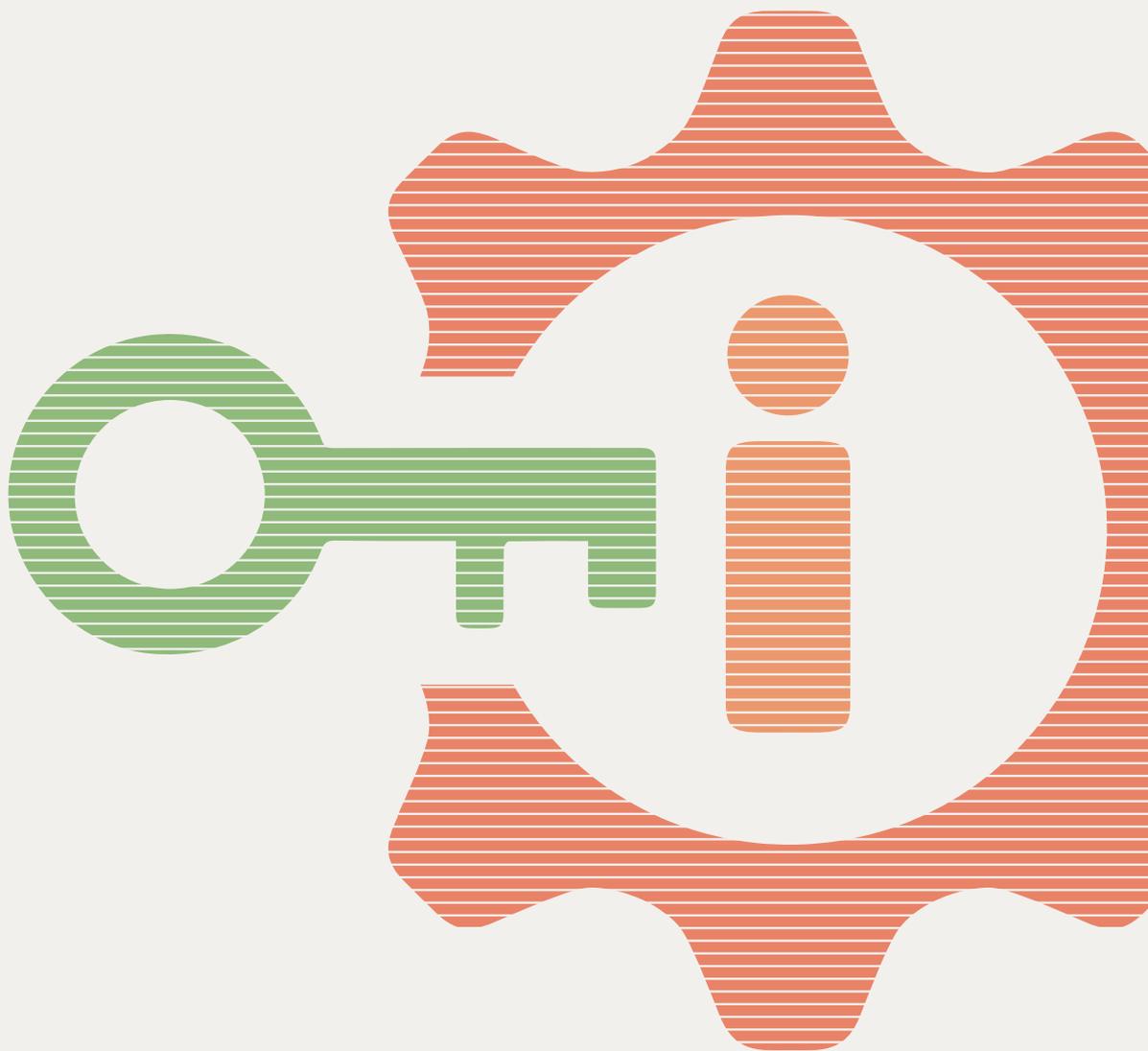




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Chapter 5:

A2I for Gender Equality

How access to information empowers women and girls

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“Paradoxically, while women may be least likely to demand and receive access to information, they are perhaps most in need of it” (Neuman, 2016, 83).

Access to information is intrinsically linked to the realization of United Nations Sustainable Development Goal 5: Gender Equality and Empowerment of Women and Girls, and in turn contributes to the achievement of other SDGs. Access to information, as defined in this report, entails an enabling environment that allows individuals to access, use, and share information and further develop their capabilities to apply this information meaningfully in their everyday lives. The development of their capabilities is key to their equality and empowerment, the objective of Goal 5, while the overall focus of the SDGs is on empowering the poorest and hardest to reach. In terms of equality, empowerment, and access to information, girls and women in less developed countries are those who have the least and need the most. Girls’ and women’s increased access to information will not only contribute to their empowerment but will also have a beneficial impact on society as a whole.

Under the Millennium Development Goals, significant progress was made toward girls’ and women’s access to information, particularly through information and communication technology (ICT), which has the power to reach females nearly everywhere. The International Telecommunication Union has a goal of gender equality in internet users by 2020. Near equality toward this goal has been reached in most developed countries, particularly in northern Europe and North America, while the global internet user gender gap is actually increasing (growing from 11 percent in 2013 to 12 percent in 2016). Least Developed Countries have the largest gender gap at 31 percent, with Africa experiencing the biggest regional gap (23 percent, ITU, 2016b). Severe gender gaps remain in less developed countries, with differences in education and income as major contributing factors. Women in less developed countries also fall behind in ICT skills at all levels (ITU, 2016b).

Mobile phones have become increasingly the most accessible and ubiquitous sources of information and communication in the world today. In nearly every country for which data is available, fewer women than men own mobile phones. The gender gap in both mobile phone usage and ownership is largest for women in Least Developed Countries, which are also the least connected. The disparity is greatest in ownership, which has important implications for girls’ and women’s access to information as well as independence and autonomy, all measures of gender equality (ITU, 2016b).¹

This chapter will look at the benefits of increased access to information for girls and women as well as the ways in which this access can benefit society as a whole. It will examine the numerous obstacles that females face in many realms in their quest for information. It will then provide examples of best practices in information provision for and utilization by girls and women, with particular emphasis on the multiple ways in which libraries in less developed countries are assisting gendered access to information. It concludes with recommendations to ensure the contribution of improved and increased access to information toward the achievement of United Nations Sustainable Development Goal 5: Achieve Gender Equality and the Empowerment of Women and Girls.



There is a **gender gap** in Internet access, as well as **mobile phone ownership** and digital skills.

The Internet access gap is growing worldwide, and is highest in Africa.



5.1 Benefits of girls' and women's increased access to information

The benefits to girls and women of increased access to information are myriad and far-reaching on both individual and collective levels and in many realms – social, economic, and political. These include:

On the individual level

- Resources for themselves, their families, their work, and their communities
- Reduced isolation and increased self-esteem
- Information to carry out their productive, reproductive, and community roles
- Access to health information for themselves and their families
- Tools to conduct their businesses and to compete in the knowledge society of a digital world
- A voice in their lives, their communities, their governments, and the larger world that shares their issues and problems
- Self-development through pursuits of their own choice
- Increased personal freedom and development through utilization of their capabilities



500M women worldwide are **illiterate**. **99%** of these live in developing countries.

At the societal level

- Overall economic and social development. There is a strong correlation between economic development and the exercise of women's rights, including the human right to information (Duflo, 2012).
- Decrease in poverty.
- Increased food security in less developed countries.
- Improved health and education, capacity building, and cultural transformation for women and their families (Terry & Gomez, 2011).
- Greater social and economic inclusivity.

In the 21st century, simply having access to information will not automatically lead to women's empowerment and equality with men. The most important part of information access has become the capability to use it. UNESCO's Global Media and Information Literacy (MIL) Assessment Framework (2015), emphasizes the need for multiple literacies: information, media, ICT, and digital. The MIL approach is very much in line with Amartya Sen's capability approach (1999) emphasizing the individual's need to exercise effective choice. Girls and women need the ability to make the effective choice to utilize those resources on their own behalf,

despite socioeconomic, cultural and political constraints (Nussbaum, 2000).

5.2 Obstacles to girls' and women's access to information

In recent years, girls and women worldwide have made substantial progress toward increased access to information and achieved varying degrees of improvement to their desire, skills, and knowledge to utilize information. Yet they still face a wide range of obstacles that prevent their access and effective use. These barriers are most prevalent in the continued pervasiveness of sociocultural obstacles. Some are general to all forms of information seeking while others are specific to the access and use of ICTs. All these barriers have to be taken into account as girls and women seek to effectively utilize information.

5.2.1 Sociocultural obstacles

Perhaps the most widespread obstacles, most prevalent in but not limited to less developed countries, are social and cultural issues. These obstacles, often embedded in customary law, span a broad range from outright patriarchy to paternalism and gender stereotypes that limit girls' and women's access to and use of information. They appear at the societal level as well as in the family and can include physical violence against women and denial of the right to use technology, the prevention of women from leaving home without permission to seek information, families favoring the education of boys and giving boys preferential use of ICTs, and many other barriers. These obstacles are so numerous and with such variation between cultures that it is difficult to list them all.

Among some of the aspects of patriarchy and paternalism that affect girls' and women's access to information are male attitudes that women need their permission to leave the house to seek it. In Guatemala, Liberia, and Bangladesh, Neuman showed that the majority of men shared that belief and that women feared reprisal from both their families and authorities by seeking information. Women seeking information also suffered from negative attitudes of men in public office, leaving them afraid to ask for it (2016). The control also extended to women attending literacy classes. "The problem is like some men don't believe that the women are going to the seminars ... they think they are going somewhere different" (Jones, 2009, 127).

5.2.2 Gender biases and stereotypes

Gender biases toward women studying or using information technology abound. Throughout the world, there are problems in attracting young women to science and technology studies. Often (predominantly male) math and science teachers, particularly but not exclusively in less developed countries, hold outmoded

views that girls can't think or work scientifically and that science is too mechanical and technical for girls, thus discouraging female students. Girls are frequently encouraged to take any job or get married rather than seek higher education.

Other gender stereotypes can get in the way of schoolgirls and information access. In Uganda, girls did not get access to the limited number of machines installed in school computer labs because of the sociocultural norm that "girls do not run." As a result, boys ran and got to the computers first and refused to give them up to girls. In addition, earlier curfew hours for girls at boarding schools further constrained their use (Gadio, 2001). Many girls and women either cannot use the internet or get the last opportunity to access it when it is available in the home, and girls are given less exposure to it than boys in school. In India in the well-known "hole in the wall" experiment, the aggressiveness of boys pushing away girls prevented the girls from using the computers (Mitra & Rana, 2001).

5.2.3 Negative attitudes about women and technology

In a training program on ICT basics for men and women from rural farming communities near Cajamarca, Peru, men mocked the women who undertook information technology training with men, saying that computers were for men, not women (Hafkin, 2002a). In Mankosi, South Africa, women were central to the establishment and operation of a community telecommunications network, but their contribution was not recognized because it was somehow considered part of their domestic duties (Hussen & Bidwell et al., 2016).

5.2.4 Control and violence

In recent years, increasing incidents have been reported of control and violence against women as a result of their use of mobile phones. Women informants in a Research ICT Africa study reported that their partners controlled and/or limited their telephone use. Domestic violence has resulted when men have become jealous or suspicious when their wives or girlfriends use or own mobile phones, when women monitor men's call logs, or when they answer their mobiles (Wakunuma, 2007; Gillwald, 2008).

5.2.5 Infrastructure and location

In virtually all of the less developed countries, information and communications infrastructure is weaker and less available in rural and poor urban areas, where women are the majority of residents. In many of the less developed countries, internet connectivity is frequently available and affordable only within capital and major secondary cities, while most women live outside these cities (UNIFEM and UNU/TECH, 2000). Women's lesser access to information applies to the

location of libraries, telecentres, and cell towers as well. Although this is changing with greater awareness, there are few brick-and-mortar libraries offering full services to women in rural areas of less developed countries.

5.2.6 Hours and availability

For both social and financial reasons, women's mobility is more limited than that of men. Women's multiple roles and domestic burdens afford them less time to utilize public access facilities. Information centers or cybercafés are frequently located in places that women may not be comfortable frequenting and open only when it is problematic for women to visit them and return safely to their homes. In general, libraries are more comfortable and offer better hours for women to visit.

5.2.7 Education and skills

Education: Lack of education clearly limits girls' and women's access to information. Two-thirds of the world's illiterates, numbering about 500 million, are female, and 99 percent of these are found in less developed countries, a share that has held steady since 1990 despite increasing rates of primary school education for girls. In Eastern and Western Asia, females make up nearly three-quarters of the illiterate population (United Nations, 2015).

Digital skills: Women in general have lower levels of digital skills than men, for a number of reasons that include technophobia. The Web Foundation reports that women are 1.6 times more likely than men to report lack of skills as a barrier to internet use (World Wide Web Foundation, 2015). These conclusions are generally accepted but difficult to document. Sex-disaggregated information on digital skills has been largely absent from international standard statistics, except for those of the more developed countries and economies, and has been very difficult to collect (UNCTAD, 2014).

Lack of content

Although efforts are underway to correct its absence, there remains little available content (printed and in ICT form) that meets the information needs of women in less developed countries, especially in languages that they read (for those who are literate). The content issue is closely related to that of language.

Language barriers

The major languages of information on the internet are English, Chinese, Spanish, Arabic, and Portuguese. Many women in less developed countries neither read nor speak these languages, and few information materials are available in topics of interest that meet the needs of women speaking and reading other languages. Character representation is also a problem: It may be difficult to access information if you read a language not written in Latin script, such as Amharic or Hindi.

These problems all pose limitations to girls' and women's access to information.

5.2.8 Financial obstacles

With libraries being the exception, most information and communication facilities cost money to use. Women are less likely than men to have the disposable income to do so, or hesitate to use family food, education, child-care and clothing resources for information. Comprising the largest percentage of those living in poverty, many women in less developed countries lack money for transport to access information, for public information fees, photocopying, books, and cellphone time. Women are also less likely than men to own radios and televisions, mobile phones, or computers, or to access them when they want to, in the case of household possession of the technology.

5.2.9 Policy constraints

The lack of gender awareness in information policy and projects also constrains girls' and women's access to information. Gender analysis of national policies is more often absent than present. In ICT policy, policymakers often lack knowledge of gender aspects of technical issues, on one hand, and, on the other, gender advocates are frequently unaware of information technology issues. The lack of attention to gender issues in ICT often arises from the attitude that technology is gender-neutral, and therefore people assume that the provision of the technology will benefit males and females equally. Numerous studies have shown that this is not the case, and that women do not benefit equitably from ICT and development projects without specific gender analysis and efforts (Hafkin, 2002b).

5.3 New obstacles and the need for information literacy

New challenges to access and effective use have emerged, underlining the necessity of increasing levels of information literacy. These affect both men and women, but the challenges are often greater for women because their past information isolation leaves them less equipped to deal with these challenges. Primary among the new challenges is the emergence of siloed alternate realities: the increasing appearance of "alternate facts" and "fake news" that requires all people to have higher levels of media and information literacy. Just as more and more females have gained access to information media and learned to use them, the bar to their effective use has been raised, as the beneficial use of information requires a higher level of capability in the 21st century.

Realization of media and information literacy is not widespread among women in less developed countries. Girls and women have made a dramatic uptake of mobile phones that are used mostly for voice and

messaging rather than for accessing, understanding, using, and sharing information. Mobile phone usage has increased most dramatically in Africa, with women comprising the largest number of users in some countries. While women hawkers and vendors in South Africa made heavy use of mobile phones for communication on business matters, none used the phones to search for business-related information (Jiyane & Mostert, 2010). Schoolgirls in less developed countries are heavy mobile phone users, but few use them to access education-related information (Porter & Hampshire, 2015).

5.4 Libraries at the forefront

Having seen the possible benefits of increased access to information for girls and women, as well as the personal, family, communal, and societal benefits that could accrue from it, we can look at gender outreach and education efforts undertaken by libraries that are contributing to meeting this objective in less developed countries.

Research shows that libraries may be more successful than other information access sources in reaching girls and women. Libraries in less developed countries serve more females than telecentres and cybercafés (Say et al., 2013), and libraries in general have smaller differences in the gender distribution of users than other public access venues (Gomez, 2012). The key element in libraries' success appears to be their active outreach to girls and women and the assistance they render. Cybercafés that only offer access to technology have the fewest women users.

Libraries have a number of advantages over other information venues in providing access and promoting use among girls and women. Libraries maintain a wealth of information resources – books, periodicals, journals, and audio-visual materials (CDs, DVDs, etc.), as well as increasing availability of multiple forms of access to ICT. Internet access in libraries is generally free, and people can access books, documents, periodicals, and databases in-library or remotely through websites. Libraries often offer mobile services, bringing their materials to communities rather than requiring travel to a central location, and delivering information via specialized libraries, such as the WHO Blue Trunk Libraries for health information in remote areas (WHO, n.d.). Libraries are perceived as safe, reliable, and affordable, often with trained female staff that can help in places where it is not always appropriate for females to interact with males (Jones, 2009). Librarians serve as invaluable infomediaries to guide those with little experience in accessing information and/or using ICTs. They also frequently offer training in use of multiple varieties of information services, as well as other information activities, while other venues and media tend to specialize in one type of information and means of access.

There are many examples where libraries in less developed countries are doing an exemplary job for women's equality and empowerment through their information initiatives. They are notable for their outreach efforts to diverse groups of girls and women, the variety of materials and modes of access that they employ, and the provision of most all of their services without cost. The drawback to these advantages is that libraries are few and far between in the areas where girls and women need them most – in less developed countries and particularly in rural areas.

5.4.1 Proactive community libraries

Many community libraries around the world are examples of proactive libraries that openly recruit previously marginalized women and those with few information resources and serve their needs, resulting in measurable increases in their empowerment and equality with men in their community. A stellar example is the *infocentros* of Chile (Kleine, 2013).

The “Algun” (not its actual name) *Infocentro* in Araucanía province of Chile, 600 kilometers south of Santiago, is part of BiblioRedes, Chile's national network of some 400 library-based *infocentros*. The *infocentros* approach to capabilities and the development of freedom has had important implications for women's empowerment.

Infocentros offer free public non-commercial access to the internet. Special efforts are made to ensure gender balance among participants, encouraging men as well as women to use their services, since most of the users were women at first. While overall internet users became equally divided between men and women, 65 percent of those enrolled in the free information technology classes were women. By design, women, young adults, and the poor receive preferential access to all BiblioRedes services. The aim was to provide a safe, secure, and non-judgmental space for information gathering. People had the freedom to use the technology to do whatever they perceived as valuable. The service actively sought to extend the capabilities of less advantaged people, the majority of whom were women.

Infocentros are women-friendly, as opposed to cybercafés, where majority of users are male. Access is provided for wheelchairs and baby strollers. Female users can talk and help each other as well as get help from the (most often) female directors of the centers, in a way that they couldn't from and with men. The center becomes a meeting place for women where they use their social resources for information empowerment:

Making use of their social resources, women were able to negotiate the changed social structure to achieve certain choices, and thus women were more able than men locked into the *machismo* cultural norms to make more use of ICTs (Kleine, p.124).

Chile's *infocentros* won the 2006 Stockholm Challenge Award for creating a network that delivered free digital literacy classes to 220,000, served 6 million internet users, and brought about the development of municipal websites with local content in 3,000 localities (Biblioteca Nacional de Chile, 2006).



Women are **1.6 times more likely** than men to see **lack of skills** as a barrier to Internet use.

5.5 Recommendations to achieve Goal 5

While there is increasing frequency of girls' and women's successful access to and use of information toward their empowerment and equality, the obstacles to achievement of Goal 5 continue to present challenges for perhaps the majority of women in less developed countries. The following recommendations are presented in order to overcome these obstacles and accelerate the achievement of SDG Goal 5.

Strengthen existing libraries and create new ones

Many public and community libraries in less developed countries deliver comprehensive and accessible library and information services, especially for girls and women. These libraries offer girls and women information opportunities that can help them improve their lives and those of their families, empower themselves, and advance gender equality. They provide safe places where women feel comfortable going to read, pursue learning, access computers and the internet, undertake technology training, and talk with other women. However, their numbers are insufficient to tackle the enormity of the need.

Libraries should follow the principles of serving first those who need the most but now have the least. Their outreach to girls and women should prioritize information initiatives that involve ICT access and training as well as critical thinking. They can be especially crucial in increasing food security by working with women farmers in less developed countries to increase their access and use of information for enhanced food production (Ikoja-Odongo, 2008).

Promote national gender-sensitive and aware information and ICT policies

Engendering information and ICT policies is an area of great importance, perhaps the most important in

Table 3: Gender Information Indicators in the SDGs

Gender information indicators	Source
Proportion of individuals who own a mobile telephone, by sex *	ITU
Female internet users as a percentage of population	ITU
Proportion of youth/adults with ICT skills, by type of skills and sex *	ITU
Gender Inequality Index	UNDP
Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills by sex, gender, wealth *	UNESCO
* Indicators with limited availability of gender-disaggregated data.	

securing the benefits of the information age for girls and women. If gender issues are not articulated in information policy, it is unlikely that girls and women will reap the benefits of the Knowledge Society. Explicit attention is needed to ensure consideration of gender in policy through a requirement for gender analysis in the elaboration, implementation, and evaluation of information policies.

Gather data required for informed policy

Informed policy must be based on good data. However, few of the less developed countries collect and publish sex-disaggregated data on information access and use (UNCTAD, 2014). The global community needs to support the collection of sex-disaggregated information data, in particular the following SDG indicators on information related to Goal 5. However, an adequate amount of gender-disaggregated data is only available for two of the five key gender information indicators selected to track progress toward the SDGs.

In line with the linkage of information to gender equality, the global collection of data on the United Nations Minimum Set of Gender Indicators (United Nations, 2016) should also be strongly supported. International comparative gender and development indexes including the Gender Inequality Index (UNDP, 2015), which is part of the UNDP Human Development Report, are excellent sources. The Gender Equality in the Knowledge Society national assessments attempt to identify and measure the multiple factors that impede or promote women in the Knowledge Society (WISAT, 2017).

Increase information resources

Create more relevant content: Creation of more relevant and appropriate content is needed, particularly local content in local languages, especially by women for women and in formats that women can understand.

Topics can cover health, sexuality and reproduction, agriculture, income generation, and women’s rights, as well as content that allows women access to full freedom of choice and development of their capabilities. Written and audio-visual materials available in libraries and community centers as well as web-based materials are important in this regard.

Support development of mobile education:

Libraries need to be involved in use of mobile phones for education and information, especially to supplement education of girls in schools and provide education for those who have dropped out or are otherwise unable to attend school. Mobile phones have the potential to substantially expand learning opportunities, particularly outside of the formal education setting, but despite their widespread acquisition by girls in less developed countries, to date they have been used little for knowledge seeking. Libraries could help make mobile education and information materials easily available and encourage their utilization.

Promote Media and Information literacy (MIL) for girls and women

Higher-level information seeking and using skills:

Besides learning, MIL includes development of critical thinking and interpretation capacities and promotes social inclusion and human rights. It involves training in higher information literacy – the ability to use and judge sources, distinguish between fact and “alternative facts” and real and “fake” news, and recognize scams, and the discernment to disregard conspiracy theories (BBC, 2017). MIL is of particular importance to girls and women to secure the benefits of full participation in the Knowledge Society. Training in this area should be promoted.

Higher-level digital skills: Facilitating women’s access to and use of the internet is the first step to overcome the large digital gender gap in less developed

countries. To reach the ITU goal of gender equality in internet use, special attention is needed to bring the internet to girls and women and to ameliorate the digital skill gap, particularly for higher-level skills, that exists in nearly all countries.

Combat social and cultural obstacles to gender equality and women's empowerment

Information rights, information access, and knowledge are in a virtuous cycle with women's empowerment and gender equality. It takes a measure of women's empowerment and gender equality to ensure that women have equal access to information and education. At the same time, having access to information and education is a strong force in promoting women's empowerment and gender equality and lessening social and cultural obstacles. Women's increased access to information and education resources can have the structural effect of shifting social norms and stereotypes in a gender equitable direction (Seguino, 2007). The more information and education that girls and women obtain, the more they will achieve, and sociocultural barriers will fall. The relationship between gender equality and access to information is a complex chain of events that reinforce themselves in a feedback loop. Interestingly, the few countries with more women internet users than men proportionately are also those that lead the world in the Gender Parity Index (ITU, 2016b).

In the 1990s, much ICT4D literature saw computer-based internet as a silver bullet for women's empowerment; in the following decade, smartphones came to occupy the same territory. In the second decade of the 21st century, the view has become more ambiguous, given the numerous instances of misogyny that appear on the internet daily and the frequent instances of male control of female possession and ownership of mobile phones (Hafkin, 2012). Females need information resources to empower themselves effectively, and the global community needs to work to combat the social, cultural, political, and economic obstacles they face. These obstacles can be confronted by raising awareness at the international level, making women's right to information explicit in governance and human rights agendas, and supporting SDGs on gender equality and empowerment, especially through access to information.

Libraries, particularly in less developed countries, have an important role to play in women's empowerment in reaching out to disadvantaged women to increase their access to information through literacy (including information literacy) and ICT training and by providing materials in local languages.

With all these efforts, girls and women can be empowered with the same freedoms, choices, and opportunities as boys and men by the year 2030.



Infocentros in Chile aim to break out of the **macho culture found in Internet cafés**. They provide a friendly space, where women can talk and build social bonds.

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End Notes

¹ It is highly significant that mobile ownership by sex has been made an SDG indicator of gender equality, despite the fact that few countries yet have such data. In view of the evident correlation between gender equality and women's mobile ownership, the UN adopted the indicator in an effort to stimulate member states to its collection.