Research Paper

The growth and impact of digital divide

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ABSTRACT: *The digital revolution offers significant opportunities for economic and community development; however, it also reveals pronounced gender disparities in access to and ownership of digital technologies, known as the "digital gender divide." This divide is influenced by factors such as access barriers, cost, educational deficiencies, and sociocultural norms that perpetuate gender-based exclusion. Despite recent improvements, achieving gender equality remains elusive, with projections indicating it may not be realized by 2030. Gender inequality impedes societal progress, affecting health, education, and economic productivity. Targeted interventions in healthcare, education, and policy reforms are essential for enhancing women's economic participation, reducing poverty, and fostering sustainable development. This paper investigates the digital gender divide within the urban context of Greater Kailash 2 in New Delhi, revealing local awareness and understanding of the issue among residents.*

I. INTRODUCTION

For economies and communities, the digital revolution presents enormous opportunities. Nevertheless, access to, use of, and ownership of digital technologies are not gender-neutral, and the advantages of the digital transition are currently not distributed equally throughout social groups and genders. These kinds of gender disparities in access to and usage of digital tools both within and between nations, regions, industries, and socioeconomic levels are sometimes referred to as the "digital gender divide."

The digital gender divide has several underlying factors, such as barriers to access, cost, education (or lack thereof), and lack of technology proficiency. It also stems from ingrained prejudices and sociocultural norms that promote gender-based digital exclusion. It is thereby acknowledged that action is required in a number of different areas, to study, understand and amend this bias.

In addition to it being a basic human right, gender equality is also a precondition for an affluent, peaceful and a sustainable world. Although studies show that there has been improvements in recent years, but if current trends continue, then gender equality will not be achieved even by 2030.

Half of the world's population is made up of women and girls, who also account for half of its potential. However, gender disparity still exists everywhere and impedes societal advancement.

Further, gender disparities have a substantial effect on social and economic development, with ramifications for health, education, employment, and general economic productivity. Women's access to healthcare and education is restricted by gender inequality, which lowers their economic independence and results in worse health. Discriminatory practices and salary inequalities limit women's employment opportunities and earning potential in the workforce, which lowers economic productivity overall. Women's engagement in the economy can be increased by targeted healthcare and education programs, social protection laws, and legislative reforms. This will lower poverty and increase GDP growth. Gender inequality must be addressed because it promotes inclusive and sustainable development, which is good for society as a whole.

Further to the above mentioned gender disparities and its effects, the digital gender divide in itself is a reason for lost opportunity. This paper works towards understanding the digital divide in an urban setup, focussed on a neighborhood in New Delhi called Greater Kailash 2. The members studies within this locality in

New Delhi were able to understand the meaning and notion of the divide. When asked about what they understood from the term 'digital divide' they managed to give prompt answers that showed that they thoroughly understand the topic.

II. HISTORY

Gender digital divide refers to the gap or inequalities present between men and women regarding their access to and use of the digital arena, namely information and communication technology. The digital divide is understood differently by different authors and has evolved majorly throughout the years. The digital divide initially emerged as a concept in the mid 1990s and in no time became an interdisciplinary concern. The term was coined by Jonathan Webber and Amy Harmon of the LA Times, however was popularised by the US Department of Commerce Assistant Secretary for Communications and Information. The NTIA played a crucial role defining the concept and making it as widespread as it is today.

As the IT industry grew and developed so did the understanding of the digital divide as there was an increasing importance of the internet in daily lives and its potential to exacerbate existing inequalities. Throughout the early 2000's the digital divide was influenced and studied through the lens of technological determinism, where researchers such as James, Lentze and Oden believed that just by providing equal access we can bridge the gap in its entirety. Their studies showed that the world does not have the infrastructure to address such an inequality.

In the late 2000's as the internet became more pervasive the definition of the concept grew. Scholars like Van Dijk, Van Deursen and Warschauer emphasised the need to consider internet connectivity alongside mere access to devices. Alongside this Bagchi and Cullen started to examine and study disparities in ICT skills and knowledge. They argued that the lack of digital skills focuses on the role of education and literacy in bridging the digital gap.

Between 2007 and 2010 Norris included the democratic divide in the definition, highlighting the disparity between those who could engage in public life through digital resources and those who could not due to lack of skills. Overall the understanding of the divide has evolved significantly. Despite the varying definitions and perspectives the divide is still a phenomenon that remains complex and widely discussed.

III. DIVIDE IN INDIA

Indian perspectives for the divide have also emerged discussing its implications in both the rural and urban setting.

This divide is particularly pronounced in countries like India, where deeply ingrained patriarchal norms further restrict access to digital technology. Traditional gender roles in Indian societies tend to restrict women's participation, this is accompanied by educational constraints and limited career opportunities. In India, patriarchal norms intensify from urban to rural areas, where till this day women can only use ICTs with the approval of her male counterpart. India is also a country which is poverty stricken, thus lower income households often struggle with the cost that comes along with internet access. When data costs can take up a large proportion of a low income household's earnings, it itself becomes less accessible to the women of the house. The rural areas in India itself have extremely low internet penetration. Only 29% of rural areas in India get internet access compared to urban India where the percentage is 56%. We have a long way to go, especially when it comes to the rural areas of India where women don't even have their own phones, forget internet access or the education to use the technology.

The IAMAI (Internet And Mobile Association of India) reported that only 26% of women in the country have access to technology compared to 42% of men. Out of this 26% it was reported that only 15% use the internet. Resulting in a gender gap of 27%, the highest in the Asia-Pacific region. This gap is due to factors such like the fact that there are huge disparities between women living in rural India versus women living in urban India, women in low income households have extremely low access to literacy making them unable to operate or use the internet and the horrifying truth that India is still deeply imbedded with a patriarchal mindset which prevents women from using digital technologies, in the fear of loss of reputation or household duties taking precedence.

The digital gender divide in India not only has significant implications for women empowerment in the country but also has implications when it comes to the country's economic growth. The fact that the majority of

the women in the country do not have access to digital technology means that the opportunities these women have are also limited as a result. Whether it comes to online schooling, employment or even entrepreneurship, they do not have the opportunity to even explore these avenues. With COVID 19 we as a world learnt that the digital arena is a necessity for all to be educated about, yet many female entrepreneurs in India due to digital unfamiliarity could not move to the online marketplace or garner enough support for their companies this should have been enough to highlight the urgent need that persists.

The sad reality is that in India this issue is not seen as one that is pressing or urgent. Political arenas don't even address the issue as they barely know of its existence, there are no surveys, no studies, no laws and no programs to help combat the issue. For us to be able to bridge the gender digital divide, efforts from a multitude of stakeholders is required and essential.

The government must focus on creating policies that focus on digital inclusion, equal access to education, encouraging women's participation in the workforce by addressing issues such as the equal pay problem or the discrimination in offices. The society must create awareness of the hidden issue, educate people and have sensitization programs to challenge social norms and promote gender equality in digital forms. The internet providers and technology companies must take initiatives to enhance the digital infrastructure so that it can reach all citizens.

IV.   DATA ANALYSIS

This study explores a qualitative and quantitative research design to explore the digital divide in today's landscape and to compare it to the evolution of the concept. The qualitative approach allows for an in depth understanding of the evolution both abroad and in India. The primary data for this research consists of academic articles, policy documents, and reports from reputable organisations. These sources were selected based on their relevance to the digital divide, the implications it holds and how it has formed over the years. The data was analysed through analysis techniques. This method was chosen in order to dissect the language, themes and narratives present in selected sources. Analysis helps in understanding not just the explicit concept but also the underlying ideologies and assumptions that have now shaped the divide we see today. The quantitative approach of the study is the questionnaire created and circulated in the colony of Greater Kailash 2 in New Delhi to those over the age of 18. The questions asked gave us relevant answers about the landscape of the divide in recent times and analysing what role it played in hindering development as a whole. All sources used in this research are publicly available and cited appropriately to give due credit to the original authors. The study adheres to academic integrity and ethical research.

The digital divide presents a significant barrier to economic, social and political progress and we must work to give everyone access to an open, reliable and secure internet.

V.   ANALYSIS OF ANSWERS FROM THE STUDY

The study conducted on the digital divide, was attempted by 56% females and 44% males. They were asked numerous questions, in order to understand the landscape of the divide and how it has evolved. It also presents a contrast between the rural and the urban landscape. Using research already available for the rural setting and the study conducted by me. The study is attempted by people in a posh urban neighbourhood in the capital city of India, the findings of which can then be compared to the publicly available studies done on the rural areas of the country.

When asked if the respondents believed in the meaning and existence of a 'digital divide' the majority agreed to it. With 17.2% of the audience who strongly agreed to it and 34.5% also in agreement to its meaning and existence, we can gather than a little more that half of the people interviewed did agree to there being a digital divide amongst genders. 41.4% were neutral and thus weren't sure of its existence and a very few stated that it did not exist.

When asked how much later than their fathers getting a phone did their mothers get a phone, there were 3 respondents that said they got them at the same time and another 3 who did not specify the exact time difference but said that though their mother got it later but the time difference was small. 1 respondent stated that his/her mother received it just one month later than his/her father. There was 1 respondent who didn't remember the timeline, but recalls it being a significant time-gap with his father receiving it earlier. There were 3 respondents that specified that their mothers got the phone one year after their fathers and 4 said the mother

received it after 2 years. There was 1 person who thinks the difference was 3-4 years while 1 person who said the gap was of 5 years. and another specified the gap to be as large as 10 years. There were some non-conclusive responses based on the facts like, the father never keeping a mobile, losing their mother early in age or not remembering if there was a time gap. Interestingly, there was only 2 respondents in the whole date set who stated that their mother got the phone earlier than their fathers., with one specifying the sense of equality in their house since the parents worked together and one stating that his/her mother was more tech savvy and thus got a mobile before his/her father.

The question about whether females spent more time on their phones than men, almost 41% of the respondents felt it was so. Within this 41%, 10.3% of the respondents strongly agreed with the statement. There was 28% of the respondents that answered neutral and didn't feel there was any significant difference ion the phone usage between the sexes, while another 27% disagreed and thus felt that men used their phones more than the women.

They were asked to respond to whether men understood technology better than women. 38% of the respondents agreed to the statement where as a 31% thought the statement was false. While 17% of the respondents answered that they were neutral to this hypotheses.

Furthermore, they were asked if they felt that men are better at using technology than women. Near-majority of the respondents disagreed with the statement and 44% voted to say that they saw no such truth of the statement. 31% decided to be neutral where as 17.2 % of the respondents agreed that men are better at using technology when compared to women.

When asked for responses on the statement that men are on their phones more for work than pleasure, majority amounting to 58% of the respondents, including 17% that strongly disagreed and felt that men used their phones for pleasure as much as for work related utilisation. 24% of the data group agreed that men probably use their phones more for work whereas 17% of the respondents were neutral in their response.

Simultaneously when the question was reversed and he data group was asked if women use their phones more for work than pleasure, 51% of the respondents disagreed hinting to them assuming tat women use the phones more for leisure activities with some strongly disagreeing to this. 37% of the respondents agreed to the statement. When asked to choose between men and women as to who neglects their duties more because of phone usage, 62% of the set voted for men. the remaining 38% felt that women ignored their duties being distracted by their phones.

VI.   INTERPRETATION OF STUDY

When asked gender specific questions, we noticed that each gender voted against the other. For example when asked who wastes more time on their phones, each gender felt it was the other that used the phones for less work and more personal and wasteful browsing. This was further verified when the data showed that the exact number of respondents of each gender voted for the other gender to be ignoring duties and being distracted by their phones.

However when specific questions were asked, where personal opinion was eradicated and more factual data was collected, it was evident that both genders perceived that men used their phones more for work related subjects. When questions asked factored out what one may feel and perceive, and the reality was tabulated, the results showed a clear divide between the genders and their privilege of getting a phone.

Additionally when the specific answers were tabulated it was determined that even in an urban setting like the one used as the target audience, women got phones later than men, because it was felt that men needed it for work before the women counterparts. This again highlights an evident perception that men needed it before because all felt that they had more important work related tasks than the women.

Keeping in mind that the audience for this survey belonged to an upmarket, urban locality in India's capital city of New Delhi, yet my discovery was that there is a clear gender divide when it comes to access to mobile phones between genders. If we were to carry this forward to try and fathom the magnitude of this gap if this survey was to be repeated in a rural setting, the results would be alarming.

The majority of the Indian population resides in rural areas and is already known to be plagued by a clear gender divide, even when it comes to basic rights like equality, education, healthcare and more. Thus for luxury items like mobile phones, the divide will be conspicuous. If we propose to bring about gender equity

through policy changes at the macro level, we have to be cognisant of the ground realities where perception and reality show the divide on a large scale.

The digital gender divide remains a complex and multifaceted issue with significant implications for social and economic development. This divide is particularly pronounced in countries like India, where ingrained patriarchal norms and socioeconomic barriers further restrict women's access to and use of digital technologies.

VII.   CONCLUSION

In conclusion, the study underscores that the digital gender divide in India, particularly in urban areas like Greater Kailash 2, reveals significant disparities in access to and use of digital technologies between men and women. Despite residing in a relatively affluent and educated neighbourhood, women still tend to receive mobile phones later than men, highlighting a perception that men's work-related tasks are more important. This gap is likely to be even more pronounced in rural areas, exacerbating existing inequalities. To bridge this divide, comprehensive efforts involving policy changes, education, and societal shifts are essential, as digital inclusion is critical for fostering gender equality and overall societal progress.

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