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COVID-19 AND EDUCATION OF MASS COMMUNICATION: A CHANGE, CHARGED WITH EXCLUSION AND DISPARITY

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Abstract

The sudden closure of educational institutions in 2020 brought multiple learning and financial challenges for female students in Pakistan. In our experience, not only formal and informal learning realms of female students have been affected in the post-pandemic educational landscape, but a distinct gender and digital divide (GDD) is also noticeable between technologyequipped and deprived students. Considering the theoretical perspectives of the digital divide, this paper will essentially explicate the chasms existing within female students of Mass Communication in Pakistan. Given Pakistan's conservative and patriarchal culture, it is very important to study how female students of Mass Communication, from both urban areas, responded to the change after COVID-19. Through in-depth interviews of 20 female students, we argue that the pandemic has aggravated the already existing GDD in the Pakistani educational landscape. Especially the first-order GDD in education can be seen frequently in the country's rural locations. Moreover, economic limitations and socio-cultural norms also play an essential role in exacerbating second-order GDD in Mass Communication

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education. Thus, in this sense, the virus has brought a change that is charged with exclusion and disparity. Moreover, we argue that the digital divide is a gendered concept for a periphery country like Pakistan.

Keywords

Women education; COVID-19; gender parity; blended pedagogy; digital-divide; Education of Mass Communication; Online education

Introduction

In the wake of COVID-19, all higher education institutions switched to "emergency remote teaching" (Hodges et al. 2020). This change was so sudden that none (except the Allama Iqbal Open University and Virtual University) of Pakistan's educational institutions were fully prepared for this shift. To continue the teaching and learning process and keep the faculty and students safe from a fast-spreading public health emergency, all public and private institutions had to embrace online teaching and learning. This was a great learning (Zimmerman 2020) but challenging experience for both the university faculty and students of Mass Communication. Unlike developed countries, Pakistani educational institutions are not fully equipped with Information and Communication Technology (ICT) tools. Outside institutions, the absence of a sound digital infrastructure and intense connectivity issues limit the learning opportunities of the majority of Pakistani students. Especially female students, who are already facing a traditional gender disparity, are overstressed with an online style of education.

During the government-imposed lockdown period, when online and blended style of education is the only way to continue the student-learning process, it is frustrating to be without a high-speed internet connection outside the universities, particularly in remote areas of Pakistan. This situation creates the dissimilarity between 'haves' and 'have-nots' of ICT assistance and leads to broader gender digital divide (Bala and Singhal 2018). In developing countries like Pakistan, the digital divide is quite visible between male and female gender (Singh 2017). Although 40.4% of Pakistan's population currently uses broadband internet (PTA 2020), the percentage and usage of the internet for distance learning is minuscule. Chatting and browsing social media sites does not require any skill/learning. However, interacting in regular online class sessions, participating in a video conference, uploading heavy assignments, and accessing research-based content from reliable databases need some time and practice, and thus, create multiple challenges for low-income students, particularly those who live in far-flung areas. The latest International Telecommunication Union's (ITU) Report shows a wide urban-rural connectivity gap. A few houses in distant areas have access to broadband connectivity while the rest of rural

areas are still underdeveloped (ITU, Measuring digital development: Facts and figures 2020).

COVID-19 and Education in Pakistan

The pandemic has magnified the already existing acute education crisis in Pakistan. Poor planning, unequal distribution of resources, and insufficient educational and digital infrastructure in rural regions hinder the empowerment of rural populations (Gashaw et al. 2021). In the majority of remote areas of Pakistan, women's education is deterred by several factors, including traditional and conservative social customs, inadequate technological infrastructure, limited access to educational institutions, and above all, domestic and family responsibilities (Singh 2017). These gender-based physical and sociocultural constraints keep women away from the use of the internet and indirectly from online education. Pew Research Center (2015) found a 13% gender gap in the Pakistani education system. Although women have made remarkable educational gains in urban regions of the country, their graph of education in the remote areas of the country is very low due to the scarcity of proper education facilities (Murphy 2016). Hodges et al. (2020) have pointed out that the learning and teaching experience during the "emergency remote learning period" though is for a short duration, however, it needs careful and critical analysis for future guidance. These words of Hedges et al. combined with our experience of remote teaching during the lockdown in Pakistan encouraged us to conduct our study from mid-March of 2020 to October 2021 to document the impact of remote teaching on female students. Our initial discussions and interviews soon began to show that not only formal and informal learning realms of female students have been affected, but also a quite distinct gender and the digital divide is noticeable between IT-equipped and IT-deprived students. The level of learning further varies with the change of rural and urban areas.

As the focus of our paper is to discuss different aspects of the digital divide heightened in Pakistan during the global pandemic of COVID-19, therefore, we briefly appraise some of the research studies and reports on this issue from around the world—the United States (Thompson 2020; Lai and Widmar 2020); Latin America (Moloney 2020); Australia (Education International 2020); and the European countries (Esteban-Navarro et al. 2020)—that indicate the situation of a digital divide in their relevant rural regions. Although the situation fluctuates, the remote areas of every country still face ICT issues of different magnitude.

Considering theoretical perspectives of the gender and digital divide, this paper will essentially explicate the chasms existing within the landscape of Mass Communication studies. This study only focuses on social and technological challenges faced by female students of Mass Communication at the undergraduate level in Pakistani higher education

institutions. For this purpose, we have used in-depth interviews of 20 female students from two Pakistani universities to investigate the phenomenon of first-order gender and the digital divide (GDD) and the second-order GDD. We have explained the first and second orders GDD in the following section.

Literature Review

The digital divide is a global phenomenon, but the pandemic has exposed the digital vulnerability of many citizens of the rural world (Esteban-Navarro et al. 2020). The world is rapidly trying to switch most of its daily activities on the internet, but still almost half of its population is offline (DW 2021). Most of this offline population lives in developing and underdeveloped countries (ITU 2019). Though the ICT issues in developed countries are not so critical, they are still concerned about the limitations of remote learning along with other challenges like the brain drain of talent, skills, training/development, jobs, and lack of access to telemedicine (Lai and Widmar 2020). Esteban-Navarro et al. (2020) accentuate the need for strong internet connectivity and ICT skills in European society to interact across borders through new digital devices for e-governance and teleworking.

The pandemic has affected almost all working spheres. It has driven the world to find alternative remote/online ways to address their political, social, educational, technical, and economic issues. The majority of developed countries have recognised digital development as a priority (Ingram 2021) and enhanced virtual engagement in education, health, politics, and governance. Whereas in developing countries, the pace of digital development and progress is rather slow. Particularly South Asian countries realise that digitisation is one of the ways for smooth and uninterrupted working in all fields. But a scarcity of financial resources, unstable political systems, and a plethora of socio-cultural constraints (Bala and Singhal 2018) are the big hindrances in their ICT growth. According to the International Telecommunication Union report, Pakistan, India, and all Arab countries have acute socio-cultural issues where gender stereotypes are also combined with the issues of digital disparities (ITU 2021). Research shows that in Arab countries, the communities of women, the elderly, the less educated, and lower-income individuals are taking fewer advantages of digital technology (Raiz 2020). Similarly, in Pakistan, women and low-income communities have limited access to digital resources (Shahid and Arfeen 2021). The rural population of South Asian countries like India, Pakistan, and Bangladesh (Mahmud et al. 2012) has comparatively better access to mobile phones, (World Development Report 2016), but very low access to high-speed internet and other ICT devices (Chick et al. 2020).

Factors influencing Gender and Digital Divide in Pakistan

Pakistan and India not only share borders but both countries have many similarities in population demographics and gender issues as well. Bala and Singhal (2018) have studied three factors that impede gender parity in digital access in India (p. 6). In this study, borrowing from Bala and Singhal's study (2018), we have also divided our research into the same three influencing factors. Here, we essentially study gender and the digital divide from the Pakistani perspective. These factors include (1) exclusion from basic technology skills; (2) financial constraints; and (3) socio-cultural norms.

The disparity in internet access can be termed as first-order gender and the digital divide (Riggins and Dewan 2005). In Pakistan, where the digital infrastructure and IT resources are limited to big cities only, the engagement of students through online classes is quite challenging. Pakistan is the sixth most populous country in the world with a population of 226 million (World Population Review 2021), whereas a large percentage (62.84%) of its population lives in rural areas (Macrotrends 2021). Due to the low employment rate (DAWN 2020) and unavailability of resources, people are gradually migrating towards big cities. This relocation generates multiple management issues including acute overload on limited ICT resources in the cities (Abdullah 2015). In terms of gender, it is observed that the majority of male members of the village community generally migrate to cities for employment or education. On the other hand, independent female migration to cities is very limited. Overall, female internet users are also lesser than their male counterparts. In a research study conducted in 2016, the males (19.7%) outnumbered females (11.7%) in internet penetration (Statista 2020). Moreover, during the pandemic, the scarcity of ICT resources in remote regions triggered more challenges for the country.

Another pernicious aspect of COVID-19 is the gender and digital divide. According to an annual report (2020) of the Pakistan Telecommunication Authority, the use of the internet has increased during the pandemic and now 42.4% of the Pakistani population has access to broadband internet (PTA 2020) but due to other socio-cultural and financial factors, women still find less time and access to internet and ICT resources. First-order digital divide deals with access to ICT resources (Aziz et al. 2020). Researchers studying available quantitative data on women and gender concerning ICTs (Hafkin et al. 2008) have earlier identified gender disparity in the use of communication technologies in Asian countries. The persistence of this gender and digital disparity in their less privileged and remote is reported by Indian researchers reports (Bala and Singhal 2018). Similarly, it is identified that Pakistani rural areas do not have a proper ICT infrastructure. From the gender perspective, a large percentage of the female population lives in rural areas where the opportunities and ICT resources are already miniscule. Due to the unavailability of

resources, generally, females suffer more than their male counterparts. Thus, the first-order gender and digital divide in education can be observed in Pakistani rural locations and needs to be studied to ascertain the argument that most females face more deprivation than males.

Since the beginning of 2020, many research reports have emphasised the issue of the digital divide (Cheema and Riaz 2020; Baloch 2020; Khan 2020), but very few research studies have focused on the financial aspect of first-order gender and digital disparity in the field of education. ICT is important in social inclusion as well as it plays an imperative role in remote learning and teaching during the pandemic. Despite its importance, affordability is also a big challenge for developing countries. The majority of rural areas of Pakistan, however, are still lagging in digital infrastructure. Even in the big cities, access to ICT resources remains limited because of the cost. Thus, those who can afford to have their private setups benefit from it. In Pakistan, where an average salary of a person is \$611 per year (Kovachek 2021), purchasing sophisticated IT gadgets for online classes is beyond the imagination of the majority of the population (Bala and Singhal 2018). This is a universal phenomenon that cities control major resources. Unfortunately, Pakistani villages and other low-income rural areas do not contain any higher education institutions. In terms of resources, Pakistani public sector universities appear to be a step behind their private counterparts. But during the pandemic students mainly relied on the available ICT infrastructure or their financial resources. This situation has badly affected dependent and low-paid villager women at large. Hence, in this paper, we argue that economic limitations are another factor that affects female online education of Mass Communication in Pakistan.

The second-order gender and digital divide (GDD) deals with the abilities and skills of users. Many educationists and anthropologists pointed out socio-cultural interactions, social mores, and social security as the root causes of second-order GDD (George 2020; Rashid et al. 2018; Fellabaum 2011). Socio-cultural perspective describes people's behaviour and mental processes as shaped in part by their social and cultural contact, including race, gender, and nationality (Sanderson 2020). In developing countries, women are burdened with their traditional and domestic responsibilities like household chores, child and elderly care. After these full-time responsibilities, women cannot find much time for education or self-grooming. Bala and Singhal (2018) found that due to social norms and financial constraints, most of the districts of Uttar Pradesh (India) have to face the first and second order of GDD. Women face more or less similar socio-economical constraints in Pakistan as well. Due to these limitations, the usage of the internet by women in developing countries is 16% less than men (Singh 2017). Research shows that due to conservative social environment and safety issues, the majority of Pakistani female students cannot move freely beyond their planned routes (HRW 2018).

Most of the time they have to seek permission from the head of their family to go out for any purpose. Due to their restricted movement, they often need male help to run their errands and to get their computer hardware and other IT issues fixed. In Pakistani patriarchal society, many cultural impediments limit young girls' movement within the society. These limitations also affect learning abilities. Research shows that Pakistani female students are not adequately comfortable with ICT skills, however, they are interested in polishing these abilities (Rashid et al. 2018). In this paper, we explore those socio-cultural norms that play an essential role in exacerbating the second-order digital gender divide in the education of mass communication.

Mass Communication is a very competitive professional field. Besides an excellent command of the language, students need polished computer skills and the ability to use many software. Regardless of media platforms, journalists and media practitioners are also required to have higher-order thinking skills. Moreover, international media organisations seek to hire producers, anchors, and reporters who are experts in mobile skills. The journalists/media persons should know how to gather news with mobile devices, use them to interact with the social media audience, and how to format content appropriately for the medium (Wenger et al. 2014). What we mean to say here is that the teaching/learning of Mass Communication requires availability and familiarity with technology. Thus, teaching/learning all these professional skills by using online means of communication is/was a challenging task during an emergency remote learning period. In our review of the available literature, we have demonstrated that most of the developing countries are suffering from the problems of the first and second-order digital (gender as well) divide. In this paper, we have examined the same phenomenon for the female students of Mass Communication in Pakistan.

Research Methodology

To explore the challenges regarding gender and the digital divide among the students of Mass Communication, we conducted in-depth interviews and collected responses of 20 female students from two different universities. Since the authors of this paper belong to different public and private sector universities, we targeted the institutions where we are employed to have multiplicity in respondents' views. Although these universities are located in Lahore, which is the provincial capital of Punjab, a combination of rural and urban students can be found here. While collecting a female sample of 20 students, we ensured the presence of rural and urban resident female students of diverse sociocultural backgrounds. We also made sure that the respondents should also have an economically diverse background so that their diversity can reflect the level of discrimination between the haves and have-nots.

To collect responses, structured interviews were conducted. Each set of questions was targeting one research objective of the paper. The first set carried questions about some personal data and the general effectiveness of online learning. The second set of questions focused on rural and urban residents to discuss their challenges towards first-order gender and the digital divide (access to ICT resources). In the third set, we asked questions related to the availability of online resources and the role of financial constraints in accessing ICT resources. Finally, in the fourth set, we included questions related to socio-cultural challenges and tried to explore how socio-cultural mores and norms contribute to limiting the online skills and abilities of female students of Mass Communication.

Among the respondents of this study, half of the respondents belonged to the urban neighbourhoods of Lahore, while the remaining students were from different remote/rural regions. For the latter, specifically, we had 5 students from Punjab (rural areas of the province); 2 from Gilgit-Baltistan; 2 from Balochistan; and there was one respondent from the province of Khyber Pakhtunkhwa. We conducted these interviews during and right after the spring semester of 2021. We did 30–40 minutes in-person/Zoom or telephonic interviews of each participant and recorded her reflections of her ongoing online learning experiences. We transcribed the same information, and later on, by using thematic analysis we analysed these interviews and categorised their themes.

Findings and Discussion

Along with other sectors that were affected due to the COVID-19 pandemic, the education system was among the most challenging areas (Toquero 2020). Pakistan, being a developing country, had to go through different obstacles to continue its institutional functions. Educational institutions were confronted with multiple challenges, some of which included planning, implementation, and assessment (Toquero 2020). Through the analysis of interviews, we found that all of the students' challenges were related to the following themes: (1) General effectiveness of online learning; (2) Access to Online resources; and (3) Skills and abilities. In the following section, we will discuss these areas at length. The table given at the end of this paper summarises the findings of this research based on urban-rural categories of the research participants.

1. General effectiveness of online learning

The COVID-19 pandemic perturbed the lives of the students, particularly of females. The sudden transition from traditional teaching to online mode was perplexing (Marinoni et al. 2020). The majority of female students responded that they were not prepared to face this new challenge as they were not adequately equipped to use electronic gadgets. The prime issue most students faced was of losing the spirit of learning. They believed that in-person

and on-campus interaction with teachers and fellow students gives more opportunities to learn and keeps them motivated. Moreover, they were of the view that the absence of an academic environment during online classes at home reduced the interest of students as "there was always a fear that background noise can disturb the decorum of class". In all 20 responses from the two institutions, the majority of students voiced their concerns regarding the three following areas:

a. Skill Development

The pandemic affected the communication skills of female Mass Communication students as most students were uncomfortable facing cameras for Zoom classes and could not participate in class discussions actively. Communication studies is a discipline that requires exposure to a professional field. Students were unable to develop practical skills that required practice in a professional environment. They were unable to learn the necessary set of skills in Mass Communication (such as camera handling, audio/video editing, and scriptwriting) that students can otherwise learn in the traditional mode of teaching. For instance, while talking about the learning of skills in online teaching, a student claimed, "It was difficult for the teachers to develop practical skills in students or train them in courses like radio broadcasting, TV production or documentary, advertising related courses."

b. Access to Academic Resources

Another chief concern of the majority of students, i.e., of 13 of them, was related to the availability of academic resources. While commenting on limited resources, a student said, "Students could not have access to library books and online databases for research purposes that could only be used while being on-campus." Many such concerns alluded to the dissatisfaction of students regarding correspondence with their course instructors. Similarly, many students shared their concerns regarding reduced active involvement in virtual learning that caused ambiguities in their concepts and hampered their learning process. Students faced difficulty in understanding their assignments as "there was no explained rubric to let students know how to do a particular assignment".

c. Student Assessment

Nine of the participants raised their concerns about online examinations as they thought that their assessments were compromised. Generally, students appeared to have a careless approach towards assessment. Many students also considered grades to be inaccurate because they think that the effort and performance of privileged and under-privileged students cannot be compared (Murphy and Wyness 2020). Along with the disadvantages of virtual learning, it also benefitted students to reduce their financial constraints. It not only saved the expenses of commute but also of cafeteria and notes, etc.

2. Access to Online resources (First Order GDD)

Here, again, the following four concerns were raised by the majority of the female students of Mass Communication.

a. Financial Constraints

Although switching to online learning was not easy for 12 participants, the economic advantage made it acceptable for the remaining 8. However, even these respondents mentioned financial implications to be the most challenging ones.

For female students coming from the outskirts of Lahore, the effects of COVID-19 were disruptive as they interrupted their learning trajectories. It deprived many families of their income due to the lockdown, particularly those who earned daily wages. Several female students had no choice but to drop out as their parents could not afford to continue their education because of the finances. Many other issues made it difficult for students to attend to virtual learning actively.

b. Personal gadgets

Almost 80% (16) of our respondents owned their own devices to use during online learning. They had their laptops and phones at their disposal. In case their devices were not functional, their parents and siblings would help them. Another problem faced by many students was sharing wherein though they had access to the device(s), the same device was used by siblings or other family members as well. In large families, it was difficult to provide every individual with a separate gadget. Almost 30% (06) of our respondents said that they did not have personal gadgets to attend classes. They either used the mobile phone of one of the family members or missed online classes.

c. Internet Availability

Apart from these 6 respondents, all of them faced difficulty accessing the internet facility. Power outages, availability and affordability of internet services, and weather also contributed to depriving students to cope with the challenge of online learning. Most students, 14 of them, encountered internet issues during classes and even examinations. They had trouble performing their online tasks on time due to fluctuating internet services. They had to face the persistent obstacles of poor internet services (Chick et al. 2020) A couple of respondents did not have internet connections at their homes and they relied on available data on their phones. Some students shared how inclement weather affected their internet connection, and hence their online learning.

d. Environment for Online Classes at Home

Finding a private place for online classes at home was another challenge for students. Apart from 7 participant students who had separate places to study, most of them could not find a quiet place at home for uninterrupted online classes. They were intruded and distracted by family members, guests, sounds of vendors, and even maids or family members doing chores. This also increased the divide between the ones who could focus and perform well in virtual learning and those who wanted to but could not focus due to the aforementioned barriers. In other words, all of these factors largely appear to affect females the most. Female students, who generally do not have the liberty to go outside or disregard their domestic responsibilities, tend to be affected more than male students.

3. Skills and Abilities (Second Order GDD)

The following section discusses two factors that determine the gaps relevant to digital literacy and digital capabilities which are rightly labelled as twenty-first century skills (Siegmann 2013; van Laar et al. 2020). In this study, we concentrate on two factors, i.e., the demographic and socio-economic determinants that play a significant role in the growth of Pakistan and in influencing gender disparity. Identifying factors that intensify the digital gender divide in Pakistan during the COVID-19 pandemic, a recent study that has documented evidence based on women's voices confirms that cultural barriers and locations of their residence continue to play determining role (Media Matters for Democracy 2021)

a. Sociocultural Challenges

In developing countries, it is noted that women exhibit a lesser technology participation rate than men. This is entrenched in "socio-cultural attitudes" about women's roles in most societies (Antonio and Tuffley 2014). From the responses of our participants, confirming Antonio and Tuffley, we also infer that the knowledge of ICT and access to their use is critically conditioned to social norms of guarding women's mobility and less to the provision of technological equipment. Certain socio-cultural barriers made it difficult for female students to pursue virtual learning. Some students did not own personal gadgets for online learning and even if they had them, their usage and purpose of usage were monitored (Media Matters for Democracy 2021). It was intriguing to know the role of the family to support female students to equip them with what they needed for virtual learning. Seven participants revealed that they were discouraged by their parents to use gadgets, even for academic purposes, and if they were allowed, they had to go through time constraints. This discouraged the students, and in most cases, disabled them to focus and perform well in their academic endeavours.

b. Rural / Urban Location Challenges

In this age, ICT is considered an important means of production and consumption. To get equipped with the skill of ICT usage is instrumental for individuals to increase and maintain their social position and capital (Rogers 2016). In our study, similar to other studies on the role of the urban-rural divide in accessing ICT (Siegmann 2013), we observed a visibly profound difference between students belonging to urban and rural areas. Students residing in urban areas were quite equipped with ICTs. However, they faced occasional disturbances due to power breakdown or temporary unavailability of internet services. They were having the gadgets that helped them in uninterrupted virtual learning. Therefore, it was easier for them to cope up with the challenges of online learning. Most of the female students from urban areas, 8 of them, were already aware of the required software and technological aspects that were used during online learning. Conversely, students coming from rural areas had to face several problems. Out of the 10 of them, 8 could not access the internet as in most of the rural areas, internet services are not available yet. The sudden and unexpected closure of educational institutions did not give time to students to prepare for or arrange computer/internet. One of the respondents said,

As we all faced a shift from traditional classroom learning to online learning immediately and surprisingly. In the beginning, it was difficult for me too to tackle all this stuff using electronic gadgets as I was never been used to these gadgets for study. I have never explored them a lot.

This exacerbated the socio-economic segregation (Azorín 2020) wherein most females lack the basic infrastructure for telecommunications with sufficient reliable bandwidth for internet connections (Cullen 2001). This created a gap between students regarding access to online lectures. Consequently, there were delays in virtual learning and other academic performances for those who were unprepared or less prepared for online learning. Most students highlighted the fact that their participation in online learning was dependent on the speed of internet connection for how quickly they could attend the class and would not miss any live sessions. Poor connectivity was also a hindrance in downloading information related to the subject, assignments, notes, recorded lectures, or files, etc. Moreover, many students were having no prior knowledge of ICT and how to use them as they were from areas where the internet was barely available. This also increased the digital divide as it took considerable time to learn and then use such technologies (Cullen 2001).

Conclusion

This paper has unravelled how online teaching, in the aftermath of COVID-19, impinged upon the learning prospects of female students of Mass Communication in Pakistan—a

country that is already under-resourced and underserved in terms of technological facilities in the education sector. Although a sudden shift to online teaching and remote learning caused difficulties for all students in higher education, problems faced by female students were manifold. In a patriarchal culture where the learning environment is already fraught with conventional restraints, coping with the demands of a new modality of learning posed many challenges for female students in the field of Mass Communication. Thus, in this paper, we set out to investigate how female students in universities responded to the change of online learning. According to our qualitative methodological framework of indepth interviews, our female respondents recounted their experiences that explicate the details of difficulties faced by many.

Although the findings of this study have unfolded many concerns, we would particularly like to discuss the two issues that affected the female students the most. The first concern—shared by the majority of the participants—was the overall dissuasion that the female students had to face. The stereotypical notion that parents should have control and restrain over their daughters' use of technology was highly deterring for many female students. The control over technology used not only affected the female students' academic performance but also impeded their learning and growth as a student. Similarly, the restrictions over free mobility—wherein a female student could go to an internet café or any relative or friend's house in case of power and/or internet outage—also affected female students more than male students of Mass Communication. This is not to say that male students did not face any of these problems. The pandemic affected students invariably regardless of gender. In short, "control and restriction" were the problems that were specific to females in Pakistan and, hence, its impacts on female education compounded the overall learning prospects.

The second issue that we want to touch upon is similar to the previous one. As the learning of Mass Communication has a practical focus and demands hands-on training, again, "restricted mobility" affected female students' learning. While working on radio/TV projects, assignments related to digital media, or collaborative projects that needed teamwork, female students were not able to move freely for their camerawork, editing, and audio/video mixing, etc. For this reason, many participants voiced their concerns regarding the learning of skills needed in the job market of their field after graduation. Consequently, the aforementioned problems in online learning affected the quality of female students' academic performances and learning—something that can further influence female students' employment prospects. We conclude that pandemic has exacerbated already prevalent gender and digital divisions in society and has caused a change that is charged with disparity and exclusion.

Summary of Findings Based on Urban-rural Categories of the Research Participants

		Effects	
		Number of Urban Female Student	Number of Rural Female Student
1.	General effectiveness of online learning	e	
	a. Student Assessment	10	10
	b. Access to Academic Resources	07	05
	c. Skill Development	03	06
2.	Access to Online resources (First Order GDD)		
	a. Financial Constraints	05	07
	b. Possessed Personal gadgets	09	07
	c. Interrupted Internet Availability	06	08
	d. Lack of Environment for Online classes at home	07	06
3.	Skills and abilities (Second Order GDD)		
	a. Faced Sociocultural challenges	02	05
	b. Faced Rural /Urban Location Challenges	02	08

References

- Abdullah, A. 2015. "Digital Divide and Caste in Rural Pakistan." The Information Society An International Journal, 31(4): 346-356, DOI: 10.1080/01972243.2015.1040936.
- Antonio, A., & Tuffley, D. 2014. "The gender digital divide in developing countries." Future Internet, 6(4): 673-687.
- Abdul Aziz, Mohammad Morshedul Islam & Muhammad Zakaria. 2020. "COVID-19 exposes digital divide, social stigma, and information crisis in Bangladesh," *Media Asia*, 47 (4):144-151, DOI: 10.1080/01296612.2020.1843219
- Azorín, C. 2020. "Beyond COVID-19 supernova. Is another education coming?" *Journal of Professional Capital and Community*.

 https://www.emerald.com/insight/content/doi/10.1108/JPCC-05-2020-0019/full/html
- Bala, S., and Singhal, P. 2018. "Gender digital divide in India: a case of inter-regional analysis of Uttar Pradesh." *Journal of Information, Communication and Ethics in Society*, https://doi.org/10.1108/ JICES-07-2017-0046.
- Baloch, S. M. 2020. "Pakistan's Great Digital Divide A new reliance on virtual life in the COVID-19 era has laid bare the lack of internet access for much of the country." *The Diplomat*, July 8, 2020. https://thediplomat.com/2020/07/pakistans-great-digital-divide/
- Cheema, A. R., and Riaz, M. 2020. "Covid-19 has underlined the digital divide in Pakistani higher education." *Times Higher Education*, November 8, 2020. https://www.timeshighereducation.com/contact-us.
- Chick, R. C., Clifton, G. T., Peace, K. M., et al. 2020. "Using technology to maintain the education of residents during the COVID-19 pandemic." *Journal of surgical education*, 77(4): 729-732.
- Cullen, R. 2001. "Addressing the digital divide." Online information review, 25(5), 311-320. https://doi.org/10.1108/14684520110410517.
- Dawn. 2020. "Number of jobless people to reach 6.65m in 2020-21." *Dawn*, June 17, 2020. https://www.dawn.com/news/1564053.
- DW. 2021. "COVID is deepening digital divide." DW, March 16, 2021. https://www.dw.com/en/covid-is-deepening-digital-divide/av-56889937
- Education International. 2020. "Australia: Union report highlights digital divide for public school students." Accessed July 24, 2020. https://www.ei-ie.org/en/item/23439:australia-union-report-highlights-digital-divide-for-public-school-students.
- Esteban-Navarro, Miguel-Ángel, Miguel-Ángel García-Madurga, Tamara Morte-Nadal, and Antonia-Isabel Nogales-Bocio. 2020. "The Rural Digital Divide in the Face of the COVID-19 Pandemic in Europe—Recommendations from a Scoping Review" *Informatics* 7(4): 52-62. https://doi.org/10.3390/informatics7040054

- Fellabaum, Jennifer. 2011. "Conceptualizing Gender Performance in Higher Education: Exploring Regulation of Identity Expression," NASPA Journal About Women in Higher Education, 4(2): 127-141, DOI: 10.2202/1940-7890.1083
- Gashaw, Tigist, Bisrat Hagos, and Mekonnen Sisay. 2021. "Expected Impacts of COVID-19: Considering Resource-Limited Countries and Vulnerable Population." Frontiers in Public Health. 9: 614789.
- George, S. 2020. "In the world's fifth most-populous country, distance learning is a single television channel." Washington Post, May 19, 2020.

 https://www.washingtonpost.com/world/asia_pacific/pakistan-coronavirus-education-teleschool/2020/05/18/9ee159a8-8eee-11ea-9322-a29e75effc93_story.html
- Hafkin, Nancy J., and Sophia Huyer. 2008. "Women and Gender in ICT Statistics and Indicators for Development." *Information Technologies and International Development*. 4 (2): 25-41.
- Hodges, C., Moore, S., Lockee, B., et al. 2020. "The difference between emergency remote teaching and online learning," *Educause Review*, 27: 1–12. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning.
- HRW. 2018. "Shall I Feed My Daughter, Or Educate Her? Barriers To Girls' Education In Pakistan." Human Right Watch, November 12, 2018. https://www.hrw.org/report/2018/11/12/shall-i-feed-my-daughter-or-educate-her/barriers-girls-education-pakistan
- Ingram, G. 2021. "Bridging the global digital divide: A platform to advance digital development in low- and middle-income countries." Center for Sustainable Development Brookings Institution, January 23, 2021. https://www.brookings.edu/wp-content/uploads/2021/05/Bridging-the-Digital-Divide_final.pdf).
- ITU. 2019. "Measuring digital development Facts and figures 2019." International Telecommunication Union. https://www.itu.int/en/ITU-D/Statistics/Documents/facts/Facts/Facts/Figures2019.pdf
- ITU. 2020. "Measuring digital development: Facts and figures 2020." International Telecommunication Union. https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx
- ITU. 2021. "Digital trends in the Arab States region 2021" International Telecommunication

 Union. https://www.itu.int/dms-pub/itu-d/opb/ind/D-IND-DIG-TRENDS
 _ARS.01-2021-PDF-E.pdf
- Khan, A. 2020. "COVID-19: students caught in Pakistan's digital divide." *Nature*, 162-164, doi: https://doi.org/10.1038/d41586-020-03291-4.
- Kovachek, M. 2021. "Destination Scanner: Average salary in Pakistan." *Destination Scanner*. https://destinationscanner.com/average-salary-in-pakistan/

- Lai, J., & O. Widmar. 2020. "Revisiting the Digital Divide in the COVID-19 Era." *Applied Economic Perspectives and Policy*, 4(3): 458-464. doi:10.1002/aepp.13104.
- Macrotrends. 2021. "Pakistan Rural Population 1960-2021." *Macrotrends*, July 16, 2021. https://www.macrotrends.net/countries/PAK/pakistan/rural-population
- Mahmud, Simeen, Nirali M. Shah and Stan Becker. 2012. "Measurement of Women's Empowerment in Rural Bangladesh" World Development. 40(3): 610-619, doi.org/10.1016/j.worlddev.2011.08.003
- Marinoni, G., Higgie v. Land, & T. Jensen, 2020. "The impact of Covid-19 on higher education around the world." *IAU Global Survey Report.* France: International Association of Universities (IAU) UNESCO House.
- Media Matters for Democracy. 2021. Women Disconnected. Feminist Case Studies on the Gender Digital Divide Amidst COVID-19. http://www.digitalrightsmonitor.pk > 2021/01 PDF
- Moloney, A. 2020. "Could coronavirus lockdown help close Latin America's digital divide?"

 World Economic Forum, May 19, 2020.
 - https://www.weforum.org/agenda/2020/05/could-lockdowns-help-close-latin-americas-digital-divide
- Murphy, C. 2016. "The Muslim gender gap in educational attainment is shrinking." *Pew Research Center*. https://www.pewresearch.org/fact-tank/2016/12/27/the-muslim-gender-gap-in-educational-attainment-is-shrinking/
- Murphy, R and Wyness, G. 2020. "Minority Report: the impact of predicted grades on university admissions of disadvantaged groups", CEPEO Working Paper Series No 20-07 Centre for Education Policy and Equalising Opportunities, UCL Institute of Education.
- PTA. 2020. "Annual Report 2020." Pakistan Telecommunication Authority. Accessed from www.pta.gov.pk.
- Raiz, D. 2020. "The Arab World's Digital Divide." *Arab Barometer*, https://www.arabbarometer.org/2020/09/the-mena-digital-divide/.
- Rashid, S., Watson, K., Howard, J. et al. 2018. "Revisiting the Digital Divide(s): Technology-enhanced English Language Practices at a University in Pakistan." Australian Journal of Applied Linguistics, 1(2): 64-87.
- Riggins, Frederick, and Sanjeev Dewan. 2005. "The Digital Divide: Current and Future Research Directions". *Journal of the Association for Information Systems*. 6 (12): 298-337.
- Rogers, S. E. 2016. "Bridging the 21st century digital divide." *TechTrends*, 60(3): 197-199. DOI 10.1007/s11528-016-0057-0.
- Sanderson, Catherine A. 2020. Why We Act: Turning Bystanders into Moral Rebels. Cambridge, MS: Harvard University Press.

- Siegmann, Karin Astrid. 2013. Gender digital divide in rural Pakistan: how wide is it and how to bridge it? Gender Digital Divide in Rural Pakistan: How Wide Is It and How to Bridge It? Islamabad: Sustainable Development Policy Institute (SDPI). http://hdl.handle.net/10625/50712.
- Shahid, S., and Arfeen, B. 2021. "Bridging the Gender and Digital Divide in Post COVID-19 Pakistan: Empowering Women Through ICT." *Discussion Paper*. Center for Public Policy and Governance.
- Singh, S. 2017. "Bridging the gender digital divide in developing countries." *Journal of Children and Media*, vol. 11(2): 345-247. DOI: 10.1080/17482798.2017.1305604.
- Statista. 2020. "Percentage of population using the internet in Pakistan in 2016, by gender." Statista Research Department, August 26, 2020.

 https://www.statista.com/statistics/733573/pakistan-internet-penetration-countries-gender/
- Thompson, K. 2020. "Challenges of Distance Learning Amid COVID-19 Pandemic." 12WJTV, July 8, 2020. https://www.wjtv.com/health/coronavirus/challenges-of-distance-learning-amid-covid-19-pandemic/
- Toquero, Cathy Mae. 2020. "Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context". *Pedagogical Research* 2020 5 no. 4 (2020): em0063. https://doi.org/10.29333/pr/7947
- van Laar E., van Deursen A.J.A.M., van Dijk J.A.G.M., and de Haan J. 2020. "Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review." SAGE Open. 10 (1)
- Wenger, D., Thompson, P., and Owens, L. 2014. "Help Wanted: Mobile Journalism Skills Required by Top U.S. News Companies." *Electronic News*, 8(2): 138-149.
- World Population Review. 2021. "Pakistan Population Growth," World Population Review, July, 16, 2021. https://worldpopulationreview.com/countries/pakistan-population
- Zimmerman, J. 2020. "Coronavirus and the Great Online-Learning Experiment." Chronicle of Higher Education, March 10, 2020. Accessed from:

 https://www.chronicle.com/article/coronavirus-and-the-great-online-learning-

experiment/