

The Costs of Exclusion

South Asia Regional Report



Acknowledgements

This report was written by Ana María Rodríguez Pulgarín and Teddy Woodhouse. Additional comments, suggestions, and analysis were provided by Catherine Adeya, Anju Mangal, and Radhika Radhakrishnan.

This document is an output from a project funded by the [Internet Society Foundation](#). We are grateful for their support.

The survey within this report was conducted in partnership with GeoPoll. The authors also wish to thank the interviewees and focus group participants from India and Bangladesh who contributed their time and insights to help inform the analysis and recommendations of this report. Fieldwork was conducted by Nila Achia, Amrita Choudhury, and Geeti Patwal. Any errors remain the authors' alone.

Suggested citation: Alliance for Affordable Internet (2022). *The Costs of Exclusion: South Asia Regional Report*. Web Foundation.

This report, including the survey results, is made available under a Creative Commons Attribution 4.0 International ([CC BY 4.0](#)) licence. For media or other inquiries: press@webfoundation.org.



The **Alliance for Affordable Internet (A4AI)** is a global coalition working to drive down the cost of internet access in low- and middle-income countries through policy and regulatory reform. We bring together businesses, governments, and civil society actors from across the globe to deliver the policies needed to reduce the cost to connect and make universal, affordable internet access a reality for all.



The **World Wide Web Foundation** was established in 2009 by web inventor Sir Tim Berners-Lee and Rosemary Leith to advance the open web as a public good and a basic right. We are an independent, international organisation fighting for digital equality — a world where everyone can access the web and use it to improve their lives. The Foundation holds the secretariat of the Alliance for Affordable Internet.





Executive Summary

This report closes a three-part series on the economic consequences of the digital gender gap, the *Costs of Exclusion*. From this series, we have discovered that the costs are not just personal or economic – women’s exclusion has financial and societal implications for us all that should compel governments, businesses, or other stakeholders to act.

Our initial report estimated that 32 low- and lower-middle-income countries have lost out on roughly US\$1 trillion in GDP over the past decade (A4AI, 2021). This inequality is most stark in sub-Saharan Africa, partially profiled in our second report (A4AI, 2022), and in South Asia (GSMA, 2021), now the subject of this report, to call policymakers in these two regions to action.

This research series is an intentional meeting point between economic policy and gender equality. Its objective is to create new evidence for further policy advocacy that activates new allies in the coalition towards digital gender equality. Our fundamental point is that **this is not just a “women’s issue”: it is an economic imperative for governments looking to scale their digital economies.**

Fundamentally, policymakers need to know that:

- 1 **The digital divide is real – and it’s sexist.**
.....
- 2 **Closing the digital gender gap is good economic policy.**
.....
- 3 **Women already are achieving extraordinary things online: it simply happens too infrequently than it should.**
.....
- 4 **Instructive policy examples and sectoral initiatives exist across the globe on how governments can narrow the divide.**
.....

From our research, women are achieving extraordinary things online. However, many of those who have made this transition have benefited from other privileges within their background and speak to the continued marginalisation of women in society. Closing the digital gender gap will require intentional policy action that centres women’s experiences and addresses the specific barriers that can apply disproportionately or exclusively to women.

This report also shares results from our survey, among Indian women with a mobile phone, on the transformational influence of internet access. In our survey, a woman with internet access, no matter her educational background, was markedly more confident in finding information, all the way up to *seven times* more likely to be confident in finding a good price for something they wished to buy.

Beyond informational autonomy, women with internet access in our survey were more likely to participate in several parts of society. From using government services to looking for work, from taking a class to buying something, the internet has become a lifeline towards participation in society.

Our research documents the successes of the early adopters and describes the untapped potential in closing the digital gender gap. It is evident that millions of women and girls remain unconnected to the internet.

With economic imperative and a wide range of policy options, policymakers can — and must — act to accelerate women’s connectivity. The [REACT policy framework](#) has been a guiding resource in this direction. In this report, we highlight five policy interventions from across Asia to illustrate that action is possible.

Policymakers should:

- Protect and enhance everyone’s **rights** online.
- Use **education** to equip everyone – especially women – with the skills they need to access and use the web.
- Deliver affordable – or free – **access** to an open web.
- Ensure relevant and empowering **content** for women is available and used.
- Set and measure concrete gender equity **targets**.

We can close the digital gender gap – but only if we have the courage to act.



The Costs of Exclusion

Every year, more people around the world connect to the internet. Since 2019, the number of people connected has increased by 17%, and about 800 million people have come online in the past couple of years ([ITU, 2021](#)). 33 million of those people are women in South Asia. However, millions more remain unconnected around the world.

Roughly 63% of the world's population uses the internet. As more people come online every year, **men continue to come online at a faster rate than women. In turn, this maintains the digital gender gap over time.** The gender gap is more prevalent in some regions.

In South Asia, the average digital gender gap in 2018 was 137%, in 2020 it was 107%. Despite progress made, the digital gender gap in South Asia has been identified as one of the world's most stark divides ([GSMA, 2021](#)).



Closing the digital gender gap is **good economics**

As a result of this exclusion, low- and lower-middle-income countries lost \$1 trillion USD in GDP as a result of women's exclusion in the digital world in the past decade ([A4AI, 2021](#)). **The lesson is clear: leaving women unconnected has economical consequences for us all.**

Building a new narrative for gender equality

This report is part of a broader work that the Alliance for Affordable Internet (A4AI) has conducted since early 2021. This report is the third and last of a planned series to explore the economic consequences of keeping women offline and the benefits — both individual and societal — when women join the digital economy.

Together with the [first](#) and [second](#) report in the *Costs of Exclusion* series, this report builds to the initial narrative that **women's digital exclusion is too expensive for us to ignore. It comes with broad social, economic, and developmental consequences for us all — not just for those left offline.** This narrative is intended to activate new allies in the coalition towards digital gender equality.

This is not the end point for this trajectory of research and policy activity. Others have built on our *Costs of Exclusion* series to raise the case of what the internet means to economic development not only for women, but for everyone. It has become part of the policy arguments to encourage governments to act.

“Investing in a more inclusive digital future gives leaders a tremendous opportunity to promote economic growth while creating healthier societies by addressing inequalities in education and earning power.” (Guermazi, 2021)

.....

“Opportunities for women to develop digital skills and secure jobs brings opportunities to their community as well. Women tend to reinvest income into their families and communities at a higher rate than men.” (Unesco, 2022)

This research has contributed to the narrative around the world, from international projects to grassroots organising, traditional think tanks and innovative start-ups, including:

- [Partner2Connect](#)
- [Paradigm Initiative](#)
- [Wilson Center](#)
- [Digital Future Society](#)

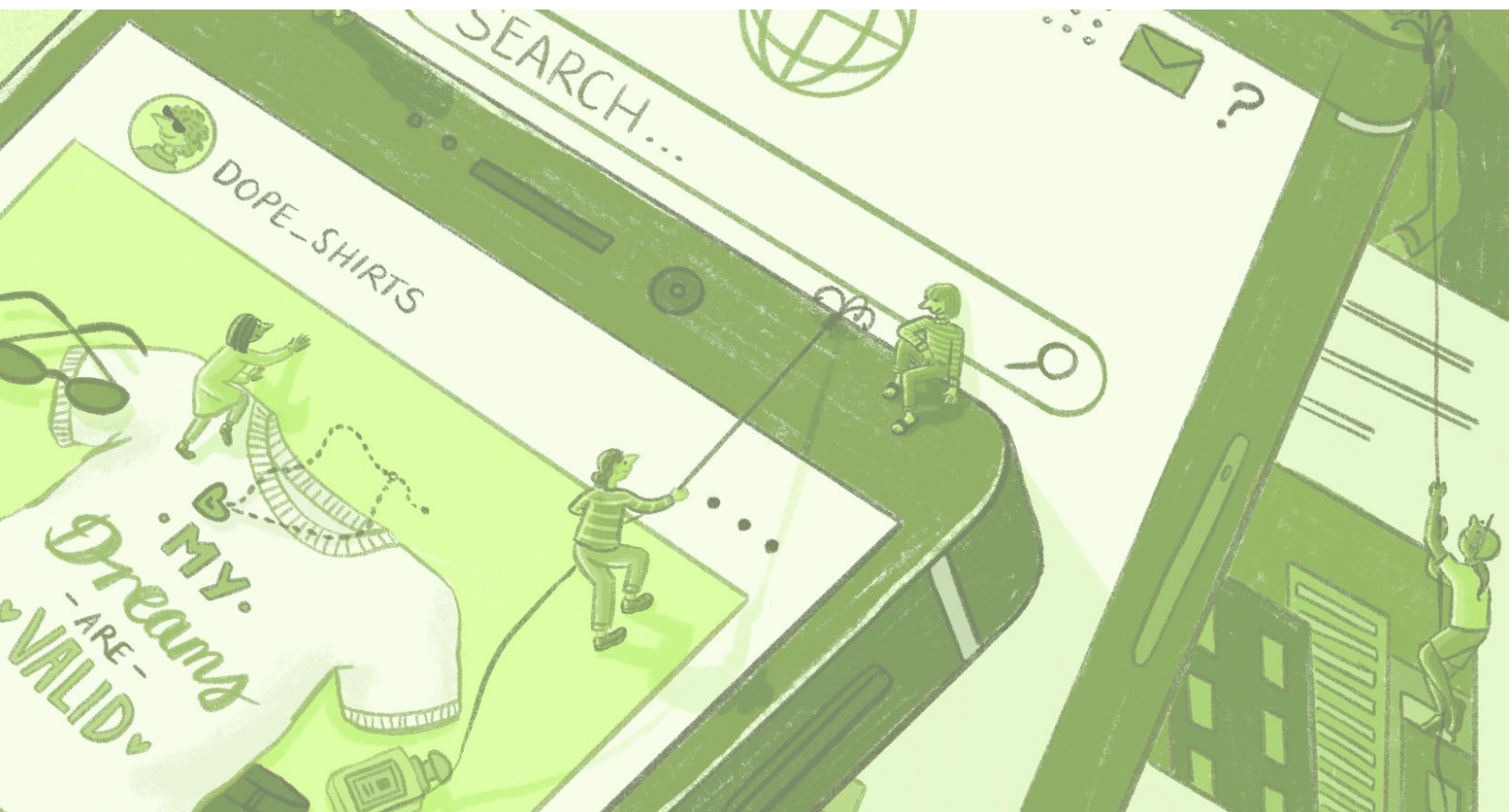
.....

“We will not achieve gender equality until we eliminate this digital gap that keeps so many women offline and away from the opportunities the internet provides.” (Mlambo-Ngcuka, 2021)

.....

“Based on current tax-to-GDP ratios in these countries, this loss represents an estimated US\$24.7 billion in lost tax revenue in 2020 and unless the gap significantly narrows, these countries will likely continue to lose billions more of economic activity (USD) each year if women continue to be excluded from the digital world.” (Addo Awadzi, 2022)

.....



Early success stories demonstrate the hidden societal value in **increasing women's access to the internet**

Today, women exist — in their multitudes — online just as they exist offline. Our focus group participants spoke of a wealth of experiences that women have online, in the context of the deep gender inequality (GSMA, 2021). They are chefs and personal trainers, spiritual leaders and medical professionals, dieticians and comedians, writers and musicians.

Some are living their dreams online, while others dream of what the internet could make possible for them in the future. Many are navigating the internet for the first time in the face of social, economic, and technological barriers. This section summarises their experiences and reflections.

Studying the gender gap through women's experiences

In addition to the mobile phone-based survey we conducted in India (details below), A4AI commissioned a number of focus group discussions and interviews in India and Bangladesh to understand more about the digital gender gap in these countries and the online experiences women have today, with a focus on the digital economy.

Women as online entrepreneurs

For women entrepreneurs, moving online is most commonly associated with the expanded marketplace enabled by e-commerce. The limitations of geography give way to the convenience of shipping and distribution networks and expands a vendor's potential clientele. One entrepreneur in India said: "The benefit [of being online] is that I can potentially sell to a customer in any part of the country." Another in Bangladesh details the process for her to make a long distance sale: "I can easily take pictures of samples and send it to my potential buyers for confirmation. ... It's these positive reviews from my customers that has boosted my business page and it has helped me significantly to improve business."

Through images, shipping, and digital payments, e-commerce has enabled women entrepreneurs to expand their businesses with lower capital costs and lower personal risks.

"In the future, I look forward to opening an online bakery as a freelancer."

- Participant in Delhi-based focus group

However, those that are able to make it as online entrepreneurs frequently have other social advantages — namely class, education, or family — that enable some women, but not all, to get online and get ahead. Across our focus groups and interviews with online women entrepreneurs in India and Bangladesh, many of those we talked shared a number of features. Their businesses, more often than not, required low capital investment — professional services and the like — that reduced the barrier to entry. **Those that were able to make it had access to personal benefits that enabled them to become exceptions to the norm.**

Many businesses replicated online from pre-existing spaces for women in their sector, and **this work was still governed in part by what was considered to be a reputable career for a woman.** This, in turn, exemplified the high precarity and low social protection that much of women's work holds in these countries. Forms of domestic and household labour, even when coordinated or enabled through an application, still leaves women on the economic margins.

Since I am a CS student, I know how to operate various devices and what ideas to implement to boost my business page. These skills have greatly come in handy.

– Most. Humayera Kabir Oshie, Bangla

Women's participation in e-commerce

Beyond the more active role of content creation and selling, women find opportunities in the proliferation of e-commerce as consumers.

A number of our focus group participants talked about the benefits of e-commerce, especially in the context of saving time and balancing other responsibilities.

"I think it's convenient that in less time one can access these services, the payments are faster as compared to when one has to physically visit the bank and get it done, so it's convenient"

– Pune focus group participant

"I have ordered online services a lot. If I have an option, I prefer online services, because it's convenient for me – be it to book cleaning service for the house, or to get an electrician. It is much easier than running around finding people."

– Delhi focus group participant

"I always prefer online shopping. It saves my time."

– Bangladesh focus group participant

However, this role is limited by a lack of initial trust in the new market, with new norms and new expectations for its participants.

"Usually if they [women as first time users] make any mistake online, they tend to go back to their original ways of getting services offline and whatever little confidence they have gained reduces to zero. So if they are taught the basics of how to adopt the services, use it then definitely it will help them to use services online."

– Pune focus group participant

Personal expression and beyond the marketplace

However, in their personal lives, women continue to exercise a large amount of caution when it comes to privacy and expression. This matches previous research from the Web Foundation that found that women in a number of low- and middle-income countries around the globe were more likely to be concerned about their privacy online than men and less likely to post content online (Web Foundation, 2020). Skills were a critical barrier to women's participation in the online world. As one focus group participant in Delhi said: "I'm a little worried that something might go wrong [online]. It is okay to use these features if one has a proper understanding; else it is risky. It is all about learning how to use it [the internet]."

Women reported major concerns with the abuse and misuse of their personal information to then target them. Many detailed a sensation of lacking control over the content they post once online. Because of this, many said they personally reduced and censored what they posted online. This extends from personal photographs to views on politics and religion. In the absence of structural controls that help protect these women from online threats of violence — on platforms, in law, and through social norms —, many are left with the enormous personal responsibility to defend themselves, typically by refraining from expressing themselves online. This lack of voices creates a negative feedback loop, where fewer women’s voices are present, therefore making those who do express themselves more vulnerable to targeting and malicious attacks.

“I do not feel confident while sharing my own opinions or perspectives on politics or religion. We’ve seen instances where mass levels of miscommunication as well as violence also erupts from certain posts. The Facebook environment of our country is very toxic at the moment. There’s cyber bullying, online harassment.”

– Bangladesh focus group participant

“I do not post personal stuff at least since the time of corona, I avoid it because in the past I had some negative experiences.”

– Pune focus group participant

“I do not post my opinions on the Internet on any matters because I am concerned about online trolling.”

– Pune focus group participant





When women connect, societies benefit

Closing the digital gender gap holds benefits not just for the individuals connected in the process but also for the communities in which they live.

Internet access has a positive influence on women's access to knowledge and participation (A4AI, 2022; A4AI, 2022). This trend illustrates the impact of greater connectivity not just for those women themselves but for countries as a whole in attaining the Sustainable Development Goals, in areas such as health, education, and economic participation. As such, closing the digital gender gap is not just a 'special interests' issue relevant to half the population: it has positive implications for us all.

We conducted a survey of 1,062 women across India with a mobile phone to understand more about internet use in that country and the impacts that it has. This works as a complement to the qualitative research conducted in India and Bangladesh. From this survey, we are able to tie together trends around internet access, informational autonomy, and social and economic participation at a macro scale. This enables us to demonstrate further that the benefits of internet access are not just personal: **societies benefit when more people are connected.**

.....

Education: a gateway to access?

Gaps in internet use exist according to education level. This is not unique to women; however, educational disparities mean that, as a general trend, someone who is well educated is, logically in turn, more likely to use the internet.

Our survey deepens our understanding of how the education gap interacts with the digital gender gap by understanding the differences we see in women's internet use based on educational level.

Interestingly, the education gap plays out in women's lives not just as an issue of skills but also as an infrastructure gap.

This gap starts from the device in their hands: in our survey, women with a secondary education or more were significantly more likely to own a smartphone rather than a more simple device. Among non-internet users, this difference grew as stark as a woman with a post-secondary education who did not use the internet being five times more likely to own a smartphone than her peer who did not complete secondary school.¹

Several issues intersect on this correlation. It is likely that class plays a factor in that having the income for one increases the odds that someone can afford the other. Additionally, a woman coming from a background that is more supportive of women's education through secondary school may also be more supportive of women's use of ICTs in general. These inputs – education, class, and social background – all contribute to the 'cumulative effect' of the digital gender gap mentioned in the [inaugural Costs of Exclusion report](#) and manifest in this single measure of device ownership.

¹ Among survey respondents who did not use the internet, 5.6% of those with less than secondary education had a smartphone while 31.3% of those with a post-secondary education did.

Understanding from access to use: Survey of Indian women with mobile phones

To understand the benefits of internet access for women in South Asia, A4AI and the Web Foundation carried out computer-assisted telephone interviews (CATI) in India with 1,062 respondents, all women who own mobile phones. As part of the survey, we spoke to 718 women who use the internet and 344 who do not. Women with internet access articulated the many ways an internet connection improves their lives and those that can not benefit from connectivity yet shared the main barriers that keep them offline and the difficulties they faced as a result of their lack of internet access.

The methodology does not allow for a fully representative sample of the experience of all women in India. As a limitation of conducting quantitative research in the context of the Covid-19 pandemic, a telephone survey was selected as a suitable approach for this research around Indian women's use of mobile phones and the internet. Naturally, because our survey was conducted over the phone, this excludes anyone without a phone from responding. A recent estimate from the Pew Research Center suggests around 17% of Indians do not own a mobile phone ([Pew, 2019](#)).

Our survey sample was designed to give a broadly representative picture of the experiences of Indian women with mobile phones. Our sampling frame was set for representative samples according to different regions across the country and of the urban/rural divide ([IAMAI, 2020](#)). Soft controls were implemented to ensure that no group was substantially oversample or undersampled by educational background. This allows for a broad sampling of the experiences from a wide cross-section of Indian society.

Some limitations apply to our survey and its methodology. Rather than attempting to match quotas to internet use percentages among women with mobile phones, 68% of the respondents were internet users while the remaining 32% were not. This heavily oversamples the estimated percentage of women who use the internet. However, this approach allows for greater depth and detail in the variety of online experiences that women have when they connect to the internet, allowing for greater potential analysis of the benefits of internet access once online.

In addition, our sample includes a much higher proportion of individuals with secondary and tertiary degrees. This means our sample's averages reflect a higher level of educational attainment than a nationally representative sample likely would look like. This may have an impact that biases some of the results, particularly around informational autonomy or activities conducted online. However, where possible, steps are taken to reduce this bias' potential impact, which are described below.



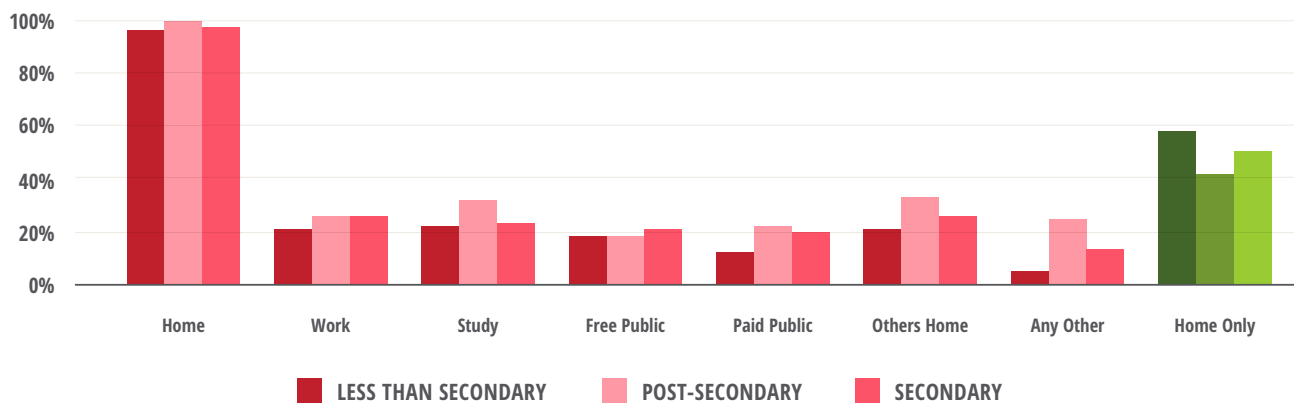
In addition to devices, disparities in women’s use of the internet in different spaces also runs along educational lines.

Internet access at home remains a crucial connection point: among internet users in our survey, 97.6% of them connect from home, with over 95% across all educational backgrounds doing so. Internet use in other areas — work, a place of study, public WiFi spots, and other locations — rapidly drops.

These reductions are faster and more evident among women without a secondary education. However, interestingly, this trend is not just reserved for public spaces: a large gap appears among internet users when prompted about internet use at someone else’s home. In each location we measured, a woman with a secondary education was more likely to use the internet than a woman without such an education.

This infrastructure gap demonstrates not just a cumulative effect that amounts to the digital gender gap but a compounding consequence. Where education, class, and social background contribute to this infrastructure gap, both in devices and in access points, this gap in turn reinforces social norms that discourage women from using ICTs. **By creating the evidence that, in general, only well educated or rich women (or any other specific class of women) are using the internet, this infrastructure gap creates the myth that only some women should use the internet.**

Figure 1. Internet use by location and education



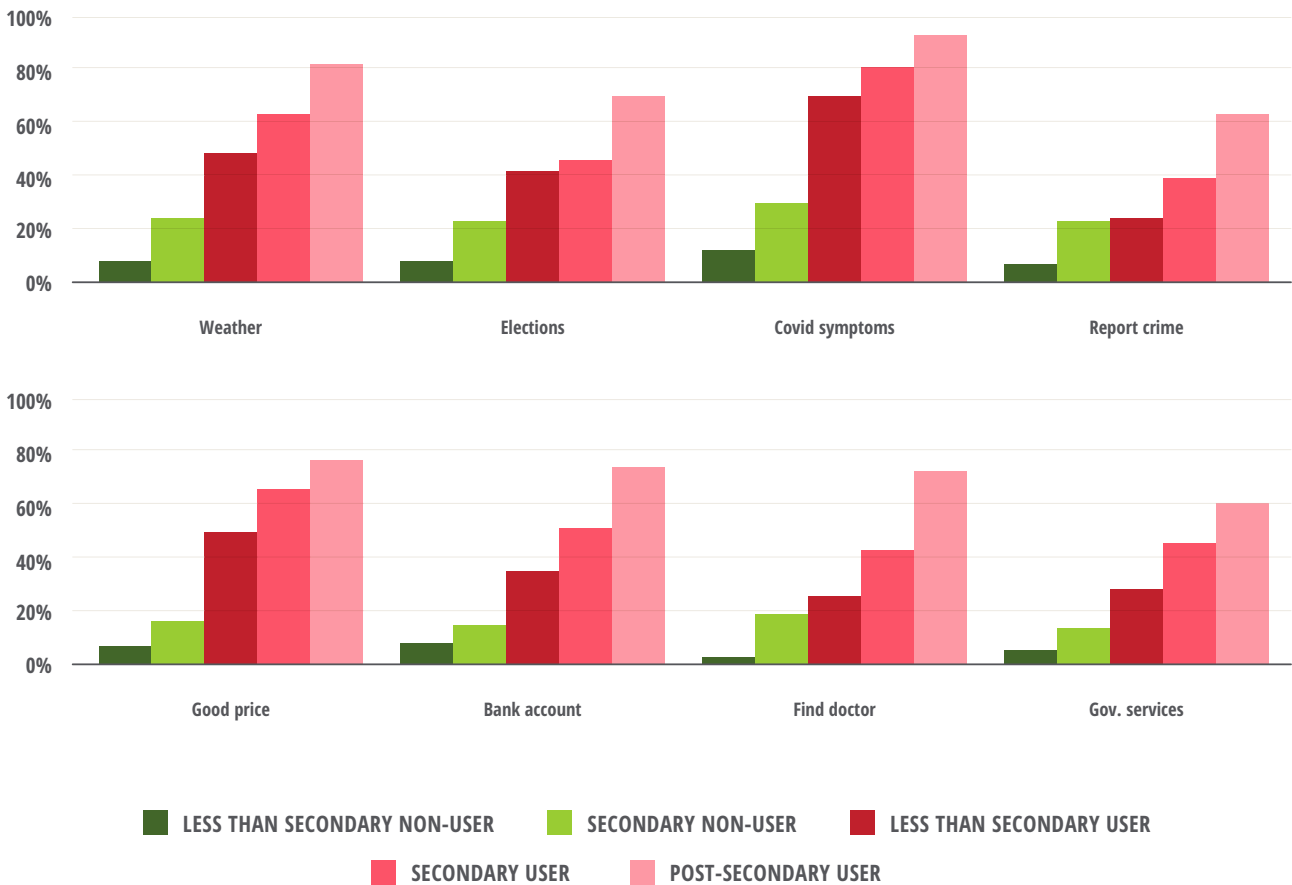
Source: Alliance for Affordable Internet, 2022

From access, knowledge and participation

In confronting the digital gender gap, countries unlock the potential to accelerate their achievement on a number of social, economic, and developmental indicators. This comes from the internet’s capacity to empower people to find more information and to participate more widely in their communities. This theory remains true among our survey respondents, too.

Across a wide array of topics, women who used the internet felt more confident about finding information than their unconnected peers did. This remains true even when controlling for education, and interestingly, internet access correlates with an informational ‘leap-frogging’ effect where women without a secondary education who use the internet were more confident in finding a piece of information in each of our nine prompts compared to women with post-secondary qualifications who did not use the internet.

Figure 2. User confidence in finding information, by internet use and education²



Source: Alliance for Affordable Internet, 2022

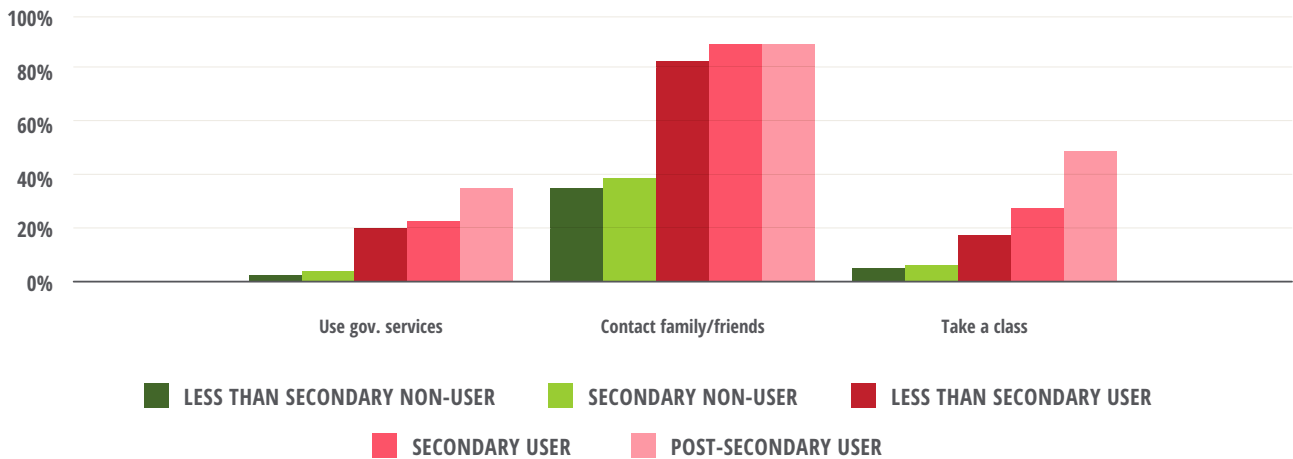
Closing these informational gaps can help societies achieve a number of policy goals. An example would be the public health objectives that are aided by the availability of information through the internet. Internet users in our survey were over four times more likely to know how to identify the symptoms of Covid-19 than someone unconnected. The availability of this information not only helps people protect themselves but also creates social benefits in lower transmission rates across the population. This is just one example where greater public access to information aids the achievement of broader societal goals.

In addition to access to information, internet use also correlated with greater social participation. This matches with the reporting from the recent [A4AI report on Meaningful Connectivity](#). In our survey, women who used the internet were six times more likely to have taken a class and eight times more likely to have used government services than their offline peers.

This evidence connects greater internet use with broader goals around education and civic engagement. Where we can close the digital gender gap, we can also create better conditions to close disparities in education, health, and political participation.

² Due to small sample size, we are not reporting the survey result for respondents who do not use the internet but have a post-secondary qualification.

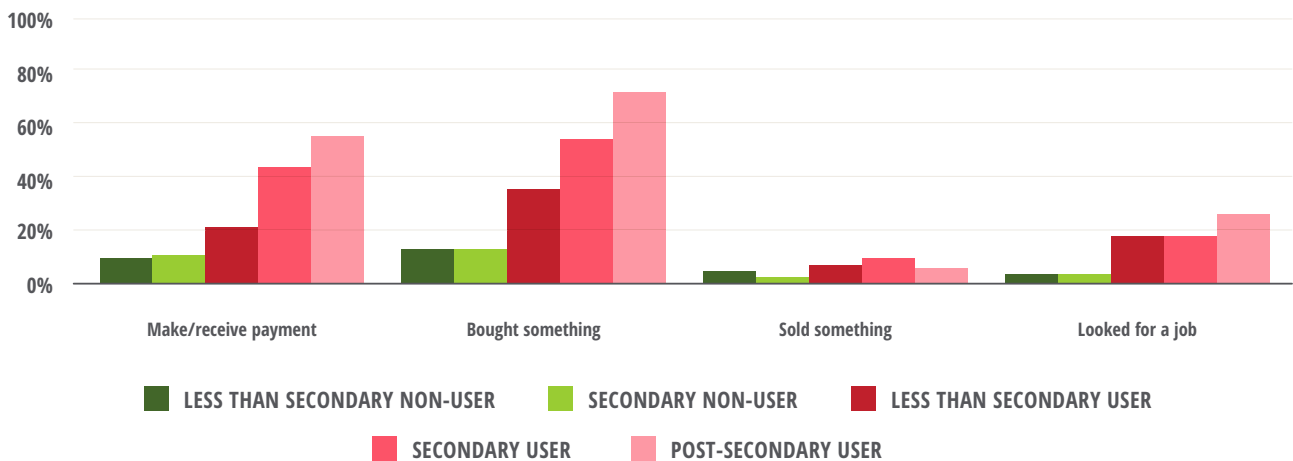
Figure 3. Social participation chart, by internet use and education



Source: Alliance for Affordable Internet, 2022

In addition to social participation, greater internet use correlated with substantial shifts in economic participation by the women we surveyed. Among those who used the internet, they were four times more likely to have made or received a payment, nearly six times more likely to have purchased something, twice as likely to have sold something, and **nearly six times more likely to have looked for a job than those who did not use the internet**. Again, these factors held across educational backgrounds.

Figure 4. Economic participation, by internet use and education



Source: Alliance for Affordable Internet, 2022

The consistency of these indicators supports the idea that greater connectivity is a foundational issue for an inclusive and scalable digital economy. Without women’s participation, the digital economy will be limited in its reach and capacity to generate wealth. In addition, if connectivity remains a privilege for only the wealthy or otherwise advantaged, advances in the digital economy become a replicator of the economic inequalities that exist today.

This belies the importance of closing the digital gender gap: without universal internet access, this technology becomes an agent of inequality rather than prosperity. **If governments fail to connect the unconnected, not only do they cut the economic horizon short, they will reserve the benefits of that growth to a select few.**



Closing the digital gender gap requires **policy interventions**

To date, change is too slow. Policy interventions have fallen short — where they even exist in the first place.

The Costs of Exclusion research project started with a measurement of the impact of digital gender inequality over the past decade. Because of the gap in internet use between men and women across 32 low and lower-middle income countries, an estimated \$1 trillion USD has been lost in GDP as women's connectivity has consistently lagged behind men's (A4AI, 2021). This gap grew — and remains — because governments have been too hesitant to prioritise women's connectivity.

A lack of gender-responsive broadband policy interventions has a cost for us all. For societies, women's knowledge is marginalised and omitted from the world's largest information resource and misses out on potential innovations and discoveries in science, technology, the arts, and humanities. For governments and economies, this marginalisation and omission has a financial cost as well. For women themselves, they are increasingly excluded not just from what happens online but from larger parts of the world as more of it moves to the internet. Policymakers across the sector must act — not simply because it's the morally just thing to do, but because the missed economic and societal opportunities that inaction are too expensive to ignore.

To act, policymakers should focus their action across the five pillars of the REACT framework (Web Foundation, 2016). This includes interventions in favour of women's rights, advancements in digital skills and affordable infrastructure, and the development of relevant content in the languages that today's unconnected and under-connected women speak. Interventions must holistically address this range of issues to make progress towards digital gender equality.

.....



Policy action is possible — and necessary. There are proven examples throughout the region

Governments need to act to close the digital gender gap and to build the inclusive foundations for a digital economy that can realistically scale.

To do this, we recommend the [REACT](#) policy framework. It focuses on five pillars: rights, education, access, content, and targets. Each is important in their own right, and in complement to each other, policymakers can take progressive steps towards accelerating women's connectivity and reducing digital inequalities.

A number of instructive examples from across the continent can guide policymakers.

Example policy interventions to close the digital gender gap

RIGHTS

Protect and enhance everyone's rights online.



MALAYSIA

Data protection for online consumers

Online consumers in Malaysia are protected by a broad [Personal Data Protection Act](#), which has been in effect since 2013. The legislation prohibits the processing of someone's personal data without their consent and was key to [bolstering consumer confidence in the online marketplace](#). Legislation like this helps protect users' privacy and increases trust in the digital economy.

EDUCATION

Use education to equip everyone – especially women – with the skills they need to access and use the web.



BANGLADESH

Women-led skill-sharing and education

Organisations like [Women in Digital](#), based in Bangladesh, provide opportunities for women and girls to develop their digital literacy and learn applicable skills for participation in the digital economy. Targeted interventions like workshops by this organisation break down gender disparities and reduce the digital skills barrier to an inclusive digital economy.

ACCESS

Deliver affordable — or free — access to an open web.



PHILIPPINES

Making public access centres open to all

Started in 2015, the Department of ICT has established a network of public ICT centres, with a priority for the unserved and underserved communities, known as Tech4ED centres. Recent estimates have over 4,700+ centres across the country. The project has won international awards for its success. Importantly, gender data has been collected through the project's history and in 2019, a majority of its beneficiaries were women.

CONTENT

Ensure relevant and empowering content for women is available and used.



INDIA

Gender-inclusive universal service projects

Through Sanchar Shakti, the Universal Service Obligation Fund (USOF) engaged with pre-existing self-help groups that support women's personal social and economic advancement. The Fund was able to develop tailored solutions that addressed not just the traditional infrastructural gaps but also skills development, economic participation, and e-services.

TARGETS

Set and measure concrete gender-equity targets.



NEPAL

Embedding gender targets in strategy

The Digital Nepal Framework – a comprehensive broadband strategy that earned the country high marks in the 2020 Affordability Report – includes a range of gender-equitable targets. The framework includes not only targets around gender equity, in subjects such as tertiary education, but also illustrates women's initiatives as projects for digital advancement through the country's digital strategy.

These examples offer five initial steps using the REACT framework towards digital gender equality.

No single policy will cover all aspects of inequality, nor will equality be achieved overnight.

A comprehensive policy program — designed with women's groups at the table — is required to close the digital gender gap across the region.

Policymakers and regulators should engage transparently with the private sector, across different government departments, and with civil society that ensures that women's and girls' voices are heard.

The cost of not doing so is too large to ignore.

.....

Notes:

A global coalition
working to make
broadband
affordable for all



Alliance for Affordable Internet | 1100 13th St NW, Suite 800, Washington DC 20005

www.a4ai.org | Twitter: @a4a_internet

