

Impacts of Differential Digital Education on Disadvantaged Sections

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Abstract:

With Covid-19 hitting the world severely in 2020 in terms of economic, social, educational and various other aspects, the present study attempts to find out how the pandemic has affected the marginalised sections of the society. The marginalised sections have been delimited to the underprivileged children, girls and women and disabled children, whereas the area of effect has been restricted to access to education, nutrition along with social and psychological well being. This is a qualitative study and the methodology of the study has been bibliographical research. The tools used are WHO and UNICEF reports, publications, research articles, newspaper reports and online resources. The study found that the children from poor, rural and refugee families have been worse affected due to the digital divide leading to an alarming rate of drop outs. The finding is worse in case of girls and women, who have been subjected to forced drop outs, domestic abuse, increased family pressure and career challenges apart from digital divide. Last but not the least, the findings show the poor condition of disabled children who have been largely deprived of the support systems from their schools and care-givers.³

Keywords: Digital divide, drop out, domestic violence, special children

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³ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

Introduction:

2020 had forced man into self-imposed home-confinement whereas the wild and domesticated non-humans roaming freely. The questions that were bubbling in majority of minds were, “how will we make our ends meet next month?”, “what will happen to my/my child’s education after this indefinite lockdown?”, “how will I apply for the job if I cannot get my degree in time?” and the likes. The relentless search to find the cures from both the disease and its profound social and economic vulnerability upon almost every strata of life has brought modern technology and medical advancements face to face with a big question mark. While there is almost no part of the world left that has not been afflicted by Covid-19, it is worth studying if it has made any differential impact. There are always some marginal and special sections of people that experience a crisis in a somewhat different manner than the rest of the world. This study attempts to look out for them.

Objectives of the study:

Covid-19 has brought about a world-wide bewilderment and vulnerability in modern civilisation. All the domains of life like economy, education, art and culture, trade and commerce, tourism are facing a setback. People from every walk of life are affected somehow and are in the search of way out of their professional deadlock. While digital communication has shown the way to the recent revival of the hibernating educational practices, digital divide is coming in the way of its successful and full-fledged implementation. Special education, that often needs close personal supervision and assistance of the teacher-educator, is also experiencing difficulties. This study attempts to find answers to following questions:

- What are the measures taken to take care of the problem of digital divide?
- What are the other types of discriminations than digital divide that are concerning students?
- How adversely has suspended academic session affected children from the disadvantaged section?
- Is there seen any gender disparity among the drop out rates?
- How much has special and inclusive education suffered during lockdown?⁴

⁴ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

Delimitations of the Study:

With the home-confinement and lockdown in force, there has been considerable difficulty to reach and access the libraries. Inability to conduct personal interviews and sometimes being compliant to rely on only secondary source of information restricted the free flow of the study to some extent. The prolonged closure of educational institutions seriously affected the procurement of raw data from both the students and the administrative wings.

Research Methods:

Bibliographic research has been adopted for this study. Books, treatises, journals, research reports of eminent scientists and scholars, news paper reports, online publications and audio and video telecasts and programs have been consulted along with the World Health Organisation (WHO) and UNICEF reports and newsletters to collect relevant data about this present study.

Analysis and Results:

While Covid-19 has been tightening its grip over 190 countries, this study attempted to look towards what the apex global organization for children's emergency fund (UNICEF) is saying.

1. **Remote or distance learning** has to be complemented with **attractive learning content, effective teaching instruction and teaching model**⁵
2. The unprecedented increase in **job-loss** and resulting diminishing income has resulted in large-scale malnutrition in under-5 children of low-income and middle-income countries (LMICs) in sub-Saharan Africa and south Asia in the wake of Covid-19. The triple jeopardy of disrupted economy, health sector and malnutrition is attributable to this. People risked at acute **food insecurity** was likely to be doubled to **265 million** towards end of 2020.⁶ The 'wasting' in children in LMICs would increase by 14.3 percent adding 6.7 million more children to that count in 2020. This is represented by estimated 57.6 percent children from south Asia and 21.8 percent from sub-Saharan Africa. An average number of **additional child-deaths of 128605 in 2020** was projected with the reduction in nutritional services by 25 percent.⁷

⁵ <https://www.unicef.org/globalinsight/reports/putting-learning-back-remote-learning>

⁶ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

⁷ <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2820%2931647-0>

3. Along with school closures and physical distancing, consumption of nutritious and affordable food and its transportation should also be ensured as Covid-19 response strategies.⁸ To overcome this situation, an estimated **US\$2.4 billion is required.**⁹
4. Online teaching facilities were somewhat accessible to urban children, those from rural inaccessible areas were at the risk of being left out. An initiative **UNICEF and Government of Germany**, 52 schools were targeted to make the digital learning strategy successful.¹⁰
5. The worldwide school-closure is going to throw 1.53 billion children out of school and affect 87.6 percent of total world (184 countries) population of enrolled children.¹¹ basic education was going to be affected most. Worse are the conditions of **girls, children of migrant or refugee families, children needing inclusive or special education and adolescents with psychological issues or trauma.**
6. Being increasingly subjected to the **vulnerability of domestic violence and abuse** at home, which drains out their life force, nips the bud of creativity and puts an end to all the potential to become a worthy citizen in future.

How to Bridge the Digital Divide?

The issue of Digital Divide, or the difference between the internet have's and have not's, was always lurking from behind the distance and remote learning modes in normal times. Contrary to popular belief, it is not only the LMICs that are experiencing the pang of digital divide, even the technologically and economically advanced countries are also facing this.

United States of America

By the report¹² of Microsoft, almost half the population of the US lacks an internet connection either due to shortage of finance or locational disadvantage, making it 20 percent in the rural

⁸ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31648-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31648-2/fulltext)

⁹ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

¹⁰ <https://www.unicef.org/peru/en/stories/covid-challenge-virtual-education-peru>

¹¹ <https://www.educationcannotwait.org/covid-19/>

¹² <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>

areas¹³. The Rural Digital Opportunity Fund, has making provisions for a **70 billion dollar package** to establish broadband services at the rate of 10 megabytes per second through fiber optical network for the **20 billion students**.¹⁴

United Kingdom

10% of the adult population in UK, counting to around 3 to 5 million did **not use internet** in 2018. This digital exclusion is primarily of three types: **first**, those who cannot afford, **second**, who are technologically challenged and **third**, who lack the enthusiasm to use technology. The digital divide is also there between the high-income and the middle to low-income countries. A survey conducted in 2020 on internet usage of different countries reveal the following percentage of internet use around the globe¹⁵:

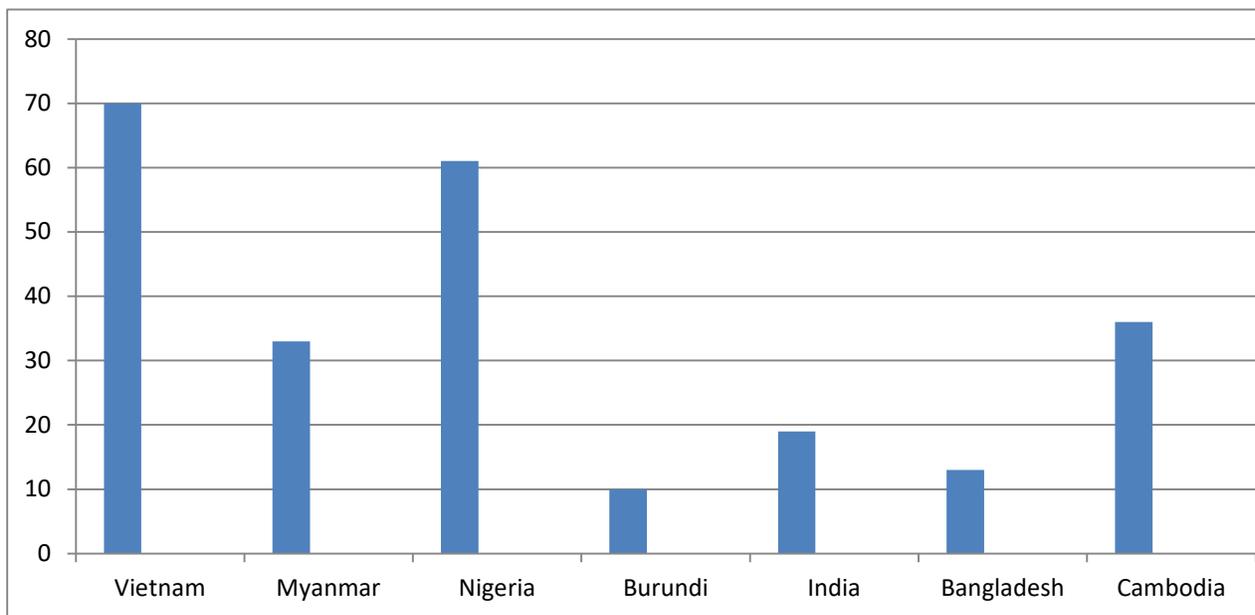


Chart 1: Percentage of internet usage in various countries in 2020 (India, Bangladesh and Cambodia show percentage in 2017)¹⁶

¹³ <https://4-h.org/ways-to-give/corporate-foundation-support/microsoft-tech-changemakers/#!/digital-impact-survey>

¹⁴ <https://www.wired.com/story/school-online-digital-divide-grows-greater/>

¹⁵ http://afteraccess.net/wp-content/uploads/AfterAccess_IGF2017v2_1.pdf

¹⁶ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

India

Using internet for online education, e-banking or telemedicine is largely restricted to cities with **37%** such **usage in cities** against an only **13% in villages**. While 104 urban users out of 100 have access to mobile phone with internet with having dual SIM facilities, the rural population is but 27. Also there is the gender disparity, while it is seen that against **79% men** to have access to a mobile phone, it is only **63% women**.¹⁷

UN Secretary General António Guterres put forward that **87 % of people in developed countries** have access to the **Internet**, in contrast to only **19 % in the developing countries**. The digital divide is acting like a great wall between healthcare facilities and the poor and women especially. On another side, the pandemic situation has shown invasive ways of **cyber-crime and hacking** in chiefly the hospital and healthcare facilities.¹⁸

How are girls inside and outside?

At school or out of school?

Girls and women are the first level of vulnerable when any disaster wrecks, be it a war, a natural disaster or a pandemic. Covid-19 has not been able to change the picture. UNESCO has estimated,¹⁹

1. 1.54 billion children making it to 89 percent throughout the world were **out of school** when the school closures started. Of this, girls constituted **743 million**. Of these girls, 111 million represent the most downtrodden countries who are more susceptible to utmost poverty, malnutrition, domestic violence and other gender disparities than to Covid-19. Four million girls from such families are least likely to return to school in future.
2. **For girls from internally displaced or refugee families**, chances of new enrolment or returning to school is likely to be half than the boys in these families.
3. This prolonged stay out of school increases their vulnerability manifold by subjecting them to **domestic and sexual abuse** by elders as well as peers, childhood pregnancy, early marriage and other harassments also at the workplace they are forced into.²⁰

¹⁷ <https://webfoundation.org/2014/12/recognise-the-internet-as-a-human-right-says-sir-tim-berners-lee-as-he-launches-annual-web-index/>

¹⁸ <https://www.un.org/press/en/2020/sgsm20118.doc.htm>

¹⁹ <https://en.unesco.org/news/covid-19-school-closures-around-world-will-hit-girls-hardest>

- An estimated **243 million** girls and women have been subjected to **domestic violence** inflicted by closed ones through the past one year.

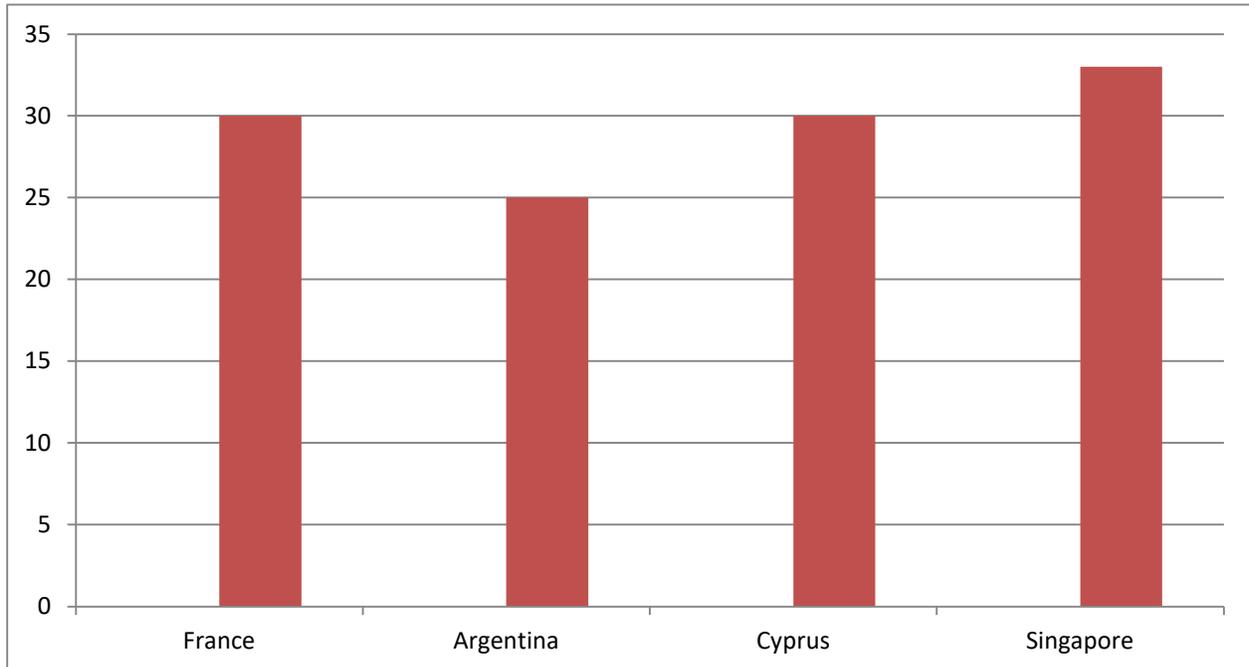


Chart 2: Percentage of women subjected to domestic and other torment since March 2020²¹

- While only **40 percent women seek help** from friends and families, mere 10 percent report domestic violence to the police. In Australia, Spain and Italy, significantly fewer calls were being reported by women seeking help due to the initial lockdown and it was difficult for the health workers to pay attention to any other emergencies than the pandemic.
- Where the deserted lockdown streets and **restricted movement in India and Philippines have increased domestic violence and rapes**, the large number of women health service professionals (70 percent) in Italy, China and Singapore are facing dual oppression inside and outside home.²²
- The current online operations of educational, financial and work-related procedures has

²⁰ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

²¹ <https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/issue-brief-covid-19-and-ending-violence-against-women-and-girls-en.pdf?la=en&vs=5006>

²² Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

darkened the picture more by introducing and aggravating **cyber-violence** like never before.

8. Innovative support services include coded messages like “**Mask-19**” in Spain or “**Bright Sky**” in UK have provisions to alert the nearby police stations or pharmacies in addition to trained postal services to look for signs of abuse. While lockdown has adjourned court cases of violence in countries like Kazakhstan, Argentina has extended its legal protection cover for 60 days for the victims while Columbia has taken the court procedures to virtual platform.
9. International agencies like the **United Nations (UN)** have come up with a bunch of initiatives to offer protection for women worldwide. “**UN Trust Fund to End Violence against Women**” has been addressing issues of funding for women’s groups and support organizations in both local and global levels at ASEAN and some African countries with sensitization programmes and additional services for Covid-19 response.

Caring for the Special

Unlike the regular, healthy children, the children suffering from **autism, cerebral palsy, Down Syndrome, ADHD (Attention Deficit Hyperactivity Disorder), self-injury, visual-hearing or speech impaired, intellectual or social disability** need assistance and care from a few hours to a 24-hour basis depending the degree of their disabilities.

- According to WHO, **one billion, making 15%** of global population, have disabilities, while 2% to 4% among them need assistance in daily activities.²³
- According to UNESCO, number of disabled is more in LMICs and MICs than HICs.
- With the requirement of assistive technologies and equipments, learning is more expensive for special children.
- Provision for project based learning is proved to facilitate learning for special children which needs both special educators and general teachers.
- Teachers, care-givers and parents should be given special guidance and resources to handle the children during the crisis of Covid-19.²⁴

²³ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

²⁴ <https://bangkok.unesco.org/content/empowering-students-disabilities-during-covid-19-crisis>

- **Structured routine** is the most essential in special education and more so in Covid-19 situation the disruption of which is concerning the confused parents.
- Where there was provision for **Individual Education Plans, or IEPs**, a contract between the school and parents in the United States, following the school-closure in March, 2020, the IEPs have neither been renewed for existing students nor the new enrolments done for new students.²⁵
- While the challenge **home-schooling** is being faced by almost every parent worldwide, it is more serious for the parents of children with disabilities. Special children range from **physical, mental, cognitive, behavioural and social disabilities** that too from mild to severe degrees and therefore their needs are also not the same.²⁶
- Access to various **assistive technologies** like speech to texts, audio and video study materials instead of printed texts, large fonts, video-calling and screen-reading software can be utilised to succeed with the process.
- Regular virtual meetings should be held between the school and the parents to discuss **revamping the curriculum**, modifying the training procedure and monitoring the children's progress through meeting an intense behavioural therapist.²⁷
- Some special educators are concerned about their students' **unsafe home environments**. They are using **YouTube, video-conferencing software like Zoom, phone calls and chat messages** to address the children's special needs, taking care of their IEP objectives and teaching them basic line drawings, letter and number recognition, basic addition and subtraction and colouring words and shapes.²⁸
- **In India, 11.59 crore children are enrolled under Mid-Day-Meal scheme**, a majority of whom come from underprivileged sections. It is an unbearable burden for them to arrange for the luxuries of their disabled children. With the number of disabled population counting to **150 million in India**, of which around 50 million are with severe disabilities, the pandemic has disabled the lifeline of the assistive services to a large

²⁵ <https://now.tufts.edu/articles/how-covid-19-has-affected-special-education-students>

²⁶ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

²⁷ <https://www.health.harvard.edu/blog/making-special-education-work-for-your-child-during-covid-19-2020102621189>

²⁸ <https://www.smartbrief.com/original/2020/09/distance-learning-and-special-education-during-covid-19>

extent.²⁹

- Even the **National Policy on ICT** in School Education issued by the Ministry of Human Resource Development (MHRD) is silent about the universal design principles and the latest guidelines regarding digital education. So is the case with Telecom Regulatory Authority of India (TRAI), which has also bypassed the ICT policy for disabled children in India.³⁰

Where reports by **UNESCO** and **Tata Institute of Social Science** show that one-fourth of the special children between the age of five to nine never get the chance to go to school. A survey undertaken by **Swabhiman and Disability Legislation Unit of Eastern India of NCPEDP**, only **56.5%** disabled children are attending online education, whereas **77%** expressed their concerns that they would not be able to attend and would lag behind due to digital divide.³¹

Findings:

The study has dealt with the adverse impact of Covid-19 and has attempted to find out how it has affected some specially vulnerable groups of society.

- With the increasing emphasis on and only attainable solution of distance education, the problem of “**digital divide**” sprung up in many areas even in developed countries.
- **Domestic violence and child abuse** soared to unprecedentedly high. With schools and workplaces closed, the children were subjected to domestic violence, drug abuse, sexual abuse, drop out, child labour with often extra shifts and many other such social evils.
- **Special children** are also facing serious difficulties being detached from the special care facilities at school.³²

²⁹ <https://www.highereducationdigest.com/how-covid-19-has-affected-the-special-education/>

³⁰ <https://theprint.in/opinion/indias-online-classrooms-are-outdated-for-disabled-kids-covid-just-made-it-worse/463438/>

³¹ <https://www.deccanherald.com/supplements/dh-education/customised-learning-tools-crucial-for-children-with-special-needs-864293.html>

³² Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

Discussion:

- While sudden halt of regularity of educational procedure, the worst affected has been the **economically weaker section** of the society irrespective of the status of the nation they belong to. Among them, **girl students** have been more adversely affected and this trend has been seen from the primary to the post doctoral stage.
- With the unexpected academic close down, the case with **special or disabled children** has worsened with the sudden cut off from the **essential support system** they received earlier from their school, professional care-giver and special educator. Measures taken collaboratively by the **government, school authority and professionals** looked for ways to assist parents using guidebooks and make online learning for these children accessible as much as possible.³³

Conclusion:

The present study attempted to find the differential impact of Covid-19 and consequent digital learning on some disadvantaged sections of the society. It was found that apart from the overall setbacks and challenges that Covid-19 posed before the mainstream society, the marginalised sections faced it worse. Digital divide being the global curtain darkened the world of the poor, underdeveloped and downtrodden children in terms of education, access to proper nutrition and social and psychological well being. The girls were hit worse, whether child or adult all around the world. The study also focussed on the grim status of the disabled children, who were especially affected badly due to lack of access to the essential support system from the school, care-givers and specialists.

Suggestions for further research:

- First of all, Education during Covid-19 and new normal has faced a lot of ups and downs and experimentation. Online education being the current trend, it is worthwhile observing and studying the **future trend of education in post-Covid scenario**.
- Secondly, the **social, political, economical and educational scenario** in post-Covid period poses a big opportunity for the future researchers.

³³ Bhattacharyya A. and Chatterjee K., (2020), Education in Times of Pandemics Down The Centuries: A Study in The Light of Covid-19, Dissertation, MAEDU, IGNOU

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