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DIGITAL ACCESS AMONG ECONOMICS STUDENTS: IN TERMS OF MATERIAL ACCESS

Bishnu Maya Joshi

Associate Professor, Mahendra Ratna Campus, TU, Tahachal, Kathmandu
Corresponding author: bishnumaya.joshi@mrc.tu.edu.np

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ABSTRACT

The internet and other digital technologies, which provide students access to a prosperity of knowledge and allow them to explore their interests and learn at their own pace, will enable them to do both. The teaching and learning process has grown more effective and meaningful due to ICT's ability to support self-paced learning through various instruments, including assignments, computers, and other devices. Examining the digital divide between economics class 12 students in public and private schools based on access is the main objective of this study. This study used a cross-sectional quantitative survey as its sole data collection method. The researcher used a simple random selection procedure to select 125 respondents from the population as a sample. This study found that private school students have better access than community schools in terms of material access to ICT in school. By giving ICT access in the classroom and persuading parents that it is a fundamental necessity, schools (public and private) can develop highly ICT smartness students in Nepalese.

Keywords: material access - economics students - quantitative survey - Kathmandu valley - information - communication technology

INTRODUCTION

Information and communication technology (ICT) has revolutionized every aspect of modern life. In particular, it has been incorporated into education, and its influence on teaching and learning is well acknowledged (Rahman 2014). Although low-value, low-tech industries still make up most of the Nepalese economy, the government is beginning to recognize the significance of ICT and national development(Aashis & Kim 2016). Funding is provided to educational institutions to provide them

with ICT hardware and Internet connectivity (Joshi 2022). The teaching and learning process has grown more effective and meaningful due to ICT's ability to support self-paced learning through various instruments, including assignments, computers, and other devices. By keeping students informed and enhancing teachers' capabilities, ICT helps to facilitate the transaction between producers and users. It fosters live contact between the teacher and the student in various ways (Sharma *et al.* 2011).

Technology encourages student involvement by enhancing interactivity and interest in the learning process. Students can use technology, for instance, to work together on projects, participate in online debates, and access instructional resources at any time and from any location. Use of ICT in education is essential for improving students' learning opportunities (Dabrowski *et al.* 2020, Irrinki 2021). It offers access to a wide range of information and resources, including websites for education, multimedia resources, online learning platforms, and educational software. Critical abilities like digital literacy, problem-solving, and creativity, are necessary for success in the modern world and are also developed through ICT (Chandra & Mills 2014, Daniela 2019, Stein & Sim Kwong 2020).

Access to information and resources is improved by ICT access in education. Students may explore their interests and learn quickly thanks to the internet and other digital technologies, which give them access to much information (Van Dijk & AGM 2017). Equitable access to educational resources can also aid in bridging the digital divide between students from various socioeconomic backgrounds. Ensure all students have access to the tools and resources required to engage in the learning process (Asadullah & Bhattacharjee 2022). This is especially important where there is a digital gap, where some pupils might have access to the most recent technology while others do not (Van Dijk 2005). For all students to have equal access to technology, authorities and legislators must endeavor to close the digital divide. The provision of low-cost or free computers, internet connection, and digital literacy programs for students from under served regions are just a few examples of initiatives that can be used to accomplish this(Withers, 2021).

Well before the pandemic began, Nepal's educational system was in disarray. Yet, alternate teaching-learning methods during the COVID pandemic also highlighted the gap in access to education between classes. Government schools already provided instruction of subpar quality, so

parents were taking their kids to more expensive private schools (Dawadi *et al.* 2020, Gurung & Paudel 2021). But the need for remote instruction due to the COVID-19 situation has worsened this educational inequality. The digital divide has left the bulk of schools and students in the nation behind, even if better-off schools offer online courses during a pandemic. Many students did not have access to computers or Wi-Fi in the Kathmandu Valley, where they could take online courses.

There are distinctions among the people, notably those from marginalized and vulnerable groups, with access to the fundamental rights protected by Nepal's constitution. For example, one of the most current issues brought on by the COVID-19 outbreak in low-income, marginalized communities without access to information, communication, and technology (ICT) is the digital divide, which perpetuates social inequality(Dawadi *et al.* 2020). Here, we realize that the COVID-19 pandemic has fundamentally altered how information and communication technologies are used worldwide. This fact is not unique to Nepal. COVID-19 has substituted virtual activity with actual human interaction. It has produced opportunities for affluent individuals with access to ICT and limits for underprivileged groups who cannot fully utilize ICT in their way of life and the teaching-learning process (Lai & Widmar, 2021, Ramsetty & Adams 2020). With the official government guidelines and policies, the digital gap, especially in the education sector, will become a severe problem as they emphasize the ICT integration procedures despite the significant racial and economic divide (*Bronzino et al.* 2021, Francis & Weller 2022).

Digital technologies have significantly impacted the educational system. The COVID-19 Pandemic has further institutionalized the use of digital technologies in education. The entire education system has undergone a paradigm shift due to these digital technologies. It serves as a knowledge source as well as a co-creator of information, a mentor, and an assessor. Students' lives have been made simpler by technological advancements in schooling (Chandra & Mills 2014, Haleem *et al.* 2022; Stein & Sim Kwong 2020). Digital literacy should be prioritized in educational policy. People with ICT skills can communicate more effectively with public officials and flourish in the job market. The importance of communicating online, through apps, and with other e-based technology is growing due to digitization and globalization(Stofkova *et al.* 2022, Tabira & Otieno 2017).

This study aims to examine the digital divide among economics class 12 students in public and private schools based on material access. So, this study focused on finding the answers to the following question:

What are community and private schools' class 12 economics students' material access levels on ICT?

METHODS AND MATERIALS OF THE STUDY

The study was conducted with Kathmandu Valley's class 12 economics students from the community and private schools. The study concentrated on the digital divide among Nepalese students. Only students with economics subjects were taken into account for the study sample. A total number of 125 economics students (64 boys and 61 girls) participated in this study. The researcher selected the research site purposively and then used a simple random sampling method to select respondents. A total number of 44 questionnaires were distributed among economics students through hard copies. Research tools were constructed based on the resource and appropriation theory propounded by Van Dijk (2005).The study used a cross-sectional quantitative survey as its sole data collection method (Mayer *et al.* 2019, Watson 2015).

There were no restrictions on the participants based on socio-demographic factors, such as gender, age, ethnicity, or origination. Data were collected by using close-ended questionnaires based on study objectives. The researcher preserved validity by preserving information using tools and validating the tools with the help of consultants. By homogeneity, convergence, and theory-supported instrumentation, construct validity was maintained. By using comparable samples in the study, reliability was preserved.

RESULT AND DISCUSSION

Socio-Demographic Characteristics

Respondents were 50.4 percent from community schools and 49. 6 Percent from private schools. Regarding ethnicity, the highest percentage belonged to Janajati (56.8 %), followed by Chhetri (917.6%). 10.4 percent belonged to Brahmin, and 15.2 percent were another caste. Based on gender, 51.2 percent were male students, and 48.8 were female. Similarly, 58.4 percentage respondents originated from rural and 41.6 were from urban areas. In the age factor, most of the respondents were in the age range of 18-20 (67.2%). Based on parents' employment situation, the highest

percentage (24.0%) were in business, followed by agriculture(16.8%), and 4 percentage parents were unemployed.

Learning Management System in School

Respondents were asked whether there was a learning management system available, i.e., Microsoft Teams, MOODLE, VEDA, Google Classroom, or any other in their school during the pandemic. In this question, 0 percent of respondents responded yes, and 96.8 percent no. In this way, 3.2 percent of respondents from community schools mentioned not being sure. On the other hand, in the case of private schools, 77.4 percent of respondents responded yes, 14.5 percent no, and 8.1 percent not sure. Hence, table 1. exposes the digital divide between the community and private school students. The unequal access to ICT tools is also seen based on economic status (Dawadi *et al.* 2020, Gurung & Paudel 2021). So Because a significant portion of the population is struggling financially, the government must offer free internet access to students in low-income communities (Chaudhary *et al.* 2022). COVID-19 has impeded children's academic progress since classes began to be taken online. Due to a lack of internet connectivity and the necessary gadgets, they could not participate in online courses. This pandemic may arrive at any time and authority need to manage the learning environment for every student, whether they study in community or private school. To improve the learning environment for community school children, the government must provide the LMS whenever needed to improve the community school's results compared to private schools.

Table 1: Learning management system available in school

			Type of School		
			Community	Private	Total
Learning Management System	Yes	Numbers	0	48	48
		Percent	0.0	77.4	38.4
	No	Numbers	61	9	70
		Percent	96.8	14.5	56.0
	Not sure	Numbers	2	5	7
		percent	3.2	8.1	5.6
Total		Numbers	63	62	125
		Percent	100.0	100.0	100.0

Source: Field survey, 2079

Ethnicity and ICT Devices

However, the national context of ethnicity conditions differs, with the highest percentage from Janajati in this research. Among the respondents, 78.9 percent of respondents from Janajati and other ethnic groups had smartphone access. Having access to smart phones, Brahmin students surveyed with having 53.8 percent. 50.0 percent of Chhetri respondents had access to a smartphone. It shows the inequality among students in ICT tools, which is the digital divide condition among the students. Regarding tablet or iPad access, Chhetri students had the highest access (13.6%), followed by Janajati (1.45%), Brahmin, and other caste students who had no access.

Access to laptops, and desktop, Chhetri students had greater access to laptops and desktop access than others; the lowest access to laptops belongs to Brahmin students. This shows the different context from the national context.

Ethnicity and social media access

This study showed that Chhetri students had the highest access to E-mail accounts, followed by janajati, and Brahmin had the lowest access. Regarding Facebook access, brahmin students had the highest access, followed by janajati; Chhetri students' access fell in the third level. Like ICT devices access, no ethnic group had access to blogs. It shows the low social media access among school students. In contrast with Facebook, janajati students had the highest access to Viber and followed Chhetri.

ICTs devices access of students

If we start by concentrating on the educational issues we intend to solve with these technologies rather than providing tools and then looking for ways to use them, it would still be possible to do more with ICTs for students. The main problem, however, is that ICT-centered teaching strategies are not well matched to younger children's learning and developmental needs (Behar & Mishra 2015). The researcher asked students whether they had ICT devices or not. In this section, 38.9 percent of students from community schools responded with no smartphone, and 61.1 percent from private schools. On the other hand, 55.1 percent of respondents from community schools responded yes, but 44.9 percent from private schools responded yes. Instead of LMS in school, more students from community schools have access to smart phones than in private schools. Regarding tablets or IPad, 75 percent of respondents from private schools have access but only

25.0 percent from community schools have shown a 'yes' response. It shows that private school students have greater access to expensive devices. Both schools' respondents have equal access to laptops, i.e., 50.0 percent, and in contrast to desktop computers, i.e., 0 percent of community school students have access, but 100 percent from private have access. This situation also provides evidence of parents' devices, shown in Table 2. below.

Table 2: ICTs devices access of students

			Type of School		
			Community	**Private**	**Total**
Smart Phone	No	Number	14	22	36
		Percent	38.9	61.1	100.0
	Yes	Number	49	40	89
		Percent	55.1	44.9	100.0
Tablet or IPad	No	Number	62	59	121
		Percent	51.2	48.8	100.0
	Yes	Number	1	3	4
		Percent	25.0	75.0	100.0
Laptop	No	Number	51	50	101
		Percent	50.5	49.5	100.0
	Yes	Number	12	12	24
		Percent	50.0	50.0	100.0
Desktop computer	No	Number	63	56	119
		Percent	52.9	47.1	100.0
	Yes	Number	0	6	6
		Percent	0.0	100.0	100.0
Parent's Device	No	Number	51	54	105
		Percent	48.6	51.4	100.0
	Yes	Number	12	8	20
		Percent	60.0	40.0	100.0

Source: Field survey, 2079

60 percent of students from community schools depended on parents' devices but only 40 percent from private schools. This result shows the unequal condition of ICT devices between community and private school students. Less access to ICT devices for the learning process obstructs better learning opportunities. It affects the result of community

schools in the Nepalese context. Compared to their private equivalents, community schools lack adequate facilities. The starkly differing results of their students on the national secondary education examination result demonstrate the disparity in educational quality between community and private institutions. Many researchers found community school students' poor results than private schools (Chapagain 2020, 2021). Inequality in ICT devices discriminates against the quality of education and broadens the learning variation between community and private school students, so authorities need to be aware of this situation.

Social Media Access of Students

Social media will continue to be used by a new generation formally and informally (Chen & Bryer 2012, Kumar & Nanda 2022).

However, for it to be a helpful tool, educators must have a better understanding of what social media is, the various kinds of social media that are accessible, the varying degrees of student familiarity and access with those social media platforms, and the specific skills and benefits that social media can bring to the classroom. Social media promises to open up new learning opportunities, but only if teachers and students are better equipped to use it as a pedagogical tool (Prensky 2012).Several essential aspects are required to effectively integrate social media into the classroom. Student opinions of the value and significance of social media in the classroom are influenced by the level of familiarity that both the student and the teacher have with it (Liu *et al.* 2016). To investigate the social media access of students, respondents were asked whether they have or have not the various type of social media access. In the E-mail account, 55.3 percent of students of community schools had access and only 44.7 percent of community school students. Access to Facebook was also followed by an E-mail account, i.e. 51.4 percent of community school students had access, and only 48.6 percent from private schools. There was no access to blogs for both school students. In the case of microblogs i.e. Viber, the access of community school students was greater than that of private school students. It showed whether the social media access of community school students is greater than that of private school students but the LMS access in school is inverse.

Table 3: Social media and types of schools

			Type of School		Total
			Community	Private	
E-mail account	No	Number	16	24	40
		Percent	40.0	60.0	100.0
	Yes	Number	47	38	85
		Percent	55.3	44.7	100.0
Social Network(e.g. Facebook)	No	Number	9	11	20
		Percent	45.0	55.0	100.0
	Yes	Number	54	51	105
		Percent	51.4	48.6	100.0
Blog	No	Number	63	62	125
		Percent	50.4	49.6	100.0
Microblog(e.g. Viber)	No	Number	31	32	63
		Percent	49.2	50.8	100.0
	Yes	Number	32	30	62
		Percent	51.6	48.4	100.0

Source: Field survey, 2079

CONCLUSION

The current investigation aimed to ascertain the digital divide among economics students of class 12 in community and private schools based on material access. The research findings indicated that Nepal's class 12 economics students suffer from a digital divide situation. Students in private schools have a higher chance of developing their technological confidence and proficiency. They are pushed to grasp technology in a complicated way as they are being prepared for the highly digitalized global economy. Community school students, who are less likely to be exposed to these technologies, are therefore out of the digital loop and largely ignorant of the complexity and power of techno-society. The government and educational institutions are responsible for giving secondary school students access to ICT so they can increase their competencies across the board. By giving ICT access in the classroom and persuading parents that it is a fundamental necessity, schools (public and private) can develop highly ICT-savvy products. Students will be more encouraged to use ICT and aware of its value if parents give them the necessary equipment for

educational purposes. Governmental agencies at the federal and municipal levels need to assist students who require assistance but cannot receive an education because they do not have access to ICT tools.

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