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Exploring the Characteristics of Gender Digital Divide among Secondary School Teachers in Bangladesh

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ABSTRACT

To cope with the significant changes that information and communication technologies have brought to the education sector, the government of Bangladesh has spent heavily and made significant progress in ICT infrastructure. Even if physical access improves, this does not necessarily bridge the gender digital divide rather continues to exist in developing countries where women have unequal access to ICTs than men. In order to promote high-quality education and women's empowerment, the digital divide with its multi-dimension should be given special attention. The study's main objective was to explore the gender gap in three kinds of technological access distinguished; (a) physical access, (b) digital skill access (c) usage access for understanding the multifaceted characteristics of the digital divide. Data on three successive stages of access (physical, skill and usage) were collected using a semi-structured questionnaire from a random sample of 326 respondents along with the qualitative method of in-depth interviews and key informant interviews from three city corporations; Dhaka, Khulna and Rajshahi, according to their digital divide rate. The result shows that though female teachers are increasingly internet users, they continue to experience device divide and significant gaps in professional digital competencies, creative use, and frequency of use for professional purposes. They are also lagging behind to make online professional networks to their male counterpart.

Keywords: Digital Divide; Gender Digital Divide; Information and Communication Technology; Access; Skills; Usages

INTRODUCTION

The information and communication technology (ICT) is the lynchpin of sustainable and equitable development. However, the availability of ICTs has been unevenly distributed, commonly known [1]as the digital divide (Attewell 2001; Hargittai 2001; Haan 2004; Van Dijk, 2006 2012; Brotcorne et al. 2010; Ramaswamy, 2012; Zaman & Rokunuzzaman 2015 Lauren Bull 2016; ITU 2016). Worldwide fewer women accessing and using ICTs

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compared to men referred to Gender Digital Divide has become a pressing global issue (Hafkin & Taggart 2001; Kennedy et al. 2003; Cooper 2006; Acilar 2011, Primo 2003; Hillbert 2011; Bull 2016; Mumporeze & Prieler 2017; Treinen et al. 2018). Without equal access to technology and not being involved in creating digital tools or online content, women cannot participate equally in digital societies, which may exacerbate inequalities between men and women. (Plan International Org. 2017). Due to economic, social and cultural obstacles throughout the world, women can not extract the full range of opportunities offered by digital technology.

To fulfil all SDGs, SDG-4: Ensure quality education and SDG-5: Ensure gender equality and empower all women, Bangladesh has already integrated ICTs into its national objectives and has made significant infrastructural progress and other ICT integration projects in schools (Zaman & Zaman 2015). Despite this progress, there are gender disparities in access to and use of ICT, and this digital gender divide is persisting and widening (Van Dijk 2012; Ministry of Planning 2013).

Even if men and women have equal access to technology at home, school, or other locations, they may not be able to effectively use it if they lack the skills and opportunities required to engage in a wide range of uses (Bridges org 2001; Kennedy 2003; ITU 2016). Playing an important role as an educational agent, teachers' technological tools could facilitate learning and enhance educational quality (Aguilar 2012; Parra 2012). A general population will have differences, but whether teachers can perform well differentiates from the general people in education and development. The secondary school teachers are best suitable for studying the access and use of ICTs because incorporating ICT tools into teaching and learning needs digital abilities. Consequently, they confront additional problems, particularly females, who make up most of those who struggle with this technological approach to teaching and learning. In this situation, it is vital to understand to what extent female teachers are divided to successfully integrate ICT into education.

PROBLEM STATEMENT

The global digital divide is a long-term imbalance between countries caused by the unequal distribution of ICTs in terms of access, creating a bar for digitalization and slowing down sustainable development (Hayet Kerras 2020). In developed countries, 81 per cent of individuals are now estimated to use the internet. For developing countries, the figure is 41.3 per cent, and a comparable figure for least developed countries is 17.5 per cent only (ITU 2017). The digital divide within countries, known as the domestic divide, can be as wide as the digital divide between countries (World Bank 2016). Unequal access divides people into two groups: those who have access to digital tools and those who do not.

This 'haves' and 'have-nots'- the digital divide perspective related to the first-order digital divide concisely captures the essence and is confined to the early and narrow meaning of gender digital divide has become outdated, patronized, and imprecise (Dewan and Frederick 2005; Warschauer 2003). Various digital inequities have emerged and shifted from a problem of access to a concern of intensity, frequency, and purpose

due to the continuous evolution of ICT (Araque et al. 2013).

Van Dijk (2012) offered four types of successive access stages: mental access, physical access, access to skills, and user access. If there is a gap in any stage, it is considered the digital divide. The same author observed a shift from the first-order digital divide to a second-order digital gap, including skills and usages disparities. However, Dijk does not include macro issues like location, social network, and availability. Bridgeorg. (2001) sets out twelve determining factors of the digital divide beyond physical access. Nevertheless, the model is too focused at the macro level. Kvasry and Truex" s (2002) core concept include five types of capital. For the study purpose, a more widely ranging set of indicators of the concept of access has been interweaved to uncover the gender digital divide presented in Table 1.

Despite the vast potential benefits of women having access to and using new technologies, the gender gap in access and use of ICTs exacerbates existing imbalances between men and women, especially in developing countries (Mumporeze and Prieler 2017). Women are still not fully utilizing ICTs in Asia, where connectivity is still limited but fast-improving than other regions. Early digital divide research mainly prioritizes the divide of physical or material access regarding income, education, and age (Van Dijk 2006). Women with rural zones, low income, disabled, and without economic activity are prone to lack access to digital technology.(Brotcorne et al, 2010; Ali Acilar 2011). A study commissioned by European Union (2018) reveals the different factors like access, skills, socio-economic and culture which prevent women from having equal access to digital technology. Gender differences in internet use may reflect gender differences over computers use and attitudes (Trauth 2006). Antonio and Tuffley (2014) argue that exclusion from technology education and design, limited free time, social norms favouring men, financial constraints are the causes of hindering women's access to and use of ICTs that are also suggested by Gil et al. (2010). Zia et al. (2009) provide that poverty and the high cost of the internet are common factors widening the digital divide in Yemen, Bangladesh, China and Pakistan. Culture and technological infrastructure in rural areas shut the doors in front of rural students of Bangladesh.

Like other areas, ICT can bring welfare to education. Forsooth government has taken a master plan of developing ICT infrastructure in educational institutions and professional skills of teachers through ICT. “Not ICT education rather ICT in education" with this motto, the government includes all of the teachers (approx. 3 million) at the secondary level to develop their basic skills in ICT, use of ICT, and provide a multimedia classroom in 23,331 secondary schools (Ministry of Education July 2013). Though substantial growth in mobile-cellular telephony has dramatically increased, women are less likely than men to use the internet and more underrepresented online (ITU 2017; BBS 2013).

According to the literature mentioned above, risk groups such as the poor, low-income, illiterate, elderly and rural people are the most affected by the digital divide. There is a significant gender gap in both accessing and using it. Though it is widely acknowledged that teachers lack the skills to use ICTs in the classroom, no specific and focused prior research has been undertaken on secondary school teachers' digital gender

divide regarding its multi-dimensional aspect in urban areas to date. Due to the lack of sex-disaggregated data, we do not know to what extent female teachers are in the divide. The multi-dimensional component of the digital divide assesses differences in material access, digital competencies, and the frequency with which people utilize it.

Table 1: Summary of indicators

Level of the digital divide	Types of access (indicators)	Sub-indicators
Second-order digital divide	Usage	Frequency
		Active or creativeness
		Usage applications and diversity
	Skills	Operational
		Communication
		Entertainment
		Information
		Strategic or content creation
First-order digital divide	Physical/ material access	Availability
		Location
		Social network
		Single/multiple platforms (internet with PC or mobile)

Note: The terms used in the table are the modified version of Van Dijk's model

METHODOLOGY

Research Approach

The study has followed a mixed-method approach to explore the dominant divide level; either it is first-order or second-order divide representing the characteristics of the gender digital divide. Moreover, to triangulate data mixed-method approach is needed.

Research Method and Instruments

The study used a mix of research methodologies to collect data on features, such as three stages of access (material, skill, and usage) a semi-structured questionnaire followed by a series of closed and open-ended questions was chosen as the primary instrument of data collection, followed by a face to face interview. The draft questionnaire was written in Bengali with the understanding level of the respondents in mind. It has been assessed and tested to see if it is suitable for interviewing responders. Three KIIs were conducted with ambassadors of the Teachers' web portal in three respective areas to triangulate

data. Three focused group discussions with male and female teachers were chosen from three areas. Data were collected at the respondents' workplaces during working hours from January to April 2019. The respondents were assured that the information they provided would not be misused and would only be used for this research strategy.

Selection of Study Area

According to their digital divide rate, the study area has covered three city corporations; Dhaka, Khulna and Rajshahi (BBS, 2013). Having urban characteristics, city corporations represent urban areas in Bangladesh where most facilities and services are concentrated.

Population and Sample Size Determination

The research population includes all secondary school teachers (junior secondary, secondary, and school section of school and college) of three regions having a membership of 'Shikkhak Batayon', a teachers' web portal as they are advanced users. Madrasa has been excluded as it holds a scanty percentage of female teachers (BANBES, 2017). The population of this study area is 2560. (Member of web portal, a2i, Prime Minister Office, estimated till March 2017). The representative sample size was calculated 326 using Cochran's formula for the finite population.

$$n = (z^2.p.q.N)/(e^2 (N-1)+z^2.p.q) .$$

Where, n = Sample size that wants to know

N=2560; Total number of secondary school teachers.

Z=1.96 at 95% Confidence level, p=0.5 is the estimated population proportion that maximizes the sample size. q= 1-p, e=Error limit at 5% (0.05).

Sampling

The sample was distributed based on the study location and gender. Dhaka, Khulna , and Rajshahi City Corporation account for 57, 23, and 20 per cent of all secondary school teachers, respectively (BANBEIS 2017). 186, 75, and 65 respondents were chosen randomly from three different places using proportionate sampling. Each number is proportional to the overall population of each area. According to their percentage in city corporation areas, 155 female and 171 male respondents were distributed. A random selection of respondents was used as part of the sampling technique.

Analysis and Interpretation

Quantitative data were entered into the computer and analyzed using the SPSS version 22. Descriptive analysis by running a frequency table was used to describe the characteristics of the digital divide. Gender gap data in ICT access and use for different indicators like material access and other indicators have been analyzed by tables, graphs, and diagrams. The in-depth interviews have been analyzed through thematic analysis, which will be considered suitable for this research.

RESULT

Demographic Features

Nearly half of the respondents (45.4%) of the total respondents belonging to the age group range 30 to 40 years. Of the total, 10% were over 50 years, and 14% belonged to age below 30 years. All the respondents belong to middle-income groups. Only 27.09% of female respondents (42 out of 155) monthly family income was above 50000 taka as both husband wives were employed. 28% of respondents (both male and female) income was below 16,000 as they did not get monthly pay order (MPO). Nearly half of the female teachers did not receive ICT or computer-related training concerning ICT training. A vast majority of teachers belonged to the humanities group.

First Order Digital Divide

Availability: Mobile, Computer and Other Digital Tools

The study's findings confirm more gender gaps in each category except mobile phone and internet access. 83% of male teachers report that they have a personal computer while the figure for female teachers stands at 76%. More gender gaps are perceived in the case of possession of other territorial equipment (Table 2). A more significant number of female respondents (87%) claim that they share a computer with their husband, child and others. Table 2 indicates that husbands' percentage of computer use makes up the significant share for female teachers (51%). By contrast, only 29% of women have little access because most of the time, computers and mobile internet are being used by their husbands and children (FGD- Dhaka). One participant attending FGD comments:

> I have a computer at home, in principle I have access to it. However, do women have access to that if the husband has essential work in the computers to be done or the kids have a lot of things to do. I hardly see the computer left open for my use.

Availability: Internet

An almost similar number of male and female colleagues, 87% and 86% respectively, access the internet at home or any other location. By age, many young teachers (more than 90%), aged below 30, use the internet while older male and female teachers use it slightly less (66%) than the youth generation. The gender gap in internet use is very minimal in all age groups. The age of the teachers affects their willingness to utilize ICT. From several focus group discussions, senior respondents frequently believe that:

> In contrast, younger teachers are more familiar with and more likely to use the internet and computer because they were born and raised in this new system. If they (senior respondents) have a pressing need to perform something online, many of them will ask a co-worker or a child for help (FGD Khulna- 2).

Table: 2 ICTs access by gender

Questions	**In percentage point within gender**			
Do you have the following devices? n=326				
	Male		Female	
	Yes	No	Yes	No
PC/ Laptop	83.1	17	76.1	23.9
Mobile	100	-	100	-
Printer	31.6	68.4	9.6	90.3
Scanner	18.2	81.8	6.5	93.5
Router	35.1	64.9	31	69
Modem	53.8	46.2	43.2	56.8
Do you share your computer? n=326				
Yes	29.8	-	87.1	-
No	-	70.2	-	12.9
If yes, who spend more time on the computer?				
	Husband	Wife	Children	Self	Others
Male	---	29.4	51	70.2	19.6
Female	51.5	---	37.7	12.9	10.3
Do you use the internet? n=326				
	Male		Female	
Yes	87		86	
No	13		14.5	
Age distribution of internet access				
Below 30	93		96	
30 to 40	90.4		89.2	
41 to 50	88.7		85.1	
Above 50	66.6		66.6	
If yes, through which medium do you use the internet?				
	Only mobile		Both PC and mobile	
Male	25		75	
Female	50.4		49.5	
Where do you use a computer and the internet?				
	Male		Female	
PC at home	76.6		76	

PC at school	89.5	81.3
Do you integrate with colleagues through media networks for professional purposes?		
	Yes	
Male	64.3	
Female	47	

Source: Field survey-2019

Location

In accessing a computer at home and workplace, about one-fourth of respondents of both males and females (23% & 24%) never use computers at home. A significant gender gap (8.2%) exists at the workplace who never access a computer through institutional access of ICTs has achieved excellent coverage (Table 1). Women accessibility is much better for upper-class groups and those who are well connected to larger cities. Nonetheless, the progress seems to be not so widespread. The study shows that lack of ability to be afforded, female respondents can not access computers in their household and the fact that they are not highly motivated (KII-1).

Social Networks and Multiple Platforms

Unlike social networks at the workplace, it is clear from Table 1 that less than half (47%) of women and about three quarter (64.3%) of men integrate with colleagues through media networks. One of the female respondent's comments:

> Since modern equipment like computer projector is new most of the time, we take assistance from ICT teacher or other persons at school who have more expertise with that equipment. However, for professional reasons creating or joining a professional group online is rarely done (FGD-2, Khulna).

Multiple Platforms

The data show another divide scenario known as the 'device divide', beside the digital divide. Mainly, mobile internet users are increasingly women consisting of more than half (60%). In contrast, a considerable percentage of men use the internet with multiple devices (Table 1).

The Gender Gap In Skills Access and Digital Services

Operational Skill in ICTs

Field survey explicitly expresses that female teachers face widespread imbalance to

make rudimentary use of computers and applications. Female's ability of scanning and printing is more than two times lower than males (29% and 66%). Only 39% of female teachers know how to install software, followed by 23% bookmarking websites and 42% submitting forms online.

Information, Communication and Entertainment Skills in ICTs

According to the findings, male and female teachers have similar abilities to interact, entertain, and obtain information on the internet. Only 16.8% of female teachers say they never make a phone call through the internet, compared to 21.1% of male teachers. Compared to male instructors, just 17% of female teachers avoid using social networking sites like Facebook, IMO, Viber, and Messenger for interpersonal connection (see Table 3). All the same, when asked about different kinds of digital services provided by government and non-government organizations, except online purchasing (mainly garments, cosmetics, tickets for travels) more than half (52.9%) of the female teachers are not at all accessing e-learning platforms like 'Muktopath', more than three quarters (79.4%) do not make proper use of 'Teachers Portal Blog/ Magazine' by posting problems or giving any solutions which could enhance their professionalism. Availing many other services like legal services from Service Innovation Fund, 'Sebakunjo' an online platform to get services from public offices, women are far behind from men, 67.1% compared to 59.1% did not take service.

Strategic Skill

Meaningful and beneficiary digital technology use depends on a broad range of generic skills and competencies (Deursen & Dijk 2019). Using various software and digital tools to solve problems, creating digital content, multimedia presentation, store information lie at the heart of strategic or generic skills.

Table 3: Summary of digital skills of teachers by gender

Variables		Not Known (%)		
		Total	**Male**	**Female**
Operational Skills	Scanning & printing file	50.9	33.3	65.3
	Installing software	46.6	33.9	60.6
	Bookmarking websites	60.4	46.6	76.8
	Save documents	25.8	17.6	20.2
Entertainment & communication skills	Download & play music,	9.5	16.4	12.9
	Navigate social media site	17.5	18.1	17.0
	Chatting, making calls over the internet	19.0	21.1	16.8
	Send e-mail	32.8	26.9	39.4

Strategic skills	Create & use a personal website	56.1	55.6	56.8
	Microsoft Office Word	24.2	22.8	25.8
	Draw table, charts...	32.8	31	34.8
	Graphic design & animation	37.7	35.1	40.6
	MS Powerpoint	19.9	18.1	21.9
Availing digital services	Purchasing products, goods, tickets	50.3	50.3	31.6
	Availing Muktapath	44.8	34.7	52.9
	Writtings on the Teachers web portal	67.5	63.7	71.6
	Sebakunjo	62.9	59.1	67.1
	Taking legal support	85.3	82.5	88.4

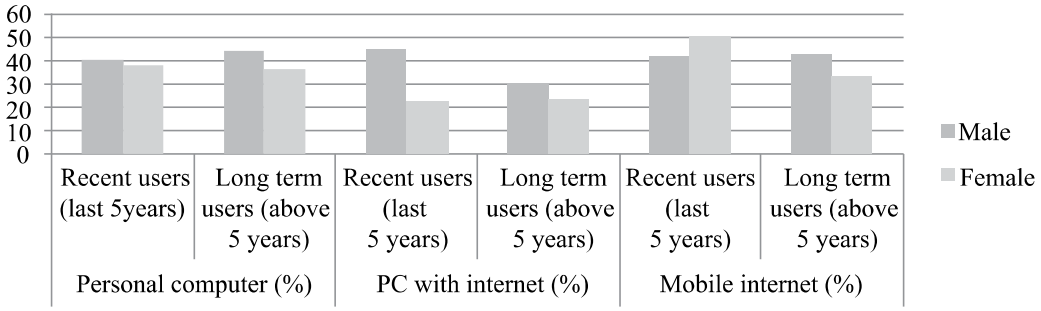
Source: Field survey 2019

The survey findings place the gender digital divide rate in each response category. More than one fifth (22%) of female teachers do not create content with a PowerPoint presentation (Table 3). However, some teachers say that they do not create digital content from several in-depth interviews. They take classes in the old method and feel comfortable with it. Sometimes they download content from the "Shikkhok Batayon" portal, but they do not do it too (FGD- Rajshahi).

Gender Differences in Usage Access

The concept of user access has been operationalized in three ways- (a) Length of experience, (b) Usage diversity and frequency c. Creative use. Usage divide between those who have personal access to a computer and go online are presented in Chart 1.

Chart: 1 Length of experience with computer and internet



Source: field survey 2019

The above graph conveys that a little more than one-third (36.7%) of female teachers have been experiencing computers for more than five years where the percentage of male teachers is almost half (44.4%). An almost identical picture has been shown using computer only internet presented in the above chart. On the other hand, half of the female respondents (50%) are recent mobile internet users, whereas only 33.5 % are long term users.

Usage Applications and Diversity

Regarding the number and diversity of applications, the respondents who use the internet are asked with a list of activities to know how frequently they execute various activities. The activities are grouped into the following categories: communication (text or call over internet, e-mail), entertainment (play and download music, movie, games, visit social networking sites), information (visit National Web Portal, health information and reading e-book, e-magazine, e-newspapers), professional (create a website, & PowerPoint slide, integrate students with internet for learning purpose, directing students to use digital libraries, home task using the internet).

Table: 4 most favoured activities performed by users (In percentage point)

Top ten activities spend 4 to 7 hours a week	**Men**	**Top ten activities spend 4 to 7 hours a week**	**Women**
Use PowerPoint presentation	22.8	Visit and post on social media	30.3
Call and chat over the internet	22.2	Call and chat over the internet	24.5
Visit and post on social media	20.5	e-book	20.0
Send and receive e-mail	19.9	Health	18.1
Download & play videos, games	12.9	Download & play videos, games	18.1
e-book	12.3	Use PowerPoint presentation	9.7
National web portal	8.8	Send and receive e-mail	9.0
Health	5.8	National web portal	7.7
Create and use a personal website	4.1	Create and use a personal website	3.2
Directing students how to `use virtual library	2.3	Directing students on how to use virtual library	1.3

Source: Field survey 2019.

The above table focuses on women being more intensive users of social media, Facebook, Imo or Messenger apps for communicating and searching health information for their family than men. On the other side, males are more ahead to create PowerPoint slides using a computer to deliver lesson send and receive an e-mail (see chart 4). The percentage as an intensive user (spend 4 to 7 hours a week) is insignificant for both genders.

Active Or Creative Users

Creative use of the internet, also known as user-generated content, is to create text, images, videos and make them available on technology-based websites, blogs and wikis. Active use of digital medium includes creating and publishing a personal website, posting content or any contribution on an online community or web portal, exchanging video, files, documents on the cloud.

Table 5: Percentages of Creative Users

	Female (%)			Male (%)		
	Do not know	**Never used**	**Users**	**Do not know**	**Never used**	**Users**
Personal website	56.8	36.1	7.1	55.6	28.7	15.7
Cloud computing	51	20.6	28.4	42.1	11.1	46.8
PowerPoint Presentation	21.9	12.3	65.8	18.1	8.2	73.6
Graphic design, animation & video editing	40.6	27.7	31.7	35.1	21.1	43.8
Draw table, chart using excel sheet	34.8	25.2	40.1	31	12.9	56.1
Working with MS Word	25.8	11.6	62.6	22.8	11.1	66.1

Source: Field survey 2019.

In comparison to women (28%), nearly half of male respondents (47%) says they utilize cloud computing services (save and back up files, images on DropBox and Google Drive, check e-mail on any PC from anywhere). Men are twice as likely as women to have a personal website (15 % vs 7%). %). 34% of women affirm that they neither create PowerPoint slides nor use them. One-third of the respondents of men and women; a more significant number of respondents affirm that they use PowerPoint presentations for teaching, but many of them reveal that they can not work with PowerPoint software as they lack the skills and are less comfortable using a computer. Sometimes they create it with the help of their children or co-workers or download it from the Teachers web portal (FGD- Dhaka).

DISCUSSION OF FINDINGS

Accelerating access to computers and other tools from home may be an issue and pose a serious concern as home computers offer flexibility and the extent of us (Stoilescu & McDougall 2011). The study found that female teachers are lagging regarding simple material access to computers and other auxiliary equipment such as printers, scanners, and modems. According to the Bangladesh Bureau of Statistics (BBS 2013), a higher proportion of males (27.2%) than females (17.6%) use the internet in urban areas. In contrast, for computer users, the figures are 21.3 per cent and 12.7 per cent respectively

for males and females where internet use is comparatively high than in rural areas. The study further reveals a generational divide within the digital divide, with older teachers using digital devices slightly, which is corroborated by previous research (Sharma & Srivastava 2019).

Regarding online professional network, meaning collaborating with digitally skilled colleagues, knowledgeableness, possessing new IT products and capability of giving information on IT (Haan 2004), gender unevenness is stark in appearance, which is vital in today's ever-changing environment to become digitally competent. Another finding confirms women's greater aloofness in developing their online networks that gender role is ingrained in daily usage patterns. When women maintain communications and networks, they focus on the "private sphere" of the family circle, and men engaging more in relations in the "public sphere" reflect their gender roles in social relations (Bujala 2012). However, gender differences in internet access are getting smaller, particularly mobile internet. According to the Bangladesh Telecommunication Regulatory Commission (BTRC 2018), internet penetration is greater than 50% at the end of August 2018. Since internet penetration rate has grown faster as technology began to spread more broadly and merges into daily life, this is supported by technological acceptance theory (Dijk 2017), where the desire to get internet access becomes stronger as the technology matures, which was not apparent at the start of any new technology. However, the number of actual users and active connections may vary. It is challenging to bring everyone on the internet as there is a huge rural-urban divide in internet penetration.

According to the findings, male and female teachers have similar abilities to interact, entertain, and obtain information on the internet. In some circumstances (surfing social media, web) women perform better than men. For digital skills, on the other hand, male teachers are still significantly ahead of female teachers in entry-level knowledge of computers and the internet. Comparable results appear in the UNDP (2014) study where only six per cent of teachers could use a computer, and four per cent could communicate through e-mail. In the strategic skills section of the questionnaire, when it comes to the use of a computer to create digital learning resources with various software and network sources for improving professional as well as personal development, the gender gap is replicated though most of the teachers recognize the importance of using digital technology in learning (Serezhkina 2021). This matches the National Academy for Educational Management (NAEM 2018) report affirming that only 11% of teachers are skilled in creating digital content. In this case, 33% of the teacher's skills are rough, and 56 % of the teachers are weak to create digital content. The report added that teachers are inadequate to create digital content; they can not use multimedia classrooms as well. At the same time, even in developed countries like Russia, there are marked differences in teachers' skills and knowledge (Serezhkina 2021).

Concerning the number and diversity of applications, women are more intensive users of social media, Facebook, Imo or Messenger apps for communicating and searching health information for their family than men, supported by the findings of Kennedy and Hargittai (2003, 2006). Their study said that individuals' use of the internet is furthermore gendered and that men are more task-oriented than the more socially-

oriented women. Women's preference for this particular internet use/applications and differences in skills make them more consuming than creative users. The activities performed by men and women depend on their gender roles which are also reflected in the virtual world (Zhao 2013). However, teachers are now being brought under training. Due to the training program, gradual increase in the number of classes in digital content and their interest in using a computer is increasing.

CONCLUSION

The study finding indicates that large parts of the female teachers are excluded from effective computer and internet use and becoming consumers rather than creative users as they lack skills tremendously. In the same way, a parallel gap in frequency and active usage deepens their divide and move them closer to professional inefficiency—a significant difference in accessing computers, routers, printers, and other digital resources through mobile ownership. Internet availability has shown minor gender differences as internet penetration, and usage rate among the young generation is considerably higher than that among elders. The young generation is becoming growing users.

Moreover, mobile internet has spread out widely among the educated segment. Another two indicators relating to physical access (social network and multiple platforms) have shown a new type of inequalities. Women lack the skills and interest to create professional networks online. Consistent gender differences have been found in operational skills access. Female teachers are less proficient in carrying out basic computer and internet activities. There are some exceptions in communication information where women are significantly more inclined to prefer social networking chatting with families and relatives. They are primarily mobile internet users who do not require more skills to operate as computers need. Female teachers are less intensive users.

Consequently, they spend less time on professional purposes like creating PowerPoint slides, personal websites, or giving students home tasks online. From the point of diversity and intensity of computer and internet use, a significant divide in digital usage contrast with physical access suggests that stratification on different computer activities leads to different levels of efficiency in the use of computers and the internet resulting in a particular social impact. Active users concentrate on goal-oriented tasks on computer and internet use. This study typically used survey questions asking respondents to estimate their level of various digital skills, which can be one of this study's limitations because testing skills would be a more reliable method to measure skills. However, still, it has a more significant policy implication for ensuring this country's quality education and active participation of women in the digital era. Gender-based intervention, adequate professional training, providing adequate infrastructural facilities, and a motivational program, especially for females, may reduce gender gaps in digital technologies and ensure their productive participation.

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