framework for Action for the Implementation of Sustainable Development Goal 4** (UNESCO, 2015a), which, fortified by the RTE, demanded States "to develop quality distance learning in tertiary education to improve access (paragraph 45)," and to "provide distance learning, ICT training, access to appropriate technology and necessary infrastructure to facilitate a learning environment at home and in conflict zones and remote areas" (paragraph 57). In 2015, the **Qingdao Declaration** on information and communication technologies (ICT) in education, was adopted to leverage ICT to achieve the SDGs. The Member States of the **Qingdao Declaration** promised to ensure:

… that all girls and boys have access to connected digital devices and a relevant and responsive digital learning environment by 2030, irrespective of their disabilities, social or economic status, or geographic location" (UNESCO, 2015b).

There has been, no doubt, technological advancements reaching people through affordable mobiles along with reasonably priced net data. However, despite all these things accomplished successfully to bring in digital equity, what became perceptible gradually was how the digital divide had seeped into education due to varied factors like — socioeconomic (resourced/ under resourced), geographical (urban/ rural), gender bias (male/female), digital competency (digital literates/illiterates), et al. These divisions took the "Digital Divide" to further chasmic proportion when Covid struck.

What is Digital Divide? European Commission, 2022 defines digital divide as "the disparities in access to technology and in digital skills, leading to disparities in participation in the digital realm." In education, the term 'Digital Divide' essentially means the lack of equal opportunity to access digital tools, internet connectivity and digital literacy among students, teachers and educational institutions.

Digital divide, as observed in the UNESCO report (2025), manifests itself as the socioeconomic divide, the geographic divide, the gender divide, the disabilities divide, and the generational divide (42-49)

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1. **Socioeconomic divide:** There is "an inevitable, omnipresent digital divide between the resourced and under resourced," as observed by Bernd Zinn. And in India too, socio-economic factor is one of the major determinants influencing the digital gap and disparities in education, as has been noticed by Chowdhary and Mahali. They specially refer to the warning issued by a three-judge panel of the Supreme Court of India, consisting of Justices D.Y. Chandrachud, Vikram Nath, and B.V. Nagarathna in 2021, which implied that in a country like India, which is already plagued by persistent socio-economic inequality, the digital divide further widens the gap of persisting disparity with the rising technological world and the digital divide would undermine every impoverished child's basic right to an education (10).
2. **Geographic divide:** In terms of the geographic digital divide, which often focuses on differences between countries, UNESCO Report (2025) finds that it is also true that differences can be found within each nation, since the infrastructure of the Internet is not equally distributed: there are large differences in the levels of connectivity between rural and urban areas (43). In India too, the isolated and challenging-to-reach regions have continued to be disconnected from the internet. One such example in the present study is of the Government College, Morni, situated in the hilly area of Panchkula and earmarked as one of the "hard stations" of Haryana.
3. **Gender divide:** Digital gender divide, as defined by UNECE (2025), refers to "gender differences in resources and capabilities to access and effectively utilize information and communication technologies (ICT) within and between countries, regions, sectors and socio-economic groups." UNESCO (2025) has found that "women and girls face cultural, social and economic barriers to digital education, such as lack of time and access, financial autonomy and exposure to gender stereotypes in tech-related fields" (49). Chowdhary and Mahali also, while talking about gender inequity, refer to the Mobile Gender Gap Report 2019, which highlights that "only about 35% of Indian women are active mobile internet users, and also women are 56% less likely than men to utilize mobile internet. Also, some reports further highlight that while 43% of Indian men own a mobile phone, women's ownership of mobile phones stands at just 28%" (11). Datta and Kingdon too have referred to "Digital gender bias" in which "despite having internet access at home and ability to use it, one could be prevented from using it" like "conservative parents may debar daughters but not sons from using the home internet, to protect them from the perceived dangers of social media" (3).
4. **Disabilities divide:** The 2024 report by UNICEF highlights that children with disabilities are 49% more likely to have never attended school, often due to inaccessible infrastructure, lack of trained teachers, and absence of inclusive policies. they may have to face accessibility issues with regard to digital platforms, lack of tailored digital tools and insufficient teacher training to support inclusive digital learning
5. **Generational divide:** The generational digital divide refers to the differences in Internet access and usage between age groups, particularly between elderly individuals (over 75 years) and child populations (under 15 years), in comparison to the general population, aged 15–74 years (ITU, 2022).

What necessitated the study? In 2024, the United Nations High Commissioner for Human Rights highlighted significant barriers to digital education and the widening digital divide faced by young people. He emphasized that "unequal access to technology, the Internet, and reliable infrastructure limits many young people's ability to benefit from digital education." These disparities may particularly affect "rural, remote and impoverished areas, as well as marginalized groups, such as those constituted by young women, persons with disabilities and Indigenous youth." Added to it is "the cost of digital devices and Internet services remains a significant obstacle, especially in low-income countries, where Internet access is scarce. The digital divide deepens educational inequalities and threatens young people's long-term prospects, affecting their ability to fully participate in society and exercise their human rights online." Therefore, addressing the digital divide is essential "to upholding the right to non-discrimination in education, ensuring equal access for all groups" (UNESCO 41, 49). Haryana also aspires to achieve the SDG-4 by 2030; therefore, it is necessary to find out the gaps that still exit in education sector as a hurdle in ensuring equal access to all groups.

LITERATURE REVIEW

While talking about the Digital India initiative, launched in India in 2015 with the aim "to create a digitally empowered society by enhancing connectivity, digital literacy, and access to services," Prof. Arun C. Mehta (2025) has drawn attention towards the Digital Divide in Higher Education which is a critical barrier to equitable education. "India's higher education system, with over 1,362 universities and 52,538 colleges as of FY25, [which] serves 43.3 million students," in his opinion "faces significant challenges in ensuring equitable access and quality. The digital divide—unequal access to technology and the internet—exacerbates disparities, particularly for rural and low-income students, with only 15% of Indian households having internet access and 8% owning computers." According to him, "The shift to online learning during the pandemic highlighted these disparities, with many students unable to participate due to a lack of devices or connectivity"

Rural areas suffer from low broadband penetration (39% globally, lower in India) and unreliable electricity, limiting online and blended learning access. Gender disparities are notable, with only 21% of women versus 42% of men using mobile internet, driven by socio-economic and cultural factors. Urban colleges, such as those

under AICTE (approx. 8,902 institutes in 2022-23), have better digital infrastructure, but rural institutions lag, hindering access to quality education.

Shouvanika Chowdhury and Srikant Mahali (2025) in their study "Digital Access and Digital Divide in Education: An Analysis and Overview in the Context of India" have tried to analyse "the reasons behind unequal access to digital technologies" and emphasized the fact that "achieving equality in digital access is indispensable for ensuring inclusive and quality education for all." Digital infrastructure, in their opinion, "forms the basic foundation for any successful digital education system. It constitutes reliable electricity, high-speed and reliable internet connectivity, adequate digital devices, and institutional ICT support (like smart classrooms or computer labs)." They have found that "In India, the absence and inadequacy of such infrastructure, especially in rural and underdeveloped regions, significantly contributes to the digital divide in education. The lack of Internet access severely jeopardizes the very mission of transition to make digital learning accessible." They further elaborate that "A major rural and backward region in India often grapples with poor, intermittent, or no internet at all. While urban areas are well and truly connected with fast and reliable internet connections, placing them in an advantageous position compared to rural areas." So, they perceive that "These regional disparities (urban-rural gap) in seamless access to reliable internet create a digital divide, often hindering access to online digital resources." (11)

Datta and Kingdon (2020) in their discussion paper series, "Inequality in Internet Access in India: Implications for Learning during COVID," probe "the extent of inequality in young people's internet access across gender, caste, religion, rural-urban sector, private-public schools, and income group." Their "triple-hurdle model of internet use" shows that, "there is a very significant digital divide across many of the social and economic groups" and "intra-household analysis using family fixed effects estimation shows that girls have significantly lower ability to use internet vis-à-vis their brothers within the household" (Abstract 1). They have used the three-stage hurdle model in their study which can be explained thus:

1. "Internet" access to denote that the individual has access to internet at home (ACCESS).
2. "Internet ability to denote that the individual has ability to use internet (ABILITY).
3. "Internet usage" to represent actual use of internet by the individual in the past month (USAGE). (Datta and Kingdon 5)

Though research on Digital Divide in HEIs in Haryana is not yet available, Shalini Gupta (2025) in her Haryana-specific research study, "Digital Divide and Its Impact on Educational Equity in Rural Schools of Haryana," has investigated the extent of the digital divide in rural schools of Haryana, India and evaluated its impact on students' access to quality education. Exploring "the infrastructural disparities, digital literacy gaps, and policy shortcomings" through her study, she has suggested "the urgent need for targeted interventions to bridge digital disparities and foster inclusive education in rural Haryana" (94).

OBJECTIVE OF THE PAPER

The paper aims to find out:

1. Whether students *living* in rural areas have less access to digital facilities as compared to their urban counterparts?
2. Whether students *studying* in rural government colleges have less access to digital facilities in comparison to their urban counterparts?
3. What are the main factors that exacerbate the Digital Divide between Rural and Urban students?

METHODOLOGY

Data was collected online through google form prepared by the investigator and circulated to all the seven government colleges of Panchkula District through teachers working in those colleges. Three of these colleges are situated in rural areas – Government College, Barwala; Government College, Raipur Rani and Government College, Morni. The other four colleges of Panchkula District – Government Postgraduate College, Sector-1, Panchkula; Government College for Women, Sector-14, Panchkula, SMMD Government Sanskrit College, Panchkula and Smt. A.A.A. Government Postgraduate College, Kalka – are situated in urban areas. The questionnaire was designed to find out the economic status of students' family, the location of their residences, the broadband connectivity in their area, accessibility to IT infrastructure, both at home and the college where they are studying.

The dataset was evaluated thrice; once by taking into account the total data of students irrespective of the location of their residence or college; then the location of the residence of the students (Urban or Rural) was taken into consideration, and finally, the location (rural or urban) of the college where the student was studying was taken into account.

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General Findings in Comprehensive Data:

Profile: From the sample data of 356 entries, a diverse range of students from different colleges, primarily located in urban and rural areas was observed. The age of students ranges from 18 to 23, with an average age of approximately 20 years. 61.7% respondents were girls and 38.3% were boys.

Income Group: 75.8% belonged to the family income group of earnings 'Up to 1.80 lacs,' 12.6% to '1.80-3 lacs,' 7% to '3-5 lacs,' 3.4% to '5-10 lacs,' 1.7% to '10-15 lacs' and 0.6% to '15-20 lacs.' There was none above this bracket.

Ownership of Digital Devices: Mobile phones were found to be the most commonly owned device across all age groups, with availability percentages as high as 92.98% for some groups at home. Though at a lesser scale, at the second place was the availability at of Laptops (14.32%) at home, followed by Computers (5.6%) and Tablets (1.4%). Amongst the respondents 12.64% possessed more than one device at home. As far as owning personal mobile was concerned, 86.3% had their own mobile, whereas 13.7% did not own mobiles. 36.3% had it before COVID, 46.6% got it post-COVID. 62.3% bought it first-hand, 30.4% bought it second hand and 7.3% still did not have mobile phones. The price range of mobiles varied — from Rs 5000 (18.2%) to Rs 5000-10,000 (45.8%) to Rs 10,000- 25,000 (24.9%) and Above Rs 25,000 (4.1%) also.

What emerged from the following comprehensive data was that mobile phone was the most digital preferred device (91.6%); however, 74.9% were comfortable using mobiles followed by 17.9% who preferred to use laptops.

Internet Facility: Irrespective of whether they were residing in rural or urban area, 73.2% of the respondents have internet facility at home, 26.8% do not have it. 92.7% students use internet on mobile and spend Rs 100-Rs 1000 on mobile recharge every month, the favoured recharge amount being Rs 200 (70.1%) monthly.

Usage: The maximum hours that the students spent on digital device was 1-3 hours (by 46.9%) daily. 21.5% of the students spent 0-1 hour, 20.1% spent 3-5 hours, 8.4% spent 5-7 hours daily on their digital device. There were a few who spent 7-10 hours or even more than 10 hours on digital devices which is a point of concern.

259 students used the mobile for educational purposes, 167 for communication purpose or to get messages, 110 used it for social media, 101 used it to watch YouTube or videos, 37 to play games and 26 to make video and uploading them. Asked if they ever use mobile for researching a topic related to their subject, 82.1% agreed, 13.7% disagreed, while 4.2% accepted that they did it sometimes.

It is interesting to note that the social media platform that the students are active on is Instagram (66.2%) and 26.5% also own their YouTube channels.

Digital Literacy: This brings into focus the competence of the students to use digital medium. 65.1% students knew how to make videos and upload on social media, 76% knew how to prepare PPTs. The question arises were they provided digital knowledge in college or they learnt it on their own? 73.7% agreed that they were provided computer education in college. But this needs further exploration whether the computer education provided to them was only of Introductory level or Advanced level. The students were asked if they had done any course in computers, 45% had done a course (though no details about the nature of course done was sought, nor given), 27.7% had not done any course and 27.4% are planning to learn computers.

Now, this was the general overview of the data collected of all the seven colleges. The objective of the study, however, was to find out whether the digital divide was heightened by the location of the place where the student was residing and also the place where he was studying. For this purpose, the whole of the data was segregated first in accordance with the location of the students' residence and then the location of their college.

1. DO STUDENTS *LIVING* IN RURAL AREAS HAVE LESS ACCESS TO DIGITAL FACILITIES THAN THEIR URBAN COUNTERPARTS?

Profile: Out of the 356 entries, 240 respondents (Male: 88 and Female: 152) reside in Rural area, whereas 116 (Male: 48 and Female: 68) live in urban area.

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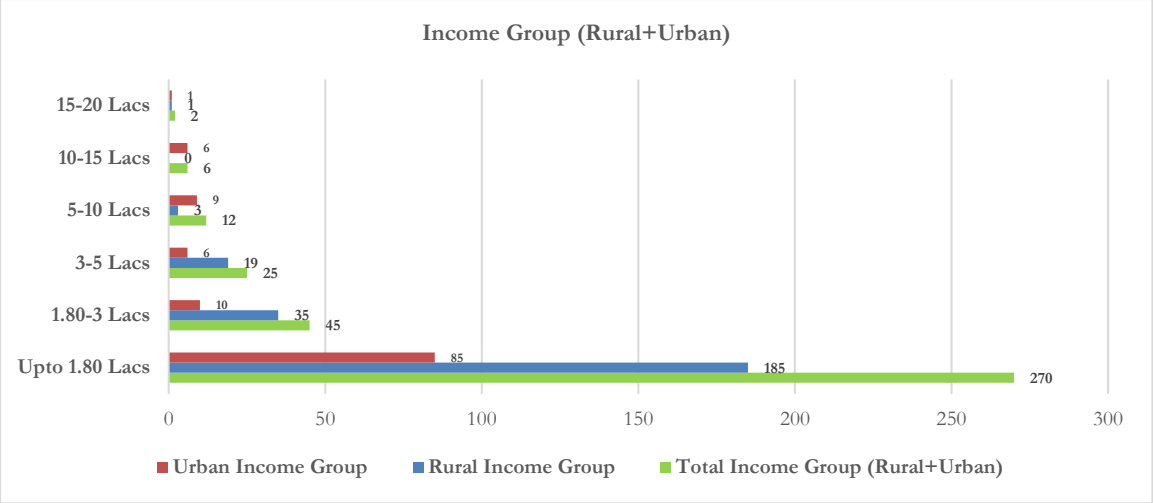
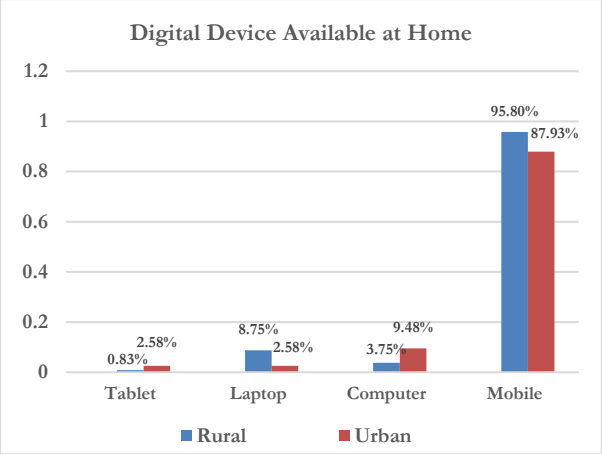
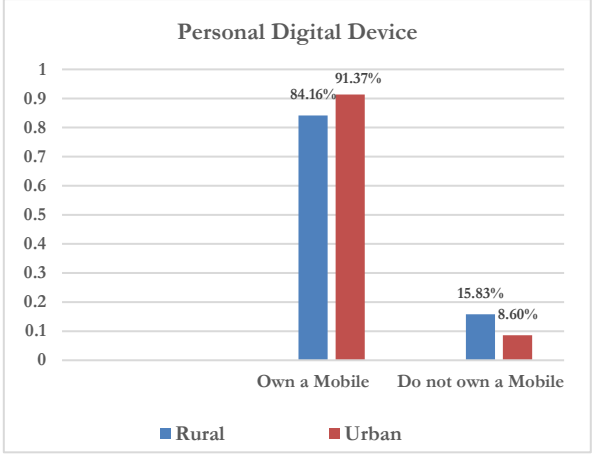


Income Group: What becomes evident from the chart above is that the majority of respondents, whether from rural or urban area fall under the lowest family income group of 'Up to 1.80 lacs' which in Haryana has been fixed as Minimum Annual Family Income (MAFI) limit of BPL by the government (Press Release). Out of the 356 entries, in terms of income group, the largest group of 270 belongs to those earning "Up to 1.80 lacs" with sub-group of 185 (68.5%) living in rural areas and 85 (31.5%) in urban areas. Father of respondents living in rural area were either in government jobs (8) or mostly worked as farmers (78), labour (36), and a few as driver (13), carpenter, security guard, and some others did private jobs or small business. Does the Minimum Annual Family Income have any corelation with the availability of digital facilities, like digital device or internet, at home?

Availability of Digital Devices (At Home and Personal)





Most of the students, residing both in rural and urban areas, have mobiles as major digital device at home. 95.80% students residing in rural areas have mobile as against 87.93% of students living in urban area. This doesn't seem to indicate anything with reference to digital divide. The difference, however, can be observed in the buying capacity of students living in rural area as compared to those living in urban areas. 59.16% of students from rural area bought first-hand phones whereas 69.82% students from urban area have first-hand phones. The amount, that the rural residents (47.5%), spends on an average in buying phone comes in the range of Rs 5000-10,000. Though 43.10% urban residents also, on an average, buy mobile in the same price range (Rs 5000-10,000), but 8.6% of them also buy phones in the range of 'Above Rs 25000,' thus bringing out the disparity in the spending capacity of urban and rural residents. There is also a variance in the types of digital device available at home; though the number of laptops with the students living in rural areas is more than their urban counterparts, in owning computer or tablet, they seem to be lagging behind. Similar type of Digital Divide is highlighted in the Oxfam Inequality Report 2022 on Digital Divide in India which states that a higher percentage of students in urban areas of India have access to a computer with internet (21 percent) than in rural areas (4 percent).

Digital divide in the ownership of personal mobile is also observed as 15.83% students from rural area still do not have mobile phones as against 8.60 % students from urban area who do not own a mobile phone.

Pre-COVID and Post-Covid Digital Device Acquisition: One of the major concerns during COVID had been the unavailability of any sort of digital device with the students studying in rural areas. However, what has emerged from the study is the fact that the situation had been the same for students from rural household and

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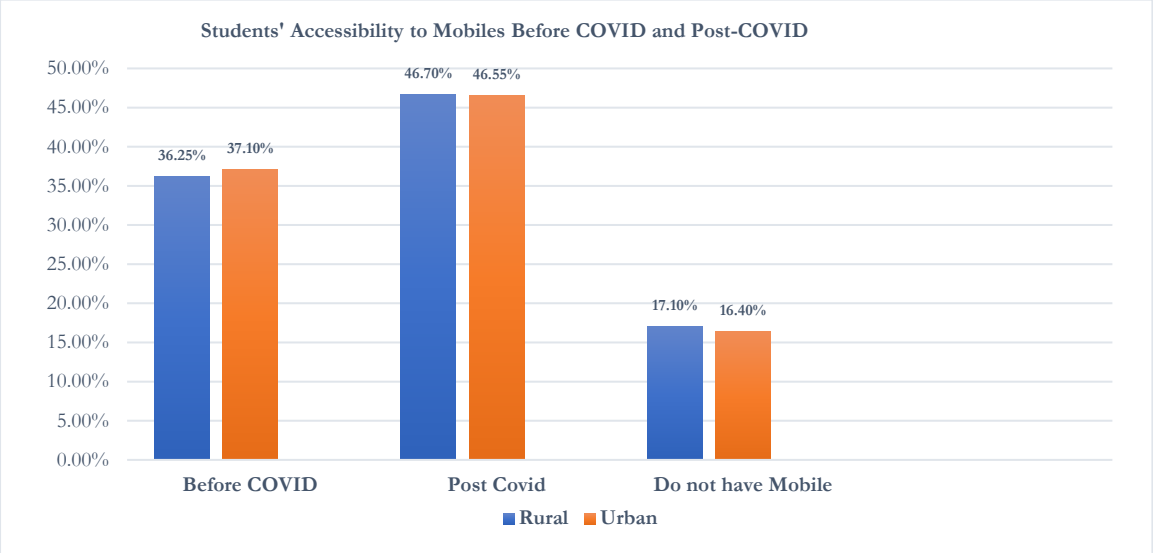
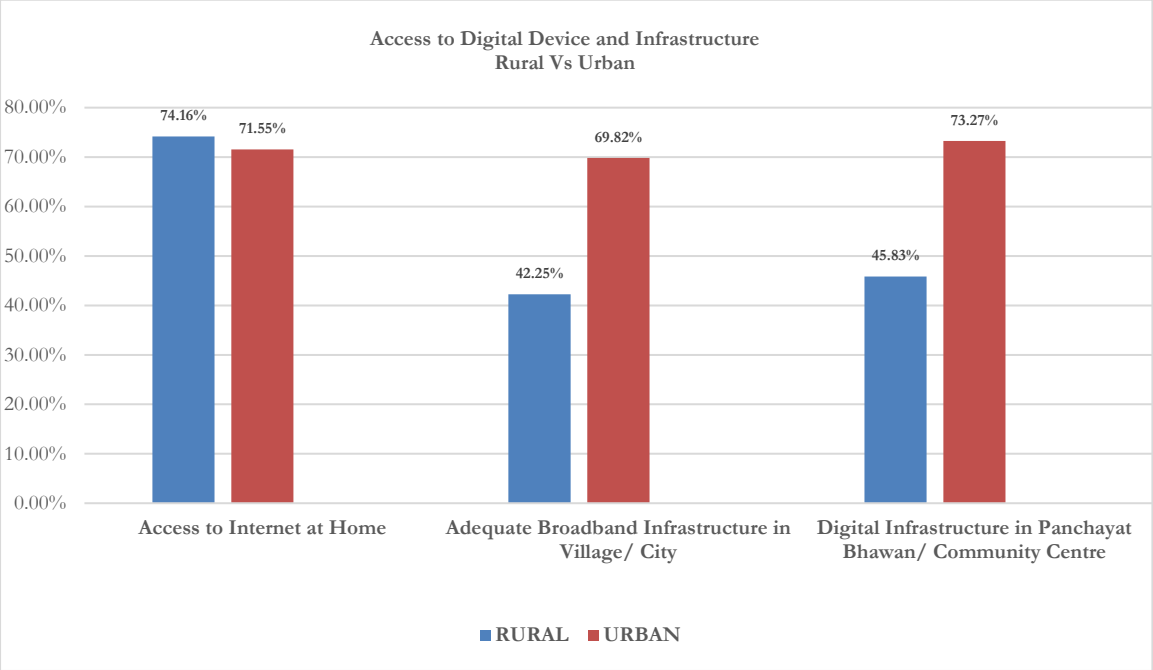
urban household in terms of possessing mobile phones before COVID or post-COVID. Perhaps this has lot more to do with the economic condition of the families irrespective of whether they reside in urban or rural area. Post COVID also, the percentage of students who acquired mobile phones is almost the same for both the students, residing in rural or urban area. However, there is still a significant percentage of students, both from rural and urban households who do not possess mobile phones and this needs to be addressed.



Lack of Computers of Laptops: Mobiles are a communicational device. "As the world enters the AI era, India's education system cannot rely on devices designed primarily for communication and consumption. Smartphones and tablets provide access, but they do not support the productive use of AI such as coding, model-building, data analysis, or content creation. Laptops uniquely provide the compute power, keyboard interface, multi-tasking capacity, and secure environments needed to turn AI from a toy into a tool, especially for children in middle school grades or higher." (Bhardwaj and Thakkar 9)

Access to Affordable Internet and Infrastructure at their Particular Area

"An individual needs not only an appropriate device but also an internet connection at home, the ability to use the internet and finally, to actually use the internet" (Datta and Kingdon 2). According to the joint UNICEF-ITU report *How Many Children and Young People Have Internet Access at Home?* (2020), approximately 2.2 billion children and young people under the age of 25 years — accounting for two thirds of this demographic — did not have access to the Internet at home. "This lack of connectivity significantly limits their ability to engage with online educational resources and participate fully in digital learning opportunities" (UNESCO 42).



It has been found that, as assumed otherwise, that the internet access at rural homes is almost at par with the urban homes, 74.16% to 71.55%. This substantial increase in the use of internet perhaps has been possible "due to a significant rise is smart phone use and also due to the lowering cost of mobile data over the period"

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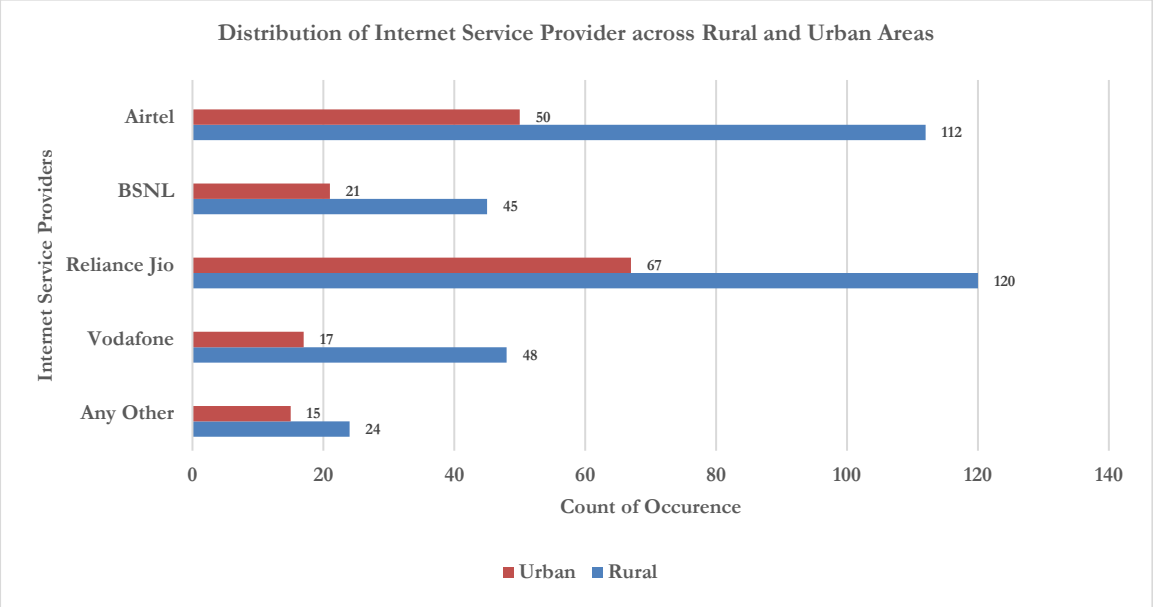
which Datta and Kingdon have noticed from 2017-18 to 2020 (5). However, the digital infrastructure in the village demands attention with 42.25% broadband connection as against 69.82% of urban areas. Even in public space like the Panchayat Bhawan of villages, the digital infrastructure is way behind at 45.83% against 73.27% available at Community centres in urban areas.

What is the status of Internet Service Provider in both Rural and Urban areas?

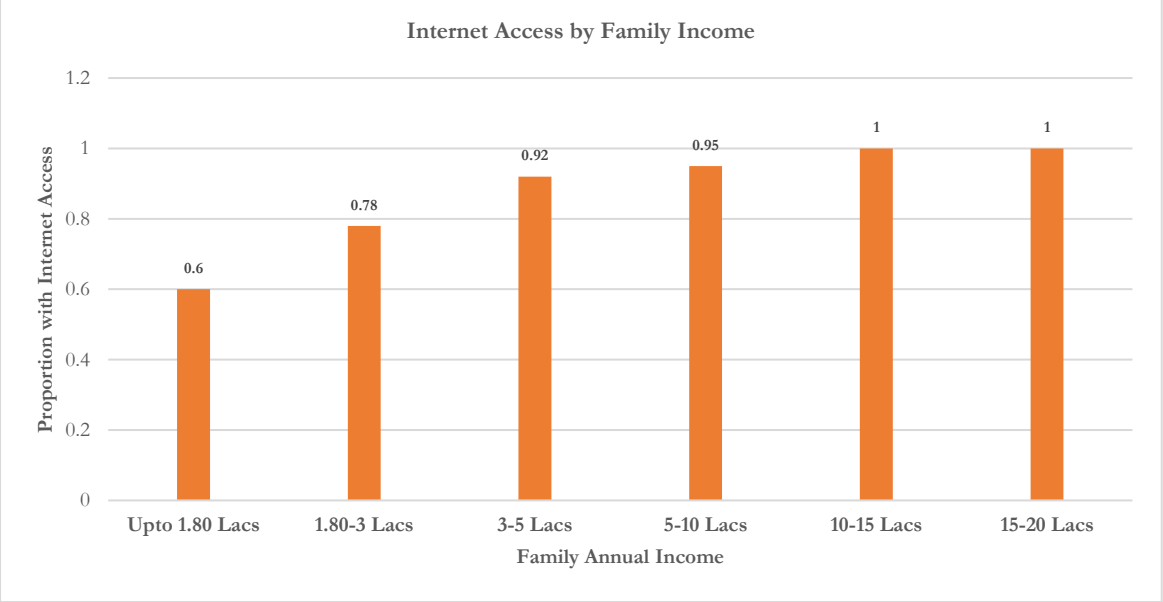


The chart reveals the following results:

1. Rural Dominance: Airtel and Reliance Jio have a strong presence in rural areas.
2. Urban Usage: Reliance Jio is the leading provider in urban areas, followed by Airtel.
3. Overall Trend: Internet service providers generally have higher counts in rural areas compared to urban.

The results show that internet service providers like Airtel and Reliance Jio are more prevalent in rural areas, indicating a higher demand or availability, whereas in urban areas, Reliance Jio leads, but the competition is more balanced with other providers like Airtel and BSNL.

A question was raised earlier whether the economic condition (Family Annual Income) determines the access to digital facilities. So, it needs to be assessed whether the internet connectivity, which is equally important besides ownership of digital device, is impacted by family income.



The bar chart shows a clear trend where higher income groups have higher proportions of internet access. The lowest access is observed in the "Up to 1.80 lakh" category, with a proportion of 0.60. The chart above shows that:

1. Higher Income Groups: Families with annual incomes between 10 lakh - 15 lakh and 15 lakh - 20 lakh have a 100% internet access rate.

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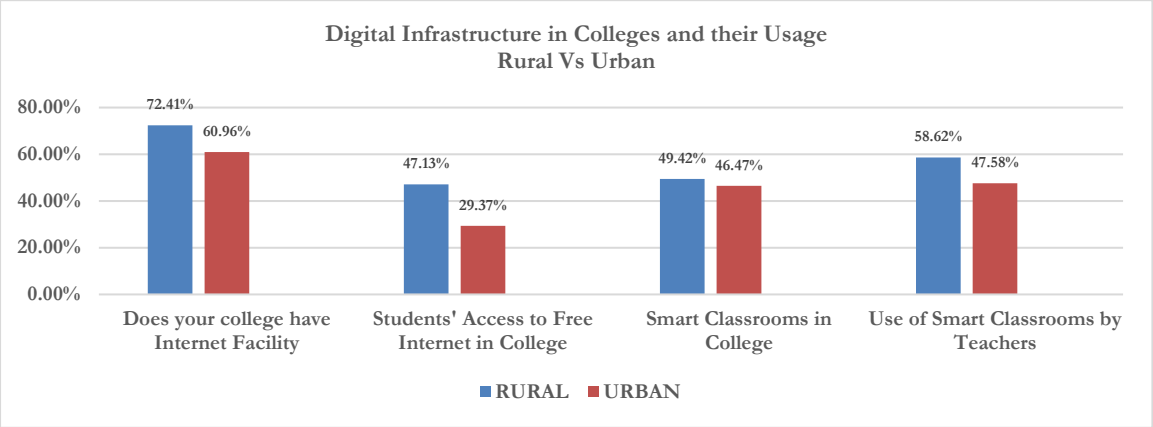
2. Middle Income Groups: Families earning between 5 lakh - 10 lakh have a 90.9% internet access rate.
3. Lower Income Groups: Families with incomes up to 1.80 lakh have the lowest internet access rate at 69.4%.

So, there is a positive correlation between family's annual income and the availability of internet facilities at home. Higher income families are more likely to have internet access.

2. DO STUDENTS *STUDYING* IN RURAL AREAS HAVE LESS ACCESS TO DIGITAL FACILITIES THAN THEIR URBAN COUNTERPARTS?

Profile: 87 Students of the collected data set are studying in rural colleges (72 belong to rural background and15 are from urban background). 269 students are studying in Urban colleges.

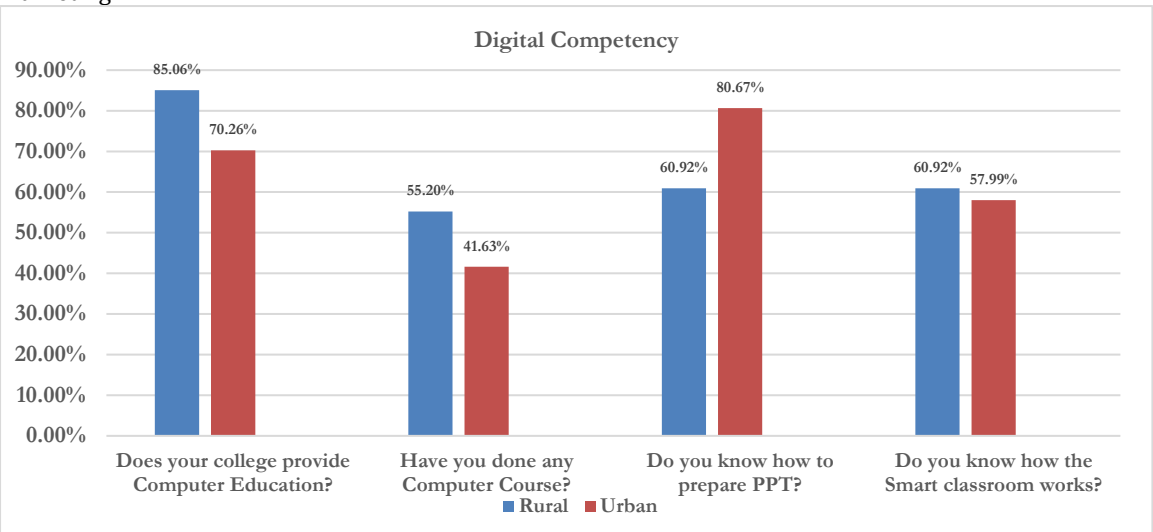
Digital Infrastructure in Colleges



If we go by the percentage, the bar chart above shows that the colleges in rural area are better-placed in terms of digital infrastructure than their urban counterparts. Though the availability of internet facility in their college has been noticed by the students, their free access to it is limited, more so in the urban colleges. Library, Common-rooms, Canteen, Computer-labs, around Principal's room are some of the places where free internet is accessible to them in college, however, many of the students both in rural and urban colleges have complained about the unavailability of free internet in their college.

Smart classrooms are available in the both rural and urban colleges (though their number varies which needed further corroboration, therefore not mentioned here) and their middling use by teachers has also been noticed. But this aspect necessitates further study to explore why there is less use of smart classrooms by teachers in the colleges.

Computer Literacy/Competency (Self-acquired or taught): What is needed is not just the digital infrastructure, but the ability to use it as well. Computer literacy is must to make the best use of the digital facilities offered by the government or colleges. Compulsory Computer Education (CCE) had been provided to the students studying in government colleges of Haryana which at least introduces the students to the basics of computers. Some students also undertake computer courses and trainings on their own — 55.20% from rural area and 41.63% from urban colleges. There are 20.7% students from rural area and 29.4% from urban area who are planning to learn computers on their own. Many students want to learn the basics; many however, want to learn everything from software to hardware, AI to coding to advanced computer languages, cloud computing, web-designing, computer programming, courses related to their subjects, like Tally or Digital Marketing.



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Usage of Digital Device: All the factors essential for digital equity— digital access, digital infrastructure, digital competence or literacy are null and void if they are not put to good use. If the students are provided with all the essentials leading to digital equity in education, and they do not make use of it essentially for education and research, then the cause is lost. So, the purpose for which the digital devices are being used is of utmost importance.

It is heartening to know that 70.11% students in rural area are using their digital device for educational purpose, whereas 72.86% urban students are using it for the same purpose i.e. for education. 74.71% rural students use their mobiles for researching a topic related to their subjects and 84.75%) urban students also use it for research purpose. Besides this, the students, both from urban and rural colleges use their devices to get important messages and communication, for e-banking, preparing for competitive exams, and also to improve their skills and vocabulary. They also access social media; watch You Tube video and play games on their devices.

CONCLUSION

It was assumed *a priori*, that students *living* in rural areas as well *studying* in rural areas are at a disadvantage as far as digital facilities and access are concerned. However, what has transpired from the present study regarding the questions raised at the beginning are as follows:

1. Whether students *living* in rural areas have less access to digital facilities as compared to their urban counterparts?

It was found after the study of the data that digital divide is not evident with regards to the availability of digital device at home, though the variety of digital devices is limited, most possessing mobile phones. It was observed, with respect to the ownership of personal device as well the capacity to purchase (First-hand/second-hand as well as the price of device), the rural students were at a disadvantage.

There is no remarkable difference between students residing in rural and urban regarding acquisition of mobiles before COVID or post-COVID. However, there is still a significant percentage of students, both from rural and urban households who do not possess mobile phones and this issue needs to be addressed.

Though no great disparity was observed between students residing in rural or urban area with regard to access to or availability of internet at home; a positive correlation between family's annual income and the availability of internet facilities at home was found. Higher income families are more likely to have internet access. Digital divide was noticeable in the broadband connection in their area as also in the infrastructure at public place (Panchayat Bhawan) that puts the rural people at a disadvantage.

2. Whether students *studying* in rural government colleges have less access to digital facilities in comparison to their urban counterparts?

No, they do not have less access to digital facility because of the location of college; location is not a hindrance in digital access for the rural students, at least not in case of students studying in the government colleges of Panchkula. Rather, the colleges in rural area are better-placed in terms of digital infrastructure than their urban counterparts who seem to be at a disadvantage with regards to free internet access and smart classrooms which are less frequently used by teachers. There is one complaint though from both the rural and urban students that access to free internet is available in the college at only particular places. The limited use of smart classrooms in teaching demands another study to explore the limitations and inhibitions of teachers to use them.

3. What are the main factors that exacerbate the Digital Divide between Rural and Urban students in Panchkula?

Leaving out the "disabilities divide" and "the generational divide" at the very outset because the study involved neither persons with disability not was it inter-generational, the study reveals that the Digital Divide in the government colleges has less to do with the "geographic divide" or "the gender divide" and more with "the socioeconomic divide." Rather, it has been discovered that as far as the digital accessibility, facilities, literacy and sound usage is concerned, an immediate upgrade is required in both the urban and rural colleges.

RECOMMENDATIONS

The recommendations have come straight from the students in the form of suggestions sought from them to bridge the Digital Divide. Many suggestions were regarding providing free gadgets to the disadvantaged groups, the criteria being merit and 75% compulsory attendance and the gadget preferably being computer as it can assist them in more in doing complex digital work/study. For others, both the devices and internet access, should be reasonably-priced. Some of the commendable suggestions by students *as verbatim* are:

1. To bridge the digital divide, focus on initiatives like community-based internet centers, affordable connectivity options, and digital literacy programs. Collaborate with governments, NGOs, and private sectors to create inclusive policies and investments in infrastructure.

2. There is lack of awareness related to how to use or access internet etc and mostly people use phone to scroll videos they even don't know how to use phone or features related to phone so provide awareness regarding this.
3. Provide them gadgets with internet access and training how to use the gadget.
4. Device Distribution Program: Provide low cost or subsidized devices as smartphone, tablets or laptop to economically disadvantaged individual or family, enabling them to access digital resources; offer training programs that teach literacy skills, established community Wi-Fi spots in public areas.
5. Governments can consider subsidizing essential digital services, providing low-cost internet plans, and distributing affordable devices to economically disadvantaged individuals. Additionally, investing in public Wi-Fi infrastructure and implementing digital literacy programs can empower citizens to make effective use of digital resources.
6. Before providing facilities people should be provided proper knowledge and awareness regarding phone to save them from scams and fraudulent activities related to internet.
7. Improve the relevance of online content.
8. Make BSNL internet range available to all areas with 4G or 5G network. Other companies are too expensive but some broadband connection can be installed in the village with more limit so that those who do not have that much money to buy both internet and calling plan can benefitted from this. (*edited a little to derive meaning*)

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