Understanding the Digital Gender Divide in Rural Bangladesh

How Wide It Is and Why
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**Background**

Information and communication technology (ICT) has become a crucial instrument for flourishing human potentials. However, significant disparities in ICT exist along the line of existing socioeconomic inequalities, e.g., economic status, education, and gender. Notably, the digital gender divide (DGD) has become a major concern for policymakers. Globally, more men (58 per cent) use the internet than women (48 per cent) (International Telecommunication Union (ITU) 2019). The gap can mainly be attributed to the gender gap in the developing countries where 12 per cent fewer women use the internet; the difference is just two per cent in the developed countries (ITU, 2019).

Literature suggests that double-digit DGD exists in many developing countries like Bangladesh because of a greater gender divide in education, economic status, domestic responsibilities, beliefs about ICT, etc. (OECD, 2018; Singh, 2017). Though Bangladesh has made remarkable progress in narrowing the gender gap in many areas like education, labour force participation, wages, and income, the progress is likely to be undermined because of the existing DGD (ADB, 2017).

Global System for Mobile Communications (GSMA) 2020 data show that Bangladesh has a 29 per cent gender gap in the use of mobile phones and 52 per cent in the use of mobile internet.

As learning, skill-building, finding employment, and jobs themselves are becoming increasingly ICT-dependent, the stark digital divide may not just slow the progress in gender equality but reverse much of the recent improvements.

Though the large gender gap in ICT in Bangladesh is common knowledge, there is a lack of gender-specific quantitative data. Moreover, the limited data we have mainly focus on women's access to ICT but not their ability to use ICT. Access to ICT is a necessary precondition, but its benefits depend on how it is used, in other words, on the digital skills of the user. Without an accurate assessment of the gender gap in both digital access and skills, it is difficult to make effective policies to reduce DGD.

Rural women are more deprived of ICT because they face greater challenges than urban women in terms of education, cultural norms and beliefs, and ICT infrastructure. This policy brief focuses on the gender gap in rural Bangladesh,
specifically trying to answer the following questions:

1) How prominent are the digital gender gaps (DGD) in access and use of ICT in rural Bangladesh?

2) Do the socioeconomic and demographic characteristics of the women matter in accessing ICT, and to what extent?

**The survey**

BRAC Institute of Governance and Development (BIGD), BRAC University, conducted a nationally representative rural household (HH) survey titled "Digital Literacy and Access to Public Services" from September to November 2019. The survey measured, in detail, various aspects of digital access and skills to make an overall assessment of digital literacy in rural households. The survey has a sample size of 6500 households. The most digitally able persons (MDAPs) of a household, selected by the household members, responded to the digital literacy section of the survey. The survey also collected background information of the MDAPs, including household composition, education, occupation, and literacy level.

Section 2 of this policy brief investigates the existing digital gender divide among MDAPs. Section 3 compares the socioeconomic backgrounds of digitally able women (DAW) and digitally able men (DAM). This section also examines if their socioeconomic and demographic characteristics have any relationship with their exposure to ICT. Section 4 analyses the differences between these two types of households—those with DAW and those with DAMs.

The most digitally able person (MDAP) of a household was interviewed in the survey, who was selected by the household members.
As mentioned previously, the members of a surveyed household identified their MDAP, who answered the digital literacy assessment questions for their household. To begin with, the choice of the MDAP speaks a lot about the extent of DGD in rural Bangladesh. Out of 6,500 MDAPs—one in each household—only 37 per cent were women, and the rest were men (Figure 1).

Please note that it is possible that a household choosing a DAM has an equally able female member who was not chosen or was not present at the time of the survey. Conversely, a household choosing a DAW may have an equally or more able male member who was not present at the time of the survey.

There is a stark gender gap not only in who the MADP of a household is—a man is almost twice as likely as a woman—but also in MDAPs’ access and ability to use digital technology. We compare DAMs and DAWs in terms of their access to mobile phone, internet, and computer and, more importantly, their skills in using them.

There is no gender gap in the access and use of mobile phones. More than 90 per cent of both DAMs and DAWs have access to a smart or a feature phone. However, more DAMs have access to a smartphone (41 per cent) compared to DAWs (37 per cent). They also have very similar basic skills in using the mobile phone: 54 per cent of both DAMs and DAWs can read and send text messages.

However, the gender gap becomes

### Figure 1: Digital Gender Divide in Access to and Use of ICT

<table>
<thead>
<tr>
<th>Digital access</th>
<th>% of Digitally Able Women Who</th>
<th>% of Digitally Able Men Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>have access to smartphone</td>
<td>37%</td>
<td>41%</td>
</tr>
<tr>
<td>have access to internet</td>
<td>31%</td>
<td>40%</td>
</tr>
<tr>
<td>can browse info (reported)</td>
<td>20%</td>
<td>32%</td>
</tr>
<tr>
<td>can check email (reported)</td>
<td>5%</td>
<td>14%</td>
</tr>
<tr>
<td>can send email (reported)</td>
<td>3%</td>
<td>11%</td>
</tr>
</tbody>
</table>

**Passed rudimentary browsing test**

- Women: 8%
- Men: 13%

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Women represent only about a third of most digitally literate persons in rural households, and even their digital literacy is worse than their male counterpart.
apparent in the access and skills of higher order. For example, only two per cent of the DAWs can pay bills using a mobile phone compared to five per cent of the DAMs. Overall, a negligible share of the MDAPs have access to a computer: only 2.4 per cent own a computer, and another six per cent can use a computer elsewhere. Even within this small segment of MDAPs with access to a computer, the gender difference is staggering, much worse than in the case of access to a mobile phone (Table 1).

There is a significant gender gap in access to the internet. 40 per cent of DAMs vs. 31 per cent of DAWs (Figure 1). Additionally, the percentages of DAMs who have the ability to check (14 per cent) and send (11 per cent) emails and browse information online (32 per cent) are much higher than those of DAWs, as depicted in Figure 1.

We asked the MDAPs who reported having internet access about their purpose of using the internet (Table 2). We find that DAMs reported doing most common online activities more frequently than the DAWs. The difference is most apparent in the reported use of social media, reading news online, and paying bills online. More DAMs use the internet for entertainment activities.

### Table 1: Few own a computer, irrespective of gender, but compared to DAWs, many more DAMs can use it outsides

<table>
<thead>
<tr>
<th>Access to computer</th>
<th>DAMs</th>
<th>DAWs</th>
<th>Total % of MDAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of computer</td>
<td>3%</td>
<td>1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Use others’ computers</td>
<td>8%</td>
<td>2%</td>
<td>6%</td>
</tr>
</tbody>
</table>

We asked the MDAPs who reported having internet access about their purpose of using the internet (Table 2). We find that DAMs reported doing most common online activities more frequently than the DAWs. The difference is most apparent in the reported use of social media, reading news online, and paying bills online. More DAMs use the internet for entertainment activities.

### Table 2: Uses of internet among those with access to the internet (reported)

<table>
<thead>
<tr>
<th>Use of internet among those who have internet</th>
<th>DAMs</th>
<th>DAWs</th>
<th>Total % of MDAPs (n=6,500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching YouTube</td>
<td>80%</td>
<td>77%</td>
<td>79%</td>
</tr>
<tr>
<td>Social media</td>
<td>73%</td>
<td>61%</td>
<td>70%</td>
</tr>
<tr>
<td>Search for information</td>
<td>55%</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>Reading news</td>
<td>62%</td>
<td>48%</td>
<td>58%</td>
</tr>
<tr>
<td>For entertainment</td>
<td>31%</td>
<td>39%</td>
<td>33%</td>
</tr>
<tr>
<td>Use apps for video call</td>
<td>17%</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Online training</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Paying bills</td>
<td>7%</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Reported use of the internet may not reflect their actual ability to use it. Thus, we used first-hand tests to assess the true ability of the MDAPs in using the internet. The tests were designed to capture elementary level skills: finding out the passport application form (test 1), information on the fees (test 2), and the hotline number (test 3) from the open Bangla webpage of the Bangladesh passport office, in which all the three pieces of information are clearly marked in the menu. An overwhelming majority of the MDAPs failed in all three tests, revealing the abysmal level of their internet skills (Figure 2). But even among the minority that passed any test, the gender difference is significant; eight per cent of the DAWs passed all three tests, compared to 13 per cent of the DAMs. On the other hand, 90 per cent of the DAWs failed all tests while the rate is 85 per cent among DAMs.

Figure 2: Success and failure in online tests, finding 1) passport form, 2) passport fee, 3) hotline number from the open Bangla website, in which these information were clearly marked

The above analysis indicates a severe gender difference in both access and use of ICT in rural Bangladesh. The gap is reflected at two levels: first, women are almost two times less likely than men to be the MDAP of a household, and second, even among the MDAPs, women are much less likely to have access to and skills in digital technology than their male counterpart. Overall, it indicates a dismal level of digital literacy among women in rural Bangladesh.
Demographic and Socioeconomic Profile of Digitally Able Women

As mentioned in section 2, households selecting a man as the MDAP may have female members who are more digitally able than the selected man. Our data, unfortunately, is missing out on those women. Thus, the analysis of the digitally able women's profile is limited to the DAWs.

Both DAMs and DAWs are predominantly young; less than a quarter are older than 44 (Figure 3). However, DAWs are younger than DAMs. While 26 per cent of the DAMs are 45 or older, the rate is only 13 per cent among DAMs. This means older women are least likely to have access and ability to use ICT.

![Figure 3: Age distribution of MDAPs by gender](image)

A study in Latin American and African countries found that women's poor access and usage of ICT is related to their "unfavourable conditions" in employment, education, and income (Hilbert 2011). Our survey data sheds light on the educational and occupational backgrounds of DAMs and DAWs.

**Education level of DAWs and its relationship to the access and use of ICT**

A complementary qualitative investigation in two villages of Sylhet suggests that while inadequate education and knowledge are crucial barriers for women to access and use ICT, perceptions, values, and cultural norms held by both men and women also contribute to the gender gap. In the following section, we discuss the quantitative findings and the qualitative insights simultaneously to have a more nuanced understanding of the relationship between access and skills in ICT and the socioeconomic factors.

We find that education makes a difference in reducing the gender gap in ICT. In terms of accessing and using a mobile phone, the gender gap is the lowest among the literate MDAPs—those who can read or write or can at least read (Figure 4). We find similar trends in the access and use of the internet and computer.

However, the figures also indicate that illiterate men are much more likely to have
access to and be able to use ICT. Our qualitative exploration found men believe that women without an education should not be allowed to use ICT because if they face a problem while using ICT, they would not be able to solve it. However, they opined that men need to access ICT regardless of educational background as they work outside.

Perhaps unsurprisingly, women's belief on the matter is very similar. "What is the point of buying a car if you can't spell 'car', let alone drive it," one woman opined. The women themselves mentioned that they could not enjoy the benefits of a smartphone even if they had one because they did not know how to operate it. But they also mentioned that nobody taught them how to use it, assuming they would not be able to learn. These findings suggest a high level of consensus among the rural people that men can use ICT with or without education, but the same is not true for women.

However, it seems that the attitude about educated women is more favourable. An illiterate man of about 60 believed his wife did not have enough education to use a phone, but he hoped that his teenage daughter, who was getting an education, would be able to use a phone when she would become an adult.

As a result, we see a narrower gender gap in accessing ICT among literate MDAPs (Figure 4). Education is, of course, important; however, the negative impact of generally held beliefs about women's ability to use ICT cannot be ignored.

![Figure 4: Gender gap among the MDAPs in accessing and using a mobile phone](image-url)
Occupation of DAWs and its relationship to access and use of ICT

Most digitally able women are housewives and students. Around 71 per cent of the DAWs are housewives, i.e., married, and 17 per cent are students. A possible reason for the predominance of housewives among DAWs is the migration of these women’s husbands. Analysis shows that 60 per cent of the DAWs using video-calling applications are housewives (Figure 5). These housewives possibly use phones mainly to keep contact with the migrated male figures of the family.

Qualitative interviews in the rural areas of Sylhet corroborate the quantitative findings; a respondent in Sylhet mentioned that married women are more likely to get "permission" to use phones and the internet (refer to the case study). These findings, along with the case study, indicate a strong social norm against women, particularly young unmarried women accessing and using ICT.

Figure 5: Occupational distribution of DAWs who make video calls
Case study

How Social Norms Prohibit Women From Developing Vital ICT Skills

From the focus group discussions (FGDs) and interviews, it was evident that social fear and norms in rural areas play a crucial role in depriving women from using a phone and the internet. The men of a household usually have phones, who do not think it is necessary to buy a separate phone for the women of the house. They do not think women need to use a phone for any purpose other than calling their relatives, for which they can use the phone of the male members: “One smart phone is enough for the whole family.”

In many households, young boys were found to be using mobile phones, watching YouTube videos and using Facebook, while the girls of their age or older and with comparatively higher education were not even allowed to touch the phone of their father or bother. A younger brother mentioned that he was not allowed to let even their elder sisters to use the phone unless they were married. The boys thought that it was natural as this is what they learned from their surroundings. Rather they were surprised with the queries and asked the interviewers why the girls would need to use a phone.

Adults think that it is not wise to allow unmarried school- or college-going girls to use phones and the internet. They might misuse it and be involved in socially unacceptable activities—engaging in conversation with outsiders, getting involved in premarital relationships or “affairs,” and getting into trouble. They fear that such incidents could ruin their reputation in society. So, they usually do not allow girls to use ICT until they are married.
The data suggest that DAW housewives are significantly different from housewives in households with a DAM in several aspects. Forty-one per cent of the digitally able housewives are also household heads; the rate is just five per cent for the households with DAMs. This finding makes us wonder whether the absence or lack of male figures in these households has allowed or forced them to be exposed to and gain skills in ICT. Further analysis shows that some 12 per cent of DAWs households have no male member present, while all DAM’s households have at least one man in the family. These findings further strengthen our findings on the detrimental impact of social norms on rural women’s ICT access and skills.

The education level of women is higher in DAWs’ households compared to those in DAM households. In forty-six per cent of the DAWs’ households, a female member holds the highest level of education. The rate is just 13 per cent in DAMs’ households (Figure 6).

The analysis reveals that the absence of adult male figures in the family and the higher education among women have a strong positive impact on women’s ICT exposure and skill-building. However, as mentioned earlier, the men who reported themselves as digitally able might have digitally able women in their household. In our rural society’s social and cultural backdrop, male figures might not let women of their house take part in the survey as MDAPs.

Figure 6: Gender gap in achieving the highest level of education for DAM’s and DAW’s households
Concluding Remarks

Our analysis, perhaps unsurprisingly, finds a gulf between rural men and women in digital access and skills. Studies indicate a generally low level of digital literacy in Bangladesh, for example, in using the internet (Lirneasia, 2018). Digital literacy is much lower in rural Bangladesh; rural citizens lag behind urban dwellers by 38 per cent in internet use (Lirneasia). Our study reveals that even among the rural citizens marked by rudimentary digital literacy, the difference between men and women is enormous.

Twice as many households selected a male member as their most digitally literate person. And even among these digitally able men and women, we find that the women are much less likely to use the internet and be able to use it for functional purposes.

Our findings also reiterate the critical role of sociocultural norms and beliefs that prevent women from using ICT. Our qualitative inquiry finds that women with limited or no education are thought to be incapable of using ICT, but not their male counterparts; that is why we find very few DAWs with limited or no education. We also find a strong bias against unmarried women using ICT; that is why more than two-thirds of the DAWs are housewives. Women get exposure with ICT with significant education and power; a disproportionately larger share of DAWs are educated and household heads.

The sociocultural norms and beliefs that prevent women from gaining digital literacy are some of the same norms and beliefs that hold women back socially and economically—women are less capable than men, women's romantic involvement is shameful for the family, etc. These norms and beliefs have always restricted women's mobility, education, employment, and empowerment generally. Digital literacy is yet another dimension of women empowerment, a rather important one in the digital age.

"Digital Bangladesh!" is a worthy agenda that the Government of Bangladesh (GOB) has taken very seriously. Indeed, digital literacy will be crucial, particularly for the young generation, in all essential aspects of life, including education and employment. Many services, including vital public services, are increasingly offered digitally. Women in rural Bangladesh, with their dismal level of digital literacy, are likely to be excluded from all these opportunities; this will consequently increase the existing gender divide in Bangladesh.

As we have seen, education is a strong indicator of women's digital literacy. So, the government should continue investing resources in women's education. The government and other stakeholders should also create awareness among the rural citizens about the importance of digital literacy for both men and women. Norms and beliefs are always hard to change. But it is imperative that we find and act on feasible entry points.
References


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