



## In Bihar, efforts are being made to close the gender digital divide

Kumari Veena<sup>1</sup>, Uttam Kumar<sup>2</sup>

<sup>1</sup> Professor, Department of Economics, A.N College, Patna, Bihar, India

<sup>2</sup> Research Scholar, Department of Economics, Patliputra University, Patna, Bihar, India

### Abstract

The concept of the "digital divide" has been extensively studied in recent years and has generated a lot of discussion and conjecture due to its potential economic, social, and political ramifications. Studies already conducted show the disparity between those with access to ICTs and those who don't hinder economic growth, threaten social cohesion, or cause isolation. The digital gap is a multifaceted phenomenon that falls into three categories: national, regional, and global. Multiple divides exist at the national level rather than just one. For example, within nations, there are divides between men and women, young and old, rich and poor, and most importantly rural and urban.

The current study focuses mostly to investigate the issue of the digital divide, particularly in rural and urban areas of the country. In the context of this study, the term "digital divide" basically refers to the disparity in Internet, mobile, and teledensity between rural and urban areas. According to the study, if Government wants to close the digital divide, issues including illiteracy, a lack of skills, infrastructure, and investment in rural areas must be addressed. The government should focus on the following areas: connection provision, content production, capacity augmentation, development and exploitation of core technologies, cost reduction, competence building, community involvement, and dedication to the underprivileged and disadvantaged would undoubtedly aid in closing the digital divide.

**Keywords:** India, ICTs, infrastructure, digital divide, and access

### Introduction

Across all industries, digital transformation, or digitization, is radically altering how we do business. It is drastically changing markets, industries, jobs, and procedures while increasing productivity, fostering efficiency, and opening up new avenues for growth. To guarantee that historically underserved groups can take advantage of the advantages presented by digital advancements, this enormous shift must be more egalitarian. A major obstacle is the equitable realization of the advantages of digitalization, particularly for women and adolescent girls. Their potential to profit from our increasingly digital world is nevertheless constrained by a number of issues, including ownership, access, social norms, and the ability to use technologies effectively.

India is one of the world's largest data consumers. Despite efforts are made by the Government to transform India into a knowledge economy and a technologically empowered society through the Digital India program, there remains a sizable gender digital divide in the nation. With the lowest percentage of women utilizing the internet, Bihar ranks last among states. Furthermore, with only 32.45 internet users per 100 people, Bihar has the fewest internet users.

A budget of INR 1500 crore has been suggested in the 2021 Union Budget to increase digital payments in India. It is anticipated that automation and digitization will expand rapidly, leading to the widespread use of electronic payments. Despite the widespread gender digital divide, the Union Budget statement, incidentally, made no mention of any plan to advance digital and financial literacy for acceptance, adoption, and use of digital transactions.

The female digital divide, also known as digital exclusion, was evident in areas such as education, e-banking, e-commerce, and e-governance because these services were

only accessible online during the COVID-19 pandemic. Technology and the internet are more important than ever in the modern period, and programs in the fields of education, health, and other government service delivery should be designed with connectivity as a top priority. Digital connections can help women and girls access more important information, opportunities, and services. However, to do this, they must have better access to technology, devices, digital training, and safe usage expertise. The current Briefing Paper gives an outline of gender digital exclusion in Bihar and explains why it needs to be closed.

### The Digital Divide: What Is It?

The difference between people who have limited or no access to the internet and devices that can connect to it and those who do not is known as the "digital divide" or "digital exclusion." People from marginalized groups in society—particularly the elderly, the poor, those living in rural areas, those with special needs, and women—are experiencing a widening digital divide as a result of the growing digital transformation. There is clear evidence of digital exclusion across urban and rural populations, between people with higher and lower levels of education, and between families with and without economic resources. The gender divide and the access divide are the two forms of the digital divide that we typically observe.

Even if the number of cellular customers in the nation has increased, there is still a digital divide. The Telecom Regulatory Authority of India (TRAI) reported in September 2020 that there were 1148.58 million Wi-Fi users, including 626.16 million in urban areas and 522.42 million in rural areas. During that time, there were 726.32 million broadband users.

The National Sample Survey indicated that there is a notable gender, class, and digital divide in India (2017–18). Just 23.8% of homes in India have internet access. Furthermore, when it comes to access to resources like smartphones and the internet, rural and urban areas differ significantly. Just 14.9% of Indians have internet connectivity, compared to 42% in cities, despite the fact that 66% of them reside in rural areas. Furthermore, women only make up sixteen percent of those with mobile internet connection, while men, who are the primary users, make up thirty-six percent.

### **Gender Gap Among Connected Women**

According to a March 2020 report by the UK-based GSM Association, while mobile internet connectivity is growing, it is not growing equitably. In a similar vein, although mobile internet awareness is rising quickly, women's awareness is still lower. According to the survey, only 21% of Indian women utilize mobile internet, despite the fact that roughly 63% of them own mobile phones. Additionally, compared to men, women are 50% less likely to utilize mobile internet. Household income, social control or patriarchy, and education—a significant barrier to digital literacy—are the main causes of the digital divide. According to the survey, households with greater levels of education are more likely to utilize digital devices, and family wealth has a big impact on both device ownership and internet usage.

### **Bihar's Gender Digital Divide**

Due to their cost and the availability of affordable data plans, mobile phones continue to be the most popular device for internet access in both urban and rural India, according to the India Internet 2019 study. There are 258 million male Internet users in India, and about half of them are female. The percentage of women who use the internet is higher in Kerala, Tamil Nadu, and Delhi than in any other state. According to the survey, Bihar's Internet penetration rate is only 28%, while the national average is 36%. Bihar's internet users are primarily male and less affluent than those in Assam, other northeastern states, Jharkhand, and West Bengal. Due to issues with access, service quality, and mobile internet affordability, the disparity is especially noticeable in rural India.

Bihar, the nation's third most populated state, has a poor female literacy rate. According to recent NFHS-5 data, the state's female literacy rate is only 57.8%, suggesting that two out of five women are illiterate, while the male literacy rate is 78.5%. Digital literacy also shows a similar trend, with just slightly more than 20% of women having used the internet at some point in their lives. This disparity is also noticeable among teenage girls. Only over 18% of teenage girls in Bihar have access to smartphones, whereas over 80% of males have. This gender disparity in device availability is highlighted in the Center for Catalyzing Change's latest Policy Brief: Bridging the Digital Divide for Girls in India.

In Bihar, 43.6% of men have ever used the internet, with 58.4% of them in urban areas and 39.4% in rural areas, according to NFHS 5, 2019–20. Compared to 38.4% in urban areas and hardly 17% in rural areas, only 20.6% of women in Bihar have ever used the internet (NFHS 5, 2019–20).

### **Gender Digital Divide Aspects**

The primary barriers to digital inclusion for Bihar's adolescent girls and women are poverty, education, and cultural norms.

#### **Poverty**

Poverty, which is a key factor influencing access and affordability, significantly limits the ability of girls and women to use digital tools and benefit from digitalization. Bihar has the highest poverty rate, with an annual per capita income of INR 3650, or about one-third of the INR11,625 national average. Most women who own mobile phones do not have access to the internet, despite the fact that data prices have dropped. This could be mostly attributed to poverty.

#### **Education**

One of the main causes of the digital divide is education. Both men and women cannot gain from digitization if they lack the basic abilities of reading, writing, and content comprehension. The gap between male and female literacy rates in Bihar is approximately 20 percentage points, indicating that women continue to face larger obstacles to accessing education than males. In metropolitan areas, 75% of women are literate, compared to just 54.5% in rural ones. Furthermore, ICT in education (ICT@School), which is only utilized in 1000 Bihar government schools, started off late and has limited operational reach.

The State government engineering colleges in Bihar are dispersed among all districts. However, according to data for 2019–20, just eleven colleges have a permanent campus. The maximum number of seats available in the engineering colleges indicated is 9155, which is the intake capacity for civil engineering. Given the existing situation, the majority of women in the state might be denied opportunities for higher education.

Fortunately, the state of Bihar has placed a high priority on education in its 2021–2022 budget, allocating the largest amount (Rs. 39,467.3 crore, 18.1%) to the establishment of new engineering institutions in the state and the promotion of higher education for ladies. Computer science instruction in government schools will begin in class six onwards, with a focus on technical education.

#### **Social Norms**

Disparities between men and women are caused by social standards that favor men, which also frequently operate as a barrier to the education, social standing, choices, and behaviors of girls and women. Men dominate the technology industry, and because technology use is frequently seen as a male domain, women's access to learning, adapting, using, and benefiting from technology is restricted. Furthermore, the pace at which women are entering technology-related employment is lower than that of men. By the 2017–2018 academic year, women in India earned 31.7% of engineering and technology degrees, which is an improvement but still falls short of gender parity (AISHE, 2018). Compared to their male peers, their unemployment rate is significantly greater. According to the Walking the Tightrope study, which was released in January 2020, the Unemployment rate for Indian women engineers is five times higher than that of their male colleagues.

### Availability of time for self

Social norms place pressure on women to fulfill the conventional gender role of being the primary caretaker, especially after marriage and the birth of children. This pressure affects their leisure time. Women don't have much time to learn and use new technologies because of the demands of family care and housework. It causes discomfort with technology and turns into a compelling argument against utilizing the internet and devices that can access it. Digital wallets, e-commerce, and mobile banking are all becoming more and more popular. Women and girls will not be able to participate in the digital economy if they lack digital literacy.

### The Reasons for Bridging the Digital Divide in Bihar

Bihar has yet to make substantial strides in giving women and girls in the state access to relevant employment, employable skills, and entrepreneurship opportunities. To achieve the desired effect, the government's Saat Nischay/Seven Resolve (Part-2) effort, which focuses on jobs, infrastructure, and health, must incorporate digital connections. These sectors will help create a climate that is conducive to employment, gender equality, and the eradication of poverty.

Women and girls are disadvantaged by the current digital divide, which restricts their access to social and economic opportunities. Traditional occupations, especially those requiring little skill, are going extinct as a result of digitization. Women who are employed or seeking employment are less likely to gain the skills necessary for the evolving labor market, as the majority of the new job prospects require digital abilities. Furthermore, they find it difficult to use services offered on digital platforms and take advantage of the digital economy due to a lack of skills, connectivity, and digital equipment. Thus, it is essential for Bihar to invest in digital literacy for women and teenage girls. It is crucial that the state government support it.

In addition to inclusive policies that promote women's and girls' greater access to and usage of digital platforms, the Bihar state government would want to take into account the following recommendations:

With a grassroots approach, digital literacy and digital rights literacy are being scaled up with a focus on women and teenage girls. Digital literacy necessitates sustained participation, particularly for women working in low-skilled occupations. Additionally, women and girls have difficulty accessing training facilities because of mobility issues. Therefore, it is imperative that the state government support appropriate mentorship and capacity building programs for women.

### The way Bihar is addressing the digital divide

The central government's push for "Digital India" and the growing awareness of the value of digital literacy in education and employment have prompted the Bihar government to take action to advance it. The goal of the state government is to close the digital divide that exists between urban and rural residents by building a strong infrastructure and providing online services to all residents of the state. The improvement of infrastructure, the creation of a favorable business environment, and skill development will all help realize the goal.

The state government has planned the following short-term projects:

1. The renovation of Patna's existing Software Technology Park of Biscomaun to include a world-class IT tower.
2. There are free Wi-Fi HOT SPOTS in strategic places.
3. A 100-seat IT incubator center
4. Electronic System Design and Manufacturing (ESDM) Policy of Bihar.

An online education program called "Mera Doordarshan-Mera Vidyalaya" was launched amid the COVID-19 pandemic and the uncertainties surrounding school resumption. Another groundbreaking program, "Unnayan Bihar," was introduced by 5646 secondary and higher secondary schools throughout the state. Bihar launched the "Digital Saksharta Abhiyan" (DISHA) and the National Digital Literacy Mission (NDLM). The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), which the state is currently undertaking, is to teach digital literacy to one person every home (6 crore people throughout India) in rural regions.

It is imperative that Bihar fortify its institutional response to the gender digital divide and incorporate it into the state's plan, possibly including it into the current "Women Empowerment Policy."

1. Encourage women's participation through digital scholarships and provide them with access to reasonably priced internet-enabled devices. The economy depends on internet connectivity, so special efforts should be made to increase it for rural women.
2. Use targeted messaging and digital literacy programs to raise public awareness and educate people about issues related to data privacy, security, storage, and online safety.
3. The long-term objective is to make digital literacy dependent on basic literacy and vice versa.
4. The underrepresentation of women and girls in STEM (Science and STEM Equitable Growth) Higher Rates of Economic Growth Closing the Gender Digital Divide Social Mobility Leverage Demographic Dividend in mathematics, engineering, and technology) as well as in jobs requiring a high level of technological proficiency. encouraging women's and girls' education in STEM fields through appropriate job placements, scholarships, and infrastructure.
5. Involvement with the community, parents, and spouse to overcome societal norms that hinder women's access to digital technology.
6. Maintain data on gender inclusion that is broken down by gender using outcome measures, mainly learning, usage, and employment.
7. Spend money on studies that provide insights into customer segments so that products can be designed to meet the demands of women.

### References

1. <https://stats.oecd.org/glossary/detail.asp?ID=4719>
2. <https://www.nationalheraldindia.com/opinion/how-bihar-has-been-economically-strangled>
3. <https://darpg.gov.in/sites/default/files/Digital%20Transformation%20-%20Govt%20of%20Bihar.pdf>
4. [https://bceceboard.bihar.gov.in/pdf\\_Web/UGEAC19\\_E\\_NGG\\_CLIST.pdf](https://bceceboard.bihar.gov.in/pdf_Web/UGEAC19_E_NGG_CLIST.pdf) <https://news.careers360.com/budget-2021-what-states-have-allocated-for-education>